BT305

COMPUTATIONAL BIOLOGY

JASH KALPESH DESAI

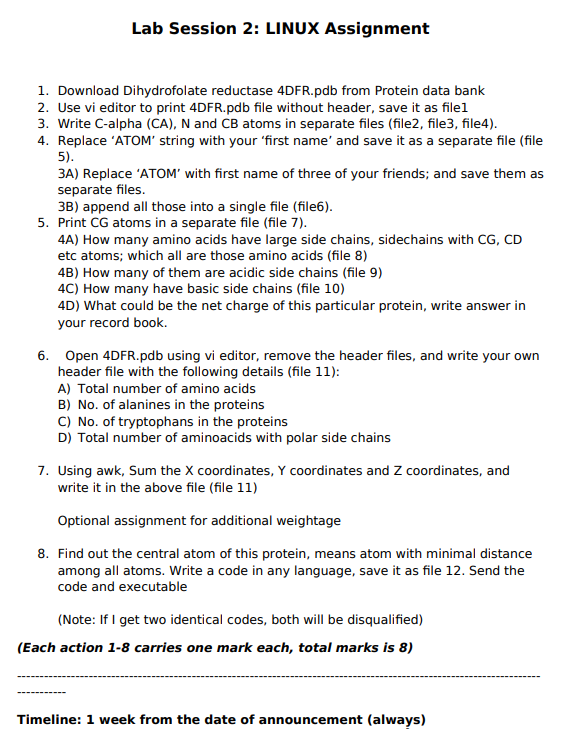
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Compiled Lab Assignments

[(Lab02 to Lab06)](https://github.com/jash-desai/BT305-Lab)

|  |  |  |
| --- | --- | --- |
| Sr. No. | Lab Number | Page Number |
| 1. | [Lab02](https://github.com/jash-desai/BT305-Lab/tree/main/Lab02) | [002 – 34](#_LAB02)0 |
| 2. | [Lab03](https://github.com/jash-desai/BT305-Lab/tree/main/Lab03) | [341 – 35](#_LAB03)8 |
| 3. | [Lab04](https://github.com/jash-desai/BT305-Lab/tree/main/Lab04) | [359 – 37](#_LAB04)1 |
| 4. | [Lab05](https://github.com/jash-desai/BT305-Lab/tree/main/Lab05) | [372 - 386](#_LAB05) |
| 5. | [Lab06](https://github.com/jash-desai/BT305-Lab/tree/main/Lab06) | [391 - 540](#_LAB06) |

# LAB02



*FILE1*

ATOM 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

ATOM 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

ATOM 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

ATOM 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

ATOM 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

ATOM 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

ATOM 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

ATOM 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

ATOM 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

ATOM 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

ATOM 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

ATOM 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

ATOM 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

ATOM 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

ATOM 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

ATOM 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

ATOM 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

ATOM 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

ATOM 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

ATOM 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

ATOM 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

ATOM 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

ATOM 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

ATOM 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

ATOM 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

ATOM 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

ATOM 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

ATOM 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

ATOM 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

ATOM 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

ATOM 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

ATOM 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

ATOM 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

ATOM 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

ATOM 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

ATOM 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

ATOM 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

ATOM 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

ATOM 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

ATOM 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

ATOM 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

ATOM 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

ATOM 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

ATOM 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

ATOM 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

ATOM 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

ATOM 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

ATOM 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

ATOM 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

ATOM 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

ATOM 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

ATOM 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

ATOM 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

ATOM 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

ATOM 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

ATOM 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

ATOM 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

ATOM 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

ATOM 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

ATOM 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

ATOM 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

ATOM 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

ATOM 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

ATOM 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

ATOM 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

ATOM 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

ATOM 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

ATOM 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

ATOM 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

ATOM 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

ATOM 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

ATOM 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

ATOM 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

ATOM 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

ATOM 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

ATOM 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

ATOM 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

ATOM 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

ATOM 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

ATOM 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

ATOM 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

ATOM 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

ATOM 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

ATOM 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

ATOM 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

ATOM 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

ATOM 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

ATOM 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

ATOM 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

ATOM 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

ATOM 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

ATOM 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

ATOM 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

ATOM 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

ATOM 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

ATOM 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

ATOM 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

ATOM 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

ATOM 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

ATOM 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

ATOM 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

ATOM 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

ATOM 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

ATOM 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

ATOM 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

ATOM 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

ATOM 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

ATOM 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

ATOM 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

ATOM 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

ATOM 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

ATOM 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

ATOM 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

ATOM 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

ATOM 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

ATOM 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

ATOM 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

ATOM 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

ATOM 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

ATOM 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

ATOM 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

ATOM 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

ATOM 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

ATOM 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

ATOM 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

ATOM 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

ATOM 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

ATOM 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

ATOM 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

ATOM 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

ATOM 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

ATOM 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

ATOM 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

ATOM 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

ATOM 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

ATOM 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

ATOM 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

ATOM 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

ATOM 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

ATOM 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

ATOM 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

ATOM 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

ATOM 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

ATOM 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

ATOM 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

ATOM 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

ATOM 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

ATOM 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

ATOM 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

ATOM 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

ATOM 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

ATOM 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

ATOM 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

ATOM 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

ATOM 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

ATOM 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

ATOM 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

ATOM 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

ATOM 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

ATOM 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

ATOM 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

ATOM 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

ATOM 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

ATOM 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

ATOM 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

ATOM 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

ATOM 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

ATOM 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

ATOM 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

ATOM 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

ATOM 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

ATOM 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

ATOM 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

ATOM 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

ATOM 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

ATOM 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

ATOM 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

ATOM 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

ATOM 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

ATOM 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

ATOM 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

ATOM 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

ATOM 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

ATOM 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

ATOM 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

ATOM 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

ATOM 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

ATOM 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

ATOM 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

ATOM 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

ATOM 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

ATOM 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

ATOM 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

ATOM 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

ATOM 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

ATOM 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

ATOM 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

ATOM 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

ATOM 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

ATOM 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

ATOM 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

ATOM 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

ATOM 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

ATOM 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

ATOM 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

ATOM 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

ATOM 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

ATOM 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

ATOM 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

ATOM 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

ATOM 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

ATOM 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

ATOM 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

ATOM 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

ATOM 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

ATOM 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

ATOM 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

ATOM 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

ATOM 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

ATOM 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

ATOM 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

ATOM 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

ATOM 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

ATOM 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

ATOM 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

ATOM 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

ATOM 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

ATOM 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

ATOM 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

ATOM 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

ATOM 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

ATOM 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

ATOM 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

ATOM 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

ATOM 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

ATOM 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

ATOM 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

ATOM 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

ATOM 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

ATOM 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

ATOM 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

ATOM 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

ATOM 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

ATOM 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

ATOM 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

ATOM 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

ATOM 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

ATOM 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

ATOM 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

ATOM 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

ATOM 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

ATOM 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

ATOM 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

ATOM 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

ATOM 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

ATOM 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

ATOM 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

ATOM 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

ATOM 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

ATOM 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

ATOM 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

ATOM 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

ATOM 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

ATOM 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

ATOM 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

ATOM 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

ATOM 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

ATOM 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

ATOM 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

ATOM 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

ATOM 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

ATOM 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

ATOM 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

ATOM 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

ATOM 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

ATOM 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

ATOM 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

ATOM 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

ATOM 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

ATOM 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

ATOM 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

ATOM 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

ATOM 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

ATOM 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

ATOM 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

ATOM 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

ATOM 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

ATOM 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

ATOM 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

ATOM 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

ATOM 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

ATOM 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

ATOM 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

ATOM 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

ATOM 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

ATOM 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

ATOM 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

ATOM 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

ATOM 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

ATOM 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

ATOM 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

ATOM 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

ATOM 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

ATOM 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

ATOM 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

ATOM 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

ATOM 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

ATOM 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

ATOM 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

ATOM 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

ATOM 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

ATOM 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

ATOM 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

ATOM 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

ATOM 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

ATOM 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

ATOM 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

ATOM 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

ATOM 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

ATOM 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

ATOM 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

ATOM 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

ATOM 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

ATOM 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

ATOM 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

ATOM 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

ATOM 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

ATOM 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

ATOM 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

ATOM 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

ATOM 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

ATOM 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

ATOM 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

ATOM 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

ATOM 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

ATOM 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

ATOM 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

ATOM 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

ATOM 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

ATOM 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

ATOM 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

ATOM 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

ATOM 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

ATOM 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

ATOM 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

ATOM 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

ATOM 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

ATOM 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

ATOM 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

ATOM 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

ATOM 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

ATOM 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

ATOM 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

ATOM 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

ATOM 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

ATOM 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

ATOM 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

ATOM 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

ATOM 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

ATOM 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

ATOM 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

ATOM 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

ATOM 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

ATOM 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

ATOM 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

ATOM 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

ATOM 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

ATOM 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

ATOM 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

ATOM 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

ATOM 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

ATOM 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

ATOM 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

ATOM 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

ATOM 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

ATOM 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

ATOM 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

ATOM 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

ATOM 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

ATOM 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

ATOM 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

ATOM 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

ATOM 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

ATOM 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

ATOM 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

ATOM 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

ATOM 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

ATOM 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

ATOM 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

ATOM 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

ATOM 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

ATOM 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

ATOM 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

ATOM 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

ATOM 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

ATOM 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

ATOM 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

ATOM 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

ATOM 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

ATOM 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

ATOM 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

ATOM 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

ATOM 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

ATOM 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

ATOM 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

ATOM 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

ATOM 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

ATOM 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

ATOM 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

ATOM 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

ATOM 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

ATOM 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

ATOM 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

ATOM 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

ATOM 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

ATOM 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

ATOM 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

ATOM 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

ATOM 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

ATOM 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

ATOM 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

ATOM 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

ATOM 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

ATOM 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

ATOM 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

ATOM 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

ATOM 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

ATOM 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

ATOM 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

ATOM 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

ATOM 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

ATOM 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

ATOM 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

ATOM 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

ATOM 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

ATOM 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

ATOM 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

ATOM 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

ATOM 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

ATOM 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

ATOM 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

ATOM 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

ATOM 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

ATOM 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

ATOM 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

ATOM 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

ATOM 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

ATOM 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

ATOM 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

ATOM 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

ATOM 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

ATOM 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

ATOM 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

ATOM 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

ATOM 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

ATOM 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

ATOM 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

ATOM 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

ATOM 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

ATOM 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

ATOM 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

ATOM 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

ATOM 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

ATOM 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

ATOM 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

ATOM 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

ATOM 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

ATOM 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

ATOM 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

ATOM 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

ATOM 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

ATOM 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

ATOM 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

ATOM 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

ATOM 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

ATOM 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

ATOM 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

ATOM 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

ATOM 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

ATOM 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

ATOM 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

ATOM 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

ATOM 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

ATOM 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

ATOM 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

ATOM 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

ATOM 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

ATOM 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

ATOM 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

ATOM 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

ATOM 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

ATOM 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

ATOM 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

ATOM 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

ATOM 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

ATOM 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

ATOM 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

ATOM 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

ATOM 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

ATOM 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

ATOM 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

ATOM 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

ATOM 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

ATOM 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

ATOM 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

ATOM 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

ATOM 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

ATOM 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

ATOM 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

ATOM 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

ATOM 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

ATOM 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

ATOM 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

ATOM 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

ATOM 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

ATOM 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

ATOM 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

ATOM 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

ATOM 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

ATOM 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

ATOM 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

ATOM 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

ATOM 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

ATOM 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

ATOM 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

ATOM 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

ATOM 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

ATOM 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

ATOM 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

ATOM 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

ATOM 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

ATOM 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

ATOM 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

ATOM 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

ATOM 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

ATOM 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

ATOM 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

ATOM 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

ATOM 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

ATOM 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

ATOM 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

ATOM 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

ATOM 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

ATOM 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

ATOM 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

ATOM 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

ATOM 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

ATOM 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

ATOM 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

ATOM 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

ATOM 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

ATOM 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

ATOM 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

ATOM 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

ATOM 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

ATOM 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

ATOM 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

ATOM 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

ATOM 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

ATOM 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

ATOM 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

ATOM 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

ATOM 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

ATOM 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

ATOM 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

ATOM 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

ATOM 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

ATOM 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

ATOM 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

ATOM 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

ATOM 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

ATOM 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

ATOM 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

ATOM 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

ATOM 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

ATOM 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

ATOM 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

ATOM 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

ATOM 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

ATOM 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

ATOM 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

ATOM 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

ATOM 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

ATOM 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

ATOM 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

ATOM 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

ATOM 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

ATOM 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

ATOM 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

ATOM 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

ATOM 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

ATOM 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

ATOM 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

ATOM 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

ATOM 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

ATOM 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

ATOM 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

ATOM 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

ATOM 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

ATOM 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

ATOM 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

ATOM 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

ATOM 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

ATOM 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

ATOM 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

ATOM 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

ATOM 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

ATOM 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

ATOM 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

ATOM 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

ATOM 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

ATOM 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

ATOM 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

ATOM 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

ATOM 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

ATOM 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

ATOM 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

ATOM 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

ATOM 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

ATOM 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

ATOM 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

ATOM 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

ATOM 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

ATOM 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

ATOM 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

ATOM 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

ATOM 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

ATOM 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

ATOM 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

ATOM 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

ATOM 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

ATOM 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

ATOM 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

ATOM 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

ATOM 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

ATOM 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

ATOM 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

ATOM 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

ATOM 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

ATOM 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

ATOM 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

ATOM 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

ATOM 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

ATOM 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

ATOM 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

ATOM 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

ATOM 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

ATOM 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

ATOM 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

ATOM 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

ATOM 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

ATOM 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

ATOM 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

ATOM 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

ATOM 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

ATOM 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

ATOM 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

ATOM 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

ATOM 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

ATOM 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

ATOM 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

ATOM 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

ATOM 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

ATOM 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

ATOM 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

ATOM 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

ATOM 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

ATOM 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

ATOM 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

ATOM 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

ATOM 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

ATOM 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

ATOM 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

ATOM 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

ATOM 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

ATOM 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

ATOM 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

ATOM 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

ATOM 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

ATOM 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

ATOM 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

ATOM 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

ATOM 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

ATOM 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

ATOM 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

ATOM 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

ATOM 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

ATOM 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

ATOM 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

ATOM 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

ATOM 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

ATOM 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

ATOM 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

ATOM 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

ATOM 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

ATOM 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

ATOM 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

ATOM 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

ATOM 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

ATOM 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

ATOM 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

ATOM 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

ATOM 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

ATOM 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

ATOM 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

ATOM 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

ATOM 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

ATOM 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

ATOM 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

ATOM 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

ATOM 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

ATOM 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

ATOM 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

ATOM 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

ATOM 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

ATOM 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

ATOM 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

ATOM 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

ATOM 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

ATOM 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

ATOM 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

ATOM 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

ATOM 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

ATOM 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

ATOM 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

ATOM 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

ATOM 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

ATOM 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

ATOM 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

ATOM 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

ATOM 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

ATOM 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

ATOM 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

ATOM 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

ATOM 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

ATOM 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

ATOM 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

ATOM 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

ATOM 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

ATOM 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

ATOM 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

ATOM 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

ATOM 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

ATOM 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

ATOM 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

ATOM 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

ATOM 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

ATOM 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

ATOM 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

ATOM 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

ATOM 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

ATOM 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

ATOM 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

ATOM 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

ATOM 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

ATOM 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

ATOM 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

ATOM 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

ATOM 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

ATOM 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

ATOM 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

ATOM 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

ATOM 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

ATOM 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

ATOM 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

ATOM 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

ATOM 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

ATOM 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

ATOM 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

ATOM 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

ATOM 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

ATOM 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

ATOM 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

ATOM 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

ATOM 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

ATOM 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

ATOM 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

ATOM 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

ATOM 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

ATOM 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

ATOM 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

ATOM 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

ATOM 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

ATOM 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

ATOM 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

ATOM 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

ATOM 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

ATOM 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

ATOM 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

ATOM 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

ATOM 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

ATOM 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

ATOM 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

ATOM 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

ATOM 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

ATOM 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

ATOM 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

ATOM 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

ATOM 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

ATOM 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

ATOM 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

ATOM 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

ATOM 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

ATOM 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

ATOM 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

ATOM 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

ATOM 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

ATOM 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

ATOM 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

ATOM 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

ATOM 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

ATOM 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

ATOM 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

ATOM 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

ATOM 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

ATOM 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

ATOM 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

ATOM 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

ATOM 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

ATOM 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

ATOM 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

ATOM 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

ATOM 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

ATOM 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

ATOM 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

ATOM 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

ATOM 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

ATOM 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

ATOM 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

ATOM 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

ATOM 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

ATOM 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

ATOM 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

ATOM 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

ATOM 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

ATOM 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

ATOM 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

ATOM 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

ATOM 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

ATOM 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

ATOM 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

ATOM 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

ATOM 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

ATOM 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

ATOM 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

ATOM 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

ATOM 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

ATOM 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

ATOM 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

ATOM 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

ATOM 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

ATOM 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

ATOM 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

ATOM 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

ATOM 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

ATOM 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

ATOM 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

ATOM 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

ATOM 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

ATOM 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

ATOM 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

ATOM 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

ATOM 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

ATOM 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

ATOM 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

ATOM 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

ATOM 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

ATOM 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

ATOM 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

ATOM 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

ATOM 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

ATOM 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

ATOM 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

ATOM 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

ATOM 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

ATOM 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

ATOM 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

ATOM 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

ATOM 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

ATOM 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

ATOM 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

ATOM 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

ATOM 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

ATOM 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

ATOM 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

ATOM 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

ATOM 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

ATOM 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

ATOM 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

ATOM 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

ATOM 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

ATOM 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

ATOM 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

ATOM 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

ATOM 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

ATOM 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

ATOM 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

ATOM 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

ATOM 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

ATOM 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

ATOM 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

ATOM 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

ATOM 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

ATOM 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

ATOM 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

ATOM 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

ATOM 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

ATOM 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

ATOM 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

ATOM 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

ATOM 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

ATOM 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

ATOM 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

ATOM 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

ATOM 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

ATOM 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

ATOM 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

ATOM 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

ATOM 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

ATOM 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

ATOM 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

ATOM 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

ATOM 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

ATOM 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

ATOM 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

ATOM 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

ATOM 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

ATOM 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

ATOM 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

ATOM 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

ATOM 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

ATOM 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

ATOM 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

ATOM 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

ATOM 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

ATOM 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

ATOM 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

ATOM 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

ATOM 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

ATOM 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

ATOM 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

ATOM 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

ATOM 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

ATOM 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

ATOM 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

ATOM 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

ATOM 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

ATOM 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

ATOM 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

ATOM 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

ATOM 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

ATOM 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

ATOM 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

ATOM 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

ATOM 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

ATOM 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

ATOM 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

ATOM 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

ATOM 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

ATOM 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

ATOM 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

ATOM 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

ATOM 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

ATOM 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

ATOM 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

ATOM 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

ATOM 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

ATOM 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

ATOM 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

ATOM 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

ATOM 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

ATOM 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

ATOM 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

ATOM 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

ATOM 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

ATOM 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

ATOM 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

ATOM 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

ATOM 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

ATOM 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

ATOM 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

ATOM 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

ATOM 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

ATOM 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

ATOM 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

ATOM 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

ATOM 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

ATOM 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

ATOM 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

ATOM 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

ATOM 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

ATOM 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

ATOM 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

ATOM 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

ATOM 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

ATOM 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

ATOM 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

ATOM 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

ATOM 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

ATOM 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

ATOM 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

ATOM 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

ATOM 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

ATOM 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

ATOM 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

ATOM 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

ATOM 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

ATOM 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

ATOM 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

ATOM 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

ATOM 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

ATOM 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

ATOM 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

ATOM 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

ATOM 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

ATOM 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

ATOM 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

ATOM 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

ATOM 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

ATOM 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

ATOM 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

ATOM 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

ATOM 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

ATOM 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

ATOM 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

ATOM 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

ATOM 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

ATOM 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

ATOM 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

ATOM 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

ATOM 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

ATOM 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

ATOM 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

ATOM 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

ATOM 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

ATOM 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

ATOM 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

ATOM 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

ATOM 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

ATOM 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

ATOM 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

ATOM 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

ATOM 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

ATOM 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

ATOM 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

ATOM 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

ATOM 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

ATOM 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

ATOM 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

ATOM 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

ATOM 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

ATOM 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

ATOM 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

ATOM 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

ATOM 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

ATOM 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

ATOM 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

ATOM 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

ATOM 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

ATOM 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

ATOM 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

ATOM 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

ATOM 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

ATOM 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

ATOM 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

ATOM 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

ATOM 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

ATOM 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

ATOM 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

ATOM 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

ATOM 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

ATOM 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

ATOM 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

ATOM 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

ATOM 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

ATOM 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

ATOM 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

ATOM 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

ATOM 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

ATOM 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

ATOM 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

ATOM 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

ATOM 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

ATOM 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

ATOM 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

ATOM 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

ATOM 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

ATOM 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

ATOM 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

ATOM 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

ATOM 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

ATOM 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

ATOM 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

ATOM 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

ATOM 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

ATOM 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

ATOM 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

ATOM 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

ATOM 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

ATOM 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

ATOM 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

ATOM 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

ATOM 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

ATOM 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

ATOM 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

ATOM 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

ATOM 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

ATOM 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

ATOM 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

ATOM 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

ATOM 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

ATOM 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

ATOM 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

ATOM 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

ATOM 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

ATOM 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

ATOM 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

ATOM 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

ATOM 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

ATOM 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

ATOM 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

ATOM 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

ATOM 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

ATOM 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

ATOM 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

ATOM 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

ATOM 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

ATOM 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

ATOM 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

ATOM 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

ATOM 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

ATOM 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

ATOM 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

ATOM 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

ATOM 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

ATOM 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

ATOM 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

ATOM 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

ATOM 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

ATOM 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

ATOM 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

ATOM 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

ATOM 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

ATOM 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

ATOM 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

ATOM 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

ATOM 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

ATOM 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

ATOM 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

ATOM 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

ATOM 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

ATOM 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

ATOM 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

ATOM 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

ATOM 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

ATOM 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

ATOM 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

ATOM 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

ATOM 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

ATOM 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

ATOM 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

ATOM 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

ATOM 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

ATOM 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

ATOM 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

ATOM 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

ATOM 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

ATOM 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

ATOM 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

ATOM 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

ATOM 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

ATOM 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

ATOM 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

ATOM 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

ATOM 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

ATOM 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

ATOM 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

ATOM 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

ATOM 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

ATOM 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

ATOM 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

ATOM 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

ATOM 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

ATOM 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

ATOM 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

ATOM 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

ATOM 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

ATOM 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

ATOM 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

ATOM 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

ATOM 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

ATOM 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

ATOM 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

ATOM 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

ATOM 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

ATOM 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

ATOM 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

ATOM 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

ATOM 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

ATOM 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

ATOM 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

ATOM 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

ATOM 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

ATOM 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

ATOM 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

ATOM 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

ATOM 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

ATOM 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

ATOM 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

ATOM 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

ATOM 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

ATOM 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

ATOM 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

ATOM 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

ATOM 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

ATOM 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

ATOM 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

ATOM 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

ATOM 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

ATOM 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

ATOM 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

ATOM 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

ATOM 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

ATOM 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

ATOM 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

ATOM 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

ATOM 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

ATOM 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

ATOM 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

ATOM 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

ATOM 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

ATOM 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

ATOM 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

ATOM 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

ATOM 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

ATOM 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

ATOM 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

ATOM 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

ATOM 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

ATOM 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

ATOM 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

ATOM 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

ATOM 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

ATOM 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

ATOM 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

ATOM 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

ATOM 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

ATOM 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

ATOM 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

ATOM 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

ATOM 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

ATOM 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

ATOM 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

ATOM 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

ATOM 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

ATOM 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

ATOM 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

ATOM 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

ATOM 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

ATOM 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

ATOM 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

ATOM 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

ATOM 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

ATOM 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

ATOM 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

ATOM 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

ATOM 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

ATOM 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

ATOM 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

ATOM 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

ATOM 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

ATOM 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

ATOM 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

ATOM 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

ATOM 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

ATOM 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

ATOM 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

ATOM 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

ATOM 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

ATOM 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

ATOM 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

ATOM 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

ATOM 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

ATOM 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

ATOM 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

ATOM 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

ATOM 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

ATOM 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

ATOM 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

ATOM 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

ATOM 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

ATOM 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

ATOM 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

ATOM 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

ATOM 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

ATOM 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

ATOM 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

ATOM 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

ATOM 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

ATOM 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

ATOM 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

ATOM 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

ATOM 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

ATOM 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

ATOM 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

ATOM 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

ATOM 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

ATOM 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

ATOM 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

ATOM 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

ATOM 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

ATOM 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

ATOM 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

ATOM 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

ATOM 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

ATOM 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

ATOM 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

ATOM 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

ATOM 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

ATOM 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

ATOM 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

ATOM 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

ATOM 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

ATOM 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

ATOM 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

ATOM 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

ATOM 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

ATOM 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

ATOM 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

ATOM 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

ATOM 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

ATOM 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

ATOM 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

ATOM 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

ATOM 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

ATOM 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

ATOM 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

ATOM 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

ATOM 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

ATOM 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

ATOM 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

ATOM 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

ATOM 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

ATOM 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

ATOM 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

ATOM 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

ATOM 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

ATOM 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

ATOM 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

ATOM 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

ATOM 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

ATOM 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

ATOM 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

ATOM 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

ATOM 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

ATOM 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

ATOM 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

ATOM 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

ATOM 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

ATOM 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

ATOM 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

ATOM 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

ATOM 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

ATOM 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

ATOM 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

ATOM 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

ATOM 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

ATOM 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

ATOM 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

ATOM 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

ATOM 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

ATOM 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

ATOM 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

ATOM 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

ATOM 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

ATOM 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

ATOM 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

ATOM 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

ATOM 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

ATOM 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

ATOM 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

ATOM 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

ATOM 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

ATOM 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

ATOM 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

ATOM 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

ATOM 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

ATOM 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

ATOM 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

ATOM 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

ATOM 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

ATOM 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

ATOM 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

ATOM 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

ATOM 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

ATOM 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

ATOM 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

ATOM 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

ATOM 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

ATOM 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

ATOM 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

ATOM 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

ATOM 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

ATOM 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

ATOM 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

ATOM 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

ATOM 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

ATOM 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

ATOM 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

ATOM 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

ATOM 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

ATOM 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

ATOM 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

ATOM 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

ATOM 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

ATOM 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

ATOM 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

ATOM 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

ATOM 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

ATOM 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

ATOM 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

ATOM 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

ATOM 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

ATOM 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

ATOM 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

ATOM 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

ATOM 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

ATOM 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

ATOM 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

ATOM 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

ATOM 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

ATOM 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

ATOM 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

ATOM 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

ATOM 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

ATOM 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

ATOM 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

ATOM 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

ATOM 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

ATOM 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

ATOM 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

ATOM 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

ATOM 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

ATOM 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

ATOM 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

ATOM 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

ATOM 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

ATOM 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

ATOM 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

ATOM 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

ATOM 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

ATOM 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

ATOM 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

ATOM 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

ATOM 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

ATOM 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

ATOM 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

ATOM 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

ATOM 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

ATOM 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

ATOM 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

ATOM 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

ATOM 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

ATOM 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

ATOM 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

ATOM 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

ATOM 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

ATOM 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

ATOM 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

ATOM 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

ATOM 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

ATOM 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

ATOM 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

ATOM 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

ATOM 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

ATOM 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

ATOM 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

ATOM 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

ATOM 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

ATOM 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

ATOM 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

ATOM 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

ATOM 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

ATOM 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

ATOM 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

ATOM 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

ATOM 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

ATOM 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

ATOM 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

ATOM 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

ATOM 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

ATOM 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

ATOM 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

ATOM 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

ATOM 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

ATOM 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

ATOM 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

ATOM 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

ATOM 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

ATOM 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

ATOM 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

ATOM 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

ATOM 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

ATOM 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

ATOM 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

ATOM 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

ATOM 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

ATOM 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

ATOM 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

ATOM 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

ATOM 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

ATOM 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

ATOM 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

ATOM 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

ATOM 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

ATOM 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

ATOM 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

ATOM 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

ATOM 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

ATOM 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

ATOM 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

ATOM 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

ATOM 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

ATOM 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

ATOM 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

ATOM 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

ATOM 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

ATOM 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

ATOM 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

ATOM 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

ATOM 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

ATOM 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

ATOM 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

ATOM 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

ATOM 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

ATOM 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

ATOM 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

ATOM 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

ATOM 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

ATOM 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

ATOM 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

ATOM 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

ATOM 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

ATOM 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

ATOM 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

ATOM 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

ATOM 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

ATOM 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

ATOM 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

ATOM 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

ATOM 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

ATOM 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

ATOM 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

ATOM 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

ATOM 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

ATOM 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

ATOM 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

ATOM 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

ATOM 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

ATOM 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

ATOM 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

ATOM 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

ATOM 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

ATOM 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

ATOM 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

ATOM 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

ATOM 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

ATOM 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

ATOM 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

ATOM 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

ATOM 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

ATOM 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

ATOM 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

ATOM 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

ATOM 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

ATOM 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

ATOM 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

ATOM 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

ATOM 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

ATOM 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

ATOM 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

ATOM 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

ATOM 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

ATOM 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

ATOM 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

ATOM 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

ATOM 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

ATOM 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

ATOM 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

ATOM 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

ATOM 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

ATOM 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

ATOM 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

ATOM 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

ATOM 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

ATOM 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

ATOM 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

ATOM 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

ATOM 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

ATOM 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

ATOM 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

ATOM 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

ATOM 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

ATOM 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

ATOM 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

ATOM 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

ATOM 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

ATOM 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

ATOM 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

ATOM 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

ATOM 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

ATOM 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

ATOM 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

ATOM 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

ATOM 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

ATOM 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

ATOM 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

ATOM 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

ATOM 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

ATOM 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

ATOM 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

ATOM 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

ATOM 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

ATOM 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

ATOM 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

ATOM 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

ATOM 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

ATOM 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

ATOM 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

ATOM 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

ATOM 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

ATOM 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

ATOM 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

ATOM 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

ATOM 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

ATOM 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

ATOM 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

ATOM 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

ATOM 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

ATOM 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

ATOM 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

ATOM 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

ATOM 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

ATOM 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

ATOM 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

ATOM 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

ATOM 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

ATOM 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

ATOM 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

ATOM 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

ATOM 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

ATOM 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

ATOM 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

ATOM 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

ATOM 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

ATOM 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

ATOM 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

ATOM 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

ATOM 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

ATOM 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

ATOM 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

ATOM 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

ATOM 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

ATOM 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

ATOM 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

ATOM 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

ATOM 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

ATOM 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

ATOM 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

ATOM 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

ATOM 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

ATOM 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

ATOM 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

ATOM 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

ATOM 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

ATOM 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

ATOM 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

ATOM 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

ATOM 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

ATOM 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

ATOM 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

ATOM 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

ATOM 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

ATOM 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

ATOM 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

ATOM 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

ATOM 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

ATOM 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

ATOM 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

ATOM 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

ATOM 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

ATOM 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

ATOM 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

ATOM 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

ATOM 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

ATOM 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

ATOM 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

ATOM 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

ATOM 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

ATOM 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

ATOM 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

ATOM 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

ATOM 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

ATOM 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

ATOM 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

ATOM 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

ATOM 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

ATOM 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

ATOM 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

ATOM 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

ATOM 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

ATOM 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

ATOM 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

ATOM 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

ATOM 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

ATOM 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

ATOM 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

ATOM 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

ATOM 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

ATOM 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

ATOM 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

ATOM 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

ATOM 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

ATOM 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

ATOM 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

ATOM 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

ATOM 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

ATOM 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

ATOM 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

ATOM 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

ATOM 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

ATOM 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

ATOM 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

ATOM 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

ATOM 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

ATOM 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

ATOM 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

ATOM 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

ATOM 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

ATOM 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

ATOM 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

ATOM 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

ATOM 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

ATOM 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

ATOM 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

ATOM 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

ATOM 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

ATOM 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

ATOM 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

ATOM 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

ATOM 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

ATOM 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

ATOM 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

ATOM 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

ATOM 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

ATOM 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

ATOM 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

ATOM 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

ATOM 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

ATOM 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

ATOM 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

ATOM 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

ATOM 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

ATOM 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

ATOM 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

ATOM 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

ATOM 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

ATOM 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

ATOM 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

ATOM 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

ATOM 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

ATOM 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

ATOM 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

ATOM 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

ATOM 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

ATOM 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

ATOM 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

ATOM 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

ATOM 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

ATOM 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

ATOM 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

ATOM 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

ATOM 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

ATOM 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

ATOM 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

ATOM 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

ATOM 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

ATOM 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

ATOM 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

ATOM 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

ATOM 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

ATOM 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

ATOM 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

ATOM 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

ATOM 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

ATOM 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

ATOM 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

ATOM 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

ATOM 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

ATOM 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

ATOM 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

ATOM 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

ATOM 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

ATOM 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

ATOM 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

ATOM 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

ATOM 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

ATOM 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

ATOM 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

ATOM 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

ATOM 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

ATOM 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

ATOM 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

ATOM 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

ATOM 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

ATOM 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

ATOM 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

ATOM 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

ATOM 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

ATOM 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

ATOM 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

ATOM 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

ATOM 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

ATOM 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

ATOM 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

ATOM 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

ATOM 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

ATOM 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

ATOM 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

ATOM 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

ATOM 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

ATOM 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

ATOM 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

ATOM 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

ATOM 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

ATOM 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

ATOM 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

ATOM 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

ATOM 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

ATOM 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

ATOM 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

ATOM 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

ATOM 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

ATOM 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

ATOM 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

ATOM 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

ATOM 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

ATOM 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

ATOM 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

ATOM 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

ATOM 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

ATOM 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

ATOM 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

ATOM 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

ATOM 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

ATOM 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

ATOM 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

ATOM 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

ATOM 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

ATOM 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

ATOM 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

ATOM 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

ATOM 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

ATOM 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

ATOM 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

ATOM 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

ATOM 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

ATOM 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

ATOM 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

ATOM 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

ATOM 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

ATOM 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

ATOM 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

ATOM 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

ATOM 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

ATOM 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

ATOM 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

ATOM 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

ATOM 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

ATOM 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

ATOM 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

ATOM 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

ATOM 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

ATOM 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

ATOM 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

ATOM 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

ATOM 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

ATOM 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

ATOM 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

ATOM 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

ATOM 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

ATOM 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

ATOM 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

ATOM 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

ATOM 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

ATOM 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

ATOM 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

ATOM 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

ATOM 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

ATOM 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

ATOM 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

ATOM 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

ATOM 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

ATOM 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

ATOM 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

ATOM 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

ATOM 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

ATOM 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

ATOM 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

ATOM 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

ATOM 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

ATOM 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

ATOM 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

ATOM 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

ATOM 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

ATOM 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

ATOM 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

ATOM 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

ATOM 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

ATOM 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

ATOM 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

ATOM 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

ATOM 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

ATOM 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

ATOM 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

ATOM 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

ATOM 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

ATOM 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

ATOM 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

ATOM 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

ATOM 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

ATOM 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

ATOM 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

ATOM 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

ATOM 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

ATOM 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

ATOM 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

ATOM 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

ATOM 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

ATOM 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

ATOM 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

ATOM 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

ATOM 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

ATOM 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

ATOM 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

ATOM 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

ATOM 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

ATOM 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

ATOM 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

ATOM 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

ATOM 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

ATOM 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

ATOM 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

ATOM 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

ATOM 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

ATOM 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

ATOM 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

ATOM 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

ATOM 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

ATOM 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

ATOM 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

ATOM 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

ATOM 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

ATOM 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

ATOM 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

ATOM 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

ATOM 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

ATOM 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

ATOM 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

ATOM 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

ATOM 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

ATOM 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

ATOM 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

ATOM 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

ATOM 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

ATOM 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

ATOM 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

ATOM 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

ATOM 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

ATOM 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

ATOM 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

ATOM 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

ATOM 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

ATOM 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

ATOM 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

ATOM 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

ATOM 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

ATOM 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

ATOM 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

ATOM 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

ATOM 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

ATOM 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

ATOM 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

ATOM 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

ATOM 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

ATOM 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

ATOM 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

ATOM 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

ATOM 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

ATOM 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

ATOM 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

ATOM 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

ATOM 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

ATOM 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

ATOM 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

ATOM 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

ATOM 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

ATOM 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

ATOM 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

ATOM 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

ATOM 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

ATOM 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

ATOM 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

ATOM 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

ATOM 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

ATOM 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

ATOM 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

ATOM 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

ATOM 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

ATOM 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

ATOM 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

ATOM 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

ATOM 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

ATOM 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

ATOM 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

ATOM 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

ATOM 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

ATOM 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

ATOM 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

ATOM 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

ATOM 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

ATOM 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

ATOM 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

ATOM 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

ATOM 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

ATOM 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

ATOM 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

ATOM 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

ATOM 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

ATOM 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

ATOM 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

ATOM 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

ATOM 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

ATOM 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

ATOM 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

ATOM 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

ATOM 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

ATOM 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

ATOM 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

ATOM 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

ATOM 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

ATOM 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

ATOM 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

ATOM 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

ATOM 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

ATOM 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

ATOM 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

ATOM 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

ATOM 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

ATOM 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

ATOM 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

ATOM 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

ATOM 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

ATOM 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

ATOM 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

ATOM 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

ATOM 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

ATOM 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

ATOM 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

ATOM 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

ATOM 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

ATOM 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

ATOM 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

ATOM 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

ATOM 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

ATOM 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

ATOM 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

ATOM 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

ATOM 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

ATOM 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

ATOM 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

ATOM 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

ATOM 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

ATOM 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

ATOM 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

ATOM 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

ATOM 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

ATOM 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

ATOM 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

ATOM 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

ATOM 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

ATOM 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

ATOM 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

ATOM 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

ATOM 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

ATOM 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

ATOM 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

ATOM 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

ATOM 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

ATOM 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

ATOM 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

ATOM 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

ATOM 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

ATOM 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

ATOM 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

ATOM 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

ATOM 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

ATOM 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

ATOM 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

ATOM 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

ATOM 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

ATOM 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

ATOM 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

ATOM 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

ATOM 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

ATOM 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

ATOM 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

ATOM 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

ATOM 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

ATOM 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

ATOM 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

ATOM 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

ATOM 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

ATOM 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

ATOM 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

ATOM 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

ATOM 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

ATOM 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

ATOM 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

ATOM 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

ATOM 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

ATOM 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

ATOM 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

ATOM 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

ATOM 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

ATOM 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

ATOM 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

ATOM 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

ATOM 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

ATOM 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

ATOM 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

ATOM 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

ATOM 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

ATOM 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

ATOM 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

ATOM 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

ATOM 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

ATOM 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

ATOM 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

ATOM 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

ATOM 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

ATOM 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

ATOM 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

ATOM 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

ATOM 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

ATOM 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

ATOM 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

ATOM 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

ATOM 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

ATOM 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

ATOM 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

ATOM 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

ATOM 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

ATOM 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

ATOM 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

ATOM 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

ATOM 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

ATOM 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

ATOM 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

ATOM 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

ATOM 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

ATOM 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

ATOM 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

ATOM 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

ATOM 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

ATOM 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

ATOM 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

ATOM 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

ATOM 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

ATOM 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

ATOM 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

ATOM 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

ATOM 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

ATOM 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

ATOM 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

ATOM 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

ATOM 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

ATOM 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

ATOM 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

ATOM 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

ATOM 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

ATOM 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

ATOM 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

ATOM 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

ATOM 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

ATOM 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

ATOM 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

ATOM 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

ATOM 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

ATOM 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

ATOM 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

ATOM 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

ATOM 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

ATOM 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

ATOM 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

ATOM 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

ATOM 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

ATOM 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

ATOM 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

ATOM 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

ATOM 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

ATOM 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

ATOM 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

ATOM 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

ATOM 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

ATOM 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

ATOM 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

ATOM 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

ATOM 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

ATOM 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

ATOM 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

ATOM 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

ATOM 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

ATOM 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

ATOM 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

ATOM 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

ATOM 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

ATOM 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

ATOM 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

ATOM 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

ATOM 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

ATOM 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

ATOM 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

ATOM 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

ATOM 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

ATOM 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

ATOM 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

ATOM 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

ATOM 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

ATOM 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

ATOM 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

ATOM 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

ATOM 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

ATOM 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

ATOM 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

ATOM 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

ATOM 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

ATOM 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

ATOM 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

ATOM 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

ATOM 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

ATOM 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

ATOM 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

ATOM 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

ATOM 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

ATOM 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

ATOM 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

ATOM 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

ATOM 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

ATOM 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

ATOM 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

ATOM 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

ATOM 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

ATOM 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

ATOM 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

ATOM 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

ATOM 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

ATOM 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

ATOM 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

ATOM 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

ATOM 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

ATOM 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

ATOM 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

ATOM 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

ATOM 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

ATOM 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

ATOM 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

ATOM 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

ATOM 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

ATOM 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

ATOM 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

ATOM 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

ATOM 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

ATOM 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

ATOM 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

ATOM 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

ATOM 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

ATOM 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

ATOM 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

ATOM 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

ATOM 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

ATOM 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

ATOM 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

ATOM 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

ATOM 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

ATOM 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

ATOM 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

ATOM 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

ATOM 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

ATOM 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

ATOM 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

ATOM 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

ATOM 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

ATOM 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

ATOM 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

ATOM 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

ATOM 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

ATOM 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

ATOM 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

ATOM 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

ATOM 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

ATOM 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

ATOM 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

ATOM 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

ATOM 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

ATOM 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

ATOM 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

ATOM 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

ATOM 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

ATOM 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

ATOM 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

ATOM 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

ATOM 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

ATOM 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

ATOM 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

ATOM 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

ATOM 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

ATOM 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

ATOM 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

ATOM 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

ATOM 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

ATOM 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

ATOM 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

ATOM 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

ATOM 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

ATOM 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

ATOM 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

ATOM 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

ATOM 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

ATOM 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

ATOM 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

ATOM 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

ATOM 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

ATOM 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

ATOM 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

ATOM 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

ATOM 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

ATOM 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

ATOM 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

ATOM 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

ATOM 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

ATOM 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

ATOM 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

ATOM 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

ATOM 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

ATOM 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

ATOM 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

ATOM 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

ATOM 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

ATOM 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

ATOM 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

ATOM 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

ATOM 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

ATOM 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

ATOM 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

ATOM 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

ATOM 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

ATOM 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

ATOM 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

ATOM 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

ATOM 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

ATOM 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

ATOM 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

ATOM 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

ATOM 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

ATOM 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

ATOM 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

ATOM 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

ATOM 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

ATOM 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

ATOM 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

ATOM 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

ATOM 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

ATOM 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

ATOM 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

ATOM 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

ATOM 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

ATOM 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

ATOM 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

ATOM 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

ATOM 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

ATOM 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

ATOM 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

ATOM 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

ATOM 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

ATOM 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

ATOM 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

ATOM 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

ATOM 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

ATOM 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

ATOM 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

ATOM 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

ATOM 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

ATOM 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

ATOM 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

ATOM 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

ATOM 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

ATOM 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

ATOM 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

ATOM 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

ATOM 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

ATOM 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

ATOM 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

ATOM 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

ATOM 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

ATOM 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

ATOM 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

ATOM 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

ATOM 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

ATOM 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

ATOM 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

ATOM 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

ATOM 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

ATOM 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

ATOM 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

ATOM 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

ATOM 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

ATOM 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

ATOM 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

ATOM 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

ATOM 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

ATOM 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

ATOM 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

ATOM 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

ATOM 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

ATOM 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

ATOM 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

ATOM 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

ATOM 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

ATOM 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

ATOM 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

ATOM 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

ATOM 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

ATOM 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

ATOM 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

ATOM 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

ATOM 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

ATOM 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

ATOM 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

ATOM 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

ATOM 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

ATOM 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

ATOM 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

ATOM 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

ATOM 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

ATOM 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

ATOM 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

ATOM 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

ATOM 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

ATOM 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

ATOM 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

ATOM 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

ATOM 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

ATOM 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

ATOM 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

ATOM 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

ATOM 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

ATOM 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

ATOM 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

ATOM 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

ATOM 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

ATOM 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

ATOM 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

ATOM 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

ATOM 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

ATOM 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

ATOM 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

TER 2540 ARG B 159

HETATM 2541 CL CL A 160 11.750 52.951 20.523 1.00 28.60 CL

HETATM 2542 N1 MTX A 161 22.983 58.667 24.488 1.00 15.10 N

HETATM 2543 C2 MTX A 161 23.468 58.215 23.282 1.00 17.30 C

HETATM 2544 NA2 MTX A 161 24.797 58.223 23.208 1.00 16.50 N

HETATM 2545 N3 MTX A 161 22.792 57.819 22.230 1.00 17.90 N

HETATM 2546 C4 MTX A 161 21.459 57.803 22.068 1.00 18.60 C

HETATM 2547 NA4 MTX A 161 20.821 57.440 21.075 1.00 18.10 N

HETATM 2548 C4A MTX A 161 20.900 58.304 23.363 1.00 18.90 C

HETATM 2549 N5 MTX A 161 19.558 58.514 23.370 1.00 19.80 N

HETATM 2550 C6 MTX A 161 18.989 58.982 24.422 1.00 18.60 C

HETATM 2551 C7 MTX A 161 19.781 59.256 25.628 1.00 18.80 C

HETATM 2552 N8 MTX A 161 21.096 59.176 25.562 1.00 21.90 N

HETATM 2553 C8A MTX A 161 21.608 58.594 24.363 1.00 19.50 C

HETATM 2554 C9 MTX A 161 17.465 59.006 24.451 1.00 20.50 C

HETATM 2555 N10 MTX A 161 16.957 59.967 25.533 1.00 17.40 N

HETATM 2556 CM MTX A 161 16.225 59.184 26.643 1.00 22.30 C

HETATM 2557 C11 MTX A 161 18.122 64.100 25.805 1.00 22.10 C

HETATM 2558 C12 MTX A 161 17.288 63.511 26.732 1.00 18.80 C

HETATM 2559 C13 MTX A 161 16.845 62.195 26.688 1.00 18.10 C

HETATM 2560 C14 MTX A 161 17.320 61.452 25.680 1.00 19.70 C

HETATM 2561 C15 MTX A 161 18.141 62.098 24.672 1.00 17.60 C

HETATM 2562 C16 MTX A 161 18.518 63.414 24.738 1.00 17.00 C

HETATM 2563 C MTX A 161 18.192 65.626 25.834 1.00 23.30 C

HETATM 2564 O MTX A 161 17.516 66.280 26.783 1.00 25.90 O

HETATM 2565 N MTX A 161 19.329 65.981 25.135 1.00 21.30 N

HETATM 2566 CA MTX A 161 19.837 67.459 25.135 1.00 22.60 C

HETATM 2567 CT MTX A 161 20.159 67.548 23.635 1.00 22.80 C

HETATM 2568 O1 MTX A 161 20.289 66.659 22.848 1.00 21.30 O

HETATM 2569 O2 MTX A 161 19.921 68.750 23.149 1.00 27.20 O

HETATM 2570 CB MTX A 161 21.217 67.669 25.761 1.00 27.40 C

HETATM 2571 CG MTX A 161 20.891 67.636 27.320 1.00 36.20 C

HETATM 2572 CD MTX A 161 19.921 68.524 28.357 1.00 41.50 C

HETATM 2573 OE1 MTX A 161 19.413 68.371 29.593 1.00 49.10 O

HETATM 2574 OE2 MTX A 161 19.441 69.469 27.489 1.00 42.50 O

HETATM 2575 CL CL B 160 28.190 68.250 51.411 1.00 31.90 CL

HETATM 2576 CA CA B 161 -0.163 59.862 58.649 1.00 25.90 CA

HETATM 2577 N1 MTX B 162 16.724 65.101 45.857 1.00 16.60 N

HETATM 2578 C2 MTX B 162 16.136 65.424 47.049 1.00 13.40 C

HETATM 2579 NA2 MTX B 162 14.808 64.996 47.270 1.00 16.10 N

HETATM 2580 N3 MTX B 162 16.766 66.078 48.071 1.00 15.30 N

HETATM 2581 C4 MTX B 162 18.001 66.587 47.924 1.00 15.70 C

HETATM 2582 NA4 MTX B 162 18.523 67.297 48.888 1.00 14.30 N

HETATM 2583 C4A MTX B 162 18.630 66.369 46.644 1.00 14.30 C

HETATM 2584 N5 MTX B 162 19.814 66.982 46.490 1.00 21.30 N

HETATM 2585 C6 MTX B 162 20.308 66.821 45.261 1.00 20.20 C

HETATM 2586 C7 MTX B 162 19.725 66.102 44.371 1.00 17.60 C

HETATM 2587 N8 MTX B 162 18.560 65.424 44.401 1.00 16.70 N

HETATM 2588 C8A MTX B 162 17.991 65.747 45.644 1.00 17.50 C

HETATM 2589 C9 MTX B 162 21.711 67.394 45.048 1.00 22.70 C

HETATM 2590 N10 MTX B 162 22.028 67.717 43.540 1.00 22.50 N

HETATM 2591 CM MTX B 162 23.296 66.877 43.297 1.00 22.60 C

HETATM 2592 C11 MTX B 162 19.702 69.969 41.061 1.00 20.90 C

HETATM 2593 C12 MTX B 162 20.746 69.211 40.495 1.00 22.10 C

HETATM 2594 C13 MTX B 162 21.534 68.508 41.355 1.00 21.50 C

HETATM 2595 C14 MTX B 162 21.189 68.492 42.724 1.00 22.70 C

HETATM 2596 C15 MTX B 162 20.168 69.307 43.231 1.00 22.10 C

HETATM 2597 C16 MTX B 162 19.422 70.099 42.451 1.00 23.10 C

HETATM 2598 C MTX B 162 18.966 70.777 40.090 1.00 25.00 C

HETATM 2599 O MTX B 162 19.469 71.019 39.002 1.00 28.90 O

HETATM 2600 N MTX B 162 17.735 71.051 40.429 1.00 26.70 N

HETATM 2601 CA MTX B 162 16.877 71.923 39.715 1.00 25.40 C

HETATM 2602 CT MTX B 162 16.397 72.948 40.561 1.00 25.90 C

HETATM 2603 O1 MTX B 162 16.202 72.626 41.863 1.00 22.50 O

HETATM 2604 O2 MTX B 162 15.866 74.111 40.362 1.00 25.00 O

HETATM 2605 CB MTX B 162 15.656 71.197 39.259 1.00 28.40 C

HETATM 2606 CG MTX B 162 16.080 70.349 37.905 1.00 41.00 C

HETATM 2607 CD MTX B 162 16.286 70.898 36.272 1.00 49.50 C

HETATM 2608 OE1 MTX B 162 17.507 70.413 35.853 1.00 55.40 O

HETATM 2609 OE2 MTX B 162 15.722 72.117 36.236 1.00 54.20 O

HETATM 2610 O HOH A 162 14.724 49.464 22.590 0.99 25.30 O

HETATM 2611 O HOH A 163 22.932 59.466 28.571 1.02 39.50 O

HETATM 2612 O HOH A 164 24.675 54.929 4.862 0.99 37.00 O

HETATM 2613 O HOH A 165 27.295 57.319 21.583 1.00 15.90 O

HETATM 2614 O HOH A 166 28.977 47.446 26.099 0.90 47.50 O

HETATM 2615 O HOH A 167 29.821 48.326 28.394 1.05 47.00 O

HETATM 2616 O HOH A 168 20.774 54.840 23.510 1.04 31.40 O

HETATM 2617 O HOH A 169 20.341 52.863 25.974 1.01 29.70 O

HETATM 2618 O HOH A 170 23.081 51.119 37.552 0.99 35.30 O

HETATM 2619 O HOH A 171 18.984 57.472 32.131 0.97 28.60 O

HETATM 2620 O HOH A 172 22.102 60.387 31.204 1.03 34.30 O

HETATM 2621 O HOH A 173 20.014 55.511 26.209 0.91 37.70 O

HETATM 2622 O HOH A 174 17.134 56.560 29.490 1.08 31.50 O

HETATM 2623 O HOH A 175 11.182 49.173 30.623 1.00 23.20 O

HETATM 2624 O HOH A 176 17.283 55.171 22.340 1.05 31.80 O

HETATM 2625 O HOH A 177 24.125 44.773 31.248 0.90 31.10 O

HETATM 2626 O HOH A 178 14.193 50.255 29.667 0.99 21.00 O

HETATM 2627 O HOH A 179 7.994 53.081 17.184 1.03 32.40 O

HETATM 2628 O HOH A 180 4.503 52.895 23.363 1.05 53.50 O

HETATM 2629 O HOH A 181 11.997 71.689 22.627 1.04 45.10 O

HETATM 2630 O HOH A 182 10.972 68.637 14.381 1.00 37.10 O

HETATM 2631 O HOH A 183 9.359 67.620 11.821 1.08 41.00 O

HETATM 2632 O HOH A 184 17.721 60.742 1.839 0.94 50.70 O

HETATM 2633 O HOH A 185 30.049 62.623 10.085 0.81 48.80 O

HETATM 2634 O HOH A 186 29.336 64.310 14.168 1.03 38.80 O

HETATM 2635 O HOH A 187 30.366 50.287 37.494 0.94 51.50 O

HETATM 2636 O HOH A 188 16.146 46.469 27.828 1.04 36.60 O

HETATM 2637 O HOH A 189 13.722 52.976 23.892 1.05 40.10 O

HETATM 2638 O HOH A 190 16.742 52.120 23.289 1.09 43.70 O

HETATM 2639 O HOH A 191 21.981 68.282 8.298 0.94 30.60 O

HETATM 2640 O HOH A 192 25.962 67.313 8.710 1.01 47.00 O

HETATM 2641 O HOH A 193 10.049 50.328 14.087 0.73 51.30 O

HETATM 2642 O HOH A 194 6.507 69.316 25.569 0.78 54.10 O

HETATM 2643 O HOH A 195 16.635 47.914 31.314 0.83 55.70 O

HETATM 2644 O HOH A 196 40.807 59.200 27.960 1.02 34.80 O

HETATM 2645 O HOH A 197 11.694 50.061 22.855 1.05 46.80 O

HETATM 2646 O HOH A 198 42.373 54.275 12.785 0.87 58.30 O

HETATM 2647 O HOH A 199 26.917 44.765 10.195 0.88 51.40 O

HETATM 2648 O HOH A 200 34.156 59.466 8.621 0.72 52.70 O

HETATM 2649 O HOH A 201 20.849 58.360 2.244 0.88 58.50 O

HETATM 2650 O HOH A 202 7.136 54.098 2.052 0.93 55.20 O

HETATM 2651 O HOH A 203 4.736 58.950 1.964 0.89 55.20 O

HETATM 2652 O HOH A 204 4.018 55.285 1.530 0.81 55.80 O

HETATM 2653 O HOH A 205 1.683 51.030 2.508 0.77 56.00 O

HETATM 2654 O HOH A 206 12.175 70.656 10.497 0.91 57.10 O

HETATM 2655 O HOH A 207 14.631 68.597 5.495 0.96 60.00 O

HETATM 2656 O HOH A 208 -0.997 49.714 11.630 1.02 54.70 O

HETATM 2657 O HOH A 209 2.354 55.389 4.450 0.88 61.10 O

HETATM 2658 O HOH A 210 23.375 65.917 8.231 1.00 31.70 O

HETATM 2659 O HOH A 211 18.877 69.816 3.759 0.76 57.50 O

HETATM 2660 O HOH A 212 28.055 65.336 9.114 1.08 44.20 O

HETATM 2661 O HOH A 213 28.595 63.753 6.635 0.79 57.90 O

HETATM 2662 O HOH A 214 30.800 66.748 9.982 0.81 57.20 O

HETATM 2663 O HOH A 215 28.996 66.353 12.593 0.98 56.30 O

HETATM 2664 O HOH A 216 33.280 66.425 13.778 0.64 55.80 O

HETATM 2665 O HOH A 217 27.579 70.179 17.110 1.02 45.70 O

HETATM 2666 O HOH A 218 10.967 44.894 24.782 1.03 43.80 O

HETATM 2667 O HOH A 219 19.651 42.351 13.954 0.74 51.00 O

HETATM 2668 O HOH A 220 24.713 38.202 14.874 0.76 57.80 O

HETATM 2669 O HOH A 221 1.305 58.578 3.641 0.62 57.70 O

HETATM 2670 O HOH A 222 29.649 44.394 26.585 0.97 53.00 O

HETATM 2671 O HOH A 223 31.392 44.006 23.936 0.87 58.50 O

HETATM 2672 O HOH A 224 32.436 48.737 20.097 0.80 48.70 O

HETATM 2673 O HOH A 225 37.423 47.026 14.315 0.76 58.90 O

HETATM 2674 O HOH A 226 39.982 48.858 13.947 0.68 57.30 O

HETATM 2675 O HOH A 227 12.720 66.966 3.112 0.97 56.70 O

HETATM 2676 O HOH A 228 12.147 70.769 6.473 0.87 61.50 O

HETATM 2677 O HOH A 229 4.526 51.369 16.897 0.94 56.70 O

HETATM 2678 O HOH A 230 12.286 51.070 18.721 0.91 49.00 O

HETATM 2679 O HOH A 231 9.877 50.804 17.471 1.12 47.70 O

HETATM 2680 O HOH A 232 15.116 53.678 28.129 0.99 29.40 O

HETATM 2681 O HOH A 233 13.456 54.146 26.121 0.94 39.40 O

HETATM 2682 O HOH A 234 16.812 55.632 24.738 0.80 58.80 O

HETATM 2683 O HOH A 235 6.973 54.703 26.570 1.01 43.30 O

HETATM 2684 O HOH A 236 9.555 54.849 26.768 0.98 25.60 O

HETATM 2685 O HOH A 237 35.158 64.544 24.142 1.14 57.30 O

HETATM 2686 O HOH A 238 34.160 69.259 21.274 0.71 58.20 O

HETATM 2687 O HOH A 239 29.812 70.252 18.169 0.91 56.70 O

HETATM 2688 O HOH A 240 19.902 73.546 12.505 1.12 42.00 O

HETATM 2689 O HOH A 241 17.595 70.954 11.505 1.07 50.50 O

HETATM 2690 O HOH A 242 29.938 66.466 15.602 0.94 57.20 O

HETATM 2691 O HOH A 243 14.468 71.415 10.960 1.00 54.20 O

HETATM 2692 O HOH A 244 13.205 70.696 16.602 0.98 45.40 O

HETATM 2693 O HOH A 245 17.824 38.977 27.585 0.79 55.20 O

HETATM 2694 O HOH A 246 14.412 38.832 31.234 0.97 55.00 O

HETATM 2695 O HOH A 247 12.780 47.696 32.602 0.78 37.80 O

HETATM 2696 O HOH A 248 20.630 48.552 37.626 0.89 52.00 O

HETATM 2697 O HOH A 249 12.659 49.569 35.081 0.82 38.80 O

HETATM 2698 O HOH A 250 6.870 51.409 32.153 0.98 21.10 O

HETATM 2699 O HOH A 251 25.267 49.916 38.060 0.85 52.70 O

HETATM 2700 O HOH A 252 28.246 48.632 37.773 0.87 50.60 O

HETATM 2701 O HOH A 253 30.427 53.702 39.046 1.04 49.20 O

HETATM 2702 O HOH A 254 31.522 52.451 36.478 1.05 39.10 O

HETATM 2703 O HOH A 255 35.577 55.389 37.015 1.03 39.50 O

HETATM 2704 O HOH A 256 33.527 63.559 29.078 0.91 54.10 O

HETATM 2705 O HOH A 257 31.010 64.980 26.489 0.96 36.60 O

HETATM 2706 O HOH A 258 30.604 66.974 29.718 0.80 51.20 O

HETATM 2707 O HOH A 259 24.936 67.426 29.365 0.91 29.10 O

HETATM 2708 O HOH A 260 30.674 69.986 34.728 0.83 55.60 O

HETATM 2709 O HOH A 261 28.003 68.056 33.896 0.91 53.10 O

HETATM 2710 O HOH A 262 29.364 71.624 36.677 0.84 60.00 O

HETATM 2711 O HOH A 263 19.050 70.890 24.687 1.03 43.70 O

HETATM 2712 O HOH A 264 25.552 64.811 40.738 0.84 47.50 O

HETATM 2713 O HOH A 265 36.365 62.502 32.293 0.80 49.90 O

HETATM 2714 O HOH A 266 39.814 62.437 30.138 0.78 57.40 O

HETATM 2715 O HOH A 267 1.855 54.025 1.258 0.90 54.80 O

HETATM 2716 O HOH A 268 -1.729 56.584 4.620 0.84 57.60 O

HETATM 2717 O HOH A 269 9.196 49.754 7.268 0.71 52.40 O

HETATM 2718 O HOH A 270 23.543 54.857 2.648 0.74 59.40 O

HETATM 2719 O HOH A 271 26.265 57.472 1.508 0.93 53.20 O

HETATM 2720 O HOH A 272 26.819 60.209 1.979 0.91 56.20 O

HETATM 2721 O HOH A 273 3.869 64.181 10.070 0.90 51.20 O

HETATM 2722 O HOH A 274 26.209 69.324 10.423 0.83 54.50 O

HETATM 2723 O HOH A 275 18.122 69.380 9.460 0.77 59.00 O

HETATM 2724 O HOH A 276 -2.722 55.995 15.131 0.97 54.60 O

HETATM 2725 O HOH A 277 16.155 44.999 19.795 0.90 51.20 O

HETATM 2726 O HOH A 278 20.257 46.162 37.037 0.77 56.70 O

HETATM 2727 O HOH A 279 13.857 44.733 35.610 0.94 67.10 O

HETATM 2728 O HOH A 280 23.380 40.220 29.211 0.82 53.00 O

HETATM 2729 O HOH A 281 33.620 61.735 33.330 0.97 34.60 O

HETATM 2730 O HOH A 282 29.868 66.102 32.668 0.92 45.40 O

HETATM 2731 O HOH A 283 38.416 45.112 11.085 0.97 56.60 O

HETATM 2732 O HOH A 284 6.083 49.593 15.543 0.81 57.40 O

HETATM 2733 O HOH A 285 36.305 49.997 28.688 0.99 48.00 O

HETATM 2734 O HOH A 286 37.838 50.457 25.761 0.85 51.60 O

HETATM 2735 O HOH A 287 26.307 68.169 15.028 0.92 44.40 O

HETATM 2736 O HOH A 288 29.113 69.170 12.814 0.84 58.40 O

HETATM 2737 O HOH A 289 31.662 69.856 15.698 0.79 54.60 O

HETATM 2738 O HOH A 290 26.852 70.841 20.817 1.04 47.70 O

HETATM 2739 O HOH A 291 27.057 72.973 16.853 0.70 56.30 O

HETATM 2740 O HOH A 292 32.287 67.757 17.169 0.60 58.10 O

HETATM 2741 O HOH A 293 32.576 63.624 12.542 0.73 59.60 O

HETATM 2742 O HOH A 294 33.443 53.210 38.053 1.14 51.50 O

HETATM 2743 O HOH A 295 19.031 59.959 29.012 0.94 48.40 O

HETATM 2744 O HOH A 296 18.029 66.248 29.976 1.11 52.20 O

HETATM 2745 O HOH A 297 27.323 69.073 30.579 0.93 58.10 O

HETATM 2746 O HOH A 298 22.909 67.661 30.954 0.99 46.50 O

HETATM 2747 O HOH A 299 21.869 71.576 26.908 0.91 52.90 O

HETATM 2748 O HOH A 300 21.357 52.443 2.266 0.84 53.20 O

HETATM 2749 O HOH A 301 19.273 42.392 18.552 0.99 58.70 O

HETATM 2750 O HOH A 302 5.351 50.764 10.857 0.73 52.30 O

HETATM 2751 O HOH A 303 -2.442 53.299 12.726 1.00 55.80 O

HETATM 2752 O HOH A 304 27.346 38.420 20.714 0.77 55.60 O

HETATM 2753 O HOH A 305 0.583 61.509 10.460 0.86 57.90 O

HETATM 2754 O HOH A 306 2.303 58.546 9.217 1.07 53.00 O

HETATM 2755 O HOH A 307 -3.128 57.149 18.316 1.03 57.00 O

HETATM 2756 O HOH A 308 -0.065 55.882 22.200 0.65 58.30 O

HETATM 2757 O HOH A 309 21.911 40.503 16.617 1.05 54.60 O

HETATM 2758 O HOH A 310 17.730 39.978 39.318 0.81 57.50 O

HETATM 2759 O HOH A 311 19.814 44.685 11.534 0.76 53.90 O

HETATM 2760 O HOH A 312 10.683 66.442 28.836 1.03 49.10 O

HETATM 2761 O HOH A 313 29.364 43.546 19.199 0.78 59.50 O

HETATM 2762 O HOH A 314 29.430 41.673 23.355 0.85 61.20 O

HETATM 2763 O HOH A 315 35.633 49.674 35.309 0.98 58.00 O

HETATM 2764 O HOH A 316 33.256 43.861 28.122 0.65 54.50 O

HETATM 2765 O HOH A 317 35.377 44.499 26.916 0.74 53.10 O

HETATM 2766 O HOH A 318 30.497 43.522 28.666 0.63 59.20 O

HETATM 2767 O HOH A 319 32.375 46.808 28.416 0.83 57.80 O

HETATM 2768 O HOH A 320 35.880 49.375 31.278 0.70 56.00 O

HETATM 2769 O HOH A 321 26.507 36.321 17.000 0.88 58.50 O

HETATM 2770 O HOH A 322 35.466 42.666 23.914 0.84 61.10 O

HETATM 2771 O HOH A 323 14.500 66.191 26.864 0.88 46.50 O

HETATM 2772 O HOH A 324 21.142 56.608 28.122 0.70 52.90 O

HETATM 2773 O HOH A 325 36.221 59.087 39.575 0.87 57.60 O

HETATM 2774 O HOH A 326 24.890 64.908 37.199 1.02 42.00 O

HETATM 2775 O HOH A 327 25.496 69.913 26.540 0.76 48.60 O

HETATM 2776 O HOH A 328 23.692 68.274 27.070 0.91 50.80 O

HETATM 2777 O HOH A 329 17.400 42.489 21.766 0.90 54.30 O

HETATM 2778 O HOH A 330 20.835 74.983 26.945 0.66 54.10 O

HETATM 2779 O HOH A 331 24.722 72.416 25.349 0.94 52.40 O

HETATM 2780 O HOH A 332 24.741 71.172 30.233 0.93 60.60 O

HETATM 2781 O HOH A 333 35.228 67.927 23.561 0.93 58.40 O

HETATM 2782 O HOH A 334 14.794 41.286 35.316 1.05 59.40 O

HETATM 2783 O HOH A 335 39.679 60.072 36.456 0.78 59.10 O

HETATM 2784 O HOH A 336 39.166 58.716 38.994 0.86 53.50 O

HETATM 2785 O HOH A 337 32.338 65.844 34.323 0.83 52.80 O

HETATM 2786 O HOH A 338 31.919 70.494 36.986 0.78 61.50 O

HETATM 2787 O HOH A 339 41.949 58.788 12.844 0.89 57.70 O

HETATM 2788 O HOH A 340 41.996 51.748 13.086 1.02 55.40 O

HETATM 2789 O HOH A 341 40.681 54.283 9.828 0.68 54.80 O

HETATM 2790 O HOH A 342 41.408 48.794 8.776 0.84 58.70 O

HETATM 2791 O HOH A 343 5.295 52.104 19.265 0.88 53.60 O

HETATM 2792 O HOH A 344 33.335 40.640 14.403 0.69 54.00 O

HETATM 2793 O HOH A 345 17.059 55.042 27.798 0.80 56.10 O

HETATM 2794 O HOH A 346 25.263 50.602 3.031 0.75 53.90 O

HETATM 2795 O HOH A 347 33.937 51.531 29.071 1.03 52.60 O

HETATM 2796 O HOH A 348 29.164 39.986 38.259 0.87 57.80 O

HETATM 2797 O HOH A 349 12.888 46.025 21.318 0.95 56.70 O

HETATM 2798 O HOH A 350 20.583 49.278 1.971 0.84 56.30 O

HETATM 2799 O HOH A 351 36.388 49.674 19.177 0.66 52.30 O

HETATM 2800 O HOH A 352 3.295 66.224 12.204 0.84 52.70 O

HETATM 2801 O HOH A 353 5.071 68.573 10.843 0.87 57.00 O

HETATM 2802 O HOH A 354 2.988 62.365 21.362 0.84 58.30 O

HETATM 2803 O HOH A 355 34.314 39.768 7.444 0.67 59.00 O

HETATM 2804 O HOH A 356 35.820 52.435 6.216 0.93 54.10 O

HETATM 2805 O HOH A 357 32.198 50.215 2.361 1.19 52.90 O

HETATM 2806 O HOH A 358 36.575 52.225 35.824 0.97 55.20 O

HETATM 2807 O HOH A 359 21.781 62.865 32.565 0.87 50.80 O

HETATM 2808 O HOH A 360 25.682 65.747 0.831 0.80 51.50 O

HETATM 2809 O HOH A 361 27.220 69.461 23.605 0.92 48.10 O

HETATM 2810 O HOH A 362 31.741 69.848 11.512 0.85 54.80 O

HETATM 2811 O HOH A 363 41.376 58.877 22.664 0.89 51.10 O

HETATM 2812 O HOH A 364 4.144 57.408 13.145 0.70 54.80 O

HETATM 2813 O HOH A 365 -0.489 53.839 2.891 0.77 56.10 O

HETATM 2814 O HOH A 366 -0.587 52.846 9.298 0.67 60.70 O

HETATM 2815 O HOH A 367 -0.075 53.557 6.076 0.69 57.80 O

HETATM 2816 O HOH A 368 21.119 40.696 20.862 0.82 57.50 O

HETATM 2817 O HOH A 369 29.444 58.054 1.927 0.38 48.50 O

HETATM 2818 O HOH A 370 16.570 68.210 7.018 0.72 55.50 O

HETATM 2819 O HOH A 371 40.155 51.159 18.419 0.90 56.70 O

HETATM 2820 O HOH A 372 43.142 50.941 9.717 0.79 55.60 O

HETATM 2821 O HOH A 373 40.980 49.504 11.512 0.80 54.00 O

HETATM 2822 O HOH A 374 9.154 52.233 19.788 0.31 42.90 O

HETATM 2823 O HOH A 375 12.053 49.101 20.023 0.26 34.50 O

HETATM 2824 O HOH A 376 15.805 55.680 20.766 0.46 56.30 O

HETATM 2825 O HOH A 377 18.784 40.075 22.392 0.78 58.20 O

HETATM 2826 O HOH A 378 14.281 43.659 21.788 0.66 58.90 O

HETATM 2827 O HOH A 379 30.171 47.139 2.207 0.68 49.70 O

HETATM 2828 O HOH A 380 28.409 49.561 1.854 0.76 54.30 O

HETATM 2829 O HOH A 381 33.326 48.648 23.399 0.81 57.50 O

HETATM 2830 O HOH A 382 33.555 47.962 25.695 0.57 50.90 O

HETATM 2831 O HOH A 383 22.340 61.493 4.774 0.83 56.20 O

HETATM 2832 O HOH A 384 22.093 71.834 8.952 0.65 52.40 O

HETATM 2833 O HOH A 385 20.849 65.384 32.433 0.81 56.50 O

HETATM 2834 O HOH A 386 22.419 65.344 35.552 0.72 53.00 O

HETATM 2835 O HOH A 387 33.014 66.546 37.839 0.65 54.00 O

HETATM 2836 O HOH A 388 20.578 62.897 40.178 1.14 52.90 O

HETATM 2837 O HOH A 389 3.687 52.677 29.829 0.67 57.50 O

HETATM 2838 O HOH A 390 17.936 63.228 30.630 0.93 51.20 O

HETATM 2839 O HOH A 391 22.438 61.275 39.641 1.00 38.50 O

HETATM 2840 O HOH A 392 21.315 65.013 39.038 0.87 51.30 O

HETATM 2841 O HOH A 393 19.315 65.311 36.155 0.84 55.90 O

HETATM 2842 O HOH A 394 16.351 66.651 35.301 0.93 50.90 O

HETATM 2843 O HOH A 395 28.316 63.931 43.121 1.08 48.80 O

HETATM 2844 O HOH A 396 14.892 60.621 29.792 0.97 48.30 O

HETATM 2845 O HOH A 397 30.940 68.847 39.825 0.83 53.60 O

HETATM 2846 O HOH A 398 14.524 45.855 38.494 0.89 51.10 O

HETATM 2847 O HOH A 399 5.537 56.980 28.291 0.76 54.20 O

HETATM 2848 O HOH A 400 21.790 48.204 40.443 0.80 55.80 O

HETATM 2849 O HOH B 163 14.901 51.450 34.926 1.02 38.30 O

HETATM 2850 O HOH B 164 17.036 50.110 37.346 0.94 57.70 O

HETATM 2851 O HOH B 165 16.798 49.117 34.441 0.92 51.90 O

HETATM 2852 O HOH B 166 24.456 67.887 39.141 0.79 51.70 O

HETATM 2853 O HOH B 167 10.254 64.197 28.387 0.42 58.00 O

HETATM 2854 O HOH B 168 30.231 54.509 46.350 0.89 50.80 O

HETATM 2855 O HOH B 169 26.978 60.887 45.107 1.01 30.30 O

HETATM 2856 O HOH B 170 17.432 62.857 42.260 0.95 33.10 O

HETATM 2857 O HOH B 171 18.089 62.558 39.016 0.93 38.40 O

HETATM 2858 O HOH B 172 14.976 54.534 51.779 0.98 32.40 O

HETATM 2859 O HOH B 173 14.179 52.540 49.543 0.99 42.00 O

HETATM 2860 O HOH B 174 8.641 76.323 47.799 1.00 34.30 O

HETATM 2861 O HOH B 175 8.847 71.657 40.333 0.93 40.80 O

HETATM 2862 O HOH B 176 29.145 64.706 54.368 1.02 27.20 O

HETATM 2863 O HOH B 177 33.168 84.445 48.307 0.97 50.50 O

HETATM 2864 O HOH B 178 22.886 66.829 48.998 1.00 44.00 O

HETATM 2865 O HOH B 179 26.661 63.132 51.507 0.98 28.30 O

HETATM 2866 O HOH B 180 31.033 71.511 53.691 1.03 30.20 O

HETATM 2867 O HOH B 181 13.060 73.772 63.335 1.00 36.80 O

HETATM 2868 O HOH B 182 21.697 50.901 49.190 1.00 35.20 O

HETATM 2869 O HOH B 183 22.862 58.441 62.577 0.81 43.90 O

HETATM 2870 O HOH B 184 13.326 50.626 41.282 0.96 27.60 O

HETATM 2871 O HOH B 185 9.457 50.481 39.340 0.95 37.70 O

HETATM 2872 O HOH B 186 2.773 66.611 68.028 0.87 56.70 O

HETATM 2873 O HOH B 187 19.725 63.794 49.042 1.00 25.10 O

HETATM 2874 O HOH B 188 20.807 61.565 47.645 0.99 24.50 O

HETATM 2875 O HOH B 189 21.166 63.059 45.791 1.01 38.60 O

HETATM 2876 O HOH B 190 21.725 51.014 59.973 0.69 57.10 O

HETATM 2877 O HOH B 191 29.248 61.105 49.719 1.02 39.50 O

HETATM 2878 O HOH B 192 35.661 55.696 41.120 0.82 58.10 O

HETATM 2879 O HOH B 193 16.882 46.937 53.566 0.87 57.70 O

HETATM 2880 O HOH B 194 7.583 59.668 31.579 0.72 52.70 O

HETATM 2881 O HOH B 195 7.481 65.368 41.061 0.96 31.40 O

HETATM 2882 O HOH B 196 7.043 65.126 37.957 0.95 50.30 O

HETATM 2883 O HOH B 197 5.654 63.430 41.010 0.95 47.70 O

HETATM 2884 O HOH B 198 22.391 82.588 46.152 0.99 39.00 O

HETATM 2885 O HOH B 199 23.333 84.251 48.836 1.01 48.50 O

HETATM 2886 O HOH B 200 14.552 81.635 61.003 1.09 53.70 O

HETATM 2887 O HOH B 201 10.720 83.815 61.217 0.81 55.60 O

HETATM 2888 O HOH B 202 12.678 64.552 49.190 0.99 18.30 O

HETATM 2889 O HOH B 203 21.706 43.732 44.908 0.58 55.40 O

HETATM 2890 O HOH B 204 1.361 59.337 55.288 1.02 33.30 O

HETATM 2891 O HOH B 205 -1.044 61.711 60.025 0.99 18.20 O

HETATM 2892 O HOH B 206 5.421 53.323 34.603 1.01 23.30 O

HETATM 2893 O HOH B 207 3.901 50.626 36.155 1.05 29.30 O

HETATM 2894 O HOH B 208 3.426 57.941 60.886 1.04 32.80 O

HETATM 2895 O HOH B 209 20.741 51.442 40.171 1.06 49.60 O

HETATM 2896 O HOH B 210 27.784 55.955 41.091 0.97 36.10 O

HETATM 2897 O HOH B 211 27.640 52.798 41.385 0.84 57.30 O

HETATM 2898 O HOH B 212 14.855 55.018 55.935 0.95 51.10 O

HETATM 2899 O HOH B 213 7.616 57.852 37.729 1.01 27.00 O

HETATM 2900 O HOH B 214 10.557 53.048 47.115 1.03 53.60 O

HETATM 2901 O HOH B 215 4.097 56.536 38.420 1.01 46.30 O

HETATM 2902 O HOH B 216 9.257 62.825 35.176 0.98 40.30 O

HETATM 2903 O HOH B 217 5.840 61.670 39.104 1.01 50.00 O

HETATM 2904 O HOH B 218 12.678 67.911 36.846 0.90 28.00 O

HETATM 2905 O HOH B 219 12.398 44.483 42.937 0.91 60.40 O

HETATM 2906 O HOH B 220 10.548 57.133 56.170 0.90 38.00 O

HETATM 2907 O HOH B 221 0.107 57.828 57.068 0.89 38.60 O

HETATM 2908 O HOH B 222 1.869 66.546 63.548 0.81 57.60 O

HETATM 2909 O HOH B 223 11.792 57.674 71.684 0.55 57.60 O

HETATM 2910 O HOH B 224 7.490 52.419 62.644 0.84 53.30 O

HETATM 2911 O HOH B 225 7.933 57.174 60.216 1.11 52.50 O

HETATM 2912 O HOH B 226 0.741 64.835 44.048 0.95 57.60 O

HETATM 2913 O HOH B 227 10.147 51.966 58.532 0.82 56.20 O

HETATM 2914 O HOH B 228 0.694 56.391 46.622 1.07 36.90 O

HETATM 2915 O HOH B 229 4.731 54.824 32.712 0.90 53.10 O

HETATM 2916 O HOH B 230 4.628 71.842 66.189 0.80 62.00 O

HETATM 2917 O HOH B 231 14.943 58.126 29.645 1.04 40.70 O

HETATM 2918 O HOH B 232 14.677 61.686 32.219 0.92 39.90 O

HETATM 2919 O HOH B 233 12.039 64.108 69.080 0.85 50.50 O

HETATM 2920 O HOH B 234 10.930 80.287 53.875 1.01 31.50 O

HETATM 2921 O HOH B 235 23.794 63.672 45.857 1.04 58.00 O

HETATM 2922 O HOH B 236 26.847 65.505 47.608 1.01 54.10 O

HETATM 2923 O HOH B 237 24.237 62.615 42.459 0.93 38.50 O

HETATM 2924 O HOH B 238 30.306 57.916 55.847 1.07 46.10 O

HETATM 2925 O HOH B 239 26.941 60.871 56.634 1.02 50.90 O

HETATM 2926 O HOH B 240 32.422 61.727 52.617 0.98 49.20 O

HETATM 2927 O HOH B 241 27.593 58.562 60.304 0.90 59.70 O

HETATM 2928 O HOH B 242 22.149 71.947 38.295 0.96 48.30 O

HETATM 2929 O HOH B 243 21.692 78.858 37.516 0.85 55.50 O

HETATM 2930 O HOH B 244 29.774 70.640 58.134 0.99 51.30 O

HETATM 2931 O HOH B 245 29.117 74.765 63.607 0.82 53.00 O

HETATM 2932 O HOH B 246 26.824 77.106 65.601 1.07 42.50 O

HETATM 2933 O HOH B 247 34.599 69.065 60.797 1.02 46.40 O

HETATM 2934 O HOH B 248 34.757 72.617 63.122 0.94 57.40 O

HETATM 2935 O HOH B 249 31.299 75.217 66.976 0.92 60.00 O

HETATM 2936 O HOH B 250 7.094 76.258 44.827 0.86 46.30 O

HETATM 2937 O HOH B 251 23.906 50.336 55.935 0.88 58.60 O

HETATM 2938 O HOH B 252 6.950 72.940 50.845 0.99 34.10 O

HETATM 2939 O HOH B 253 24.158 56.713 59.356 1.00 56.00 O

HETATM 2940 O HOH B 254 -1.403 58.296 51.073 0.91 44.80 O

HETATM 2941 O HOH B 255 6.129 62.155 36.809 0.77 56.10 O

HETATM 2942 O HOH B 256 14.524 60.920 65.741 1.01 49.90 O

HETATM 2943 O HOH B 257 15.861 53.985 53.986 0.92 54.30 O

HETATM 2944 O HOH B 258 16.188 50.659 53.816 1.11 51.30 O

HETATM 2945 O HOH B 259 19.152 62.268 44.268 0.77 53.70 O

HETATM 2946 O HOH B 260 15.214 75.112 37.883 1.01 42.10 O

HETATM 2947 O HOH B 261 7.234 79.149 47.865 0.88 63.50 O

HETATM 2948 O HOH B 262 8.022 78.559 61.651 0.92 52.80 O

HETATM 2949 O HOH B 263 27.770 50.521 54.067 1.03 54.10 O

HETATM 2950 O HOH B 264 32.389 58.490 54.493 1.12 54.30 O

HETATM 2951 O HOH B 265 28.027 56.746 56.626 1.02 44.50 O

HETATM 2952 O HOH B 266 24.829 59.733 61.540 0.70 51.90 O

HETATM 2953 O HOH B 267 28.288 62.187 47.534 0.90 51.90 O

HETATM 2954 O HOH B 268 25.980 63.729 49.300 0.90 54.80 O

HETATM 2955 O HOH B 269 7.970 49.375 41.333 1.00 45.90 O

HETATM 2956 O HOH B 270 11.708 54.558 57.568 0.63 57.20 O

HETATM 2957 O HOH B 271 0.536 57.182 44.055 0.99 38.30 O

HETATM 2958 O HOH B 272 1.827 55.817 48.689 1.03 52.30 O

HETATM 2959 O HOH B 273 2.969 53.355 50.492 0.74 56.90 O

HETATM 2960 O HOH B 274 6.390 54.905 30.961 1.00 53.00 O

HETATM 2961 O HOH B 275 27.118 50.683 44.261 0.82 50.20 O

HETATM 2962 O HOH B 276 25.962 51.248 52.110 0.97 47.80 O

HETATM 2963 O HOH B 277 23.855 49.278 51.794 1.06 54.30 O

HETATM 2964 O HOH B 278 30.026 51.894 52.382 0.52 27.10 O

HETATM 2965 O HOH B 279 31.490 51.345 50.492 0.46 29.40 O

HETATM 2966 O HOH B 280 31.858 53.274 48.491 0.93 55.90 O

HETATM 2967 O HOH B 281 9.728 71.374 37.339 0.80 53.30 O

HETATM 2968 O HOH B 282 30.259 56.027 42.797 1.01 50.60 O

HETATM 2969 O HOH B 283 35.955 60.371 41.826 0.79 57.20 O

HETATM 2970 O HOH B 284 30.324 69.235 55.185 1.04 53.50 O

HETATM 2971 O HOH B 285 28.176 67.467 54.199 1.12 46.30 O

HETATM 2972 O HOH B 286 17.362 82.790 60.944 1.13 56.80 O

HETATM 2973 O HOH B 287 29.131 77.599 38.862 0.72 51.20 O

HETATM 2974 O HOH B 288 36.677 68.888 45.269 0.89 55.30 O

HETATM 2975 O HOH B 289 36.971 71.027 48.167 1.10 61.60 O

HETATM 2976 O HOH B 290 36.141 69.978 53.250 1.05 52.90 O

HETATM 2977 O HOH B 291 31.247 73.045 59.098 0.89 54.10 O

HETATM 2978 O HOH B 292 25.617 84.993 58.215 0.83 51.80 O

HETATM 2979 O HOH B 293 34.477 74.894 45.725 0.85 58.30 O

HETATM 2980 O HOH B 294 32.669 79.254 54.280 1.07 51.40 O

HETATM 2981 O HOH B 295 6.339 68.218 42.069 1.09 50.30 O

HETATM 2982 O HOH B 296 4.316 69.994 48.138 1.03 60.20 O

HETATM 2983 O HOH B 297 5.374 58.021 68.977 0.79 55.10 O

HETATM 2984 O HOH B 298 14.011 50.069 38.141 0.80 51.10 O

HETATM 2985 O HOH B 299 11.583 48.818 37.670 0.78 49.20 O

HETATM 2986 O HOH B 300 15.717 47.486 42.481 0.70 50.20 O

HETATM 2987 O HOH B 301 8.078 46.687 45.982 0.83 60.50 O

HETATM 2988 O HOH B 302 6.581 48.019 43.459 0.84 51.50 O

HETATM 2989 O HOH B 303 17.786 45.242 51.970 0.92 51.40 O

HETATM 2990 O HOH B 304 7.150 60.968 34.448 0.92 49.60 O

HETATM 2991 O HOH B 305 2.731 64.294 41.973 0.88 53.50 O

HETATM 2992 O HOH B 306 3.230 69.727 56.347 0.82 52.50 O

HETATM 2993 O HOH B 307 17.353 48.818 39.340 0.81 53.90 O

HETATM 2994 O HOH B 308 23.794 45.088 43.025 0.70 58.30 O

HETATM 2995 O HOH B 309 19.292 45.540 42.782 0.46 59.50 O

HETATM 2996 O HOH B 310 23.962 52.564 57.472 0.84 54.80 O

HETATM 2997 O HOH B 311 11.937 70.518 37.479 0.83 54.80 O

HETATM 2998 O HOH B 312 6.707 69.630 63.813 0.93 53.20 O

HETATM 2999 O HOH B 313 7.826 76.541 63.541 0.80 55.40 O

HETATM 3000 O HOH B 314 8.385 84.953 58.885 0.76 58.10 O

HETATM 3001 O HOH B 315 37.819 52.653 45.188 0.67 57.50 O

HETATM 3002 O HOH B 316 38.253 55.632 42.437 0.73 55.50 O

HETATM 3003 O HOH B 317 34.538 61.146 46.299 0.79 58.70 O

HETATM 3004 O HOH B 318 21.347 77.938 67.388 0.90 57.30 O

HETATM 3005 O HOH B 319 21.124 71.334 67.756 0.78 56.10 O

HETATM 3006 O HOH B 320 6.330 82.781 48.505 0.94 61.80 O

HETATM 3007 O HOH B 321 26.092 78.923 36.250 0.87 58.40 O

HETATM 3008 O HOH B 322 23.338 85.276 43.577 0.78 48.50 O

HETATM 3009 O HOH B 323 11.433 82.208 52.220 0.97 49.00 O

HETATM 3010 O HOH B 324 22.382 65.053 47.174 0.92 55.40 O

HETATM 3011 O HOH B 325 24.461 65.957 65.983 0.90 56.90 O

HETATM 3012 O HOH B 326 14.636 83.314 48.851 0.89 53.70 O

HETATM 3013 O HOH B 327 9.914 87.666 56.362 0.77 52.30 O

HETATM 3014 O HOH B 328 21.580 82.087 64.748 0.79 53.20 O

HETATM 3015 O HOH B 329 33.680 67.604 46.740 0.82 54.20 O

HETATM 3016 O HOH B 330 38.523 77.800 48.498 1.01 58.10 O

HETATM 3017 O HOH B 331 37.367 73.070 50.940 0.94 51.90 O

HETATM 3018 O HOH B 332 38.994 75.225 49.476 0.86 58.60 O

HETATM 3019 O HOH B 333 34.692 83.726 45.519 0.80 56.80 O

HETATM 3020 O HOH B 334 37.265 82.773 44.673 0.64 55.50 O

HETATM 3021 O HOH B 335 4.764 57.222 63.718 0.82 55.50 O

HETATM 3022 O HOH B 336 34.426 72.303 53.434 0.94 51.90 O

HETATM 3023 O HOH B 337 29.434 85.228 51.551 0.87 45.60 O

HETATM 3024 O HOH B 338 8.814 57.924 70.000 0.74 53.10 O

HETATM 3025 O HOH B 339 27.038 47.962 53.434 0.33 46.10 O

HETATM 3026 O HOH B 340 15.652 53.056 63.394 0.77 57.10 O

HETATM 3027 O HOH B 341 15.027 55.398 60.437 0.80 58.20 O

HETATM 3028 O HOH B 342 22.149 55.930 56.774 0.68 53.20 O

HETATM 3029 O HOH B 343 7.956 68.823 68.352 0.65 55.30 O

HETATM 3030 O HOH B 344 8.511 76.404 39.310 0.70 55.20 O

HETATM 3031 O HOH B 345 8.646 79.851 52.890 0.71 50.30 O

HETATM 3032 O HOH B 346 30.380 47.518 46.387 0.68 52.90 O

HETATM 3033 O HOH B 347 30.777 62.623 44.143 0.68 49.60 O

HETATM 3034 O HOH B 348 21.776 64.988 49.807 0.70 46.90 O

HETATM 3035 O HOH B 349 20.266 84.977 46.453 0.82 59.50 O

HETATM 3036 O HOH B 350 37.773 67.879 49.410 0.80 60.60 O

HETATM 3037 O HOH B 351 34.720 83.338 52.316 0.81 56.30 O

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END

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ATOM 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

ATOM 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

ATOM 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

ATOM 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

ATOM 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

ATOM 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

ATOM 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

ATOM 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

ATOM 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

ATOM 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

ATOM 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

ATOM 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

ATOM 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

ATOM 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

ATOM 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

ATOM 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

ATOM 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

ATOM 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

ATOM 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

ATOM 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

ATOM 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

ATOM 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

ATOM 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

ATOM 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

ATOM 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

ATOM 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

ATOM 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

ATOM 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

ATOM 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

ATOM 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

ATOM 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

ATOM 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

ATOM 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

ATOM 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

ATOM 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

ATOM 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

ATOM 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

ATOM 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

ATOM 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

ATOM 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

ATOM 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

ATOM 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

ATOM 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

ATOM 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

ATOM 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

ATOM 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

ATOM 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

ATOM 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

ATOM 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

ATOM 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

ATOM 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

ATOM 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

ATOM 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

ATOM 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

ATOM 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

ATOM 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

ATOM 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

ATOM 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

ATOM 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

ATOM 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

ATOM 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

ATOM 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

ATOM 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

ATOM 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

ATOM 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

ATOM 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

ATOM 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

ATOM 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

ATOM 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

ATOM 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

ATOM 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

ATOM 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

ATOM 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

ATOM 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

ATOM 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

ATOM 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

ATOM 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

ATOM 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

ATOM 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

ATOM 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

ATOM 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

ATOM 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

ATOM 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

ATOM 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

ATOM 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

ATOM 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

ATOM 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

ATOM 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

ATOM 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

ATOM 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

ATOM 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

ATOM 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

ATOM 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

ATOM 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

ATOM 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

ATOM 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

ATOM 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

ATOM 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

ATOM 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

ATOM 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

ATOM 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

ATOM 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

ATOM 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

ATOM 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

ATOM 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

ATOM 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

ATOM 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

ATOM 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

ATOM 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

ATOM 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

ATOM 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

ATOM 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

ATOM 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

ATOM 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

ATOM 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

ATOM 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

ATOM 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

ATOM 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

ATOM 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

ATOM 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

ATOM 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

ATOM 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

ATOM 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

ATOM 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

ATOM 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

ATOM 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

ATOM 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

ATOM 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

ATOM 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

ATOM 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

ATOM 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

ATOM 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

ATOM 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

ATOM 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

ATOM 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

ATOM 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

ATOM 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

ATOM 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

ATOM 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

ATOM 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

ATOM 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

ATOM 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

ATOM 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

ATOM 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

ATOM 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

ATOM 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

ATOM 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

ATOM 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

ATOM 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

ATOM 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

ATOM 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

ATOM 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

ATOM 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

ATOM 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

ATOM 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

ATOM 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

ATOM 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

ATOM 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

ATOM 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

ATOM 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

ATOM 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

ATOM 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

ATOM 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

ATOM 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

ATOM 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

ATOM 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

ATOM 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

ATOM 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

ATOM 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

ATOM 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

ATOM 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

ATOM 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

ATOM 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

ATOM 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

ATOM 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

ATOM 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

ATOM 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

ATOM 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

ATOM 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

ATOM 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

ATOM 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

ATOM 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

ATOM 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

ATOM 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

ATOM 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

ATOM 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

ATOM 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

ATOM 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

ATOM 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

ATOM 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

ATOM 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

ATOM 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

ATOM 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

ATOM 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

ATOM 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

ATOM 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

ATOM 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

ATOM 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

ATOM 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

ATOM 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

ATOM 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

ATOM 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

ATOM 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

ATOM 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

ATOM 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

ATOM 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

ATOM 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

ATOM 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

ATOM 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

ATOM 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

ATOM 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

ATOM 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

ATOM 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

ATOM 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

ATOM 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

ATOM 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

ATOM 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

ATOM 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

ATOM 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

ATOM 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

ATOM 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

ATOM 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

ATOM 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

ATOM 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

ATOM 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

ATOM 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

ATOM 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

ATOM 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

ATOM 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

ATOM 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

ATOM 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

ATOM 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

ATOM 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

ATOM 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

ATOM 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

ATOM 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

ATOM 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

ATOM 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

ATOM 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

ATOM 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

ATOM 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

ATOM 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

ATOM 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

ATOM 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

ATOM 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

ATOM 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

ATOM 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

ATOM 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

ATOM 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

ATOM 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

ATOM 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

ATOM 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

ATOM 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

ATOM 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

ATOM 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

ATOM 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

ATOM 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

ATOM 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

ATOM 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

ATOM 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

ATOM 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

ATOM 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

ATOM 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

ATOM 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

ATOM 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

ATOM 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

ATOM 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

ATOM 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

ATOM 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

ATOM 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

ATOM 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

ATOM 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

ATOM 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

ATOM 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

ATOM 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

ATOM 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

ATOM 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

ATOM 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

ATOM 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

ATOM 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

ATOM 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

ATOM 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

ATOM 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

ATOM 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

ATOM 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

ATOM 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

ATOM 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

ATOM 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

ATOM 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

ATOM 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

ATOM 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

ATOM 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

ATOM 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

ATOM 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

ATOM 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

ATOM 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

ATOM 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

ATOM 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

ATOM 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

ATOM 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

ATOM 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

ATOM 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

ATOM 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

ATOM 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

ATOM 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

ATOM 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

ATOM 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

ATOM 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

ATOM 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

ATOM 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

ATOM 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

ATOM 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

ATOM 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

ATOM 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

ATOM 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

ATOM 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

ATOM 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

ATOM 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

ATOM 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

ATOM 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

ATOM 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

ATOM 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

HETATM 2566 CA MTX A 161 19.837 67.459 25.135 1.00 22.60 C

HETATM 2576 CA CA B 161 -0.163 59.862 58.649 1.00 25.90 CA

HETATM 2601 CA MTX B 162 16.877 71.923 39.715 1.00 25.40 C

*FILE3*

ATOM 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

ATOM 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

ATOM 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

ATOM 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

ATOM 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

ATOM 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

ATOM 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

ATOM 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

ATOM 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

ATOM 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

ATOM 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

ATOM 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

ATOM 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

ATOM 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

ATOM 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

ATOM 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

ATOM 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

ATOM 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

ATOM 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

ATOM 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

ATOM 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

ATOM 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

ATOM 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

ATOM 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

ATOM 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

ATOM 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

ATOM 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

ATOM 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

ATOM 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

ATOM 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

ATOM 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

ATOM 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

ATOM 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

ATOM 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

ATOM 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

ATOM 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

ATOM 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

ATOM 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

ATOM 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

ATOM 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

ATOM 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

ATOM 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

ATOM 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

ATOM 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

ATOM 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

ATOM 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

ATOM 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

ATOM 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

ATOM 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

ATOM 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

ATOM 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

ATOM 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

ATOM 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

ATOM 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

ATOM 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

ATOM 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

ATOM 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

ATOM 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

ATOM 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

ATOM 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

ATOM 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

ATOM 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

ATOM 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

ATOM 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

ATOM 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

ATOM 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

ATOM 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

ATOM 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

ATOM 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

ATOM 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

ATOM 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

ATOM 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

ATOM 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

ATOM 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

ATOM 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

ATOM 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

ATOM 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

ATOM 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

ATOM 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

ATOM 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

ATOM 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

ATOM 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

ATOM 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

ATOM 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

ATOM 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

ATOM 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

ATOM 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

ATOM 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

ATOM 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

ATOM 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

ATOM 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

ATOM 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

ATOM 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

ATOM 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

ATOM 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

ATOM 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

ATOM 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

ATOM 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

ATOM 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

ATOM 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

ATOM 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

ATOM 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

ATOM 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

ATOM 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

ATOM 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

ATOM 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

ATOM 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

ATOM 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

ATOM 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

ATOM 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

ATOM 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

ATOM 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

ATOM 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

ATOM 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

ATOM 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

ATOM 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

ATOM 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

ATOM 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

ATOM 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

ATOM 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

ATOM 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

ATOM 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

ATOM 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

ATOM 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

ATOM 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

ATOM 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

ATOM 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

ATOM 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

ATOM 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

ATOM 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

ATOM 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

ATOM 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

ATOM 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

ATOM 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

ATOM 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

ATOM 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

ATOM 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

ATOM 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

ATOM 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

ATOM 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

ATOM 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

ATOM 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

ATOM 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

ATOM 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

ATOM 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

ATOM 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

ATOM 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

ATOM 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

ATOM 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

ATOM 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

ATOM 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

ATOM 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

ATOM 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

ATOM 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

ATOM 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

ATOM 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

ATOM 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

ATOM 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

ATOM 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

ATOM 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

ATOM 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

ATOM 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

ATOM 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

ATOM 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

ATOM 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

ATOM 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

ATOM 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

ATOM 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

ATOM 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

ATOM 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

ATOM 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

ATOM 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

ATOM 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

ATOM 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

ATOM 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

ATOM 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

ATOM 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

ATOM 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

ATOM 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

ATOM 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

ATOM 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

ATOM 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

ATOM 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

ATOM 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

ATOM 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

ATOM 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

ATOM 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

ATOM 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

ATOM 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

ATOM 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

ATOM 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

ATOM 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

ATOM 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

ATOM 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

ATOM 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

ATOM 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

ATOM 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

ATOM 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

ATOM 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

ATOM 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

ATOM 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

ATOM 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

ATOM 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

ATOM 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

ATOM 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

ATOM 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

ATOM 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

ATOM 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

ATOM 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

ATOM 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

ATOM 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

ATOM 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

ATOM 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

ATOM 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

ATOM 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

ATOM 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

ATOM 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

ATOM 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

ATOM 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

ATOM 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

ATOM 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

ATOM 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

ATOM 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

ATOM 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

ATOM 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

ATOM 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

ATOM 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

ATOM 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

ATOM 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

ATOM 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

ATOM 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

ATOM 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

ATOM 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

ATOM 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

ATOM 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

ATOM 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

ATOM 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

ATOM 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

ATOM 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

ATOM 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

ATOM 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

ATOM 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

ATOM 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

ATOM 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

ATOM 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

ATOM 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

ATOM 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

ATOM 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

ATOM 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

ATOM 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

ATOM 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

ATOM 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

ATOM 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

ATOM 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

ATOM 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

ATOM 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

ATOM 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

ATOM 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

ATOM 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

ATOM 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

ATOM 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

ATOM 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

ATOM 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

ATOM 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

ATOM 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

ATOM 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

ATOM 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

ATOM 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

ATOM 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

ATOM 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

ATOM 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

ATOM 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

ATOM 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

ATOM 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

ATOM 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

ATOM 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

ATOM 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

ATOM 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

ATOM 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

ATOM 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

ATOM 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

ATOM 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

ATOM 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

ATOM 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

ATOM 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

ATOM 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

ATOM 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

ATOM 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

ATOM 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

ATOM 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

ATOM 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

ATOM 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

ATOM 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

ATOM 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

ATOM 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

ATOM 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

ATOM 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

ATOM 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

ATOM 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

ATOM 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

ATOM 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

ATOM 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

ATOM 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

ATOM 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

ATOM 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

ATOM 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

ATOM 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

ATOM 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

ATOM 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

ATOM 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

ATOM 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

ATOM 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

ATOM 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

ATOM 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

ATOM 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

ATOM 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

ATOM 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

ATOM 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

ATOM 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

ATOM 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

ATOM 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

ATOM 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

HETATM 2565 N MTX A 161 19.329 65.981 25.135 1.00 21.30 N

HETATM 2600 N MTX B 162 17.735 71.051 40.429 1.00 26.70 N

*FILE4*

ATOM 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

ATOM 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

ATOM 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

ATOM 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

ATOM 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

ATOM 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

ATOM 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

ATOM 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

ATOM 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

ATOM 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

ATOM 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

ATOM 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

ATOM 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

ATOM 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

ATOM 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

ATOM 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

ATOM 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

ATOM 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

ATOM 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

ATOM 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

ATOM 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

ATOM 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

ATOM 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

ATOM 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

ATOM 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

ATOM 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

ATOM 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

ATOM 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

ATOM 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

ATOM 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

ATOM 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

ATOM 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

ATOM 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

ATOM 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

ATOM 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

ATOM 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

ATOM 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

ATOM 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

ATOM 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

ATOM 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

ATOM 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

ATOM 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

ATOM 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

ATOM 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

ATOM 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

ATOM 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

ATOM 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

ATOM 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

ATOM 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

ATOM 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

ATOM 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

ATOM 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

ATOM 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

ATOM 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

ATOM 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

ATOM 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

ATOM 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

ATOM 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

ATOM 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

ATOM 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

ATOM 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

ATOM 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

ATOM 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

ATOM 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

ATOM 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

ATOM 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

ATOM 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

ATOM 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

ATOM 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

ATOM 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

ATOM 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

ATOM 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

ATOM 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

ATOM 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

ATOM 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

ATOM 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

ATOM 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

ATOM 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

ATOM 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

ATOM 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

ATOM 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

ATOM 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

ATOM 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

ATOM 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

ATOM 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

ATOM 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

ATOM 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

ATOM 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

ATOM 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

ATOM 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

ATOM 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

ATOM 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

ATOM 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

ATOM 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

ATOM 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

ATOM 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

ATOM 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

ATOM 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

ATOM 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

ATOM 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

ATOM 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

ATOM 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

ATOM 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

ATOM 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

ATOM 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

ATOM 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

ATOM 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

ATOM 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

ATOM 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

ATOM 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

ATOM 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

ATOM 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

ATOM 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

ATOM 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

ATOM 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

ATOM 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

ATOM 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

ATOM 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

ATOM 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

ATOM 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

ATOM 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

ATOM 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

ATOM 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

ATOM 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

ATOM 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

ATOM 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

ATOM 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

ATOM 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

ATOM 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

ATOM 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

ATOM 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

ATOM 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

ATOM 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

ATOM 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

ATOM 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

ATOM 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

ATOM 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

ATOM 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

ATOM 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

ATOM 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

ATOM 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

ATOM 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

ATOM 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

ATOM 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

ATOM 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

ATOM 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

ATOM 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

ATOM 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

ATOM 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

ATOM 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

ATOM 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

ATOM 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

ATOM 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

ATOM 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

ATOM 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

ATOM 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

ATOM 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

ATOM 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

ATOM 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

ATOM 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

ATOM 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

ATOM 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

ATOM 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

ATOM 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

ATOM 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

ATOM 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

ATOM 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

ATOM 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

ATOM 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

ATOM 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

ATOM 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

ATOM 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

ATOM 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

ATOM 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

ATOM 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

ATOM 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

ATOM 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

ATOM 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

ATOM 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

ATOM 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

ATOM 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

ATOM 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

ATOM 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

ATOM 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

ATOM 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

ATOM 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

ATOM 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

ATOM 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

ATOM 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

ATOM 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

ATOM 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

ATOM 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

ATOM 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

ATOM 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

ATOM 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

ATOM 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

ATOM 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

ATOM 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

ATOM 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

ATOM 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

ATOM 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

ATOM 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

ATOM 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

ATOM 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

ATOM 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

ATOM 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

ATOM 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

ATOM 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

ATOM 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

ATOM 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

ATOM 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

ATOM 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

ATOM 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

ATOM 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

ATOM 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

ATOM 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

ATOM 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

ATOM 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

ATOM 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

ATOM 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

ATOM 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

ATOM 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

ATOM 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

ATOM 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

ATOM 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

ATOM 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

ATOM 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

ATOM 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

ATOM 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

ATOM 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

ATOM 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

ATOM 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

ATOM 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

ATOM 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

ATOM 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

ATOM 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

ATOM 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

ATOM 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

ATOM 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

ATOM 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

ATOM 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

ATOM 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

ATOM 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

ATOM 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

ATOM 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

ATOM 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

ATOM 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

ATOM 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

ATOM 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

ATOM 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

ATOM 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

ATOM 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

ATOM 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

ATOM 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

ATOM 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

ATOM 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

ATOM 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

ATOM 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

ATOM 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

ATOM 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

ATOM 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

ATOM 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

ATOM 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

ATOM 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

ATOM 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

ATOM 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

ATOM 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

ATOM 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

ATOM 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

ATOM 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

ATOM 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

ATOM 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

ATOM 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

ATOM 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

ATOM 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

ATOM 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

ATOM 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

ATOM 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

ATOM 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

ATOM 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

ATOM 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

ATOM 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

ATOM 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

ATOM 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

ATOM 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

ATOM 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

ATOM 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

ATOM 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

ATOM 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

ATOM 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

ATOM 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

ATOM 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

ATOM 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

ATOM 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

ATOM 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

ATOM 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

ATOM 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

ATOM 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

ATOM 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

ATOM 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

ATOM 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

HETATM 2570 CB MTX A 161 21.217 67.669 25.761 1.00 27.40 C

HETATM 2605 CB MTX B 162 15.656 71.197 39.259 1.00 28.40 C

*FILE5*

JASH 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

JASH 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

JASH 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

JASH 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

JASH 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

JASH 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

JASH 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

JASH 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

JASH 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

JASH 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

JASH 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

JASH 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

JASH 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

JASH 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

JASH 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

JASH 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

JASH 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

JASH 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

JASH 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

JASH 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

JASH 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

JASH 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

JASH 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

JASH 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

JASH 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

JASH 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

JASH 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

JASH 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

JASH 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

JASH 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

JASH 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

JASH 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

JASH 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

JASH 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

JASH 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

JASH 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

JASH 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

JASH 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

JASH 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

JASH 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

JASH 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

JASH 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

JASH 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

JASH 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

JASH 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

JASH 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

JASH 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

JASH 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

JASH 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

JASH 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

JASH 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

JASH 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

JASH 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

JASH 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

JASH 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

JASH 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

JASH 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

JASH 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

JASH 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

JASH 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

JASH 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

JASH 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

JASH 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

JASH 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

JASH 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

JASH 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

JASH 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

JASH 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

JASH 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

JASH 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

JASH 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

JASH 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

JASH 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

JASH 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

JASH 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

JASH 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

JASH 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

JASH 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

JASH 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

JASH 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

JASH 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

JASH 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

JASH 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

JASH 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

JASH 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

JASH 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

JASH 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

JASH 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

JASH 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

JASH 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

JASH 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

JASH 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

JASH 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

JASH 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

JASH 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

JASH 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

JASH 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

JASH 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

JASH 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

JASH 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

JASH 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

JASH 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

JASH 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

JASH 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

JASH 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

JASH 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

JASH 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

JASH 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

JASH 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

JASH 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

JASH 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

JASH 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

JASH 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

JASH 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

JASH 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

JASH 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

JASH 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

JASH 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

JASH 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

JASH 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

JASH 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

JASH 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

JASH 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

JASH 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

JASH 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

JASH 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

JASH 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

JASH 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

JASH 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

JASH 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

JASH 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

JASH 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

JASH 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

JASH 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

JASH 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

JASH 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

JASH 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

JASH 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

JASH 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

JASH 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

JASH 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

JASH 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

JASH 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

JASH 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

JASH 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

JASH 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

JASH 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

JASH 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

JASH 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

JASH 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

JASH 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

JASH 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

JASH 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

JASH 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

JASH 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

JASH 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

JASH 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

JASH 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

JASH 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

JASH 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

JASH 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

JASH 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

JASH 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

JASH 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

JASH 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

JASH 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

JASH 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

JASH 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

JASH 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

JASH 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

JASH 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

JASH 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

JASH 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

JASH 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

JASH 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

JASH 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

JASH 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

JASH 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

JASH 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

JASH 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

JASH 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

JASH 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

JASH 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

JASH 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

JASH 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

JASH 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

JASH 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

JASH 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

JASH 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

JASH 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

JASH 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

JASH 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

JASH 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

JASH 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

JASH 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

JASH 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

JASH 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

JASH 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

JASH 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

JASH 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

JASH 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

JASH 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

JASH 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

JASH 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

JASH 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

JASH 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

JASH 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

JASH 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

JASH 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

JASH 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

JASH 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

JASH 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

JASH 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

JASH 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

JASH 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

JASH 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

JASH 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

JASH 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

JASH 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

JASH 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

JASH 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

JASH 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

JASH 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

JASH 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

JASH 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

JASH 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

JASH 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

JASH 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

JASH 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

JASH 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

JASH 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

JASH 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

JASH 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

JASH 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

JASH 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

JASH 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

JASH 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

JASH 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

JASH 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

JASH 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

JASH 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

JASH 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

JASH 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

JASH 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

JASH 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

JASH 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

JASH 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

JASH 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

JASH 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

JASH 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

JASH 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

JASH 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

JASH 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

JASH 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

JASH 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

JASH 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

JASH 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

JASH 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

JASH 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

JASH 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

JASH 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

JASH 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

JASH 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

JASH 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

JASH 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

JASH 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

JASH 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

JASH 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

JASH 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

JASH 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

JASH 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

JASH 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

JASH 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

JASH 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

JASH 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

JASH 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

JASH 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

JASH 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

JASH 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

JASH 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

JASH 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

JASH 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

JASH 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

JASH 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

JASH 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

JASH 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

JASH 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

JASH 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

JASH 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

JASH 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

JASH 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

JASH 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

JASH 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

JASH 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

JASH 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

JASH 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

JASH 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

JASH 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

JASH 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

JASH 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

JASH 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

JASH 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

JASH 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

JASH 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

JASH 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

JASH 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

JASH 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

JASH 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

JASH 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

JASH 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

JASH 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

JASH 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

JASH 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

JASH 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

JASH 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

JASH 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

JASH 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

JASH 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

JASH 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

JASH 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

JASH 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

JASH 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

JASH 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

JASH 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

JASH 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

JASH 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

JASH 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

JASH 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

JASH 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

JASH 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

JASH 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

JASH 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

JASH 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

JASH 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

JASH 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

JASH 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

JASH 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

JASH 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

JASH 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

JASH 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

JASH 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

JASH 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

JASH 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

JASH 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

JASH 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

JASH 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

JASH 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

JASH 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

JASH 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

JASH 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

JASH 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

JASH 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

JASH 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

JASH 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

JASH 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

JASH 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

JASH 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

JASH 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

JASH 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

JASH 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

JASH 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

JASH 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

JASH 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

JASH 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

JASH 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

JASH 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

JASH 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

JASH 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

JASH 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

JASH 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

JASH 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

JASH 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

JASH 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

JASH 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

JASH 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

JASH 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

JASH 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

JASH 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

JASH 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

JASH 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

JASH 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

JASH 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

JASH 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

JASH 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

JASH 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

JASH 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

JASH 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

JASH 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

JASH 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

JASH 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

JASH 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

JASH 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

JASH 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

JASH 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

JASH 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

JASH 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

JASH 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

JASH 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

JASH 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

JASH 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

JASH 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

JASH 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

JASH 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

JASH 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

JASH 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

JASH 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

JASH 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

JASH 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

JASH 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

JASH 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

JASH 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

JASH 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

JASH 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

JASH 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

JASH 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

JASH 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

JASH 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

JASH 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

JASH 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

JASH 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

JASH 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

JASH 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

JASH 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

JASH 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

JASH 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

JASH 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

JASH 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

JASH 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

JASH 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

JASH 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

JASH 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

JASH 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

JASH 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

JASH 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

JASH 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

JASH 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

JASH 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

JASH 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

JASH 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

JASH 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

JASH 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

JASH 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

JASH 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

JASH 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

JASH 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

JASH 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

JASH 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

JASH 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

JASH 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

JASH 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

JASH 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

JASH 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

JASH 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

JASH 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

JASH 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

JASH 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

JASH 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

JASH 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

JASH 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

JASH 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

JASH 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

JASH 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

JASH 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

JASH 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

JASH 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

JASH 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

JASH 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

JASH 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

JASH 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

JASH 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

JASH 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

JASH 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

JASH 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

JASH 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

JASH 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

JASH 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

JASH 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

JASH 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

JASH 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

JASH 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

JASH 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

JASH 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

JASH 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

JASH 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

JASH 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

JASH 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

JASH 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

JASH 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

JASH 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

JASH 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

JASH 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

JASH 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

JASH 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

JASH 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

JASH 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

JASH 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

JASH 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

JASH 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

JASH 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

JASH 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

JASH 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

JASH 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

JASH 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

JASH 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

JASH 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

JASH 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

JASH 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

JASH 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

JASH 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

JASH 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

JASH 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

JASH 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

JASH 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

JASH 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

JASH 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

JASH 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

JASH 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

JASH 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

JASH 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

JASH 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

JASH 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

JASH 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

JASH 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

JASH 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

JASH 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

JASH 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

JASH 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

JASH 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

JASH 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

JASH 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

JASH 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

JASH 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

JASH 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

JASH 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

JASH 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

JASH 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

JASH 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

JASH 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

JASH 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

JASH 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

JASH 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

JASH 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

JASH 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

JASH 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

JASH 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

JASH 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

JASH 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

JASH 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

JASH 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

JASH 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

JASH 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

JASH 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

JASH 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

JASH 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

JASH 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

JASH 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

JASH 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

JASH 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

JASH 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

JASH 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

JASH 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

JASH 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

JASH 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

JASH 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

JASH 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

JASH 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

JASH 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

JASH 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

JASH 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

JASH 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

JASH 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

JASH 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

JASH 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

JASH 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

JASH 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

JASH 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

JASH 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

JASH 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

JASH 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

JASH 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

JASH 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

JASH 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

JASH 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

JASH 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

JASH 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

JASH 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

JASH 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

JASH 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

JASH 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

JASH 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

JASH 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

JASH 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

JASH 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

JASH 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

JASH 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

JASH 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

JASH 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

JASH 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

JASH 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

JASH 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

JASH 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

JASH 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

JASH 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

JASH 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

JASH 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

JASH 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

JASH 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

JASH 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

JASH 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

JASH 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

JASH 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

JASH 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

JASH 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

JASH 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

JASH 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

JASH 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

JASH 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

JASH 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

JASH 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

JASH 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

JASH 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

JASH 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

JASH 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

JASH 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

JASH 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

JASH 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

JASH 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

JASH 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

JASH 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

JASH 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

JASH 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

JASH 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

JASH 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

JASH 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

JASH 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

JASH 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

JASH 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

JASH 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

JASH 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

JASH 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

JASH 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

JASH 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

JASH 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

JASH 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

JASH 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

JASH 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

JASH 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

JASH 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

JASH 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

JASH 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

JASH 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

JASH 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

JASH 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

JASH 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

JASH 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

JASH 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

JASH 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

JASH 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

JASH 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

JASH 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

JASH 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

JASH 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

JASH 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

JASH 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

JASH 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

JASH 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

JASH 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

JASH 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

JASH 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

JASH 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

JASH 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

JASH 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

JASH 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

JASH 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

JASH 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

JASH 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

JASH 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

JASH 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

JASH 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

JASH 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

JASH 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

JASH 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

JASH 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

JASH 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

JASH 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

JASH 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

JASH 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

JASH 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

JASH 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

JASH 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

JASH 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

JASH 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

JASH 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

JASH 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

JASH 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

JASH 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

JASH 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

JASH 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

JASH 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

JASH 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

JASH 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

JASH 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

JASH 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

JASH 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

JASH 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

JASH 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

JASH 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

JASH 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

JASH 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

JASH 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

JASH 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

JASH 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

JASH 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

JASH 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

JASH 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

JASH 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

JASH 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

JASH 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

JASH 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

JASH 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

JASH 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

JASH 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

JASH 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

JASH 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

JASH 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

JASH 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

JASH 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

JASH 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

JASH 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

JASH 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

JASH 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

JASH 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

JASH 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

JASH 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

JASH 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

JASH 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

JASH 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

JASH 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

JASH 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

JASH 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

JASH 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

JASH 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

JASH 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

JASH 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

JASH 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

JASH 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

JASH 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

JASH 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

JASH 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

JASH 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

JASH 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

JASH 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

JASH 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

JASH 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

JASH 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

JASH 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

JASH 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

JASH 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

JASH 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

JASH 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

JASH 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

JASH 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

JASH 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

JASH 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

JASH 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

JASH 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

JASH 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

JASH 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

JASH 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

JASH 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

JASH 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

JASH 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

JASH 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

JASH 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

JASH 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

JASH 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

JASH 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

JASH 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

JASH 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

JASH 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

JASH 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

JASH 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

JASH 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

JASH 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

JASH 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

JASH 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

JASH 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

JASH 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

JASH 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

JASH 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

JASH 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

JASH 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

JASH 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

JASH 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

JASH 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

JASH 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

JASH 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

JASH 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

JASH 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

JASH 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

JASH 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

JASH 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

JASH 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

JASH 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

JASH 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

JASH 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

JASH 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

JASH 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

JASH 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

JASH 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

JASH 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

JASH 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

JASH 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

JASH 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

JASH 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

JASH 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

JASH 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

JASH 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

JASH 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

JASH 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

JASH 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

JASH 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

JASH 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

JASH 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

JASH 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

JASH 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

JASH 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

JASH 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

JASH 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

JASH 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

JASH 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

JASH 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

JASH 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

JASH 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

JASH 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

JASH 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

JASH 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

JASH 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

JASH 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

JASH 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

JASH 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

JASH 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

JASH 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

JASH 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

JASH 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

JASH 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

JASH 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

JASH 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

JASH 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

JASH 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

JASH 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

JASH 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

JASH 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

JASH 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

JASH 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

JASH 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

JASH 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

JASH 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

JASH 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

JASH 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

JASH 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

JASH 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

JASH 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

JASH 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

JASH 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

JASH 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

JASH 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

JASH 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

JASH 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

JASH 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

JASH 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

JASH 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

JASH 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

JASH 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

JASH 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

JASH 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

JASH 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

JASH 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

JASH 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

JASH 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

JASH 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

JASH 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

JASH 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

JASH 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

JASH 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

JASH 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

JASH 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

JASH 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

JASH 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

JASH 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

JASH 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

JASH 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

JASH 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

JASH 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

JASH 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

JASH 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

JASH 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

JASH 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

JASH 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

JASH 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

JASH 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

JASH 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

JASH 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

JASH 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

JASH 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

JASH 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

JASH 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

JASH 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

JASH 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

JASH 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

JASH 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

JASH 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

JASH 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

JASH 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

JASH 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

JASH 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

JASH 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

JASH 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

JASH 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

JASH 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

JASH 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

JASH 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

JASH 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

JASH 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

JASH 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

JASH 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

JASH 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

JASH 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

JASH 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

JASH 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

JASH 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

JASH 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

JASH 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

JASH 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

JASH 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

JASH 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

JASH 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

JASH 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

JASH 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

JASH 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

JASH 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

JASH 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

JASH 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

JASH 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

JASH 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

JASH 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

JASH 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

JASH 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

JASH 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

JASH 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

JASH 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

JASH 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

JASH 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

JASH 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

JASH 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

JASH 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

JASH 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

JASH 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

JASH 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

JASH 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

JASH 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

JASH 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

JASH 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

JASH 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

JASH 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

JASH 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

JASH 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

JASH 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

JASH 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

JASH 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

JASH 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

JASH 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

JASH 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

JASH 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

JASH 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

JASH 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

JASH 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

JASH 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

JASH 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

JASH 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

JASH 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

JASH 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

JASH 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

JASH 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

JASH 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

JASH 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

JASH 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

JASH 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

JASH 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

JASH 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

JASH 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

JASH 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

JASH 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

JASH 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

JASH 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

JASH 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

JASH 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

JASH 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

JASH 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

JASH 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

JASH 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

JASH 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

JASH 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

JASH 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

JASH 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

JASH 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

JASH 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

JASH 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

JASH 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

JASH 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

JASH 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

JASH 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

JASH 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

JASH 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

JASH 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

JASH 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

JASH 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

JASH 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

JASH 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

JASH 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

JASH 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

JASH 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

JASH 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

JASH 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

JASH 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

JASH 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

JASH 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

JASH 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

JASH 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

JASH 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

JASH 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

JASH 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

JASH 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

JASH 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

JASH 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

JASH 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

JASH 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

JASH 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

JASH 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

JASH 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

JASH 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

JASH 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

JASH 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

JASH 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

JASH 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

JASH 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

JASH 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

JASH 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

JASH 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

JASH 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

JASH 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

JASH 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

JASH 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

JASH 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

JASH 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

JASH 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

JASH 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

JASH 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

JASH 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

JASH 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

JASH 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

JASH 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

JASH 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

JASH 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

JASH 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

JASH 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

JASH 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

JASH 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

JASH 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

JASH 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

JASH 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

JASH 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

JASH 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

JASH 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

JASH 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

JASH 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

JASH 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

JASH 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

JASH 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

JASH 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

JASH 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

JASH 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

JASH 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

JASH 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

JASH 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

JASH 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

JASH 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

JASH 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

JASH 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

JASH 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

JASH 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

JASH 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

JASH 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

JASH 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

JASH 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

JASH 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

JASH 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

JASH 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

JASH 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

JASH 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

JASH 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

JASH 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

JASH 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

JASH 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

JASH 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

JASH 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

JASH 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

JASH 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

JASH 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

JASH 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

JASH 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

JASH 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

JASH 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

JASH 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

JASH 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

JASH 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

JASH 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

JASH 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

JASH 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

JASH 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

JASH 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

JASH 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

JASH 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

JASH 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

JASH 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

JASH 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

JASH 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

JASH 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

JASH 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

JASH 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

JASH 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

JASH 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

JASH 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

JASH 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

JASH 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

JASH 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

JASH 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

JASH 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

JASH 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

JASH 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

JASH 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

JASH 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

JASH 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

JASH 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

JASH 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

JASH 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

JASH 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

JASH 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

JASH 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

JASH 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

JASH 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

JASH 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

JASH 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

JASH 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

JASH 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

JASH 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

JASH 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

JASH 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

JASH 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

JASH 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

JASH 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

JASH 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

JASH 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

JASH 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

JASH 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

JASH 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

JASH 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

JASH 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

JASH 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

JASH 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

JASH 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

JASH 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

JASH 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

JASH 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

JASH 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

JASH 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

JASH 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

JASH 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

JASH 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

JASH 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

JASH 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

JASH 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

JASH 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

JASH 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

JASH 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

JASH 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

JASH 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

JASH 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

JASH 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

JASH 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

JASH 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

JASH 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

JASH 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

JASH 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

JASH 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

JASH 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

JASH 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

JASH 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

JASH 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

JASH 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

JASH 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

JASH 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

JASH 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

JASH 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

JASH 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

JASH 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

JASH 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

JASH 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

JASH 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

JASH 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

JASH 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

JASH 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

JASH 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

JASH 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

JASH 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

JASH 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

JASH 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

JASH 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

JASH 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

JASH 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

JASH 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

JASH 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

JASH 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

JASH 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

JASH 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

JASH 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

JASH 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

JASH 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

JASH 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

JASH 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

JASH 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

JASH 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

JASH 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

JASH 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

JASH 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

JASH 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

JASH 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

JASH 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

JASH 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

JASH 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

JASH 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

JASH 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

JASH 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

JASH 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

JASH 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

JASH 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

JASH 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

JASH 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

JASH 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

JASH 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

JASH 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

JASH 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

JASH 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

JASH 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

JASH 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

JASH 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

JASH 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

JASH 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

JASH 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

JASH 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

JASH 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

JASH 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

JASH 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

JASH 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

JASH 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

JASH 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

JASH 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

JASH 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

JASH 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

JASH 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

JASH 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

JASH 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

JASH 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

JASH 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

JASH 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

JASH 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

JASH 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

JASH 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

JASH 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

JASH 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

JASH 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

JASH 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

JASH 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

JASH 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

JASH 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

JASH 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

JASH 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

JASH 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

JASH 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

JASH 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

JASH 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

JASH 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

JASH 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

JASH 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

JASH 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

JASH 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

JASH 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

JASH 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

JASH 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

JASH 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

JASH 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

JASH 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

JASH 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

JASH 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

JASH 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

JASH 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

JASH 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

JASH 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

JASH 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

JASH 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

JASH 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

JASH 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

JASH 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

JASH 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

JASH 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

JASH 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

JASH 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

JASH 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

JASH 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

JASH 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

JASH 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

JASH 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

JASH 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

JASH 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

JASH 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

JASH 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

JASH 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

JASH 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

JASH 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

JASH 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

JASH 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

JASH 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

JASH 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

JASH 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

JASH 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

JASH 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

JASH 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

JASH 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

JASH 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

JASH 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

JASH 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

JASH 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

JASH 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

JASH 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

JASH 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

JASH 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

JASH 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

JASH 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

JASH 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

JASH 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

JASH 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

JASH 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

JASH 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

JASH 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

JASH 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

JASH 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

JASH 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

JASH 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

JASH 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

JASH 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

JASH 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

JASH 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

JASH 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

JASH 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

JASH 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

JASH 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

JASH 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

JASH 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

JASH 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

JASH 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

JASH 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

JASH 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

JASH 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

JASH 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

JASH 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

JASH 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

JASH 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

JASH 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

JASH 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

JASH 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

JASH 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

JASH 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

JASH 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

JASH 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

JASH 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

JASH 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

JASH 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

JASH 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

JASH 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

JASH 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

JASH 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

JASH 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

JASH 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

JASH 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

JASH 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

JASH 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

JASH 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

JASH 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

JASH 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

JASH 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

JASH 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

JASH 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

JASH 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

JASH 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

JASH 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

JASH 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

JASH 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

JASH 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

JASH 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

JASH 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

JASH 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

JASH 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

JASH 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

JASH 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

JASH 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

JASH 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

JASH 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

JASH 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

JASH 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

JASH 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

JASH 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

JASH 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

JASH 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

JASH 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

JASH 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

JASH 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

JASH 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

JASH 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

JASH 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

JASH 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

JASH 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

JASH 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

JASH 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

JASH 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

JASH 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

JASH 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

JASH 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

JASH 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

JASH 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

JASH 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

JASH 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

JASH 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

JASH 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

JASH 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

JASH 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

JASH 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

JASH 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

JASH 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

JASH 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

JASH 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

JASH 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

JASH 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

JASH 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

JASH 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

JASH 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

JASH 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

JASH 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

JASH 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

JASH 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

JASH 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

JASH 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

JASH 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

JASH 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

JASH 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

JASH 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

JASH 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

JASH 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

JASH 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

JASH 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

JASH 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

JASH 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

JASH 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

JASH 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

JASH 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

JASH 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

JASH 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

JASH 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

JASH 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

JASH 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

JASH 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

JASH 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

JASH 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

JASH 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

JASH 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

JASH 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

JASH 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

JASH 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

JASH 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

JASH 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

JASH 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

JASH 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

JASH 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

JASH 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

JASH 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

JASH 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

JASH 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

JASH 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

JASH 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

JASH 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

JASH 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

JASH 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

JASH 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

JASH 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

JASH 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

JASH 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

JASH 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

JASH 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

JASH 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

JASH 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

JASH 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

JASH 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

JASH 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

JASH 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

JASH 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

JASH 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

JASH 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

JASH 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

JASH 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

JASH 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

JASH 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

JASH 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

JASH 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

JASH 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

JASH 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

JASH 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

JASH 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

JASH 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

JASH 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

JASH 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

JASH 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

JASH 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

JASH 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

JASH 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

JASH 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

JASH 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

JASH 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

JASH 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

JASH 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

JASH 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

JASH 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

JASH 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

JASH 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

JASH 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

JASH 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

JASH 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

JASH 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

JASH 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

JASH 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

JASH 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

JASH 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

JASH 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

JASH 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

JASH 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

JASH 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

JASH 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

JASH 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

JASH 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

JASH 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

JASH 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

JASH 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

JASH 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

JASH 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

JASH 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

JASH 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

JASH 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

JASH 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

JASH 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

JASH 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

JASH 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

JASH 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

JASH 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

JASH 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

JASH 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

JASH 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

JASH 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

JASH 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

JASH 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

JASH 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

JASH 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

JASH 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

JASH 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

JASH 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

JASH 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

JASH 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

JASH 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

JASH 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

JASH 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

JASH 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

JASH 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

JASH 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

JASH 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

JASH 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

JASH 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

JASH 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

JASH 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

JASH 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

JASH 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

JASH 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

JASH 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

JASH 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

JASH 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

JASH 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

JASH 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

JASH 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

JASH 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

JASH 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

JASH 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

JASH 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

JASH 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

JASH 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

JASH 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

JASH 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

JASH 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

JASH 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

JASH 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

JASH 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

JASH 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

JASH 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

JASH 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

JASH 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

JASH 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

JASH 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

JASH 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

JASH 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

JASH 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

JASH 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

JASH 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

JASH 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

JASH 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

JASH 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

JASH 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

JASH 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

JASH 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

JASH 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

JASH 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

JASH 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

JASH 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

JASH 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

JASH 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

JASH 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

JASH 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

JASH 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

JASH 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

JASH 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

JASH 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

JASH 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

JASH 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

JASH 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

JASH 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

JASH 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

JASH 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

JASH 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

JASH 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

JASH 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

JASH 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

JASH 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

JASH 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

JASH 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

JASH 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

JASH 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

JASH 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

JASH 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

JASH 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

JASH 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

JASH 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

JASH 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

JASH 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

JASH 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

JASH 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

JASH 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

JASH 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

JASH 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

JASH 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

JASH 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

JASH 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

JASH 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

JASH 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

JASH 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

JASH 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

JASH 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

JASH 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

JASH 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

JASH 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

JASH 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

JASH 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

JASH 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

JASH 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

JASH 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

JASH 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

JASH 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

JASH 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

JASH 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

JASH 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

JASH 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

JASH 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

JASH 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

JASH 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

JASH 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

JASH 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

JASH 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

JASH 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

JASH 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

JASH 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

JASH 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

JASH 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

JASH 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

JASH 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

JASH 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

JASH 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

JASH 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

JASH 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

JASH 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

JASH 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

JASH 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

JASH 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

JASH 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

JASH 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

JASH 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

JASH 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

JASH 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

JASH 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

JASH 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

JASH 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

JASH 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

JASH 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

JASH 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

JASH 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

JASH 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

JASH 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

JASH 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

JASH 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

JASH 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

JASH 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

JASH 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

JASH 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

JASH 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

JASH 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

JASH 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

JASH 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

JASH 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

JASH 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

JASH 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

JASH 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

JASH 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

JASH 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

JASH 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

JASH 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

JASH 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

JASH 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

JASH 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

JASH 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

JASH 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

JASH 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

JASH 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

JASH 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

JASH 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

JASH 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

JASH 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

JASH 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

JASH 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

JASH 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

JASH 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

JASH 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

JASH 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

JASH 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

JASH 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

JASH 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

JASH 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

JASH 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

JASH 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

JASH 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

JASH 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

JASH 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

JASH 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

JASH 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

JASH 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

JASH 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

JASH 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

JASH 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

JASH 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

JASH 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

JASH 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

JASH 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

JASH 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

JASH 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

JASH 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

JASH 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

JASH 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

JASH 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

JASH 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

JASH 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

JASH 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

JASH 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

JASH 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

JASH 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

JASH 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

JASH 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

JASH 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

JASH 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

JASH 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

JASH 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

JASH 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

JASH 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

JASH 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

JASH 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

JASH 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

JASH 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

JASH 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

JASH 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

JASH 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

JASH 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

JASH 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

JASH 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

JASH 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

JASH 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

JASH 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

JASH 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

JASH 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

JASH 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

JASH 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

JASH 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

JASH 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

JASH 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

JASH 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

JASH 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

JASH 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

JASH 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

JASH 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

JASH 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

JASH 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

JASH 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

JASH 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

JASH 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

JASH 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

JASH 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

JASH 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

JASH 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

JASH 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

JASH 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

JASH 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

JASH 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

JASH 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

JASH 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

JASH 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

JASH 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

JASH 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

JASH 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

JASH 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

JASH 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

JASH 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

JASH 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

JASH 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

JASH 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

JASH 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

JASH 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

JASH 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

JASH 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

JASH 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

JASH 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

JASH 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

JASH 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

JASH 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

JASH 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

JASH 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

JASH 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

JASH 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

JASH 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

JASH 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

JASH 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

JASH 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

JASH 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

JASH 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

JASH 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

JASH 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

JASH 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

JASH 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

JASH 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

JASH 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

JASH 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

JASH 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

JASH 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

JASH 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

JASH 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

JASH 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

JASH 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

JASH 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

JASH 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

JASH 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

JASH 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

JASH 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

JASH 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

JASH 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

JASH 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

JASH 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

JASH 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

JASH 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

JASH 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

JASH 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

JASH 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

JASH 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

JASH 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

JASH 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

JASH 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

JASH 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

JASH 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

JASH 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

JASH 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

JASH 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

JASH 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

JASH 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

JASH 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

JASH 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

JASH 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

JASH 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

JASH 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

JASH 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

JASH 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

JASH 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

JASH 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

JASH 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

JASH 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

JASH 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

JASH 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

JASH 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

JASH 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

JASH 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

JASH 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

JASH 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

JASH 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

JASH 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

JASH 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

JASH 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

JASH 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

JASH 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

JASH 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

JASH 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

JASH 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

JASH 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

JASH 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

JASH 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

JASH 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

JASH 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

JASH 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

JASH 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

JASH 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

JASH 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

JASH 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

JASH 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

JASH 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

JASH 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

JASH 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

JASH 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

JASH 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

JASH 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

JASH 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

JASH 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

JASH 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

JASH 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

JASH 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

JASH 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

JASH 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

JASH 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

JASH 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

JASH 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

JASH 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

JASH 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

JASH 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

JASH 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

JASH 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

JASH 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

JASH 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

JASH 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

JASH 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

JASH 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

JASH 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

JASH 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

JASH 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

JASH 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

JASH 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

JASH 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

JASH 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

JASH 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

JASH 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

JASH 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

JASH 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

JASH 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

JASH 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

JASH 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

JASH 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

JASH 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

JASH 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

JASH 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

JASH 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

JASH 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

JASH 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

JASH 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

JASH 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

JASH 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

JASH 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

JASH 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

JASH 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

JASH 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

JASH 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

JASH 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

JASH 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

JASH 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

JASH 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

JASH 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

JASH 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

JASH 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

JASH 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

JASH 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

JASH 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

JASH 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

JASH 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

JASH 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

JASH 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

JASH 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

JASH 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

JASH 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

JASH 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

JASH 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

JASH 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

JASH 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

JASH 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

JASH 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

JASH 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

JASH 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

JASH 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

JASH 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

JASH 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

JASH 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

JASH 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

JASH 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

JASH 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

JASH 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

JASH 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

JASH 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

JASH 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

JASH 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

JASH 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

JASH 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

JASH 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

JASH 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

JASH 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

JASH 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

JASH 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

JASH 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

JASH 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

JASH 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

JASH 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

JASH 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

JASH 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

JASH 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

JASH 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

JASH 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

JASH 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

JASH 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

JASH 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

JASH 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

JASH 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

JASH 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

JASH 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

JASH 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

JASH 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

JASH 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

JASH 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

JASH 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

JASH 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

JASH 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

JASH 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

JASH 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

JASH 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

JASH 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

JASH 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

JASH 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

JASH 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

JASH 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

JASH 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

JASH 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

JASH 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

JASH 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

JASH 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

JASH 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

JASH 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

JASH 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

JASH 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

JASH 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

JASH 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

JASH 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

JASH 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

JASH 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

JASH 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

JASH 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

JASH 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

JASH 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

JASH 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

JASH 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

JASH 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

JASH 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

JASH 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

JASH 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

JASH 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

JASH 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

JASH 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

JASH 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

JASH 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

JASH 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

JASH 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

JASH 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

JASH 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

JASH 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

JASH 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

JASH 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

JASH 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

JASH 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

JASH 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

JASH 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

JASH 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

JASH 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

JASH 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

JASH 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

JASH 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

JASH 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

JASH 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

JASH 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

JASH 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

JASH 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

JASH 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

JASH 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

JASH 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

JASH 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

JASH 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

JASH 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

JASH 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

JASH 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

JASH 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

JASH 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

JASH 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

JASH 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

JASH 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

JASH 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

JASH 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

JASH 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

JASH 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

JASH 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

JASH 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

JASH 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

JASH 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

JASH 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

JASH 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

JASH 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

JASH 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

JASH 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

JASH 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

JASH 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

JASH 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

JASH 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

JASH 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

JASH 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

JASH 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

JASH 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

JASH 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

JASH 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

JASH 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

JASH 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

JASH 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

JASH 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

JASH 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

JASH 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

JASH 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

JASH 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

JASH 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

JASH 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

JASH 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

JASH 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

JASH 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

JASH 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

JASH 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

JASH 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

JASH 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

JASH 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

JASH 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

JASH 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

JASH 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

JASH 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

JASH 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

JASH 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

JASH 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

JASH 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

JASH 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

JASH 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

JASH 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

JASH 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

JASH 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

JASH 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

JASH 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

JASH 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

JASH 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

JASH 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

JASH 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

JASH 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

JASH 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

JASH 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

JASH 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

JASH 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

JASH 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

JASH 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

JASH 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

JASH 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

JASH 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

JASH 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

JASH 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

JASH 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

JASH 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

JASH 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

JASH 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

JASH 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

JASH 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

JASH 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

JASH 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

JASH 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

JASH 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

JASH 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

JASH 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

JASH 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

JASH 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

JASH 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

JASH 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

JASH 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

JASH 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

JASH 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

JASH 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

JASH 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

JASH 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

JASH 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

JASH 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

JASH 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

JASH 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

JASH 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

JASH 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

JASH 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

JASH 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

JASH 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

JASH 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

JASH 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

JASH 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

JASH 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

JASH 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

JASH 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

JASH 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

JASH 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

JASH 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

JASH 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

JASH 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

JASH 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

JASH 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

JASH 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

JASH 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

JASH 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

JASH 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

JASH 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

JASH 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

JASH 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

JASH 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

JASH 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

JASH 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

JASH 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

JASH 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

JASH 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

JASH 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

JASH 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

JASH 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

JASH 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

JASH 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

JASH 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

JASH 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

JASH 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

JASH 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

JASH 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

JASH 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

JASH 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

JASH 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

JASH 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

JASH 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

JASH 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

JASH 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

JASH 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

JASH 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

JASH 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

JASH 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

JASH 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

JASH 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

JASH 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

JASH 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

JASH 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

JASH 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

JASH 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

JASH 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

JASH 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

JASH 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

JASH 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

JASH 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

JASH 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

JASH 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

JASH 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

JASH 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

JASH 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

JASH 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

JASH 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

JASH 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

JASH 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

JASH 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

JASH 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

JASH 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

JASH 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

JASH 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

JASH 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

JASH 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

JASH 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

JASH 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

JASH 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

JASH 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

JASH 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

JASH 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

JASH 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

JASH 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

JASH 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

JASH 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

JASH 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

JASH 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

JASH 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

JASH 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

JASH 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

JASH 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

JASH 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

JASH 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

JASH 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

JASH 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

JASH 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

JASH 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

JASH 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

JASH 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

JASH 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

JASH 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

JASH 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

JASH 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

JASH 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

JASH 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

JASH 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

JASH 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

JASH 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

JASH 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

JASH 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

JASH 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

JASH 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

JASH 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

JASH 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

JASH 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

JASH 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

JASH 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

JASH 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

JASH 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

JASH 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

JASH 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

JASH 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

JASH 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

JASH 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

JASH 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

JASH 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

JASH 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

JASH 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

JASH 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

JASH 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

JASH 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

JASH 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

JASH 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

JASH 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

JASH 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

JASH 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

JASH 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

JASH 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

JASH 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

JASH 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

JASH 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

JASH 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

JASH 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

JASH 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

JASH 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

JASH 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

JASH 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

JASH 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

JASH 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

JASH 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

JASH 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

JASH 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

JASH 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

JASH 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

JASH 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

JASH 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

JASH 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

JASH 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

JASH 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

JASH 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

JASH 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

JASH 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

JASH 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

JASH 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

JASH 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

JASH 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

JASH 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

JASH 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

JASH 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

JASH 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

JASH 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

JASH 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

JASH 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

JASH 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

JASH 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

JASH 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

JASH 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

JASH 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

JASH 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

JASH 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

JASH 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

JASH 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

JASH 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

JASH 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

JASH 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

JASH 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

JASH 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

JASH 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

JASH 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

JASH 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

JASH 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

JASH 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

JASH 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

JASH 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

JASH 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

JASH 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

JASH 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

JASH 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

JASH 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

JASH 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

JASH 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

JASH 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

JASH 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

JASH 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

JASH 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

JASH 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

JASH 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

JASH 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

JASH 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

JASH 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

JASH 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

JASH 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

JASH 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

JASH 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

JASH 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

JASH 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

JASH 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

JASH 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

JASH 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

JASH 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

JASH 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

JASH 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

JASH 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

JASH 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

JASH 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

JASH 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

JASH 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

JASH 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

JASH 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

JASH 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

JASH 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

JASH 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

JASH 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

JASH 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

JASH 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

JASH 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

JASH 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

JASH 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

JASH 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

JASH 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

JASH 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

JASH 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

JASH 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

JASH 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

JASH 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

JASH 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

JASH 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

JASH 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

JASH 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

JASH 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

JASH 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

JASH 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

JASH 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

JASH 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

JASH 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

JASH 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

JASH 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

JASH 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

JASH 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

JASH 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

JASH 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

JASH 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

JASH 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

JASH 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

JASH 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

JASH 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

JASH 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

JASH 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

JASH 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

JASH 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

JASH 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

JASH 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

JASH 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

JASH 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

JASH 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

JASH 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

JASH 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

JASH 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

JASH 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

JASH 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

JASH 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

JASH 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

JASH 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

JASH 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

JASH 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

JASH 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

JASH 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

JASH 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

JASH 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

JASH 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

JASH 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

JASH 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

JASH 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

JASH 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

*FILE6*

MILIND 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

MILIND 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

MILIND 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

MILIND 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

MILIND 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

MILIND 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

MILIND 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

MILIND 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

MILIND 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

MILIND 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

MILIND 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

MILIND 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

MILIND 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

MILIND 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

MILIND 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

MILIND 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

MILIND 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

MILIND 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

MILIND 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

MILIND 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

MILIND 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

MILIND 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

MILIND 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

MILIND 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

MILIND 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

MILIND 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

MILIND 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

MILIND 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

MILIND 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

MILIND 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

MILIND 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

MILIND 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

MILIND 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

MILIND 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

MILIND 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

MILIND 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

MILIND 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

MILIND 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

MILIND 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

MILIND 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

MILIND 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

MILIND 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

MILIND 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

MILIND 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

MILIND 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

MILIND 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

MILIND 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

MILIND 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

MILIND 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

MILIND 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

MILIND 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

MILIND 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

MILIND 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

MILIND 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

MILIND 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

MILIND 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

MILIND 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

MILIND 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

MILIND 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

MILIND 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

MILIND 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

MILIND 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

MILIND 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

MILIND 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

MILIND 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

MILIND 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

MILIND 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

MILIND 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

MILIND 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

MILIND 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

MILIND 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

MILIND 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

MILIND 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

MILIND 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

MILIND 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

MILIND 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

MILIND 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

MILIND 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

MILIND 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

MILIND 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

MILIND 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

MILIND 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

MILIND 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

MILIND 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

MILIND 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

MILIND 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

MILIND 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

MILIND 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

MILIND 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

MILIND 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

MILIND 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

MILIND 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

MILIND 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

MILIND 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

MILIND 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

MILIND 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

MILIND 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

MILIND 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

MILIND 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

MILIND 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

MILIND 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

MILIND 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

MILIND 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

MILIND 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

MILIND 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

MILIND 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

MILIND 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

MILIND 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

MILIND 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

MILIND 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

MILIND 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

MILIND 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

MILIND 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

MILIND 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

MILIND 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

MILIND 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

MILIND 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

MILIND 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

MILIND 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

MILIND 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

MILIND 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

MILIND 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

MILIND 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

MILIND 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

MILIND 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

MILIND 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

MILIND 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

MILIND 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

MILIND 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

MILIND 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

MILIND 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

MILIND 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

MILIND 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

MILIND 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

MILIND 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

MILIND 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

MILIND 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

MILIND 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

MILIND 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

MILIND 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

MILIND 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

MILIND 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

MILIND 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

MILIND 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

MILIND 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

MILIND 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

MILIND 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

MILIND 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

MILIND 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

MILIND 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

MILIND 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

MILIND 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

MILIND 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

MILIND 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

MILIND 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

MILIND 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

MILIND 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

MILIND 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

MILIND 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

MILIND 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

MILIND 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

MILIND 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

MILIND 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

MILIND 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

MILIND 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

MILIND 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

MILIND 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

MILIND 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

MILIND 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

MILIND 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

MILIND 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

MILIND 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

MILIND 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

MILIND 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

MILIND 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

MILIND 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

MILIND 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

MILIND 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

MILIND 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

MILIND 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

MILIND 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

MILIND 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

MILIND 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

MILIND 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

MILIND 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

MILIND 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

MILIND 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

MILIND 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

MILIND 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

MILIND 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

MILIND 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

MILIND 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

MILIND 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

MILIND 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

MILIND 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

MILIND 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

MILIND 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

MILIND 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

MILIND 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

MILIND 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

MILIND 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

MILIND 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

MILIND 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

MILIND 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

MILIND 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

MILIND 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

MILIND 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

MILIND 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

MILIND 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

MILIND 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

MILIND 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

MILIND 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

MILIND 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

MILIND 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

MILIND 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

MILIND 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

MILIND 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

MILIND 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

MILIND 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

MILIND 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

MILIND 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

MILIND 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

MILIND 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

MILIND 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

MILIND 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

MILIND 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

MILIND 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

MILIND 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

MILIND 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

MILIND 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

MILIND 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

MILIND 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

MILIND 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

MILIND 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

MILIND 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

MILIND 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

MILIND 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

MILIND 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

MILIND 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

MILIND 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

MILIND 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

MILIND 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

MILIND 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

MILIND 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

MILIND 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

MILIND 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

MILIND 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

MILIND 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

MILIND 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

MILIND 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

MILIND 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

MILIND 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

MILIND 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

MILIND 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

MILIND 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

MILIND 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

MILIND 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

MILIND 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

MILIND 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

MILIND 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

MILIND 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

MILIND 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

MILIND 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

MILIND 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

MILIND 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

MILIND 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

MILIND 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

MILIND 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

MILIND 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

MILIND 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

MILIND 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

MILIND 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

MILIND 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

MILIND 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

MILIND 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

MILIND 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

MILIND 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

MILIND 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

MILIND 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

MILIND 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

MILIND 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

MILIND 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

MILIND 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

MILIND 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

MILIND 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

MILIND 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

MILIND 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

MILIND 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

MILIND 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

MILIND 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

MILIND 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

MILIND 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

MILIND 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

MILIND 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

MILIND 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

MILIND 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

MILIND 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

MILIND 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

MILIND 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

MILIND 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

MILIND 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

MILIND 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

MILIND 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

MILIND 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

MILIND 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

MILIND 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

MILIND 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

MILIND 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

MILIND 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

MILIND 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

MILIND 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

MILIND 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

MILIND 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

MILIND 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

MILIND 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

MILIND 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

MILIND 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

MILIND 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

MILIND 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

MILIND 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

MILIND 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

MILIND 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

MILIND 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

MILIND 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

MILIND 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

MILIND 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

MILIND 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

MILIND 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

MILIND 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

MILIND 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

MILIND 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

MILIND 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

MILIND 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

MILIND 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

MILIND 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

MILIND 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

MILIND 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

MILIND 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

MILIND 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

MILIND 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

MILIND 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

MILIND 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

MILIND 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

MILIND 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

MILIND 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

MILIND 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

MILIND 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

MILIND 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

MILIND 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

MILIND 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

MILIND 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

MILIND 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

MILIND 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

MILIND 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

MILIND 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

MILIND 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

MILIND 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

MILIND 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

MILIND 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

MILIND 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

MILIND 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

MILIND 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

MILIND 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

MILIND 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

MILIND 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

MILIND 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

MILIND 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

MILIND 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

MILIND 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

MILIND 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

MILIND 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

MILIND 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

MILIND 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

MILIND 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

MILIND 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

MILIND 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

MILIND 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

MILIND 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

MILIND 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

MILIND 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

MILIND 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

MILIND 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

MILIND 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

MILIND 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

MILIND 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

MILIND 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

MILIND 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

MILIND 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

MILIND 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

MILIND 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

MILIND 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

MILIND 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

MILIND 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

MILIND 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

MILIND 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

MILIND 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

MILIND 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

MILIND 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

MILIND 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

MILIND 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

MILIND 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

MILIND 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

MILIND 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

MILIND 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

MILIND 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

MILIND 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

MILIND 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

MILIND 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

MILIND 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

MILIND 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

MILIND 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

MILIND 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

MILIND 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

MILIND 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

MILIND 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

MILIND 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

MILIND 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

MILIND 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

MILIND 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

MILIND 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

MILIND 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

MILIND 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

MILIND 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

MILIND 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

MILIND 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

MILIND 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

MILIND 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

MILIND 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

MILIND 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

MILIND 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

MILIND 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

MILIND 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

MILIND 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

MILIND 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

MILIND 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

MILIND 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

MILIND 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

MILIND 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

MILIND 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

MILIND 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

MILIND 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

MILIND 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

MILIND 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

MILIND 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

MILIND 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

MILIND 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

MILIND 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

MILIND 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

MILIND 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

MILIND 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

MILIND 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

MILIND 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

MILIND 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

MILIND 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

MILIND 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

MILIND 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

MILIND 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

MILIND 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

MILIND 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

MILIND 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

MILIND 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

MILIND 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

MILIND 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

MILIND 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

MILIND 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

MILIND 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

MILIND 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

MILIND 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

MILIND 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

MILIND 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

MILIND 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

MILIND 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

MILIND 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

MILIND 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

MILIND 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

MILIND 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

MILIND 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

MILIND 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

MILIND 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

MILIND 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

MILIND 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

MILIND 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

MILIND 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

MILIND 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

MILIND 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

MILIND 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

MILIND 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

MILIND 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

MILIND 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

MILIND 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

MILIND 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

MILIND 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

MILIND 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

MILIND 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

MILIND 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

MILIND 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

MILIND 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

MILIND 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

MILIND 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

MILIND 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

MILIND 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

MILIND 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

MILIND 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

MILIND 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

MILIND 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

MILIND 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

MILIND 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

MILIND 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

MILIND 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

MILIND 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

MILIND 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

MILIND 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

MILIND 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

MILIND 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

MILIND 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

MILIND 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

MILIND 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

MILIND 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

MILIND 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

MILIND 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

MILIND 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

MILIND 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

MILIND 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

MILIND 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

MILIND 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

MILIND 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

MILIND 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

MILIND 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

MILIND 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

MILIND 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

MILIND 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

MILIND 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

MILIND 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

MILIND 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

MILIND 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

MILIND 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

MILIND 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

MILIND 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

MILIND 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

MILIND 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

MILIND 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

MILIND 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

MILIND 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

MILIND 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

MILIND 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

MILIND 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

MILIND 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

MILIND 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

MILIND 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

MILIND 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

MILIND 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

MILIND 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

MILIND 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

MILIND 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

MILIND 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

MILIND 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

MILIND 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

MILIND 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

MILIND 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

MILIND 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

MILIND 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

MILIND 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

MILIND 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

MILIND 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

MILIND 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

MILIND 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

MILIND 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

MILIND 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

MILIND 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

MILIND 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

MILIND 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

MILIND 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

MILIND 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

MILIND 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

MILIND 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

MILIND 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

MILIND 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

MILIND 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

MILIND 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

MILIND 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

MILIND 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

MILIND 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

MILIND 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

MILIND 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

MILIND 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

MILIND 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

MILIND 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

MILIND 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

MILIND 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

MILIND 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

MILIND 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

MILIND 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

MILIND 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

MILIND 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

MILIND 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

MILIND 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

MILIND 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

MILIND 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

MILIND 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

MILIND 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

MILIND 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

MILIND 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

MILIND 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

MILIND 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

MILIND 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

MILIND 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

MILIND 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

MILIND 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

MILIND 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

MILIND 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

MILIND 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

MILIND 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

MILIND 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

MILIND 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

MILIND 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

MILIND 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

MILIND 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

MILIND 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

MILIND 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

MILIND 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

MILIND 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

MILIND 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

MILIND 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

MILIND 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

MILIND 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

MILIND 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

MILIND 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

MILIND 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

MILIND 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

MILIND 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

MILIND 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

MILIND 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

MILIND 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

MILIND 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

MILIND 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

MILIND 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

MILIND 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

MILIND 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

MILIND 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

MILIND 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

MILIND 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

MILIND 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

MILIND 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

MILIND 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

MILIND 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

MILIND 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

MILIND 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

MILIND 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

MILIND 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

MILIND 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

MILIND 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

MILIND 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

MILIND 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

MILIND 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

MILIND 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

MILIND 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

MILIND 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

MILIND 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

MILIND 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

MILIND 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

MILIND 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

MILIND 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

MILIND 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

MILIND 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

MILIND 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

MILIND 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

MILIND 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

MILIND 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

MILIND 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

MILIND 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

MILIND 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

MILIND 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

MILIND 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

MILIND 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

MILIND 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

MILIND 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

MILIND 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

MILIND 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

MILIND 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

MILIND 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

MILIND 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

MILIND 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

MILIND 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

MILIND 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

MILIND 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

MILIND 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

MILIND 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

MILIND 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

MILIND 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

MILIND 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

MILIND 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

MILIND 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

MILIND 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

MILIND 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

MILIND 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

MILIND 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

MILIND 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

MILIND 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

MILIND 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

MILIND 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

MILIND 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

MILIND 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

MILIND 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

MILIND 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

MILIND 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

MILIND 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

MILIND 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

MILIND 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

MILIND 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

MILIND 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

MILIND 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

MILIND 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

MILIND 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

MILIND 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

MILIND 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

MILIND 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

MILIND 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

MILIND 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

MILIND 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

MILIND 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

MILIND 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

MILIND 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

MILIND 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

MILIND 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

MILIND 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

MILIND 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

MILIND 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

MILIND 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

MILIND 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

MILIND 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

MILIND 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

MILIND 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

MILIND 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

MILIND 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

MILIND 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

MILIND 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

MILIND 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

MILIND 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

MILIND 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

MILIND 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

MILIND 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

MILIND 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

MILIND 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

MILIND 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

MILIND 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

MILIND 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

MILIND 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

MILIND 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

MILIND 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

MILIND 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

MILIND 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

MILIND 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

MILIND 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

MILIND 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

MILIND 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

MILIND 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

MILIND 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

MILIND 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

MILIND 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

MILIND 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

MILIND 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

MILIND 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

MILIND 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

MILIND 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

MILIND 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

MILIND 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

MILIND 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

MILIND 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

MILIND 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

MILIND 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

MILIND 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

MILIND 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

MILIND 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

MILIND 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

MILIND 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

MILIND 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

MILIND 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

MILIND 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

MILIND 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

MILIND 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

MILIND 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

MILIND 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

MILIND 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

MILIND 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

MILIND 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

MILIND 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

MILIND 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

MILIND 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

MILIND 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

MILIND 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

MILIND 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

MILIND 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

MILIND 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

MILIND 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

MILIND 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

MILIND 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

MILIND 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

MILIND 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

MILIND 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

MILIND 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

MILIND 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

MILIND 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

MILIND 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

MILIND 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

MILIND 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

MILIND 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

MILIND 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

MILIND 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

MILIND 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

MILIND 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

MILIND 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

MILIND 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

MILIND 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

MILIND 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

MILIND 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

MILIND 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

MILIND 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

MILIND 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

MILIND 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

MILIND 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

MILIND 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

MILIND 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

MILIND 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

MILIND 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

MILIND 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

MILIND 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

MILIND 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

MILIND 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

MILIND 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

MILIND 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

MILIND 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

MILIND 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

MILIND 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

MILIND 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

MILIND 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

MILIND 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

MILIND 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

MILIND 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

MILIND 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

MILIND 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

MILIND 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

MILIND 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

MILIND 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

MILIND 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

MILIND 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

MILIND 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

MILIND 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

MILIND 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

MILIND 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

MILIND 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

MILIND 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

MILIND 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

MILIND 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

MILIND 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

MILIND 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

MILIND 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

MILIND 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

MILIND 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

MILIND 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

MILIND 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

MILIND 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

MILIND 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

MILIND 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

MILIND 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

MILIND 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

MILIND 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

MILIND 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

MILIND 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

MILIND 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

MILIND 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

MILIND 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

MILIND 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

MILIND 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

MILIND 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

MILIND 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

MILIND 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

MILIND 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

MILIND 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

MILIND 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

MILIND 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

MILIND 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

MILIND 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

MILIND 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

MILIND 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

MILIND 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

MILIND 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

MILIND 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

MILIND 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

MILIND 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

MILIND 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

MILIND 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

MILIND 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

MILIND 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

MILIND 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

MILIND 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

MILIND 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

MILIND 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

MILIND 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

MILIND 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

MILIND 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

MILIND 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

MILIND 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

MILIND 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

MILIND 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

MILIND 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

MILIND 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

MILIND 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

MILIND 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

MILIND 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

MILIND 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

MILIND 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

MILIND 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

MILIND 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

MILIND 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

MILIND 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

MILIND 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

MILIND 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

MILIND 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

MILIND 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

MILIND 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

MILIND 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

MILIND 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

MILIND 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

MILIND 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

MILIND 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

MILIND 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

MILIND 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

MILIND 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

MILIND 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

MILIND 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

MILIND 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

MILIND 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

MILIND 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

MILIND 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

MILIND 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

MILIND 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

MILIND 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

MILIND 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

MILIND 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

MILIND 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

MILIND 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

MILIND 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

MILIND 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

MILIND 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

MILIND 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

MILIND 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

MILIND 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

MILIND 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

MILIND 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

MILIND 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

MILIND 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

MILIND 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

MILIND 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

MILIND 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

MILIND 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

MILIND 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

MILIND 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

MILIND 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

MILIND 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

MILIND 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

MILIND 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

MILIND 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

MILIND 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

MILIND 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

MILIND 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

MILIND 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

MILIND 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

MILIND 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

MILIND 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

MILIND 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

MILIND 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

MILIND 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

MILIND 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

MILIND 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

MILIND 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

MILIND 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

MILIND 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

MILIND 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

MILIND 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

MILIND 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

MILIND 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

MILIND 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

MILIND 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

MILIND 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

MILIND 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

MILIND 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

MILIND 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

MILIND 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

MILIND 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

MILIND 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

MILIND 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

MILIND 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

MILIND 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

MILIND 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

MILIND 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

MILIND 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

MILIND 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

MILIND 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

MILIND 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

MILIND 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

MILIND 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

MILIND 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

MILIND 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

MILIND 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

MILIND 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

MILIND 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

MILIND 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

MILIND 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

MILIND 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

MILIND 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

MILIND 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

MILIND 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

MILIND 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

MILIND 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

MILIND 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

MILIND 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

MILIND 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

MILIND 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

MILIND 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

MILIND 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

MILIND 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

MILIND 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

MILIND 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

MILIND 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

MILIND 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

MILIND 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

MILIND 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

MILIND 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

MILIND 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

MILIND 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

MILIND 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

MILIND 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

MILIND 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

MILIND 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

MILIND 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

MILIND 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

MILIND 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

MILIND 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

MILIND 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

MILIND 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

MILIND 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

MILIND 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

MILIND 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

MILIND 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

MILIND 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

MILIND 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

MILIND 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

MILIND 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

MILIND 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

MILIND 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

MILIND 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

MILIND 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

MILIND 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

MILIND 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

MILIND 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

MILIND 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

MILIND 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

MILIND 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

MILIND 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

MILIND 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

MILIND 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

MILIND 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

MILIND 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

MILIND 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

MILIND 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

MILIND 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

MILIND 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

MILIND 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

MILIND 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

MILIND 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

MILIND 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

MILIND 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

MILIND 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

MILIND 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

MILIND 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

MILIND 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

MILIND 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

MILIND 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

MILIND 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

MILIND 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

MILIND 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

MILIND 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

MILIND 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

MILIND 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

MILIND 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

MILIND 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

MILIND 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

MILIND 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

MILIND 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

MILIND 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

MILIND 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

MILIND 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

MILIND 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

MILIND 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

MILIND 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

MILIND 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

MILIND 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

MILIND 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

MILIND 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

MILIND 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

MILIND 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

MILIND 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

MILIND 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

MILIND 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

MILIND 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

MILIND 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

MILIND 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

MILIND 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

MILIND 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

MILIND 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

MILIND 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

MILIND 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

MILIND 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

MILIND 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

MILIND 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

MILIND 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

MILIND 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

MILIND 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

MILIND 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

MILIND 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

MILIND 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

MILIND 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

MILIND 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

MILIND 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

MILIND 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

MILIND 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

MILIND 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

MILIND 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

MILIND 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

MILIND 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

MILIND 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

MILIND 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

MILIND 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

MILIND 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

MILIND 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

MILIND 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

MILIND 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

MILIND 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

MILIND 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

MILIND 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

MILIND 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

MILIND 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

MILIND 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

MILIND 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

MILIND 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

MILIND 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

MILIND 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

MILIND 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

MILIND 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

MILIND 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

MILIND 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

MILIND 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

MILIND 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

MILIND 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

MILIND 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

MILIND 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

MILIND 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

MILIND 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

MILIND 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

MILIND 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

MILIND 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

MILIND 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

MILIND 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

MILIND 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

MILIND 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

MILIND 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

MILIND 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

MILIND 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

MILIND 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

MILIND 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

MILIND 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

MILIND 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

MILIND 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

MILIND 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

MILIND 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

MILIND 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

MILIND 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

MILIND 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

MILIND 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

MILIND 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

MILIND 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

MILIND 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

MILIND 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

MILIND 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

MILIND 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

MILIND 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

MILIND 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

MILIND 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

MILIND 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

MILIND 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

MILIND 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

MILIND 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

MILIND 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

MILIND 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

MILIND 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

MILIND 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

MILIND 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

MILIND 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

MILIND 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

MILIND 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

MILIND 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

MILIND 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

MILIND 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

MILIND 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

MILIND 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

MILIND 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

MILIND 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

MILIND 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

MILIND 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

MILIND 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

MILIND 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

MILIND 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

MILIND 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

MILIND 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

MILIND 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

MILIND 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

MILIND 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

MILIND 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

MILIND 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

MILIND 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

MILIND 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

MILIND 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

MILIND 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

MILIND 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

MILIND 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

MILIND 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

MILIND 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

MILIND 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

MILIND 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

MILIND 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

MILIND 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

MILIND 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

MILIND 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

MILIND 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

MILIND 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

MILIND 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

MILIND 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

MILIND 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

MILIND 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

MILIND 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

MILIND 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

MILIND 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

MILIND 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

MILIND 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

MILIND 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

MILIND 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

MILIND 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

MILIND 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

MILIND 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

MILIND 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

MILIND 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

MILIND 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

MILIND 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

MILIND 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

MILIND 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

MILIND 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

MILIND 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

MILIND 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

MILIND 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

MILIND 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

MILIND 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

MILIND 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

MILIND 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

MILIND 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

MILIND 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

MILIND 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

MILIND 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

MILIND 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

MILIND 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

MILIND 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

MILIND 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

MILIND 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

MILIND 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

MILIND 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

MILIND 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

MILIND 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

MILIND 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

MILIND 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

MILIND 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

MILIND 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

MILIND 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

MILIND 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

MILIND 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

MILIND 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

MILIND 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

MILIND 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

MILIND 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

MILIND 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

MILIND 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

MILIND 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

MILIND 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

MILIND 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

MILIND 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

MILIND 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

MILIND 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

MILIND 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

MILIND 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

MILIND 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

MILIND 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

MILIND 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

MILIND 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

MILIND 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

MILIND 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

MILIND 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

MILIND 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

MILIND 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

MILIND 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

MILIND 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

MILIND 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

MILIND 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

MILIND 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

MILIND 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

MILIND 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

MILIND 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

MILIND 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

MILIND 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

MILIND 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

MILIND 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

MILIND 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

MILIND 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

MILIND 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

MILIND 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

MILIND 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

MILIND 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

MILIND 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

MILIND 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

MILIND 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

MILIND 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

MILIND 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

MILIND 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

MILIND 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

MILIND 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

MILIND 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

MILIND 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

MILIND 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

MILIND 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

MILIND 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

MILIND 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

MILIND 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

MILIND 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

MILIND 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

MILIND 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

MILIND 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

MILIND 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

MILIND 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

MILIND 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

MILIND 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

MILIND 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

MILIND 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

MILIND 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

MILIND 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

MILIND 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

MILIND 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

MILIND 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

MILIND 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

MILIND 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

MILIND 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

MILIND 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

MILIND 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

MILIND 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

MILIND 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

MILIND 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

MILIND 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

MILIND 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

MILIND 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

MILIND 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

MILIND 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

MILIND 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

MILIND 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

MILIND 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

MILIND 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

MILIND 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

MILIND 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

MILIND 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

MILIND 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

MILIND 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

MILIND 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

MILIND 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

MILIND 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

MILIND 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

MILIND 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

MILIND 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

MILIND 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

MILIND 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

MILIND 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

MILIND 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

MILIND 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

MILIND 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

MILIND 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

MILIND 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

MILIND 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

MILIND 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

MILIND 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

MILIND 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

MILIND 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

MILIND 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

MILIND 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

MILIND 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

MILIND 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

MILIND 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

MILIND 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

MILIND 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

MILIND 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

MILIND 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

MILIND 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

MILIND 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

MILIND 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

MILIND 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

MILIND 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

MILIND 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

MILIND 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

MILIND 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

MILIND 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

MILIND 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

MILIND 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

MILIND 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

MILIND 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

MILIND 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

MILIND 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

MILIND 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

MILIND 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

MILIND 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

MILIND 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

MILIND 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

MILIND 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

MILIND 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

MILIND 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

MILIND 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

MILIND 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

MILIND 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

MILIND 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

MILIND 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

MILIND 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

MILIND 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

MILIND 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

MILIND 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

MILIND 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

MILIND 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

MILIND 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

MILIND 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

MILIND 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

MILIND 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

MILIND 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

MILIND 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

MILIND 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

MILIND 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

MILIND 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

MILIND 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

MILIND 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

MILIND 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

MILIND 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

MILIND 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

MILIND 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

MILIND 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

MILIND 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

MILIND 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

MILIND 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

MILIND 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

MILIND 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

MILIND 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

MILIND 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

MILIND 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

MILIND 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

MILIND 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

MILIND 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

MILIND 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

MILIND 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

MILIND 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

MILIND 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

MILIND 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

MILIND 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

MILIND 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

MILIND 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

MILIND 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

MILIND 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

MILIND 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

MILIND 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

MILIND 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

MILIND 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

MILIND 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

MILIND 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

MILIND 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

MILIND 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

MILIND 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

MILIND 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

MILIND 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

MILIND 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

MILIND 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

MILIND 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

MILIND 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

MILIND 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

MILIND 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

MILIND 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

MILIND 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

MILIND 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

MILIND 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

MILIND 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

MILIND 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

MILIND 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

MILIND 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

MILIND 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

MILIND 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

MILIND 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

MILIND 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

MILIND 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

MILIND 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

MILIND 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

MILIND 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

MILIND 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

MILIND 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

MILIND 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

MILIND 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

MILIND 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

MILIND 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

MILIND 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

MILIND 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

MILIND 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

MILIND 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

MILIND 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

MILIND 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

MILIND 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

MILIND 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

MILIND 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

MILIND 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

MILIND 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

MILIND 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

MILIND 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

MILIND 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

MILIND 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

MILIND 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

MILIND 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

MILIND 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

MILIND 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

MILIND 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

MILIND 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

MILIND 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

MILIND 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

MILIND 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

MILIND 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

MILIND 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

MILIND 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

MILIND 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

MILIND 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

MILIND 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

MILIND 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

MILIND 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

MILIND 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

MILIND 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

MILIND 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

MILIND 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

MILIND 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

MILIND 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

MILIND 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

MILIND 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

MILIND 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

MILIND 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

MILIND 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

MILIND 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

MILIND 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

MILIND 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

MILIND 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

MILIND 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

MILIND 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

MILIND 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

MILIND 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

MILIND 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

MILIND 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

MILIND 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

MILIND 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

MILIND 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

MILIND 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

MILIND 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

MILIND 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

MILIND 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

MILIND 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

MILIND 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

MILIND 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

MILIND 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

MILIND 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

MILIND 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

MILIND 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

MILIND 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

MILIND 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

MILIND 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

MILIND 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

MILIND 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

MILIND 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

MILIND 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

MILIND 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

MILIND 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

MILIND 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

MILIND 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

MILIND 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

MILIND 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

MILIND 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

MILIND 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

MILIND 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

MILIND 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

MILIND 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

MILIND 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

MILIND 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

MILIND 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

MILIND 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

MILIND 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

MILIND 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

MILIND 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

MILIND 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

MILIND 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

MILIND 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

MILIND 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

MILIND 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

MILIND 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

MILIND 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

MILIND 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

MILIND 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

MILIND 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

MILIND 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

MILIND 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

MILIND 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

MILIND 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

MILIND 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

MILIND 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

MILIND 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

MILIND 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

MILIND 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

MILIND 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

MILIND 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

MILIND 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

MILIND 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

MILIND 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

MILIND 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

MILIND 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

MILIND 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

MILIND 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

MILIND 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

MILIND 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

MILIND 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

MILIND 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

MILIND 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

MILIND 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

MILIND 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

MILIND 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

MILIND 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

MILIND 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

MILIND 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

MILIND 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

MILIND 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

MILIND 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

MILIND 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

MILIND 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

MILIND 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

MILIND 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

MILIND 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

MILIND 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

MILIND 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

MILIND 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

MILIND 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

MILIND 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

MILIND 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

MILIND 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

MILIND 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

MILIND 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

MILIND 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

MILIND 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

MILIND 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

MILIND 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

MILIND 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

MILIND 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

MILIND 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

MILIND 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

MILIND 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

MILIND 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

MILIND 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

MILIND 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

MILIND 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

MILIND 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

MILIND 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

MILIND 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

MILIND 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

MILIND 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

MILIND 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

MILIND 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

MILIND 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

MILIND 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

MILIND 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

MILIND 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

MILIND 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

MILIND 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

MILIND 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

MILIND 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

MILIND 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

MILIND 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

MILIND 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

MILIND 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

MILIND 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

MILIND 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

MILIND 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

MILIND 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

MILIND 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

MILIND 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

MILIND 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

MILIND 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

MILIND 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

MILIND 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

MILIND 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

MILIND 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

MILIND 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

MILIND 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

MILIND 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

MILIND 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

MILIND 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

MILIND 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

MILIND 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

MILIND 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

MILIND 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

MILIND 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

MILIND 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

MILIND 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

MILIND 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

MILIND 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

MILIND 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

MILIND 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

MILIND 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

MILIND 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

MILIND 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

MILIND 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

MILIND 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

MILIND 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

MILIND 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

MILIND 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

MILIND 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

MILIND 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

MILIND 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

MILIND 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

MILIND 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

MILIND 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

MILIND 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

MILIND 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

MILIND 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

MILIND 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

MILIND 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

MILIND 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

MILIND 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

MILIND 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

MILIND 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

MILIND 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

MILIND 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

MILIND 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

MILIND 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

MILIND 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

MILIND 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

MILIND 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

MILIND 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

MILIND 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

MILIND 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

MILIND 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

MILIND 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

MILIND 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

MILIND 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

MILIND 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

MILIND 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

MILIND 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

MILIND 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

MILIND 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

MILIND 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

MILIND 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

MILIND 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

MILIND 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

MILIND 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

MILIND 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

MILIND 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

MILIND 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

MILIND 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

MILIND 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

MILIND 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

MILIND 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

MILIND 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

MILIND 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

MILIND 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

MILIND 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

MILIND 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

MILIND 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

MILIND 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

MILIND 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

MILIND 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

MILIND 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

MILIND 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

MILIND 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

MILIND 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

MILIND 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

MILIND 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

MILIND 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

MILIND 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

MILIND 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

MILIND 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

MILIND 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

MILIND 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

MILIND 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

MILIND 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

MILIND 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

MILIND 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

MILIND 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

MILIND 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

MILIND 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

MILIND 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

MILIND 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

MILIND 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

MILIND 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

MILIND 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

MILIND 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

MILIND 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

MILIND 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

MILIND 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

MILIND 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

MILIND 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

MILIND 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

MILIND 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

MILIND 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

MILIND 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

MILIND 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

MILIND 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

MILIND 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

MILIND 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

MILIND 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

MILIND 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

MILIND 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

MILIND 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

MILIND 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

MILIND 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

MILIND 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

MILIND 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

MILIND 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

MILIND 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

MILIND 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

MILIND 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

MILIND 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

MILIND 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

MILIND 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

MILIND 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

MILIND 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

MILIND 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

MILIND 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

MILIND 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

MILIND 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

MILIND 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

MILIND 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

MILIND 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

MILIND 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

MILIND 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

MILIND 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

MILIND 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

MILIND 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

MILIND 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

MILIND 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

MILIND 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

MILIND 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

MILIND 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

MILIND 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

MILIND 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

MILIND 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

MILIND 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

MILIND 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

MILIND 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

MILIND 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

MILIND 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

MILIND 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

MILIND 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

MILIND 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

MILIND 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

MILIND 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

MILIND 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

MILIND 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

MILIND 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

MILIND 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

MILIND 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

MILIND 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

MILIND 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

MILIND 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

MILIND 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

MILIND 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

MILIND 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

MILIND 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

MILIND 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

MILIND 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

MILIND 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

MILIND 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

MILIND 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

MILIND 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

MILIND 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

MILIND 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

MILIND 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

MILIND 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

MILIND 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

MILIND 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

MILIND 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

MILIND 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

MILIND 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

MILIND 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

MILIND 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

MILIND 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

MILIND 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

MILIND 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

MILIND 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

MILIND 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

MILIND 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

MILIND 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

MILIND 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

MILIND 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

MILIND 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

MILIND 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

MILIND 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

MILIND 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

MILIND 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

MILIND 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

MILIND 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

MILIND 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

MILIND 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

MILIND 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

MILIND 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

MILIND 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

MILIND 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

MILIND 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

MILIND 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

MILIND 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

MILIND 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

MILIND 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

MILIND 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

MILIND 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

MILIND 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

MILIND 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

MILIND 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

MILIND 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

MILIND 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

MILIND 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

MILIND 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

MILIND 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

MILIND 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

MILIND 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

MILIND 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

MILIND 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

MILIND 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

MILIND 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

MILIND 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

MILIND 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

MILIND 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

MILIND 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

MILIND 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

MILIND 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

MILIND 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

MILIND 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

MILIND 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

MILIND 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

MILIND 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

MILIND 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

MILIND 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

MILIND 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

MILIND 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

MILIND 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

MILIND 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

MILIND 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

MILIND 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

MILIND 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

MILIND 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

MILIND 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

MILIND 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

MILIND 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

MILIND 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

MILIND 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

MILIND 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

MILIND 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

MILIND 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

MILIND 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

MILIND 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

MILIND 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

MILIND 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

MILIND 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

MILIND 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

MILIND 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

MILIND 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

MILIND 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

MILIND 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

MILIND 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

MILIND 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

MILIND 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

MILIND 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

MILIND 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

MILIND 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

MILIND 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

MILIND 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

MILIND 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

MILIND 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

MILIND 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

MILIND 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

MILIND 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

MILIND 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

MILIND 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

MILIND 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

MILIND 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

MILIND 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

MILIND 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

MILIND 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

MILIND 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

MILIND 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

MILIND 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

MILIND 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

MILIND 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

MILIND 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

MILIND 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

MILIND 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

MILIND 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

MILIND 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

MILIND 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

MILIND 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

MILIND 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

MILIND 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

MILIND 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

MILIND 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

MILIND 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

MILIND 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

MILIND 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

MILIND 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

MILIND 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

MILIND 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

MILIND 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

MILIND 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

MILIND 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

MILIND 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

MILIND 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

MILIND 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

MILIND 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

MILIND 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

MILIND 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

MILIND 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

MILIND 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

MILIND 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

MILIND 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

MILIND 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

MILIND 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

MILIND 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

MILIND 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

MILIND 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

MILIND 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

MILIND 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

MILIND 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

MILIND 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

MILIND 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

MILIND 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

MILIND 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

MILIND 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

MILIND 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

MILIND 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

MILIND 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

MILIND 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

MILIND 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

MILIND 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

MILIND 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

MILIND 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

MILIND 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

MILIND 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

MILIND 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

MILIND 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

MILIND 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

MILIND 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

MILIND 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

MILIND 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

MILIND 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

MILIND 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

MILIND 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

MILIND 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

MILIND 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

MILIND 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

MILIND 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

MILIND 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

MILIND 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

MILIND 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

MILIND 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

MILIND 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

MILIND 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

MILIND 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

MILIND 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

MILIND 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

MILIND 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

MILIND 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

MILIND 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

MILIND 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

MILIND 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

MILIND 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

MILIND 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

MILIND 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

MILIND 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

MILIND 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

MILIND 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

MILIND 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

MILIND 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

MILIND 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

MILIND 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

MILIND 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

MILIND 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

MILIND 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

MILIND 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

MILIND 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

MILIND 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

MILIND 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

MILIND 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

MILIND 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

MILIND 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

MILIND 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

MILIND 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

MILIND 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

MILIND 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

MILIND 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

MILIND 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

MILIND 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

MILIND 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

MILIND 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

MILIND 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

MILIND 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

MILIND 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

MILIND 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

MILIND 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

MILIND 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

MILIND 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

MILIND 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

MILIND 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

MILIND 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

MILIND 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

MILIND 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

MILIND 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

MILIND 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

MILIND 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

MILIND 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

MILIND 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

MILIND 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

MILIND 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

MILIND 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

MILIND 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

MILIND 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

MILIND 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

MILIND 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

MILIND 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

MILIND 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

MILIND 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

MILIND 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

MILIND 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

MILIND 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

MILIND 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

MILIND 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

MILIND 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

MILIND 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

MILIND 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

MILIND 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

MILIND 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

MILIND 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

MILIND 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

MILIND 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

MILIND 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

MILIND 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

MILIND 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

MILIND 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

MILIND 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

MILIND 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

MILIND 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

MILIND 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

MILIND 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

MILIND 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

MILIND 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

MILIND 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

MILIND 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

MILIND 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

MILIND 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

MILIND 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

MILIND 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

MILIND 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

MILIND 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

MILIND 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

MILIND 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

MILIND 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

MILIND 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

MILIND 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

MILIND 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

MILIND 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

MILIND 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

MILIND 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

MILIND 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

MILIND 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

MILIND 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

MILIND 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

MILIND 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

MILIND 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

MILIND 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

MILIND 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

MILIND 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

MILIND 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

MILIND 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

MILIND 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

MILIND 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

MILIND 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

MILIND 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

MILIND 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

MILIND 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

MILIND 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

MILIND 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

MILIND 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

MILIND 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

MILIND 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

MILIND 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

MILIND 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

MILIND 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

MILIND 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

MILIND 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

MILIND 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

MILIND 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

MILIND 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

MILIND 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

MILIND 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

MILIND 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

MILIND 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

MILIND 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

MILIND 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

MILIND 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

MILIND 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

MILIND 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

MILIND 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

MILIND 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

MILIND 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

MILIND 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

MILIND 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

MILIND 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

MILIND 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

MILIND 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

MILIND 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

MILIND 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

MILIND 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

MILIND 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

MILIND 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

MILIND 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

MILIND 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

MILIND 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

MILIND 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

MILIND 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

MILIND 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

MILIND 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

MILIND 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

MILIND 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

MILIND 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

MILIND 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

MILIND 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

MILIND 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

MILIND 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

MILIND 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

MILIND 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

MILIND 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

MILIND 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

MILIND 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

MILIND 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

MILIND 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

MILIND 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

MILIND 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

MILIND 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

MILIND 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

MILIND 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

MILIND 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

MILIND 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

MILIND 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

MILIND 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

MILIND 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

MILIND 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

MILIND 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

MILIND 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

MILIND 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

MILIND 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

MILIND 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

MILIND 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

MILIND 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

MILIND 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

MILIND 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

MILIND 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

MILIND 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

MILIND 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

MILIND 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

MILIND 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

MILIND 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

MILIND 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

MILIND 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

MILIND 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

MILIND 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

MILIND 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

MILIND 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

MILIND 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

MILIND 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

MILIND 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

MILIND 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

MILIND 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

MILIND 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

MILIND 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

MILIND 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

MILIND 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

MILIND 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

MILIND 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

MILIND 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

MILIND 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

MILIND 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

MILIND 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

MILIND 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

MILIND 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

MILIND 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

MILIND 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

MILIND 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

MILIND 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

MILIND 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

MILIND 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

MILIND 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

MILIND 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

MILIND 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

MILIND 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

MILIND 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

MILIND 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

MILIND 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

MILIND 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

MILIND 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

MILIND 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

MILIND 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

MILIND 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

MILIND 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

MILIND 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

MILIND 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

MILIND 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

MILIND 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

MILIND 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

MILIND 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

MILIND 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

MILIND 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

MILIND 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

MILIND 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

MILIND 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

MILIND 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

MILIND 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

MILIND 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

MILIND 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

MILIND 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

MILIND 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

MILIND 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

MILIND 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

MILIND 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

MILIND 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

MILIND 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

MILIND 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

MILIND 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

MILIND 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

MILIND 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

MILIND 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

MILIND 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

MILIND 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

MILIND 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

MILIND 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

MILIND 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

MILIND 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

MILIND 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

MILIND 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

MILIND 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

MILIND 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

MILIND 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

MILIND 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

MILIND 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

MILIND 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

MILIND 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

MILIND 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

MILIND 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

MILIND 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

MILIND 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

MILIND 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

MILIND 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

MILIND 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

MILIND 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

MILIND 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

MILIND 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

MILIND 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

MILIND 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

MILIND 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

MILIND 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

MILIND 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

MILIND 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

MILIND 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

MILIND 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

MILIND 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

MILIND 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

MILIND 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

MILIND 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

MILIND 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

MILIND 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

MILIND 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

MILIND 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

MILIND 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

MILIND 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

MILIND 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

MILIND 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

MILIND 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

MILIND 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

MILIND 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

MILIND 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

MILIND 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

MILIND 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

MILIND 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

MILIND 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

MILIND 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

MILIND 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

MILIND 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

MILIND 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

MILIND 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

MILIND 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

MILIND 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

MILIND 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

MILIND 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

MILIND 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

MILIND 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

MILIND 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

MILIND 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

MILIND 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

MILIND 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

MILIND 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

MILIND 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

MILIND 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

MILIND 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

MILIND 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

MILIND 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

MILIND 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

MILIND 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

MILIND 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

MILIND 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

MILIND 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

MILIND 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

MILIND 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

MILIND 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

MILIND 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

MILIND 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

MILIND 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

MILIND 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

MILIND 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

MILIND 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

MILIND 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

MILIND 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

MILIND 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

MILIND 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

MILIND 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

MILIND 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

MILIND 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

MILIND 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

MILIND 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

MILIND 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

MILIND 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

MILIND 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

MILIND 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

MILIND 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

MILIND 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

MILIND 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

MILIND 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

MILIND 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

MILIND 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

MILIND 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

MILIND 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

MILIND 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

MILIND 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

MILIND 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

MILIND 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

MILIND 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

MILIND 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

MILIND 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

MILIND 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

MILIND 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

MILIND 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

MILIND 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

MILIND 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

MILIND 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

MILIND 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

MILIND 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

MILIND 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

MILIND 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

MILIND 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

MILIND 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

MILIND 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

MILIND 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

MILIND 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

MILIND 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

MILIND 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

MILIND 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

MILIND 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

MILIND 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

MILIND 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

MILIND 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

MILIND 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

MILIND 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

MILIND 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

MILIND 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

MILIND 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

MILIND 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

MILIND 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

MILIND 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

MILIND 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

MILIND 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

MILIND 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

MILIND 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

MILIND 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

MILIND 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

MILIND 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

MILIND 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

MILIND 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

MILIND 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

MILIND 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

MILIND 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

MILIND 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

MILIND 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

MILIND 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

MILIND 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

MILIND 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

MILIND 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

MILIND 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

MILIND 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

MILIND 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

MILIND 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

MILIND 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

MILIND 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

MILIND 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

MILIND 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

MILIND 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

MILIND 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

MILIND 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

MILIND 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

MILIND 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

MILIND 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

MILIND 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

MILIND 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

MILIND 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

MILIND 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

MILIND 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

MILIND 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

MILIND 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

MILIND 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

MILIND 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

HARSH 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

HARSH 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

HARSH 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

HARSH 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

HARSH 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

HARSH 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

HARSH 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

HARSH 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

HARSH 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

HARSH 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

HARSH 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

HARSH 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

HARSH 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

HARSH 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

HARSH 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

HARSH 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

HARSH 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

HARSH 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

HARSH 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

HARSH 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

HARSH 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

HARSH 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

HARSH 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

HARSH 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

HARSH 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

HARSH 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

HARSH 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

HARSH 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

HARSH 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

HARSH 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

HARSH 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

HARSH 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

HARSH 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

HARSH 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

HARSH 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

HARSH 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

HARSH 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

HARSH 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

HARSH 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

HARSH 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

HARSH 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

HARSH 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

HARSH 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

HARSH 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

HARSH 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

HARSH 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

HARSH 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

HARSH 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

HARSH 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

HARSH 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

HARSH 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

HARSH 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

HARSH 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

HARSH 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

HARSH 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

HARSH 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

HARSH 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

HARSH 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

HARSH 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

HARSH 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

HARSH 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

HARSH 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

HARSH 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

HARSH 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

HARSH 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

HARSH 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

HARSH 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

HARSH 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

HARSH 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

HARSH 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

HARSH 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

HARSH 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

HARSH 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

HARSH 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

HARSH 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

HARSH 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

HARSH 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

HARSH 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

HARSH 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

HARSH 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

HARSH 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

HARSH 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

HARSH 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

HARSH 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

HARSH 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

HARSH 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

HARSH 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

HARSH 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

HARSH 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

HARSH 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

HARSH 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

HARSH 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

HARSH 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

HARSH 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

HARSH 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

HARSH 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

HARSH 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

HARSH 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

HARSH 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

HARSH 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

HARSH 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

HARSH 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

HARSH 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

HARSH 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

HARSH 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

HARSH 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

HARSH 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

HARSH 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

HARSH 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

HARSH 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

HARSH 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

HARSH 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

HARSH 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

HARSH 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

HARSH 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

HARSH 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

HARSH 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

HARSH 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

HARSH 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

HARSH 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

HARSH 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

HARSH 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

HARSH 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

HARSH 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

HARSH 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

HARSH 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

HARSH 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

HARSH 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

HARSH 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

HARSH 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

HARSH 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

HARSH 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

HARSH 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

HARSH 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

HARSH 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

HARSH 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

HARSH 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

HARSH 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

HARSH 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

HARSH 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

HARSH 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

HARSH 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

HARSH 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

HARSH 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

HARSH 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

HARSH 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

HARSH 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

HARSH 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

HARSH 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

HARSH 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

HARSH 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

HARSH 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

HARSH 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

HARSH 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

HARSH 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

HARSH 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

HARSH 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

HARSH 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

HARSH 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

HARSH 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

HARSH 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

HARSH 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

HARSH 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

HARSH 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

HARSH 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

HARSH 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

HARSH 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

HARSH 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

HARSH 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

HARSH 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

HARSH 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

HARSH 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

HARSH 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

HARSH 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

HARSH 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

HARSH 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

HARSH 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

HARSH 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

HARSH 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

HARSH 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

HARSH 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

HARSH 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

HARSH 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

HARSH 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

HARSH 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

HARSH 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

HARSH 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

HARSH 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

HARSH 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

HARSH 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

HARSH 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

HARSH 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

HARSH 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

HARSH 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

HARSH 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

HARSH 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

HARSH 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

HARSH 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

HARSH 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

HARSH 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

HARSH 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

HARSH 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

HARSH 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

HARSH 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

HARSH 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

HARSH 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

HARSH 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

HARSH 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

HARSH 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

HARSH 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

HARSH 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

HARSH 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

HARSH 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

HARSH 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

HARSH 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

HARSH 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

HARSH 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

HARSH 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

HARSH 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

HARSH 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

HARSH 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

HARSH 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

HARSH 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

HARSH 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

HARSH 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

HARSH 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

HARSH 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

HARSH 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

HARSH 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

HARSH 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

HARSH 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

HARSH 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

HARSH 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

HARSH 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

HARSH 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

HARSH 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

HARSH 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

HARSH 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

HARSH 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

HARSH 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

HARSH 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

HARSH 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

HARSH 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

HARSH 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

HARSH 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

HARSH 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

HARSH 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

HARSH 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

HARSH 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

HARSH 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

HARSH 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

HARSH 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

HARSH 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

HARSH 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

HARSH 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

HARSH 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

HARSH 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

HARSH 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

HARSH 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

HARSH 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

HARSH 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

HARSH 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

HARSH 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

HARSH 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

HARSH 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

HARSH 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

HARSH 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

HARSH 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

HARSH 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

HARSH 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

HARSH 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

HARSH 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

HARSH 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

HARSH 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

HARSH 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

HARSH 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

HARSH 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

HARSH 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

HARSH 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

HARSH 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

HARSH 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

HARSH 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

HARSH 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

HARSH 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

HARSH 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

HARSH 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

HARSH 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

HARSH 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

HARSH 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

HARSH 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

HARSH 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

HARSH 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

HARSH 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

HARSH 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

HARSH 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

HARSH 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

HARSH 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

HARSH 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

HARSH 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

HARSH 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

HARSH 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

HARSH 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

HARSH 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

HARSH 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

HARSH 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

HARSH 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

HARSH 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

HARSH 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

HARSH 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

HARSH 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

HARSH 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

HARSH 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

HARSH 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

HARSH 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

HARSH 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

HARSH 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

HARSH 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

HARSH 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

HARSH 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

HARSH 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

HARSH 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

HARSH 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

HARSH 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

HARSH 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

HARSH 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

HARSH 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

HARSH 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

HARSH 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

HARSH 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

HARSH 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

HARSH 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

HARSH 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

HARSH 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

HARSH 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

HARSH 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

HARSH 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

HARSH 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

HARSH 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

HARSH 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

HARSH 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

HARSH 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

HARSH 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

HARSH 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

HARSH 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

HARSH 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

HARSH 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

HARSH 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

HARSH 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

HARSH 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

HARSH 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

HARSH 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

HARSH 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

HARSH 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

HARSH 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

HARSH 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

HARSH 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

HARSH 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

HARSH 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

HARSH 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

HARSH 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

HARSH 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

HARSH 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

HARSH 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

HARSH 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

HARSH 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

HARSH 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

HARSH 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

HARSH 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

HARSH 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

HARSH 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

HARSH 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

HARSH 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

HARSH 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

HARSH 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

HARSH 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

HARSH 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

HARSH 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

HARSH 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

HARSH 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

HARSH 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

HARSH 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

HARSH 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

HARSH 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

HARSH 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

HARSH 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

HARSH 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

HARSH 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

HARSH 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

HARSH 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

HARSH 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

HARSH 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

HARSH 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

HARSH 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

HARSH 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

HARSH 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

HARSH 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

HARSH 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

HARSH 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

HARSH 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

HARSH 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

HARSH 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

HARSH 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

HARSH 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

HARSH 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

HARSH 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

HARSH 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

HARSH 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

HARSH 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

HARSH 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

HARSH 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

HARSH 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

HARSH 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

HARSH 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

HARSH 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

HARSH 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

HARSH 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

HARSH 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

HARSH 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

HARSH 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

HARSH 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

HARSH 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

HARSH 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

HARSH 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

HARSH 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

HARSH 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

HARSH 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

HARSH 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

HARSH 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

HARSH 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

HARSH 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

HARSH 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

HARSH 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

HARSH 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

HARSH 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

HARSH 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

HARSH 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

HARSH 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

HARSH 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

HARSH 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

HARSH 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

HARSH 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

HARSH 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

HARSH 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

HARSH 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

HARSH 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

HARSH 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

HARSH 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

HARSH 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

HARSH 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

HARSH 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

HARSH 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

HARSH 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

HARSH 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

HARSH 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

HARSH 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

HARSH 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

HARSH 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

HARSH 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

HARSH 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

HARSH 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

HARSH 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

HARSH 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

HARSH 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

HARSH 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

HARSH 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

HARSH 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

HARSH 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

HARSH 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

HARSH 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

HARSH 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

HARSH 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

HARSH 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

HARSH 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

HARSH 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

HARSH 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

HARSH 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

HARSH 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

HARSH 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

HARSH 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

HARSH 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

HARSH 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

HARSH 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

HARSH 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

HARSH 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

HARSH 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

HARSH 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

HARSH 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

HARSH 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

HARSH 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

HARSH 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

HARSH 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

HARSH 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

HARSH 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

HARSH 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

HARSH 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

HARSH 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

HARSH 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

HARSH 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

HARSH 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

HARSH 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

HARSH 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

HARSH 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

HARSH 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

HARSH 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

HARSH 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

HARSH 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

HARSH 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

HARSH 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

HARSH 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

HARSH 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

HARSH 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

HARSH 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

HARSH 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

HARSH 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

HARSH 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

HARSH 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

HARSH 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

HARSH 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

HARSH 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

HARSH 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

HARSH 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

HARSH 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

HARSH 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

HARSH 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

HARSH 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

HARSH 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

HARSH 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

HARSH 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

HARSH 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

HARSH 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

HARSH 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

HARSH 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

HARSH 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

HARSH 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

HARSH 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

HARSH 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

HARSH 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

HARSH 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

HARSH 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

HARSH 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

HARSH 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

HARSH 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

HARSH 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

HARSH 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

HARSH 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

HARSH 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

HARSH 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

HARSH 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

HARSH 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

HARSH 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

HARSH 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

HARSH 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

HARSH 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

HARSH 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

HARSH 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

HARSH 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

HARSH 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

HARSH 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

HARSH 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

HARSH 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

HARSH 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

HARSH 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

HARSH 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

HARSH 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

HARSH 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

HARSH 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

HARSH 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

HARSH 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

HARSH 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

HARSH 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

HARSH 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

HARSH 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

HARSH 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

HARSH 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

HARSH 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

HARSH 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

HARSH 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

HARSH 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

HARSH 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

HARSH 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

HARSH 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

HARSH 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

HARSH 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

HARSH 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

HARSH 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

HARSH 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

HARSH 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

HARSH 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

HARSH 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

HARSH 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

HARSH 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

HARSH 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

HARSH 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

HARSH 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

HARSH 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

HARSH 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

HARSH 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

HARSH 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

HARSH 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

HARSH 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

HARSH 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

HARSH 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

HARSH 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

HARSH 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

HARSH 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

HARSH 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

HARSH 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

HARSH 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

HARSH 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

HARSH 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

HARSH 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

HARSH 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

HARSH 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

HARSH 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

HARSH 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

HARSH 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

HARSH 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

HARSH 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

HARSH 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

HARSH 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

HARSH 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

HARSH 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

HARSH 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

HARSH 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

HARSH 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

HARSH 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

HARSH 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

HARSH 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

HARSH 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

HARSH 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

HARSH 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

HARSH 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

HARSH 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

HARSH 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

HARSH 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

HARSH 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

HARSH 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

HARSH 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

HARSH 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

HARSH 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

HARSH 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

HARSH 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

HARSH 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

HARSH 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

HARSH 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

HARSH 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

HARSH 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

HARSH 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

HARSH 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

HARSH 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

HARSH 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

HARSH 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

HARSH 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

HARSH 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

HARSH 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

HARSH 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

HARSH 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

HARSH 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

HARSH 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

HARSH 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

HARSH 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

HARSH 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

HARSH 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

HARSH 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

HARSH 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

HARSH 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

HARSH 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

HARSH 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

HARSH 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

HARSH 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

HARSH 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

HARSH 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

HARSH 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

HARSH 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

HARSH 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

HARSH 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

HARSH 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

HARSH 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

HARSH 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

HARSH 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

HARSH 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

HARSH 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

HARSH 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

HARSH 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

HARSH 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

HARSH 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

HARSH 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

HARSH 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

HARSH 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

HARSH 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

HARSH 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

HARSH 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

HARSH 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

HARSH 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

HARSH 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

HARSH 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

HARSH 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

HARSH 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

HARSH 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

HARSH 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

HARSH 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

HARSH 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

HARSH 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

HARSH 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

HARSH 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

HARSH 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

HARSH 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

HARSH 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

HARSH 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

HARSH 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

HARSH 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

HARSH 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

HARSH 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

HARSH 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

HARSH 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

HARSH 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

HARSH 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

HARSH 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

HARSH 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

HARSH 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

HARSH 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

HARSH 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

HARSH 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

HARSH 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

HARSH 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

HARSH 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

HARSH 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

HARSH 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

HARSH 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

HARSH 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

HARSH 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

HARSH 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

HARSH 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

HARSH 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

HARSH 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

HARSH 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

HARSH 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

HARSH 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

HARSH 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

HARSH 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

HARSH 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

HARSH 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

HARSH 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

HARSH 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

HARSH 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

HARSH 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

HARSH 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

HARSH 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

HARSH 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

HARSH 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

HARSH 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

HARSH 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

HARSH 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

HARSH 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

HARSH 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

HARSH 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

HARSH 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

HARSH 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

HARSH 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

HARSH 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

HARSH 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

HARSH 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

HARSH 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

HARSH 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

HARSH 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

HARSH 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

HARSH 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

HARSH 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

HARSH 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

HARSH 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

HARSH 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

HARSH 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

HARSH 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

HARSH 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

HARSH 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

HARSH 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

HARSH 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

HARSH 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

HARSH 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

HARSH 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

HARSH 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

HARSH 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

HARSH 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

HARSH 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

HARSH 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

HARSH 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

HARSH 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

HARSH 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

HARSH 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

HARSH 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

HARSH 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

HARSH 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

HARSH 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

HARSH 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

HARSH 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

HARSH 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

HARSH 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

HARSH 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

HARSH 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

HARSH 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

HARSH 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

HARSH 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

HARSH 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

HARSH 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

HARSH 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

HARSH 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

HARSH 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

HARSH 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

HARSH 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

HARSH 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

HARSH 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

HARSH 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

HARSH 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

HARSH 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

HARSH 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

HARSH 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

HARSH 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

HARSH 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

HARSH 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

HARSH 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

HARSH 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

HARSH 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

HARSH 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

HARSH 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

HARSH 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

HARSH 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

HARSH 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

HARSH 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

HARSH 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

HARSH 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

HARSH 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

HARSH 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

HARSH 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

HARSH 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

HARSH 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

HARSH 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

HARSH 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

HARSH 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

HARSH 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

HARSH 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

HARSH 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

HARSH 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

HARSH 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

HARSH 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

HARSH 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

HARSH 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

HARSH 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

HARSH 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

HARSH 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

HARSH 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

HARSH 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

HARSH 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

HARSH 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

HARSH 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

HARSH 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

HARSH 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

HARSH 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

HARSH 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

HARSH 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

HARSH 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

HARSH 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

HARSH 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

HARSH 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

HARSH 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

HARSH 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

HARSH 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

HARSH 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

HARSH 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

HARSH 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

HARSH 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

HARSH 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

HARSH 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

HARSH 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

HARSH 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

HARSH 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

HARSH 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

HARSH 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

HARSH 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

HARSH 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

HARSH 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

HARSH 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

HARSH 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

HARSH 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

HARSH 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

HARSH 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

HARSH 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

HARSH 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

HARSH 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

HARSH 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

HARSH 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

HARSH 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

HARSH 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

HARSH 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

HARSH 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

HARSH 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

HARSH 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

HARSH 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

HARSH 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

HARSH 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

HARSH 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

HARSH 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

HARSH 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

HARSH 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

HARSH 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

HARSH 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

HARSH 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

HARSH 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

HARSH 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

HARSH 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

HARSH 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

HARSH 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

HARSH 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

HARSH 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

HARSH 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

HARSH 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

HARSH 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

HARSH 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

HARSH 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

HARSH 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

HARSH 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

HARSH 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

HARSH 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

HARSH 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

HARSH 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

HARSH 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

HARSH 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

HARSH 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

HARSH 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

HARSH 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

HARSH 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

HARSH 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

HARSH 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

HARSH 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

HARSH 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

HARSH 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

HARSH 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

HARSH 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

HARSH 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

HARSH 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

HARSH 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

HARSH 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

HARSH 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

HARSH 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

HARSH 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

HARSH 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

HARSH 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

HARSH 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

HARSH 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

HARSH 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

HARSH 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

HARSH 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

HARSH 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

HARSH 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

HARSH 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

HARSH 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

HARSH 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

HARSH 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

HARSH 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

HARSH 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

HARSH 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

HARSH 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

HARSH 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

HARSH 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

HARSH 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

HARSH 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

HARSH 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

HARSH 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

HARSH 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

HARSH 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

HARSH 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

HARSH 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

HARSH 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

HARSH 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

HARSH 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

HARSH 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

HARSH 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

HARSH 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

HARSH 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

HARSH 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

HARSH 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

HARSH 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

HARSH 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

HARSH 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

HARSH 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

HARSH 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

HARSH 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

HARSH 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

HARSH 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

HARSH 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

HARSH 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

HARSH 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

HARSH 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

HARSH 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

HARSH 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

HARSH 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

HARSH 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

HARSH 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

HARSH 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

HARSH 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

HARSH 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

HARSH 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

HARSH 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

HARSH 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

HARSH 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

HARSH 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

HARSH 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

HARSH 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

HARSH 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

HARSH 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

HARSH 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

HARSH 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

HARSH 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

HARSH 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

HARSH 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

HARSH 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

HARSH 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

HARSH 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

HARSH 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

HARSH 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

HARSH 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

HARSH 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

HARSH 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

HARSH 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

HARSH 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

HARSH 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

HARSH 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

HARSH 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

HARSH 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

HARSH 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

HARSH 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

HARSH 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

HARSH 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

HARSH 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

HARSH 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

HARSH 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

HARSH 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

HARSH 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

HARSH 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

HARSH 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

HARSH 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

HARSH 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

HARSH 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

HARSH 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

HARSH 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

HARSH 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

HARSH 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

HARSH 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

HARSH 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

HARSH 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

HARSH 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

HARSH 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

HARSH 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

HARSH 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

HARSH 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

HARSH 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

HARSH 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

HARSH 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

HARSH 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

HARSH 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

HARSH 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

HARSH 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

HARSH 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

HARSH 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

HARSH 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

HARSH 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

HARSH 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

HARSH 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

HARSH 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

HARSH 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

HARSH 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

HARSH 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

HARSH 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

HARSH 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

HARSH 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

HARSH 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

HARSH 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

HARSH 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

HARSH 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

HARSH 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

HARSH 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

HARSH 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

HARSH 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

HARSH 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

HARSH 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

HARSH 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

HARSH 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

HARSH 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

HARSH 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

HARSH 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

HARSH 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

HARSH 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

HARSH 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

HARSH 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

HARSH 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

HARSH 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

HARSH 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

HARSH 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

HARSH 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

HARSH 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

HARSH 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

HARSH 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

HARSH 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

HARSH 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

HARSH 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

HARSH 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

HARSH 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

HARSH 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

HARSH 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

HARSH 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

HARSH 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

HARSH 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

HARSH 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

HARSH 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

HARSH 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

HARSH 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

HARSH 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

HARSH 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

HARSH 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

HARSH 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

HARSH 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

HARSH 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

HARSH 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

HARSH 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

HARSH 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

HARSH 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

HARSH 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

HARSH 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

HARSH 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

HARSH 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

HARSH 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

HARSH 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

HARSH 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

HARSH 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

HARSH 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

HARSH 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

HARSH 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

HARSH 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

HARSH 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

HARSH 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

HARSH 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

HARSH 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

HARSH 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

HARSH 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

HARSH 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

HARSH 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

HARSH 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

HARSH 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

HARSH 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

HARSH 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

HARSH 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

HARSH 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

HARSH 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

HARSH 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

HARSH 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

HARSH 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

HARSH 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

HARSH 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

HARSH 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

HARSH 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

HARSH 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

HARSH 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

HARSH 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

HARSH 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

HARSH 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

HARSH 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

HARSH 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

HARSH 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

HARSH 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

HARSH 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

HARSH 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

HARSH 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

HARSH 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

HARSH 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

HARSH 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

HARSH 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

HARSH 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

HARSH 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

HARSH 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

HARSH 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

HARSH 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

HARSH 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

HARSH 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

HARSH 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

HARSH 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

HARSH 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

HARSH 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

HARSH 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

HARSH 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

HARSH 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

HARSH 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

HARSH 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

HARSH 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

HARSH 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

HARSH 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

HARSH 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

HARSH 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

HARSH 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

HARSH 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

HARSH 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

HARSH 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

HARSH 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

HARSH 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

HARSH 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

HARSH 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

HARSH 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

HARSH 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

HARSH 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

HARSH 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

HARSH 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

HARSH 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

HARSH 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

HARSH 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

HARSH 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

HARSH 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

HARSH 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

HARSH 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

HARSH 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

HARSH 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

HARSH 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

HARSH 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

HARSH 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

HARSH 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

HARSH 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

HARSH 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

HARSH 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

HARSH 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

HARSH 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

HARSH 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

HARSH 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

HARSH 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

HARSH 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

HARSH 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

HARSH 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

HARSH 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

HARSH 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

HARSH 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

HARSH 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

HARSH 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

HARSH 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

HARSH 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

HARSH 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

HARSH 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

HARSH 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

HARSH 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

HARSH 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

HARSH 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

HARSH 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

HARSH 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

HARSH 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

HARSH 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

HARSH 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

HARSH 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

HARSH 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

HARSH 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

HARSH 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

HARSH 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

HARSH 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

HARSH 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

HARSH 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

HARSH 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

HARSH 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

HARSH 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

HARSH 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

HARSH 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

HARSH 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

HARSH 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

HARSH 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

HARSH 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

HARSH 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

HARSH 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

HARSH 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

HARSH 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

HARSH 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

HARSH 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

HARSH 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

HARSH 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

HARSH 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

HARSH 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

HARSH 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

HARSH 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

HARSH 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

HARSH 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

HARSH 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

HARSH 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

HARSH 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

HARSH 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

HARSH 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

HARSH 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

HARSH 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

HARSH 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

HARSH 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

HARSH 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

HARSH 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

HARSH 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

HARSH 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

HARSH 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

HARSH 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

HARSH 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

HARSH 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

HARSH 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

HARSH 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

HARSH 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

HARSH 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

HARSH 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

HARSH 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

HARSH 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

HARSH 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

HARSH 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

HARSH 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

HARSH 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

HARSH 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

HARSH 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

HARSH 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

HARSH 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

HARSH 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

HARSH 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

HARSH 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

HARSH 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

HARSH 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

HARSH 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

HARSH 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

HARSH 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

HARSH 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

HARSH 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

HARSH 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

HARSH 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

HARSH 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

HARSH 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

HARSH 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

HARSH 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

HARSH 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

HARSH 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

HARSH 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

HARSH 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

HARSH 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

HARSH 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

HARSH 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

HARSH 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

HARSH 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

HARSH 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

HARSH 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

HARSH 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

HARSH 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

HARSH 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

HARSH 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

HARSH 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

HARSH 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

HARSH 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

HARSH 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

HARSH 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

HARSH 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

HARSH 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

HARSH 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

HARSH 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

HARSH 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

HARSH 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

HARSH 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

HARSH 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

HARSH 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

HARSH 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

HARSH 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

HARSH 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

HARSH 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

HARSH 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

HARSH 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

HARSH 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

HARSH 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

HARSH 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

HARSH 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

HARSH 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

HARSH 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

HARSH 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

HARSH 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

HARSH 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

HARSH 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

HARSH 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

HARSH 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

HARSH 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

HARSH 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

HARSH 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

HARSH 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

HARSH 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

HARSH 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

HARSH 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

HARSH 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

HARSH 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

HARSH 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

HARSH 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

HARSH 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

HARSH 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

HARSH 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

HARSH 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

HARSH 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

HARSH 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

HARSH 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

HARSH 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

HARSH 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

HARSH 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

HARSH 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

HARSH 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

HARSH 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

HARSH 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

HARSH 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

HARSH 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

HARSH 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

HARSH 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

HARSH 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

HARSH 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

HARSH 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

HARSH 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

HARSH 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

HARSH 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

HARSH 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

HARSH 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

HARSH 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

HARSH 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

HARSH 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

HARSH 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

HARSH 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

HARSH 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

HARSH 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

HARSH 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

HARSH 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

HARSH 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

HARSH 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

HARSH 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

HARSH 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

HARSH 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

HARSH 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

HARSH 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

HARSH 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

HARSH 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

HARSH 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

HARSH 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

HARSH 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

HARSH 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

HARSH 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

HARSH 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

HARSH 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

HARSH 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

HARSH 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

HARSH 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

HARSH 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

HARSH 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

HARSH 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

HARSH 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

HARSH 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

HARSH 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

HARSH 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

HARSH 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

HARSH 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

HARSH 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

HARSH 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

HARSH 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

HARSH 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

HARSH 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

HARSH 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

HARSH 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

HARSH 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

HARSH 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

HARSH 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

HARSH 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

HARSH 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

HARSH 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

HARSH 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

HARSH 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

HARSH 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

HARSH 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

HARSH 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

HARSH 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

HARSH 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

HARSH 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

HARSH 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

HARSH 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

HARSH 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

HARSH 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

HARSH 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

HARSH 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

HARSH 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

HARSH 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

HARSH 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

HARSH 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

HARSH 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

HARSH 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

HARSH 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

HARSH 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

HARSH 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

HARSH 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

HARSH 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

HARSH 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

HARSH 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

HARSH 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

HARSH 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

HARSH 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

HARSH 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

HARSH 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

HARSH 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

HARSH 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

HARSH 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

HARSH 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

HARSH 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

HARSH 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

HARSH 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

HARSH 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

HARSH 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

HARSH 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

HARSH 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

HARSH 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

HARSH 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

HARSH 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

HARSH 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

HARSH 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

HARSH 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

HARSH 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

HARSH 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

HARSH 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

HARSH 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

HARSH 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

HARSH 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

HARSH 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

HARSH 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

HARSH 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

HARSH 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

HARSH 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

HARSH 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

HARSH 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

HARSH 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

HARSH 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

HARSH 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

HARSH 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

HARSH 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

HARSH 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

HARSH 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

HARSH 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

HARSH 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

HARSH 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

HARSH 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

HARSH 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

HARSH 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

HARSH 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

HARSH 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

HARSH 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

HARSH 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

HARSH 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

HARSH 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

HARSH 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

HARSH 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

HARSH 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

HARSH 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

HARSH 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

HARSH 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

HARSH 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

HARSH 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

HARSH 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

HARSH 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

HARSH 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

HARSH 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

HARSH 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

HARSH 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

HARSH 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

HARSH 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

HARSH 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

HARSH 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

HARSH 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

HARSH 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

HARSH 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

HARSH 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

HARSH 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

HARSH 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

HARSH 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

HARSH 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

HARSH 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

HARSH 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

HARSH 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

HARSH 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

HARSH 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

HARSH 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

HARSH 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

HARSH 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

HARSH 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

HARSH 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

HARSH 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

HARSH 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

HARSH 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

HARSH 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

HARSH 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

HARSH 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

HARSH 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

HARSH 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

HARSH 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

HARSH 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

HARSH 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

HARSH 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

HARSH 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

HARSH 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

HARSH 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

HARSH 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

HARSH 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

HARSH 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

HARSH 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

HARSH 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

HARSH 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

HARSH 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

HARSH 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

HARSH 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

HARSH 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

HARSH 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

HARSH 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

HARSH 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

HARSH 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

HARSH 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

HARSH 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

HARSH 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

HARSH 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

HARSH 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

HARSH 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

HARSH 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

HARSH 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

HARSH 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

HARSH 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

HARSH 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

HARSH 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

HARSH 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

HARSH 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

HARSH 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

HARSH 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

HARSH 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

HARSH 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

HARSH 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

HARSH 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

HARSH 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

HARSH 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

HARSH 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

HARSH 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

HARSH 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

HARSH 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

HARSH 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

HARSH 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

HARSH 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

HARSH 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

HARSH 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

HARSH 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

HARSH 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

HARSH 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

HARSH 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

HARSH 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

HARSH 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

HARSH 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

HARSH 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

HARSH 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

HARSH 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

HARSH 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

HARSH 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

HARSH 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

HARSH 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

HARSH 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

HARSH 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

HARSH 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

HARSH 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

HARSH 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

HARSH 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

HARSH 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

HARSH 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

HARSH 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

HARSH 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

HARSH 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

HARSH 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

HARSH 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

HARSH 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

HARSH 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

HARSH 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

HARSH 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

HARSH 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

HARSH 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

HARSH 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

HARSH 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

HARSH 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

HARSH 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

HARSH 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

HARSH 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

HARSH 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

HARSH 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

HARSH 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

HARSH 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

HARSH 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

HARSH 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

HARSH 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

HARSH 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

HARSH 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

HARSH 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

HARSH 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

HARSH 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

HARSH 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

HARSH 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

HARSH 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

HARSH 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

HARSH 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

HARSH 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

HARSH 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

HARSH 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

HARSH 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

HARSH 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

HARSH 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

HARSH 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

HARSH 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

HARSH 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

HARSH 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

HARSH 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

HARSH 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

HARSH 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

HARSH 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

HARSH 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

HARSH 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

HARSH 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

HARSH 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

HARSH 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

HARSH 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

HARSH 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

HARSH 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

HARSH 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

HARSH 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

HARSH 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

HARSH 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

HARSH 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

HARSH 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

HARSH 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

HARSH 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

HARSH 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

HARSH 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

HARSH 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

HARSH 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

HARSH 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

HARSH 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

HARSH 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

HARSH 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

HARSH 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

HARSH 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

HARSH 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

HARSH 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

HARSH 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

HARSH 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

HARSH 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

HARSH 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

HARSH 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

HARSH 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

HARSH 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

HARSH 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

HARSH 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

HARSH 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

HARSH 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

HARSH 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

HARSH 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

HARSH 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

HARSH 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

HARSH 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

HARSH 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

HARSH 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

HARSH 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

HARSH 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

HARSH 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

HARSH 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

HARSH 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

HARSH 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

HARSH 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

HARSH 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

HARSH 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

HARSH 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

HARSH 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

HARSH 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

HARSH 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

HARSH 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

HARSH 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

HARSH 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

HARSH 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

HARSH 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

HARSH 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

HARSH 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

HARSH 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

HARSH 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

HARSH 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

HARSH 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

HARSH 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

HARSH 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

HARSH 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

HARSH 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

HARSH 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

HARSH 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

HARSH 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

HARSH 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

HARSH 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

HARSH 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

HARSH 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

HARSH 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

HARSH 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

HARSH 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

HARSH 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

HARSH 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

HARSH 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

HARSH 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

HARSH 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

HARSH 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

HARSH 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

HARSH 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

HARSH 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

HARSH 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

HARSH 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

HARSH 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

HARSH 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

HARSH 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

HARSH 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

HARSH 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

HARSH 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

HARSH 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

HARSH 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

HARSH 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

HARSH 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

HARSH 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

HARSH 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

HARSH 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

HARSH 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

HARSH 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

HARSH 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

HARSH 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

HARSH 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

HARSH 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

HARSH 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

HARSH 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

HARSH 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

HARSH 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

HARSH 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

HARSH 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

HARSH 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

HARSH 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

HARSH 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

HARSH 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

HARSH 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

HARSH 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

HARSH 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

HARSH 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

HARSH 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

HARSH 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

HARSH 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

HARSH 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

HARSH 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

HARSH 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

HARSH 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

HARSH 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

HARSH 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

HARSH 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

HARSH 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

HARSH 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

HARSH 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

HARSH 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

HARSH 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

HARSH 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

HARSH 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

HARSH 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

HARSH 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

HARSH 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

HARSH 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

HARSH 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

HARSH 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

HARSH 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

HARSH 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

HARSH 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

HARSH 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

HARSH 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

HARSH 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

HARSH 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

HARSH 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

HARSH 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

HARSH 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

HARSH 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

HARSH 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

HARSH 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

HARSH 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

HARSH 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

HARSH 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

HARSH 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

HARSH 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

HARSH 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

HARSH 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

HARSH 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

HARSH 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

HARSH 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

HARSH 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

HARSH 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

HARSH 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

HARSH 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

HARSH 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

HARSH 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

HARSH 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

HARSH 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

HARSH 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

HARSH 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

HARSH 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

HARSH 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

HARSH 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

HARSH 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

HARSH 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

HARSH 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

HARSH 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

HARSH 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

HARSH 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

HARSH 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

HARSH 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

HARSH 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

HARSH 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

HARSH 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

HARSH 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

HARSH 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

HARSH 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

HARSH 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

HARSH 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

HARSH 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

HARSH 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

HARSH 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

HARSH 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

HARSH 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

HARSH 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

HARSH 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

HARSH 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

HARSH 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

HARSH 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

HARSH 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

HARSH 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

HARSH 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

HARSH 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

HARSH 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

HARSH 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

HARSH 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

HARSH 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

HARSH 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

HARSH 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

HARSH 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

HARSH 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

HARSH 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

HARSH 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

HARSH 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

HARSH 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

HARSH 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

HARSH 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

HARSH 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

HARSH 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

HARSH 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

HARSH 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

HARSH 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

HARSH 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

HARSH 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

HARSH 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

HARSH 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

HARSH 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

HARSH 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

HARSH 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

HARSH 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

HARSH 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

HARSH 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

HARSH 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

HARSH 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

HARSH 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

HARSH 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

HARSH 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

HARSH 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

HARSH 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

HARSH 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

HARSH 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

HARSH 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

HARSH 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

HARSH 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

HARSH 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

HARSH 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

HARSH 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

HARSH 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

HARSH 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

HARSH 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

HARSH 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

HARSH 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

HARSH 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

HARSH 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

HARSH 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

HARSH 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

HARSH 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

HARSH 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

HARSH 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

HARSH 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

HARSH 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

HARSH 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

HARSH 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

HARSH 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

HARSH 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

HARSH 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

HARSH 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

HARSH 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

HARSH 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

HARSH 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

HARSH 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

HARSH 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

HARSH 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

HARSH 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

HARSH 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

HARSH 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

HARSH 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

HARSH 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

HARSH 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

HARSH 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

HARSH 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

HARSH 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

HARSH 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

HARSH 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

HARSH 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

HARSH 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

HARSH 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

HARSH 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

HARSH 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

HARSH 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

HARSH 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

HARSH 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

HARSH 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

HARSH 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

HARSH 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

HARSH 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

HARSH 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

HARSH 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

HARSH 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

HARSH 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

HARSH 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

HARSH 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

HARSH 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

HARSH 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

HARSH 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

HARSH 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

HARSH 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

HARSH 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

HARSH 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

HARSH 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

HARSH 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

HARSH 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

HARSH 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

HARSH 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

HARSH 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

HARSH 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

HARSH 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

HARSH 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

HARSH 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

HARSH 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

HARSH 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

HARSH 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

HARSH 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

HARSH 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

HARSH 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

HARSH 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

HARSH 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

HARSH 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

HARSH 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

HARSH 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

HARSH 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

HARSH 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

HARSH 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

HARSH 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

HARSH 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

HARSH 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

HARSH 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

HARSH 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

HARSH 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

HARSH 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

HARSH 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

HARSH 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

HARSH 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

HARSH 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

HARSH 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

HARSH 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

HARSH 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

HARSH 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

HARSH 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

HARSH 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

HARSH 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

HARSH 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

HARSH 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

HARSH 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

HARSH 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

HARSH 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

HARSH 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

HARSH 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

HARSH 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

HARSH 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

HARSH 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

HARSH 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

HARSH 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

HARSH 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

HARSH 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

HARSH 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

HARSH 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

HARSH 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

HARSH 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

HARSH 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

HARSH 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

HARSH 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

HARSH 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

HARSH 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

HARSH 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

HARSH 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

HARSH 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

HARSH 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

HARSH 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

HARSH 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

HARSH 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

HARSH 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

HARSH 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

HARSH 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

HARSH 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

HARSH 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

HARSH 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

HARSH 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

HARSH 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

HARSH 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

HARSH 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

HARSH 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

HARSH 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

HARSH 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

HARSH 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

HARSH 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

HARSH 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

HARSH 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

HARSH 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

HARSH 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

HARSH 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

HARSH 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

HARSH 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

HARSH 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

HARSH 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

HARSH 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

HARSH 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

HARSH 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

HARSH 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

HARSH 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

HARSH 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

HARSH 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

HARSH 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

HARSH 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

HARSH 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

HARSH 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

HARSH 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

HARSH 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

HARSH 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

HARSH 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

HARSH 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

HARSH 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

HARSH 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

HARSH 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

HARSH 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

HARSH 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

HARSH 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

HARSH 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

HARSH 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

HARSH 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

HARSH 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

HARSH 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

HARSH 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

HARSH 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

HARSH 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

HARSH 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

HARSH 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

HARSH 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

HARSH 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

HARSH 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

HARSH 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

HARSH 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

HARSH 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

HARSH 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

HARSH 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

HARSH 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

HARSH 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

HARSH 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

HARSH 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

HARSH 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

HARSH 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

HARSH 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

HARSH 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

HARSH 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

HARSH 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

HARSH 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

HARSH 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

HARSH 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

HARSH 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

HARSH 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

HARSH 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

HARSH 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

HARSH 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

HARSH 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

HARSH 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

HARSH 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

HARSH 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

HARSH 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

HARSH 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

HARSH 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

HARSH 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

HARSH 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

HARSH 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

HARSH 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

HARSH 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

HARSH 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

HARSH 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

HARSH 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

HARSH 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

HARSH 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

HARSH 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

HARSH 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

HARSH 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

HARSH 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

HARSH 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

HARSH 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

HARSH 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

HARSH 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

HARSH 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

HARSH 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

HARSH 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

HARSH 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

HARSH 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

HARSH 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

HARSH 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

HARSH 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

HARSH 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

HARSH 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

HARSH 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

HARSH 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

HARSH 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

HARSH 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

HARSH 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

HARSH 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

HARSH 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

HARSH 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

HARSH 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

HARSH 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

HARSH 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

HARSH 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

HARSH 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

HARSH 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

HARSH 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

HARSH 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

HARSH 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

HARSH 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

HARSH 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

HARSH 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

HARSH 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

HARSH 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

HARSH 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

HARSH 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

HARSH 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

HARSH 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

HARSH 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

HARSH 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

HARSH 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

HARSH 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

HARSH 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

HARSH 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

HARSH 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

HARSH 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

HARSH 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

HARSH 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

HARSH 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

HARSH 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

HARSH 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

HARSH 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

HARSH 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

HARSH 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

HARSH 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

HARSH 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

HARSH 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

HARSH 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

HARSH 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

HARSH 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

HARSH 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

HARSH 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

HARSH 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

HARSH 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

HARSH 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

HARSH 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

HARSH 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

HARSH 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

HARSH 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

HARSH 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

HARSH 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

HARSH 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

HARSH 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

HARSH 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

HARSH 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

HARSH 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

HARSH 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

HARSH 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

HARSH 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

HARSH 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

HARSH 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

HARSH 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

HARSH 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

HARSH 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

HARSH 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

HARSH 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

HARSH 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

HARSH 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

HARSH 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

HARSH 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

HARSH 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

HARSH 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

HARSH 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

HARSH 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

HARSH 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

HARSH 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

HARSH 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

HARSH 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

HARSH 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

HARSH 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

HARSH 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

HARSH 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

HARSH 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

HARSH 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

HARSH 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

HARSH 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

HARSH 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

HARSH 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

HARSH 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

HARSH 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

HARSH 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

HARSH 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

HARSH 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

HARSH 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

HARSH 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

HARSH 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

HARSH 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

HARSH 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

HARSH 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

HARSH 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

HARSH 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

HARSH 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

HARSH 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

HARSH 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

HARSH 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

HARSH 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

HARSH 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

HARSH 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

HARSH 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

HARSH 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

HARSH 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

HARSH 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

HARSH 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

HARSH 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

HARSH 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

HARSH 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

HARSH 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

HARSH 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

HARSH 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

HARSH 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

HARSH 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

HARSH 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

HARSH 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

HARSH 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

HARSH 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

HARSH 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

HARSH 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

HARSH 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

HARSH 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

HARSH 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

HARSH 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

HARSH 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

HARSH 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

HARSH 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

HARSH 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

HARSH 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

HARSH 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

HARSH 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

HARSH 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

HARSH 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

HARSH 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

HARSH 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

HARSH 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

HARSH 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

HARSH 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

HARSH 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

HARSH 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

HARSH 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

HARSH 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

HARSH 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

HARSH 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

HARSH 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

HARSH 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

HARSH 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

HARSH 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

HARSH 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

HARSH 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

HARSH 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

HARSH 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

HARSH 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

HARSH 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

HARSH 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

HARSH 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

HARSH 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

HARSH 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

HARSH 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

HARSH 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

HARSH 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

HARSH 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

HARSH 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

HARSH 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

HARSH 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

HARSH 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

HARSH 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

HARSH 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

HARSH 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

HARSH 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

HARSH 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

HARSH 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

HARSH 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

HARSH 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

HARSH 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

HARSH 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

HARSH 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

HARSH 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

HARSH 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

HARSH 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

HARSH 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

HARSH 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

HARSH 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

HARSH 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

HARSH 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

HARSH 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

HARSH 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

HARSH 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

HARSH 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

HARSH 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

HARSH 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

HARSH 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

HARSH 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

HARSH 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

HARSH 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

HARSH 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

HARSH 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

HARSH 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

HARSH 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

HARSH 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

HARSH 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

HARSH 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

HARSH 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

HARSH 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

HARSH 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

HARSH 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

HARSH 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

HARSH 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

HARSH 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

HARSH 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

HARSH 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

HARSH 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

HARSH 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

HARSH 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

HARSH 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

HARSH 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

HARSH 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

HARSH 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

HARSH 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

HARSH 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

HARSH 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

HARSH 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

HARSH 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

HARSH 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

HARSH 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

HARSH 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

HARSH 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

HARSH 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

HARSH 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

HARSH 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

HARSH 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

HARSH 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

HARSH 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

HARSH 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

HARSH 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

HARSH 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

HARSH 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

HARSH 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

HARSH 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

HARSH 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

HARSH 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

HARSH 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

HARSH 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

HARSH 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

HARSH 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

HARSH 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

HARSH 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

HARSH 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

HARSH 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

HARSH 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

HARSH 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

HARSH 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

HARSH 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

HARSH 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

HARSH 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

HARSH 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

HARSH 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

HARSH 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

HARSH 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

HARSH 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

HARSH 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

HARSH 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

HARSH 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

HARSH 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

HARSH 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

HARSH 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

HARSH 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

HARSH 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

HARSH 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

HARSH 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

HARSH 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

HARSH 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

HARSH 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

HARSH 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

HARSH 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

HARSH 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

HARSH 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

HARSH 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

HARSH 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

HARSH 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

HARSH 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

HARSH 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

HARSH 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

HARSH 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

HARSH 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

HARSH 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

HARSH 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

HARSH 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

HARSH 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

HARSH 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

HARSH 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

HARSH 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

HARSH 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

HARSH 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

HARSH 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

HARSH 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

HARSH 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

HARSH 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

HARSH 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

HARSH 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

KARN 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

KARN 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

KARN 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

KARN 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

KARN 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

KARN 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

KARN 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

KARN 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

KARN 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

KARN 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

KARN 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

KARN 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

KARN 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

KARN 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

KARN 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

KARN 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

KARN 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

KARN 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

KARN 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

KARN 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

KARN 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

KARN 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

KARN 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

KARN 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

KARN 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

KARN 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

KARN 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

KARN 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

KARN 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

KARN 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

KARN 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

KARN 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

KARN 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

KARN 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

KARN 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

KARN 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

KARN 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

KARN 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

KARN 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

KARN 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

KARN 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

KARN 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

KARN 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

KARN 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

KARN 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

KARN 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

KARN 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

KARN 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

KARN 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

KARN 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

KARN 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

KARN 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

KARN 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

KARN 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

KARN 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

KARN 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

KARN 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

KARN 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

KARN 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

KARN 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

KARN 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

KARN 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

KARN 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

KARN 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

KARN 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

KARN 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

KARN 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

KARN 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

KARN 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

KARN 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

KARN 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

KARN 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

KARN 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

KARN 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

KARN 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

KARN 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

KARN 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

KARN 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

KARN 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

KARN 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

KARN 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

KARN 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

KARN 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

KARN 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

KARN 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

KARN 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

KARN 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

KARN 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

KARN 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

KARN 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

KARN 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

KARN 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

KARN 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

KARN 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

KARN 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

KARN 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

KARN 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

KARN 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

KARN 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

KARN 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

KARN 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

KARN 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

KARN 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

KARN 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

KARN 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

KARN 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

KARN 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

KARN 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

KARN 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

KARN 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

KARN 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

KARN 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

KARN 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

KARN 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

KARN 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

KARN 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

KARN 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

KARN 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

KARN 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

KARN 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

KARN 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

KARN 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

KARN 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

KARN 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

KARN 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

KARN 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

KARN 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

KARN 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

KARN 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

KARN 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

KARN 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

KARN 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

KARN 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

KARN 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

KARN 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

KARN 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

KARN 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

KARN 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

KARN 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

KARN 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

KARN 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

KARN 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

KARN 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

KARN 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

KARN 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

KARN 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

KARN 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

KARN 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

KARN 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

KARN 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

KARN 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

KARN 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

KARN 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

KARN 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

KARN 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

KARN 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

KARN 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

KARN 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

KARN 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

KARN 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

KARN 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

KARN 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

KARN 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

KARN 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

KARN 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

KARN 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

KARN 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

KARN 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

KARN 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

KARN 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

KARN 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

KARN 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

KARN 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

KARN 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

KARN 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

KARN 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

KARN 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

KARN 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

KARN 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

KARN 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

KARN 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

KARN 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

KARN 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

KARN 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

KARN 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

KARN 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

KARN 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

KARN 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

KARN 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

KARN 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

KARN 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

KARN 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

KARN 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

KARN 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

KARN 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

KARN 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

KARN 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

KARN 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

KARN 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

KARN 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

KARN 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

KARN 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

KARN 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

KARN 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

KARN 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

KARN 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

KARN 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

KARN 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

KARN 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

KARN 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

KARN 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

KARN 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

KARN 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

KARN 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

KARN 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

KARN 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

KARN 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

KARN 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

KARN 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

KARN 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

KARN 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

KARN 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

KARN 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

KARN 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

KARN 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

KARN 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

KARN 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

KARN 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

KARN 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

KARN 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

KARN 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

KARN 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

KARN 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

KARN 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

KARN 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

KARN 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

KARN 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

KARN 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

KARN 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

KARN 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

KARN 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

KARN 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

KARN 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

KARN 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

KARN 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

KARN 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

KARN 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

KARN 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

KARN 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

KARN 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

KARN 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

KARN 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

KARN 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

KARN 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

KARN 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

KARN 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

KARN 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

KARN 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

KARN 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

KARN 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

KARN 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

KARN 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

KARN 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

KARN 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

KARN 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

KARN 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

KARN 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

KARN 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

KARN 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

KARN 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

KARN 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

KARN 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

KARN 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

KARN 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

KARN 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

KARN 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

KARN 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

KARN 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

KARN 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

KARN 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

KARN 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

KARN 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

KARN 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

KARN 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

KARN 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

KARN 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

KARN 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

KARN 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

KARN 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

KARN 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

KARN 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

KARN 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

KARN 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

KARN 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

KARN 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

KARN 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

KARN 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

KARN 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

KARN 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

KARN 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

KARN 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

KARN 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

KARN 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

KARN 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

KARN 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

KARN 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

KARN 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

KARN 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

KARN 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

KARN 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

KARN 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

KARN 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

KARN 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

KARN 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

KARN 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

KARN 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

KARN 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

KARN 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

KARN 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

KARN 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

KARN 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

KARN 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

KARN 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

KARN 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

KARN 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

KARN 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

KARN 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

KARN 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

KARN 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

KARN 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

KARN 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

KARN 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

KARN 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

KARN 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

KARN 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

KARN 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

KARN 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

KARN 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

KARN 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

KARN 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

KARN 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

KARN 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

KARN 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

KARN 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

KARN 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

KARN 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

KARN 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

KARN 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

KARN 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

KARN 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

KARN 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

KARN 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

KARN 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

KARN 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

KARN 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

KARN 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

KARN 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

KARN 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

KARN 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

KARN 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

KARN 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

KARN 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

KARN 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

KARN 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

KARN 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

KARN 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

KARN 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

KARN 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

KARN 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

KARN 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

KARN 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

KARN 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

KARN 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

KARN 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

KARN 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

KARN 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

KARN 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

KARN 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

KARN 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

KARN 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

KARN 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

KARN 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

KARN 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

KARN 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

KARN 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

KARN 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

KARN 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

KARN 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

KARN 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

KARN 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

KARN 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

KARN 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

KARN 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

KARN 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

KARN 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

KARN 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

KARN 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

KARN 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

KARN 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

KARN 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

KARN 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

KARN 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

KARN 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

KARN 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

KARN 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

KARN 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

KARN 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

KARN 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

KARN 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

KARN 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

KARN 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

KARN 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

KARN 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

KARN 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

KARN 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

KARN 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

KARN 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

KARN 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

KARN 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

KARN 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

KARN 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

KARN 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

KARN 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

KARN 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

KARN 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

KARN 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

KARN 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

KARN 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

KARN 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

KARN 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

KARN 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

KARN 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

KARN 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

KARN 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

KARN 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

KARN 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

KARN 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

KARN 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

KARN 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

KARN 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

KARN 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

KARN 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

KARN 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

KARN 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

KARN 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

KARN 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

KARN 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

KARN 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

KARN 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

KARN 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

KARN 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

KARN 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

KARN 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

KARN 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

KARN 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

KARN 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

KARN 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

KARN 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

KARN 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

KARN 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

KARN 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

KARN 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

KARN 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

KARN 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

KARN 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

KARN 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

KARN 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

KARN 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

KARN 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

KARN 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

KARN 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

KARN 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

KARN 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

KARN 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

KARN 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

KARN 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

KARN 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

KARN 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

KARN 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

KARN 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

KARN 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

KARN 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

KARN 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

KARN 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

KARN 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

KARN 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

KARN 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

KARN 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

KARN 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

KARN 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

KARN 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

KARN 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

KARN 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

KARN 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

KARN 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

KARN 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

KARN 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

KARN 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

KARN 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

KARN 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

KARN 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

KARN 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

KARN 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

KARN 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

KARN 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

KARN 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

KARN 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

KARN 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

KARN 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

KARN 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

KARN 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

KARN 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

KARN 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

KARN 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

KARN 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

KARN 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

KARN 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

KARN 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

KARN 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

KARN 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

KARN 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

KARN 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

KARN 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

KARN 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

KARN 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

KARN 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

KARN 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

KARN 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

KARN 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

KARN 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

KARN 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

KARN 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

KARN 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

KARN 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

KARN 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

KARN 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

KARN 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

KARN 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

KARN 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

KARN 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

KARN 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

KARN 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

KARN 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

KARN 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

KARN 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

KARN 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

KARN 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

KARN 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

KARN 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

KARN 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

KARN 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

KARN 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

KARN 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

KARN 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

KARN 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

KARN 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

KARN 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

KARN 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

KARN 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

KARN 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

KARN 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

KARN 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

KARN 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

KARN 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

KARN 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

KARN 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

KARN 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

KARN 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

KARN 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

KARN 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

KARN 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

KARN 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

KARN 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

KARN 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

KARN 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

KARN 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

KARN 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

KARN 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

KARN 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

KARN 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

KARN 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

KARN 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

KARN 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

KARN 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

KARN 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

KARN 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

KARN 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

KARN 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

KARN 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

KARN 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

KARN 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

KARN 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

KARN 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

KARN 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

KARN 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

KARN 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

KARN 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

KARN 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

KARN 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

KARN 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

KARN 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

KARN 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

KARN 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

KARN 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

KARN 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

KARN 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

KARN 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

KARN 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

KARN 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

KARN 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

KARN 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

KARN 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

KARN 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

KARN 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

KARN 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

KARN 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

KARN 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

KARN 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

KARN 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

KARN 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

KARN 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

KARN 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

KARN 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

KARN 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

KARN 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

KARN 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

KARN 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

KARN 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

KARN 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

KARN 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

KARN 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

KARN 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

KARN 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

KARN 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

KARN 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

KARN 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

KARN 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

KARN 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

KARN 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

KARN 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

KARN 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

KARN 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

KARN 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

KARN 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

KARN 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

KARN 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

KARN 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

KARN 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

KARN 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

KARN 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

KARN 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

KARN 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

KARN 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

KARN 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

KARN 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

KARN 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

KARN 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

KARN 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

KARN 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

KARN 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

KARN 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

KARN 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

KARN 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

KARN 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

KARN 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

KARN 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

KARN 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

KARN 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

KARN 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

KARN 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

KARN 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

KARN 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

KARN 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

KARN 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

KARN 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

KARN 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

KARN 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

KARN 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

KARN 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

KARN 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

KARN 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

KARN 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

KARN 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

KARN 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

KARN 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

KARN 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

KARN 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

KARN 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

KARN 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

KARN 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

KARN 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

KARN 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

KARN 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

KARN 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

KARN 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

KARN 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

KARN 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

KARN 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

KARN 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

KARN 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

KARN 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

KARN 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

KARN 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

KARN 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

KARN 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

KARN 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

KARN 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

KARN 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

KARN 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

KARN 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

KARN 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

KARN 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

KARN 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

KARN 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

KARN 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

KARN 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

KARN 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

KARN 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

KARN 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

KARN 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

KARN 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

KARN 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

KARN 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

KARN 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

KARN 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

KARN 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

KARN 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

KARN 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

KARN 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

KARN 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

KARN 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

KARN 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

KARN 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

KARN 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

KARN 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

KARN 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

KARN 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

KARN 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

KARN 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

KARN 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

KARN 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

KARN 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

KARN 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

KARN 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

KARN 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

KARN 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

KARN 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

KARN 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

KARN 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

KARN 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

KARN 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

KARN 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

KARN 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

KARN 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

KARN 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

KARN 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

KARN 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

KARN 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

KARN 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

KARN 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

KARN 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

KARN 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

KARN 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

KARN 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

KARN 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

KARN 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

KARN 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

KARN 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

KARN 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

KARN 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

KARN 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

KARN 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

KARN 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

KARN 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

KARN 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

KARN 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

KARN 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

KARN 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

KARN 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

KARN 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

KARN 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

KARN 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

KARN 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

KARN 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

KARN 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

KARN 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

KARN 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

KARN 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

KARN 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

KARN 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

KARN 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

KARN 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

KARN 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

KARN 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

KARN 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

KARN 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

KARN 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

KARN 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

KARN 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

KARN 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

KARN 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

KARN 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

KARN 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

KARN 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

KARN 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

KARN 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

KARN 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

KARN 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

KARN 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

KARN 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

KARN 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

KARN 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

KARN 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

KARN 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

KARN 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

KARN 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

KARN 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

KARN 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

KARN 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

KARN 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

KARN 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

KARN 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

KARN 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

KARN 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

KARN 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

KARN 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

KARN 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

KARN 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

KARN 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

KARN 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

KARN 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

KARN 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

KARN 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

KARN 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

KARN 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

KARN 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

KARN 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

KARN 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

KARN 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

KARN 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

KARN 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

KARN 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

KARN 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

KARN 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

KARN 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

KARN 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

KARN 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

KARN 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

KARN 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

KARN 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

KARN 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

KARN 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

KARN 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

KARN 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

KARN 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

KARN 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

KARN 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

KARN 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

KARN 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

KARN 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

KARN 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

KARN 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

KARN 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

KARN 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

KARN 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

KARN 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

KARN 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

KARN 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

KARN 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

KARN 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

KARN 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

KARN 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

KARN 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

KARN 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

KARN 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

KARN 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

KARN 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

KARN 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

KARN 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

KARN 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

KARN 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

KARN 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

KARN 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

KARN 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

KARN 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

KARN 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

KARN 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

KARN 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

KARN 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

KARN 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

KARN 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

KARN 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

KARN 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

KARN 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

KARN 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

KARN 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

KARN 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

KARN 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

KARN 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

KARN 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

KARN 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

KARN 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

KARN 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

KARN 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

KARN 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

KARN 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

KARN 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

KARN 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

KARN 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

KARN 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

KARN 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

KARN 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

KARN 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

KARN 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

KARN 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

KARN 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

KARN 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

KARN 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

KARN 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

KARN 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

KARN 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

KARN 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

KARN 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

KARN 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

KARN 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

KARN 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

KARN 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

KARN 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

KARN 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

KARN 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

KARN 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

KARN 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

KARN 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

KARN 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

KARN 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

KARN 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

KARN 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

KARN 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

KARN 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

KARN 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

KARN 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

KARN 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

KARN 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

KARN 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

KARN 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

KARN 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

KARN 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

KARN 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

KARN 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

KARN 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

KARN 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

KARN 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

KARN 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

KARN 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

KARN 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

KARN 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

KARN 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

KARN 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

KARN 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

KARN 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

KARN 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

KARN 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

KARN 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

KARN 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

KARN 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

KARN 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

KARN 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

KARN 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

KARN 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

KARN 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

KARN 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

KARN 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

KARN 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

KARN 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

KARN 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

KARN 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

KARN 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

KARN 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

KARN 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

KARN 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

KARN 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

KARN 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

KARN 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

KARN 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

KARN 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

KARN 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

KARN 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

KARN 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

KARN 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

KARN 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

KARN 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

KARN 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

KARN 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

KARN 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

KARN 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

KARN 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

KARN 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

KARN 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

KARN 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

KARN 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

KARN 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

KARN 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

KARN 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

KARN 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

KARN 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

KARN 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

KARN 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

KARN 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

KARN 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

KARN 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

KARN 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

KARN 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

KARN 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

KARN 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

KARN 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

KARN 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

KARN 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

KARN 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

KARN 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

KARN 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

KARN 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

KARN 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

KARN 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

KARN 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

KARN 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

KARN 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

KARN 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

KARN 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

KARN 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

KARN 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

KARN 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

KARN 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

KARN 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

KARN 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

KARN 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

KARN 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

KARN 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

KARN 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

KARN 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

KARN 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

KARN 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

KARN 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

KARN 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

KARN 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

KARN 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

KARN 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

KARN 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

KARN 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

KARN 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

KARN 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

KARN 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

KARN 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

KARN 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

KARN 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

KARN 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

KARN 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

KARN 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

KARN 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

KARN 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

KARN 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

KARN 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

KARN 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

KARN 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

KARN 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

KARN 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

KARN 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

KARN 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

KARN 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

KARN 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

KARN 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

KARN 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

KARN 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

KARN 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

KARN 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

KARN 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

KARN 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

KARN 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

KARN 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

KARN 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

KARN 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

KARN 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

KARN 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

KARN 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

KARN 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

KARN 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

KARN 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

KARN 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

KARN 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

KARN 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

KARN 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

KARN 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

KARN 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

KARN 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

KARN 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

KARN 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

KARN 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

KARN 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

KARN 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

KARN 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

KARN 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

KARN 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

KARN 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

KARN 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

KARN 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

KARN 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

KARN 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

KARN 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

KARN 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

KARN 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

KARN 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

KARN 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

KARN 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

KARN 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

KARN 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

KARN 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

KARN 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

KARN 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

KARN 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

KARN 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

KARN 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

KARN 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

KARN 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

KARN 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

KARN 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

KARN 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

KARN 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

KARN 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

KARN 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

KARN 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

KARN 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

KARN 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

KARN 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

KARN 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

KARN 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

KARN 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

KARN 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

KARN 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

KARN 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

KARN 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

KARN 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

KARN 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

KARN 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

KARN 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

KARN 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

KARN 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

KARN 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

KARN 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

KARN 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

KARN 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

KARN 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

KARN 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

KARN 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

KARN 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

KARN 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

KARN 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

KARN 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

KARN 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

KARN 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

KARN 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

KARN 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

KARN 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

KARN 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

KARN 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

KARN 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

KARN 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

KARN 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

KARN 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

KARN 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

KARN 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

KARN 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

KARN 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

KARN 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

KARN 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

KARN 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

KARN 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

KARN 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

KARN 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

KARN 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

KARN 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

KARN 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

KARN 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

KARN 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

KARN 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

KARN 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

KARN 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

KARN 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

KARN 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

KARN 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

KARN 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

KARN 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

KARN 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

KARN 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

KARN 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

KARN 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

KARN 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

KARN 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

KARN 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

KARN 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

KARN 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

KARN 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

KARN 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

KARN 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

KARN 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

KARN 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

KARN 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

KARN 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

KARN 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

KARN 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

KARN 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

KARN 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

KARN 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

KARN 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

KARN 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

KARN 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

KARN 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

KARN 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

KARN 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

KARN 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

KARN 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

KARN 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

KARN 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

KARN 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

KARN 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

KARN 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

KARN 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

KARN 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

KARN 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

KARN 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

KARN 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

KARN 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

KARN 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

KARN 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

KARN 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

KARN 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

KARN 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

KARN 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

KARN 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

KARN 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

KARN 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

KARN 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

KARN 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

KARN 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

KARN 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

KARN 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

KARN 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

KARN 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

KARN 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

KARN 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

KARN 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

KARN 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

KARN 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

KARN 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

KARN 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

KARN 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

KARN 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

KARN 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

KARN 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

KARN 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

KARN 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

KARN 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

KARN 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

KARN 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

KARN 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

KARN 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

KARN 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

KARN 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

KARN 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

KARN 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

KARN 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

KARN 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

KARN 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

KARN 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

KARN 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

KARN 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

KARN 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

KARN 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

KARN 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

KARN 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

KARN 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

KARN 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

KARN 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

KARN 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

KARN 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

KARN 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

KARN 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

KARN 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

KARN 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

KARN 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

KARN 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

KARN 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

KARN 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

KARN 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

KARN 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

KARN 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

KARN 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

KARN 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

KARN 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

KARN 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

KARN 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

KARN 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

KARN 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

KARN 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

KARN 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

KARN 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

KARN 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

KARN 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

KARN 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

KARN 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

KARN 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

KARN 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

KARN 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

KARN 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

KARN 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

KARN 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

KARN 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

KARN 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

KARN 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

KARN 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

KARN 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

KARN 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

KARN 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

KARN 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

KARN 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

KARN 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

KARN 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

KARN 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

KARN 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

KARN 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

KARN 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

KARN 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

KARN 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

KARN 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

KARN 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

KARN 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

KARN 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

KARN 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

KARN 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

KARN 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

KARN 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

KARN 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

KARN 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

KARN 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

KARN 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

KARN 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

KARN 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

KARN 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

KARN 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

KARN 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

KARN 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

KARN 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

KARN 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

KARN 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

KARN 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

KARN 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

KARN 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

KARN 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

KARN 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

KARN 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

KARN 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

KARN 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

KARN 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

KARN 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

KARN 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

KARN 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

KARN 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

KARN 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

KARN 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

KARN 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

KARN 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

KARN 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

KARN 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

KARN 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

KARN 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

KARN 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

KARN 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

KARN 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

KARN 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

KARN 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

KARN 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

KARN 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

KARN 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

KARN 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

KARN 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

KARN 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

KARN 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

KARN 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

KARN 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

KARN 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

KARN 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

KARN 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

KARN 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

KARN 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

KARN 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

KARN 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

KARN 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

KARN 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

KARN 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

KARN 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

KARN 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

KARN 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

KARN 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

KARN 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

KARN 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

KARN 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

KARN 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

KARN 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

KARN 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

KARN 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

KARN 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

KARN 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

KARN 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

KARN 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

KARN 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

KARN 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

KARN 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

KARN 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

KARN 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

KARN 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

KARN 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

KARN 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

KARN 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

KARN 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

KARN 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

KARN 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

KARN 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

KARN 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

KARN 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

KARN 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

KARN 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

KARN 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

KARN 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

KARN 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

KARN 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

KARN 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

KARN 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

KARN 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

KARN 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

KARN 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

KARN 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

KARN 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

KARN 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

KARN 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

KARN 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

KARN 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

KARN 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

KARN 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

KARN 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

KARN 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

KARN 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

KARN 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

KARN 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

KARN 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

KARN 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

KARN 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

KARN 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

KARN 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

KARN 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

KARN 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

KARN 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

KARN 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

KARN 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

KARN 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

KARN 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

KARN 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

KARN 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

KARN 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

KARN 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

KARN 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

KARN 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

KARN 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

KARN 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

KARN 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

KARN 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

KARN 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

KARN 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

KARN 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

KARN 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

KARN 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

KARN 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

KARN 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

KARN 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

KARN 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

KARN 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

KARN 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

KARN 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

KARN 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

KARN 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

KARN 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

KARN 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

KARN 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

KARN 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

KARN 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

KARN 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

KARN 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

KARN 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

KARN 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

KARN 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

KARN 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

KARN 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

KARN 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

KARN 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

KARN 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

KARN 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

KARN 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

KARN 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

KARN 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

KARN 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

KARN 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

KARN 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

KARN 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

KARN 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

KARN 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

KARN 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

KARN 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

KARN 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

KARN 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

KARN 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

KARN 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

KARN 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

KARN 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

KARN 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

KARN 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

KARN 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

KARN 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

KARN 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

KARN 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

KARN 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

KARN 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

KARN 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

KARN 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

KARN 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

KARN 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

KARN 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

KARN 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

KARN 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

KARN 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

KARN 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

KARN 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

KARN 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

KARN 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

KARN 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

KARN 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

KARN 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

KARN 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

KARN 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

KARN 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

KARN 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

KARN 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

KARN 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

KARN 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

KARN 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

KARN 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

KARN 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

KARN 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

KARN 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

KARN 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

KARN 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

KARN 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

KARN 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

KARN 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

KARN 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

KARN 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

KARN 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

KARN 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

KARN 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

KARN 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

KARN 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

KARN 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

KARN 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

KARN 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

KARN 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

KARN 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

KARN 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

KARN 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

KARN 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

KARN 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

KARN 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

KARN 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

KARN 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

KARN 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

KARN 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

KARN 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

KARN 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

KARN 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

KARN 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

KARN 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

KARN 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

KARN 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

KARN 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

KARN 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

KARN 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

KARN 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

KARN 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

KARN 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

KARN 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

KARN 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

KARN 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

KARN 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

KARN 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

KARN 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

KARN 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

KARN 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

KARN 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

KARN 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

KARN 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

KARN 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

KARN 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

KARN 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

KARN 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

KARN 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

KARN 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

KARN 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

KARN 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

KARN 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

KARN 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

KARN 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

KARN 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

KARN 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

KARN 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

KARN 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

KARN 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

KARN 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

KARN 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

KARN 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

KARN 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

KARN 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

KARN 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

KARN 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

KARN 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

KARN 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

KARN 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

KARN 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

KARN 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

KARN 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

KARN 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

KARN 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

KARN 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

KARN 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

KARN 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

KARN 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

KARN 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

KARN 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

KARN 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

KARN 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

KARN 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

KARN 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

KARN 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

KARN 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

KARN 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

KARN 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

KARN 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

KARN 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

KARN 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

KARN 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

KARN 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

KARN 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

KARN 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

KARN 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

KARN 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

KARN 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

KARN 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

KARN 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

KARN 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

KARN 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

KARN 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

KARN 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

KARN 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

KARN 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

KARN 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

KARN 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

KARN 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

KARN 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

KARN 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

KARN 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

KARN 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

KARN 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

KARN 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

KARN 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

KARN 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

KARN 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

KARN 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

KARN 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

KARN 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

KARN 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

KARN 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

KARN 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

KARN 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

KARN 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

KARN 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

KARN 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

KARN 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

KARN 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

KARN 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

KARN 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

KARN 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

KARN 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

KARN 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

KARN 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

KARN 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

KARN 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

KARN 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

KARN 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

KARN 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

KARN 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

KARN 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

KARN 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

KARN 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

KARN 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

KARN 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

KARN 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

KARN 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

KARN 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

KARN 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

KARN 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

KARN 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

KARN 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

KARN 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

KARN 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

KARN 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

KARN 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

KARN 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

KARN 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

KARN 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

KARN 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

KARN 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

KARN 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

KARN 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

KARN 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

KARN 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

KARN 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

KARN 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

KARN 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

KARN 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

KARN 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

KARN 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

KARN 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

KARN 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

KARN 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

KARN 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

KARN 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

KARN 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

KARN 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

KARN 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

KARN 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

KARN 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

KARN 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

KARN 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

KARN 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

KARN 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

KARN 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

KARN 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

KARN 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

KARN 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

KARN 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

KARN 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

KARN 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

KARN 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

KARN 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

KARN 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

KARN 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

KARN 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

KARN 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

KARN 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

KARN 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

KARN 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

KARN 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

KARN 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

KARN 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

KARN 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

KARN 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

KARN 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

KARN 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

KARN 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

KARN 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

KARN 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

KARN 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

KARN 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

KARN 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

KARN 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

KARN 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

KARN 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

KARN 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

KARN 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

KARN 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

KARN 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

KARN 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

KARN 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

KARN 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

KARN 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

KARN 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

KARN 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

KARN 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

KARN 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

KARN 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

KARN 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

KARN 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

KARN 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

KARN 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

KARN 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

KARN 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

KARN 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

KARN 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

KARN 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

KARN 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

KARN 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

KARN 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

KARN 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

KARN 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

KARN 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

KARN 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

KARN 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

KARN 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

KARN 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

KARN 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

KARN 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

KARN 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

KARN 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

KARN 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

KARN 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

KARN 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

KARN 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

KARN 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

KARN 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

KARN 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

KARN 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

KARN 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

KARN 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

KARN 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

KARN 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

KARN 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

KARN 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

KARN 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

KARN 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

KARN 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

KARN 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

KARN 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

KARN 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

KARN 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

KARN 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

KARN 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

KARN 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

KARN 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

KARN 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

KARN 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

KARN 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

KARN 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

KARN 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

KARN 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

KARN 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

KARN 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

KARN 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

KARN 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

KARN 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

KARN 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

KARN 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

KARN 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

KARN 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

KARN 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

KARN 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

KARN 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

KARN 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

KARN 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

KARN 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

KARN 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

KARN 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

KARN 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

KARN 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

KARN 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

KARN 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

KARN 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

KARN 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

KARN 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

KARN 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

KARN 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

KARN 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

KARN 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

KARN 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

KARN 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

KARN 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

KARN 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

KARN 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

KARN 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

KARN 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

KARN 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

KARN 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

KARN 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

KARN 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

KARN 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

KARN 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

KARN 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

KARN 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

KARN 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

KARN 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

KARN 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

KARN 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

KARN 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

KARN 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

KARN 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

KARN 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

KARN 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

KARN 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

KARN 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

KARN 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

KARN 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

KARN 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

KARN 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

KARN 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

KARN 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

KARN 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

KARN 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

KARN 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

KARN 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

KARN 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

KARN 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

KARN 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

KARN 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

KARN 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

KARN 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

KARN 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

KARN 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

KARN 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

KARN 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

KARN 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

KARN 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

KARN 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

KARN 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

KARN 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

KARN 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

KARN 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

KARN 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

KARN 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

KARN 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

KARN 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

KARN 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

KARN 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

KARN 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

KARN 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

KARN 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

KARN 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

KARN 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

KARN 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

KARN 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

KARN 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

KARN 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

KARN 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

KARN 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

KARN 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

KARN 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

KARN 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

KARN 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

KARN 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

KARN 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

KARN 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

KARN 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

KARN 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

KARN 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

KARN 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

KARN 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

KARN 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

KARN 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

KARN 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

KARN 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

KARN 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

KARN 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

KARN 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

KARN 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

KARN 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

KARN 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

KARN 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

KARN 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

KARN 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

KARN 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

KARN 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

KARN 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

KARN 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

KARN 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

KARN 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

KARN 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

KARN 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

KARN 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

KARN 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

KARN 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

KARN 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

KARN 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

KARN 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

KARN 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

KARN 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

KARN 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

KARN 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

KARN 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

KARN 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

KARN 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

KARN 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

KARN 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

KARN 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

KARN 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

KARN 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

KARN 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

KARN 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

KARN 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

KARN 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

KARN 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

KARN 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

KARN 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

KARN 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

KARN 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

KARN 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

KARN 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

KARN 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

KARN 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

KARN 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

KARN 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

KARN 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

KARN 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

KARN 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

KARN 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

KARN 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

KARN 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

KARN 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

KARN 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

KARN 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

KARN 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

KARN 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

KARN 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

KARN 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

KARN 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

KARN 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

KARN 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

KARN 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

KARN 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

KARN 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

KARN 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

KARN 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

KARN 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

KARN 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

KARN 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

KARN 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

KARN 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

KARN 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

KARN 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

KARN 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

KARN 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

KARN 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

KARN 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

KARN 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

KARN 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

KARN 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

KARN 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

KARN 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

KARN 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

KARN 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

KARN 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

KARN 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

KARN 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

KARN 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

KARN 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

KARN 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

KARN 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

KARN 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

KARN 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

KARN 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

KARN 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

KARN 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

KARN 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

KARN 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

KARN 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

KARN 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

KARN 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

KARN 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

KARN 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

KARN 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

KARN 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

KARN 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

KARN 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

KARN 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

KARN 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

KARN 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

KARN 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

KARN 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

KARN 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

KARN 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

KARN 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

KARN 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

KARN 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

KARN 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

KARN 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

KARN 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

KARN 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

KARN 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

KARN 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

KARN 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

KARN 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

KARN 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

KARN 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

KARN 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

KARN 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

KARN 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

KARN 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

KARN 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

KARN 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

KARN 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

KARN 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

KARN 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

KARN 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

KARN 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

KARN 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

KARN 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

KARN 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

KARN 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

KARN 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

KARN 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

KARN 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

KARN 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

KARN 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

KARN 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

KARN 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

KARN 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

KARN 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

KARN 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

KARN 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

KARN 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

KARN 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

KARN 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

KARN 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

KARN 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

KARN 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

KARN 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

KARN 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

KARN 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

KARN 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

KARN 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

KARN 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

KARN 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

KARN 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

KARN 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

KARN 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

KARN 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

KARN 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

KARN 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

KARN 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

KARN 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

KARN 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

KARN 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

KARN 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

KARN 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

KARN 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

KARN 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

KARN 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

KARN 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

KARN 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

KARN 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

KARN 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

KARN 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

KARN 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

KARN 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

KARN 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

KARN 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

KARN 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

KARN 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

KARN 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

KARN 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

KARN 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

KARN 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

KARN 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

KARN 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

KARN 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

KARN 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

KARN 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

KARN 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

KARN 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

KARN 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

KARN 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

KARN 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

KARN 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

KARN 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

KARN 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

KARN 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

KARN 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

KARN 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

KARN 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

KARN 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

KARN 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

KARN 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

KARN 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

KARN 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

KARN 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

KARN 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

KARN 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

KARN 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

KARN 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

KARN 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

KARN 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

KARN 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

KARN 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

KARN 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

KARN 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

KARN 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

KARN 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

KARN 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

KARN 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

KARN 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

KARN 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

KARN 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

KARN 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

KARN 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

KARN 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

KARN 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

KARN 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

KARN 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

KARN 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

KARN 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

KARN 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

KARN 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

KARN 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

KARN 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

KARN 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

KARN 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

KARN 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

KARN 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

KARN 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

KARN 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

KARN 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

KARN 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

KARN 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

KARN 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

KARN 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

KARN 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

KARN 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

KARN 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

KARN 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

KARN 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

KARN 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

KARN 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

KARN 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

KARN 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

KARN 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

KARN 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

KARN 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

KARN 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

KARN 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

KARN 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

KARN 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

KARN 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

KARN 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

KARN 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

KARN 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

KARN 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

KARN 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

KARN 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

KARN 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

KARN 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

KARN 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

KARN 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

KARN 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

KARN 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

KARN 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

KARN 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

KARN 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

KARN 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

KARN 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

KARN 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

KARN 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

KARN 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

KARN 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

KARN 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

KARN 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

KARN 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

KARN 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

KARN 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

KARN 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

KARN 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

KARN 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

KARN 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

KARN 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

KARN 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

KARN 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

KARN 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

KARN 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

KARN 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

KARN 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

KARN 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

KARN 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

KARN 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

KARN 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

KARN 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

KARN 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

KARN 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

KARN 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

KARN 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

KARN 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

KARN 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

KARN 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

KARN 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

KARN 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

KARN 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

KARN 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

KARN 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

KARN 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

KARN 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

KARN 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

KARN 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

KARN 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

KARN 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

KARN 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

KARN 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

KARN 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

KARN 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

KARN 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

KARN 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

KARN 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

KARN 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

KARN 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

KARN 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

KARN 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

KARN 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

KARN 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

KARN 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

KARN 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

KARN 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

KARN 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

KARN 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

KARN 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

KARN 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

KARN 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

KARN 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

KARN 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

KARN 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

KARN 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

KARN 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

KARN 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

KARN 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

KARN 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

KARN 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

KARN 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

KARN 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

KARN 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

KARN 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

KARN 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

KARN 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

KARN 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

KARN 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

KARN 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

KARN 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

KARN 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

KARN 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

KARN 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

KARN 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

KARN 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

KARN 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

KARN 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

KARN 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

KARN 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

KARN 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

KARN 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

KARN 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

KARN 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

KARN 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

KARN 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

KARN 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

KARN 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

KARN 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

KARN 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

KARN 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

KARN 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

KARN 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

KARN 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

KARN 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

KARN 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

KARN 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

KARN 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

KARN 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

KARN 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

KARN 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

KARN 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

KARN 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

KARN 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

KARN 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

KARN 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

KARN 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

KARN 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

KARN 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

KARN 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

KARN 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

KARN 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

KARN 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

KARN 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

KARN 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

KARN 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

KARN 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

KARN 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

KARN 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

KARN 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

KARN 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

KARN 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

KARN 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

KARN 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

KARN 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

KARN 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

KARN 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

KARN 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

KARN 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

KARN 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

KARN 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

KARN 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

KARN 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

KARN 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

KARN 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

KARN 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

KARN 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

KARN 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

KARN 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

KARN 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

KARN 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

KARN 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

KARN 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

KARN 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

KARN 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

KARN 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

KARN 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

KARN 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

KARN 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

KARN 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

KARN 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

KARN 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

KARN 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

KARN 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

KARN 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

KARN 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

KARN 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

KARN 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

KARN 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

KARN 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

KARN 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

KARN 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

KARN 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

KARN 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

KARN 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

KARN 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

KARN 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

KARN 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

KARN 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

KARN 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

KARN 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

KARN 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

KARN 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

KARN 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

KARN 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

KARN 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

KARN 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

KARN 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

KARN 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

KARN 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

KARN 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

KARN 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

KARN 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

KARN 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

KARN 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

KARN 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

KARN 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

KARN 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

KARN 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

KARN 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

KARN 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

KARN 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

KARN 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

KARN 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

KARN 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

KARN 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

KARN 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

KARN 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

KARN 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

KARN 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

KARN 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

KARN 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

KARN 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

KARN 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

KARN 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

KARN 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

KARN 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

KARN 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

KARN 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

KARN 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

KARN 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

KARN 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

KARN 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

KARN 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

KARN 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

KARN 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

KARN 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

KARN 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

KARN 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

KARN 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

KARN 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

KARN 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

KARN 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

KARN 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

KARN 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

KARN 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

KARN 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

KARN 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

KARN 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

KARN 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

KARN 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

KARN 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

KARN 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

KARN 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

KARN 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

KARN 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

KARN 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

KARN 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

KARN 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

KARN 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

KARN 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

KARN 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

KARN 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

KARN 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

KARN 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

KARN 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

KARN 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

KARN 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

KARN 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

KARN 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

KARN 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

KARN 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

KARN 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

KARN 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

KARN 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

KARN 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

KARN 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

KARN 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

KARN 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

KARN 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

KARN 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

KARN 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

KARN 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

KARN 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

KARN 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

KARN 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

*FILE7*

ATOM 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

ATOM 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

ATOM 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

ATOM 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

ATOM 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

ATOM 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

ATOM 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

ATOM 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

ATOM 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

ATOM 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

ATOM 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

ATOM 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

ATOM 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

ATOM 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

ATOM 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

ATOM 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

ATOM 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

ATOM 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

ATOM 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

ATOM 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

ATOM 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

ATOM 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

ATOM 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

ATOM 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

ATOM 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

ATOM 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

ATOM 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

ATOM 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

ATOM 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

ATOM 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

ATOM 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

ATOM 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

ATOM 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

ATOM 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

ATOM 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

ATOM 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

ATOM 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

ATOM 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

ATOM 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

ATOM 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

ATOM 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

ATOM 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

ATOM 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

ATOM 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

ATOM 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

ATOM 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

ATOM 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

ATOM 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

ATOM 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

ATOM 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

ATOM 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

ATOM 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

ATOM 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

ATOM 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

ATOM 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

ATOM 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

ATOM 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

ATOM 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

ATOM 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

ATOM 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

ATOM 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

ATOM 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

ATOM 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

ATOM 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

ATOM 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

ATOM 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

ATOM 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

ATOM 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

ATOM 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

ATOM 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

ATOM 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

ATOM 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

ATOM 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

ATOM 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

ATOM 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

ATOM 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

ATOM 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

ATOM 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

ATOM 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

ATOM 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

ATOM 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

ATOM 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

ATOM 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

ATOM 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

ATOM 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

ATOM 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

ATOM 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

ATOM 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

ATOM 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

ATOM 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

ATOM 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

ATOM 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

ATOM 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

ATOM 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

ATOM 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

ATOM 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

ATOM 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

ATOM 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

ATOM 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

ATOM 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

ATOM 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

ATOM 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

ATOM 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

ATOM 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

ATOM 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

ATOM 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

ATOM 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

ATOM 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

ATOM 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

ATOM 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

ATOM 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

ATOM 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

ATOM 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

ATOM 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

ATOM 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

ATOM 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

ATOM 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

ATOM 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

ATOM 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

ATOM 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

ATOM 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

ATOM 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

ATOM 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

ATOM 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

ATOM 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

ATOM 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

ATOM 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

ATOM 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

ATOM 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

ATOM 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

ATOM 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

ATOM 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

ATOM 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

ATOM 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

ATOM 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

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ATOM 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

ATOM 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

ATOM 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

ATOM 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

ATOM 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

ATOM 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

ATOM 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

ATOM 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

ATOM 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

ATOM 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

ATOM 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

ATOM 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

ATOM 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

ATOM 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

ATOM 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

ATOM 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

ATOM 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

ATOM 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

ATOM 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

ATOM 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

ATOM 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

ATOM 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

ATOM 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

ATOM 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

ATOM 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

ATOM 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

ATOM 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

ATOM 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

ATOM 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

ATOM 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

ATOM 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

ATOM 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

ATOM 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

ATOM 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

ATOM 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

ATOM 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

ATOM 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

ATOM 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

ATOM 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

ATOM 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

ATOM 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

ATOM 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

ATOM 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

ATOM 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

ATOM 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

ATOM 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

ATOM 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

ATOM 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

ATOM 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

ATOM 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

ATOM 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

ATOM 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

ATOM 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

ATOM 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

ATOM 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

ATOM 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

ATOM 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

ATOM 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

ATOM 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

ATOM 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

ATOM 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

ATOM 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

ATOM 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

ATOM 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

ATOM 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

ATOM 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

ATOM 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

ATOM 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

ATOM 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

ATOM 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

ATOM 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

ATOM 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

ATOM 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

ATOM 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

ATOM 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

ATOM 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

ATOM 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

ATOM 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

ATOM 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

ATOM 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

ATOM 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

ATOM 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

ATOM 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

ATOM 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

ATOM 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

ATOM 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

ATOM 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

ATOM 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

ATOM 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

ATOM 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

ATOM 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

ATOM 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

ATOM 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

ATOM 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

ATOM 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

ATOM 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

ATOM 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

ATOM 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

ATOM 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

ATOM 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

ATOM 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

ATOM 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

ATOM 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

ATOM 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

ATOM 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

ATOM 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

ATOM 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

ATOM 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

ATOM 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

ATOM 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

ATOM 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

ATOM 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

ATOM 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

ATOM 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

ATOM 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

ATOM 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

ATOM 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

ATOM 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

ATOM 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

ATOM 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

ATOM 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

ATOM 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

ATOM 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

ATOM 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

ATOM 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

ATOM 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

ATOM 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

ATOM 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

ATOM 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

ATOM 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

ATOM 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

ATOM 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

ATOM 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

ATOM 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

ATOM 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

ATOM 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

ATOM 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

ATOM 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

ATOM 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

ATOM 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

ATOM 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

ATOM 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

ATOM 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

ATOM 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

ATOM 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

ATOM 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

ATOM 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

ATOM 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

ATOM 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

ATOM 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

ATOM 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

ATOM 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

ATOM 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

ATOM 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

ATOM 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

ATOM 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

ATOM 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

ATOM 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

ATOM 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

ATOM 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

ATOM 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

ATOM 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

ATOM 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

ATOM 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

ATOM 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

ATOM 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

ATOM 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

ATOM 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

ATOM 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

ATOM 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

ATOM 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

ATOM 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

ATOM 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

ATOM 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

ATOM 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

ATOM 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

ATOM 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

ATOM 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

ATOM 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

ATOM 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

ATOM 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

ATOM 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

ATOM 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

ATOM 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

ATOM 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

ATOM 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

ATOM 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

ATOM 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

ATOM 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

ATOM 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

ATOM 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

ATOM 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

ATOM 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

ATOM 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

ATOM 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

ATOM 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

ATOM 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

ATOM 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

ATOM 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

ATOM 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

ATOM 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

ATOM 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

ATOM 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

ATOM 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

ATOM 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

ATOM 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

ATOM 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

ATOM 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

ATOM 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

ATOM 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

ATOM 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

ATOM 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

HETATM 2572 CD MTX A 161 19.921 68.524 28.357 1.00 41.50 C

HETATM 2607 CD MTX B 162 16.286 70.898 36.272 1.00 49.50 C

*FILE8*

ATOM 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

ATOM 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

ATOM 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

ATOM 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

ATOM 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

ATOM 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

ATOM 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

ATOM 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

ATOM 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

ATOM 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

ATOM 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

ATOM 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

ATOM 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

ATOM 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

ATOM 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

ATOM 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

ATOM 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

ATOM 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

ATOM 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

ATOM 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

ATOM 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

ATOM 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

ATOM 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

ATOM 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

ATOM 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

ATOM 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

ATOM 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

ATOM 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

ATOM 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

ATOM 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

ATOM 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

ATOM 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

ATOM 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

ATOM 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

ATOM 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

ATOM 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

ATOM 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

ATOM 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

ATOM 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

ATOM 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

ATOM 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

ATOM 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

ATOM 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

ATOM 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

ATOM 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

ATOM 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

ATOM 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

ATOM 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

ATOM 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

ATOM 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

ATOM 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

ATOM 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

ATOM 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

ATOM 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

ATOM 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

ATOM 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

ATOM 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

ATOM 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

ATOM 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

ATOM 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

ATOM 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

ATOM 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

ATOM 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

ATOM 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

ATOM 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

ATOM 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

ATOM 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

ATOM 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

ATOM 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

ATOM 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

*FILE9*

ATOM 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

ATOM 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

ATOM 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

ATOM 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

ATOM 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

ATOM 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

ATOM 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

ATOM 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

ATOM 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

ATOM 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

ATOM 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

ATOM 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

ATOM 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

ATOM 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

ATOM 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

ATOM 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

ATOM 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

ATOM 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

ATOM 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

ATOM 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

ATOM 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

ATOM 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

ATOM 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

ATOM 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

ATOM 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

ATOM 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

ATOM 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

ATOM 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

ATOM 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

ATOM 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

ATOM 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

ATOM 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

ATOM 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

ATOM 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

ATOM 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

ATOM 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

ATOM 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

ATOM 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

ATOM 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

ATOM 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

ATOM 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

ATOM 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

ATOM 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

ATOM 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

ATOM 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

ATOM 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

ATOM 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

ATOM 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

ATOM 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

ATOM 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

ATOM 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

ATOM 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

ATOM 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

ATOM 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

ATOM 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

ATOM 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

ATOM 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

ATOM 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

ATOM 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

ATOM 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

ATOM 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

ATOM 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

ATOM 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

ATOM 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

ATOM 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

ATOM 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

ATOM 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

ATOM 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

ATOM 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

*FILE10*

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

ATOM 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

ATOM 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

ATOM 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

ATOM 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

ATOM 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

ATOM 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

ATOM 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

ATOM 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

ATOM 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

ATOM 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

ATOM 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

ATOM 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

ATOM 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

ATOM 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

ATOM 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

ATOM 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

ATOM 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

ATOM 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

ATOM 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

ATOM 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

ATOM 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

ATOM 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

ATOM 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

ATOM 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

ATOM 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

ATOM 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

ATOM 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

ATOM 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

ATOM 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

ATOM 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

ATOM 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

ATOM 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

ATOM 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

ATOM 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

ATOM 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

ATOM 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

ATOM 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

*FILE11*

HEADER OXIDOREDUCTASE 25-JUN-82 4DFR

TITLE CRYSTAL STRUCTURES OF ESCHERICHIA COLI AND LACTOBACILLUS CASEI

TITLE 2 DIHYDROFOLATE REDUCTASE REFINED AT 1.7 ANGSTROMS RESOLUTION. I.

TITLE 3 GENERAL FEATURES AND BINDING OF METHOTREXATE

TOTAL COUNT OF AMINO ACIDS IS 318

COUNT OF ALANINES IS 26

COUNT OF TRYPTOPHANS IS 10

COUNT OF AMINO ACIDS WITH POLAR SIDE CHAINS IS 148

SUM OF ALL X-COORDINATES : 50656.1

SUM OF ALL Y-COORDINATES : 157120

SUM OF ALL Z-COORDINATES : 89316.1

COMPND MOL\_ID: 1;

COMPND 2 MOLECULE: DIHYDROFOLATE REDUCTASE;

COMPND 3 CHAIN: A, B;

COMPND 4 EC: 1.5.1.3;

COMPND 5 ENGINEERED: YES

SOURCE MOL\_ID: 1;

SOURCE 2 ORGANISM\_SCIENTIFIC: ESCHERICHIA COLI;

SOURCE 3 ORGANISM\_TAXID: 37762;

SOURCE 4 STRAIN: B

KEYWDS OXIDO-REDUCTASE, OXIDOREDUCTASE

EXPDTA X-RAY DIFFRACTION

AUTHOR D.J.FILMAN,D.A.MATTHEWS,J.T.BOLIN,J.KRAUT

REVDAT 14 29-NOV-17 4DFR 1 KEYWDS HELIX

REVDAT 13 13-JUL-11 4DFR 1 VERSN

REVDAT 12 26-JAN-10 4DFR 1 ATOM REMARK

REVDAT 11 24-FEB-09 4DFR 1 VERSN

REVDAT 10 01-APR-03 4DFR 1 JRNL

REVDAT 9 15-JUL-92 4DFR 1 FORMUL

REVDAT 8 15-APR-91 4DFR 1 FORMUL

REVDAT 7 16-JUL-87 4DFR 1 SOURCE REMARK

REVDAT 6 12-JUL-85 4DFR 2 CONECT

REVDAT 5 22-FEB-84 4DFR 1 REMARK

REVDAT 4 31-JAN-84 4DFR 1 REMARK

REVDAT 3 30-SEP-83 4DFR 1 REVDAT

REVDAT 2 07-MAR-83 4DFR 1 JRNL REMARK

REVDAT 1 21-OCT-82 4DFR 0

SPRSDE 21-OCT-82 4DFR 2DFR

JRNL AUTH J.T.BOLIN,D.J.FILMAN,D.A.MATTHEWS,R.C.HAMLIN,J.KRAUT

JRNL TITL CRYSTAL STRUCTURES OF ESCHERICHIA COLI AND LACTOBACILLUS

JRNL TITL 2 CASEI DIHYDROFOLATE REDUCTASE REFINED AT 1.7 A RESOLUTION.

JRNL TITL 3 I. GENERAL FEATURES AND BINDING OF METHOTREXATE.

JRNL REF J.BIOL.CHEM. V. 257 13650 1982

JRNL REFN ISSN 0021-9258

JRNL PMID 6815178

REMARK 1

REMARK 1 REFERENCE 1

REMARK 1 AUTH K.M.PERRY,J.J.ONUFFER,N.A.TOUCHETTE,C.S.HERNDON,

REMARK 1 AUTH 2 M.S.GITTELMAN,C.R.MATTHEWS,J.-T.CHEN,R.J.MAYER,K.TAIRA,

REMARK 1 AUTH 3 S.J.BENKOVIC,E.E.HOWELL,J.KRAUT

REMARK 1 TITL EFFECT OF SINGLE AMINO ACID REPLACEMENTS ON THE FOLDING AND

REMARK 1 TITL 2 STABILITY OF DIHYDROFOLATE REDUCTASE FROM ESCHERICHIA COLI

REMARK 1 REF BIOCHEMISTRY V. 26 2674 1987

REMARK 1 REFN ISSN 0006-2960

REMARK 1 REFERENCE 2

REMARK 1 AUTH D.J.FILMAN,J.T.BOLIN,D.A.MATTHEWS,J.KRAUT

REMARK 1 TITL CRYSTAL STRUCTURES OF ESCHERICHIA COLI AND LACTOBACILLUS

REMARK 1 TITL 2 CASEI DIHYDROFOLATE REDUCTASE REFINED AT 1.7 ANGSTROMS

REMARK 1 TITL 3 RESOLUTION. II. ENVIRONMENT OF BOUND NADPH AND IMPLICATIONS

REMARK 1 TITL 4 FOR CATALYSIS

REMARK 1 REF J.BIOL.CHEM. V. 257 13663 1982

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 3

REMARK 1 AUTH K.W.VOLZ,D.A.MATTHEWS,R.A.ALDEN,S.T.FREER,C.HANSCH,

REMARK 1 AUTH 2 B.T.KAUFMAN,J.KRAUT

REMARK 1 TITL CRYSTAL STRUCTURE OF AVIAN DIHYDROFOLATE REDUCTASE

REMARK 1 TITL 2 CONTAINING PHENYLTRIAZINE AND NADPH

REMARK 1 REF J.BIOL.CHEM. V. 257 2528 1982

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 4

REMARK 1 AUTH D.A.MATTHEWS

REMARK 1 TITL INTERPRETATION OF NUCLEAR MAGNETIC RESONANCE SPECTRA FOR

REMARK 1 TITL 2 LACTOBACILLUS CASEI DIHYDROFOLATE REDUCTASE BASED ON THE

REMARK 1 TITL 3 X-RAY STRUCTURE OF THE ENZYME-METHOTREXATE-NADPH COMPLEX

REMARK 1 REF BIOCHEMISTRY V. 18 1602 1979

REMARK 1 REFN ISSN 0006-2960

REMARK 1 REFERENCE 5

REMARK 1 AUTH D.A.MATTHEWS,R.A.ALDEN,S.T.FREER,N.-H.XUONG,J.KRAUT

REMARK 1 TITL DIHYDROFOLATE REDUCTASE FROM LACTOBACILLUS CASEI.

REMARK 1 TITL 2 STEREOCHEMISTRY OF NADPH BINDING

REMARK 1 REF J.BIOL.CHEM. V. 254 4144 1979

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 6

REMARK 1 AUTH M.POE,K.HOOGSTEEN,D.A.MATTHEWS

REMARK 1 TITL PROTON MAGNETIC RESONANCE STUDIES ON ESCHERICHIA COLI

REMARK 1 TITL 2 DIHYDROFOLATE REDUCTASE. ASSIGNMENT OF HISTIDINE C-2 PROTONS

REMARK 1 TITL 3 IN BINARY COMPLEXES WITH FOLATES ON THE BASIS OF THE CRYSTAL

REMARK 1 TITL 4 STRUCTURE WITH METHOTREXATE AND ON CHEMICAL MODIFICATIONS

REMARK 1 REF J.BIOL.CHEM. V. 254 8143 1979

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 7

REMARK 1 AUTH D.A.MATTHEWS,R.A.ALDEN,J.T.BOLIN,D.J.FILMAN,S.T.FREER,

REMARK 1 AUTH 2 R.HAMLIN,W.G.J.HOL,R.L.KISLIUK,E.J.PASTORE,L.T.PLANTE,

REMARK 1 AUTH 3 N.-H.XUONG,J.KRAUT

REMARK 1 TITL DIHYDROFOLATE REDUCTASE FROM LACTOBACILLUS CASEI. X-RAY

REMARK 1 TITL 2 STRUCTURE OF THE ENZYME-METHOTREXATE-NADPH COMPLEX

REMARK 1 REF J.BIOL.CHEM. V. 253 6946 1978

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 8

REMARK 1 AUTH C.D.BENNETT,J.A.RODKEY,J.M.SONDEY,R.HIRSCHMANN

REMARK 1 TITL DIHYDROFOLATE REDUCTASE. THE AMINO ACID SEQUENCE OF THE

REMARK 1 TITL 2 ENZYME FROM A METHOTREXATE-RESISTANT MUTANT OF ESCHERICHIA

REMARK 1 TITL 3 COLI

REMARK 1 REF BIOCHEMISTRY V. 17 1328 1978

REMARK 1 REFN ISSN 0006-2960

REMARK 1 REFERENCE 9

REMARK 1 AUTH D.A.MATTHEWS,R.A.ALDEN,J.T.BOLIN,S.T.FREER,R.HAMLIN,N.XUONG,

REMARK 1 AUTH 2 J.KRAUT,M.POE,M.WILLIAMS,K.HOOGSTEEN

REMARK 1 TITL DIHYDROFOLATE REDUCTASE. X-RAY STRUCTURE OF THE BINARY

REMARK 1 TITL 2 COMPLEX WITH METHOTREXATE

REMARK 1 REF SCIENCE V. 197 452 1977

REMARK 1 REFN ISSN 0036-8075

REMARK 1 REFERENCE 10

REMARK 1 AUTH M.POE,N.J.GREENFIELD,J.M.HIRSHFIELD,M.N.WILLIAMS,K.HOOGSTEEN

REMARK 1 TITL DIHYDROFOLATE REDUCTASE. PURIFICATION AND CHARACTERIZATION

REMARK 1 TITL 2 OF THE ENZYME FROM AN AMETHOPTERIN-RESISTANT MUTANT OF

REMARK 1 TITL 3 ESCHERICHIA COLI

REMARK 1 REF BIOCHEMISTRY V. 11 1023 1972

REMARK 1 REFN ISSN 0006-2960

REMARK 2

REMARK 2 RESOLUTION. 1.70 ANGSTROMS.

REMARK 3

REMARK 3 REFINEMENT.

REMARK 3 PROGRAM : NULL

REMARK 3 AUTHORS : NULL

REMARK 3

REMARK 3 DATA USED IN REFINEMENT.

REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 1.70

REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : NULL

REMARK 3 DATA CUTOFF (SIGMA(F)) : NULL

REMARK 3 DATA CUTOFF HIGH (ABS(F)) : NULL

REMARK 3 DATA CUTOFF LOW (ABS(F)) : NULL

REMARK 3 COMPLETENESS (WORKING+TEST) (%) : NULL

REMARK 3 NUMBER OF REFLECTIONS : NULL

REMARK 3

REMARK 3 FIT TO DATA USED IN REFINEMENT.

REMARK 3 CROSS-VALIDATION METHOD : NULL

REMARK 3 FREE R VALUE TEST SET SELECTION : NULL

REMARK 3 R VALUE (WORKING SET) : 0.155

REMARK 3 FREE R VALUE : NULL

REMARK 3 FREE R VALUE TEST SET SIZE (%) : NULL

REMARK 3 FREE R VALUE TEST SET COUNT : NULL

REMARK 3 ESTIMATED ERROR OF FREE R VALUE : NULL

REMARK 3

REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.

REMARK 3 TOTAL NUMBER OF BINS USED : NULL

REMARK 3 BIN RESOLUTION RANGE HIGH (A) : NULL

REMARK 3 BIN RESOLUTION RANGE LOW (A) : NULL

REMARK 3 BIN COMPLETENESS (WORKING+TEST) (%) : NULL

REMARK 3 REFLECTIONS IN BIN (WORKING SET) : NULL

REMARK 3 BIN R VALUE (WORKING SET) : NULL

REMARK 3 BIN FREE R VALUE : NULL

REMARK 3 BIN FREE R VALUE TEST SET SIZE (%) : NULL

REMARK 3 BIN FREE R VALUE TEST SET COUNT : NULL

REMARK 3 ESTIMATED ERROR OF BIN FREE R VALUE : NULL

REMARK 3

REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.

REMARK 3 PROTEIN ATOMS : 2508

REMARK 3 NUCLEIC ACID ATOMS : 0

REMARK 3 HETEROGEN ATOMS : 69

REMARK 3 SOLVENT ATOMS : 428

REMARK 3

REMARK 3 B VALUES.

REMARK 3 FROM WILSON PLOT (A\*\*2) : NULL

REMARK 3 MEAN B VALUE (OVERALL, A\*\*2) : NULL

REMARK 3 OVERALL ANISOTROPIC B VALUE.

REMARK 3 B11 (A\*\*2) : NULL

REMARK 3 B22 (A\*\*2) : NULL

REMARK 3 B33 (A\*\*2) : NULL

REMARK 3 B12 (A\*\*2) : NULL

REMARK 3 B13 (A\*\*2) : NULL

REMARK 3 B23 (A\*\*2) : NULL

REMARK 3

REMARK 3 ESTIMATED COORDINATE ERROR.

REMARK 3 ESD FROM LUZZATI PLOT (A) : NULL

REMARK 3 ESD FROM SIGMAA (A) : NULL

REMARK 3 LOW RESOLUTION CUTOFF (A) : NULL

REMARK 3

REMARK 3 CROSS-VALIDATED ESTIMATED COORDINATE ERROR.

REMARK 3 ESD FROM C-V LUZZATI PLOT (A) : NULL

REMARK 3 ESD FROM C-V SIGMAA (A) : NULL

REMARK 3

REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES.

REMARK 3 BOND LENGTHS (A) : 0.070

REMARK 3 BOND ANGLES (DEGREES) : NULL

REMARK 3 DIHEDRAL ANGLES (DEGREES) : NULL

REMARK 3 IMPROPER ANGLES (DEGREES) : NULL

REMARK 3

REMARK 3 ISOTROPIC THERMAL MODEL : NULL

REMARK 3

REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. RMS SIGMA

REMARK 3 MAIN-CHAIN BOND (A\*\*2) : NULL ; NULL

REMARK 3 MAIN-CHAIN ANGLE (A\*\*2) : NULL ; NULL

REMARK 3 SIDE-CHAIN BOND (A\*\*2) : NULL ; NULL

REMARK 3 SIDE-CHAIN ANGLE (A\*\*2) : NULL ; NULL

REMARK 3

REMARK 3 NCS MODEL : NULL

REMARK 3

REMARK 3 NCS RESTRAINTS. RMS SIGMA/WEIGHT

REMARK 3 GROUP 1 POSITIONAL (A) : NULL ; NULL

REMARK 3 GROUP 1 B-FACTOR (A\*\*2) : NULL ; NULL

REMARK 3

REMARK 3 PARAMETER FILE 1 : NULL

REMARK 3 TOPOLOGY FILE 1 : NULL

REMARK 3

REMARK 3 OTHER REFINEMENT REMARKS:

REMARK 3 MOLECULE DESIGNATED AS CHAIN B BELOW IS PREFERRED FOR

REMARK 3 STRUCTURAL COMPARISONS BECAUSE IT IS MORE COMPLETE AND LESS

REMARK 3 PERTURBED BY INTERMOLECULAR CONTACTS.

REMARK 3

REMARK 3 ALTERNATE LOCATIONS \*A\* AND \*B\* ARE PARTIALLY OCCUPIED

REMARK 3 CONFORMATIONS FOR RESIDUES SER A 64, SER A 150,

REMARK 3 HIS B 45, SER B 64 AND ASP B 122. IN ALL CASES, \*A\* IS

REMARK 3 BELIEVED TO BE THE MAJOR CONFORMER. NEITHER THE

REMARK 3 OCCUPANCIES NOR THE THERMAL PARAMETERS SHOULD BE

REMARK 3 CONSIDERED AS RELIABLE.

REMARK 4

REMARK 4 4DFR COMPLIES WITH FORMAT V. 3.30, 13-JUL-11

REMARK 100

REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY BNL.

REMARK 100 THE DEPOSITION ID IS D\_1000179300.

REMARK 200

REMARK 200 EXPERIMENTAL DETAILS

REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION

REMARK 200 DATE OF DATA COLLECTION : NULL

REMARK 200 TEMPERATURE (KELVIN) : NULL

REMARK 200 PH : NULL

REMARK 200 NUMBER OF CRYSTALS USED : NULL

REMARK 200

REMARK 200 SYNCHROTRON (Y/N) : NULL

REMARK 200 RADIATION SOURCE : NULL

REMARK 200 BEAMLINE : NULL

REMARK 200 X-RAY GENERATOR MODEL : NULL

REMARK 200 MONOCHROMATIC OR LAUE (M/L) : NULL

REMARK 200 WAVELENGTH OR RANGE (A) : NULL

REMARK 200 MONOCHROMATOR : NULL

REMARK 200 OPTICS : NULL

REMARK 200

REMARK 200 DETECTOR TYPE : NULL

REMARK 200 DETECTOR MANUFACTURER : NULL

REMARK 200 INTENSITY-INTEGRATION SOFTWARE : NULL

REMARK 200 DATA SCALING SOFTWARE : NULL

REMARK 200

REMARK 200 NUMBER OF UNIQUE REFLECTIONS : NULL

REMARK 200 RESOLUTION RANGE HIGH (A) : NULL

REMARK 200 RESOLUTION RANGE LOW (A) : NULL

REMARK 200 REJECTION CRITERIA (SIGMA(I)) : NULL

REMARK 200

REMARK 200 OVERALL.

REMARK 200 COMPLETENESS FOR RANGE (%) : NULL

REMARK 200 DATA REDUNDANCY : NULL

REMARK 200 R MERGE (I) : NULL

REMARK 200 R SYM (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : NULL

REMARK 200

REMARK 200 IN THE HIGHEST RESOLUTION SHELL.

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : NULL

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : NULL

REMARK 200 COMPLETENESS FOR SHELL (%) : NULL

REMARK 200 DATA REDUNDANCY IN SHELL : NULL

REMARK 200 R MERGE FOR SHELL (I) : NULL

REMARK 200 R SYM FOR SHELL (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR SHELL : NULL

REMARK 200

REMARK 200 DIFFRACTION PROTOCOL: NULL

REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: NULL

REMARK 200 SOFTWARE USED: NULL

REMARK 200 STARTING MODEL: NULL

REMARK 200

REMARK 200 REMARK: NULL

REMARK 280

REMARK 280 CRYSTAL

REMARK 280 SOLVENT CONTENT, VS (%): 51.93

REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS\*\*3/DA): 2.56

REMARK 280

REMARK 280 CRYSTALLIZATION CONDITIONS: NULL

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY

REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 61

REMARK 290

REMARK 290 SYMOP SYMMETRY

REMARK 290 NNNMMM OPERATOR

REMARK 290 1555 X,Y,Z

REMARK 290 2555 -Y,X-Y,Z+1/3

REMARK 290 3555 -X+Y,-X,Z+2/3

REMARK 290 4555 -X,-Y,Z+1/2

REMARK 290 5555 Y,-X+Y,Z+5/6

REMARK 290 6555 X-Y,X,Z+1/6

REMARK 290

REMARK 290 WHERE NNN -> OPERATOR NUMBER

REMARK 290 MMM -> TRANSLATION VECTOR

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS

REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM

REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY

REMARK 290 RELATED MOLECULES.

REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.00000

REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.00000

REMARK 290 SMTRY1 2 -0.500000 -0.866025 0.000000 0.00000

REMARK 290 SMTRY2 2 0.866025 -0.500000 0.000000 0.00000

REMARK 290 SMTRY3 2 0.000000 0.000000 1.000000 24.52000

REMARK 290 SMTRY1 3 -0.500000 0.866025 0.000000 0.00000

REMARK 290 SMTRY2 3 -0.866025 -0.500000 0.000000 0.00000

REMARK 290 SMTRY3 3 0.000000 0.000000 1.000000 49.04000

REMARK 290 SMTRY1 4 -1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 4 0.000000 -1.000000 0.000000 0.00000

REMARK 290 SMTRY3 4 0.000000 0.000000 1.000000 36.78000

REMARK 290 SMTRY1 5 0.500000 0.866025 0.000000 0.00000

REMARK 290 SMTRY2 5 -0.866025 0.500000 0.000000 0.00000

REMARK 290 SMTRY3 5 0.000000 0.000000 1.000000 61.30000

REMARK 290 SMTRY1 6 0.500000 -0.866025 0.000000 0.00000

REMARK 290 SMTRY2 6 0.866025 0.500000 0.000000 0.00000

REMARK 290 SMTRY3 6 0.000000 0.000000 1.000000 12.26000

REMARK 290

REMARK 290 REMARK: NULL

REMARK 300

REMARK 300 BIOMOLECULE: 1

REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM

REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN

REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON

REMARK 300 BURIED SURFACE AREA.

REMARK 300 REMARK: THE MTRIX TRANSFORMATION PRESENTED BELOW WILL SUPERIMPOSE

REMARK 300 MOLECULE B ON MOLECULE A.

REMARK 350

REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN

REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE

REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS

REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND

REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.

REMARK 350

REMARK 350 BIOMOLECULE: 1

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: DIMERIC

REMARK 350 APPLY THE FOLLOWING TO CHAINS: A, B

REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000

REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000

REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000

REMARK 470

REMARK 470 MISSING ATOM

REMARK 470 THE FOLLOWING RESIDUES HAVE MISSING ATOMS (M=MODEL NUMBER;

REMARK 470 RES=RESIDUE NAME; C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;

REMARK 470 I=INSERTION CODE):

REMARK 470 M RES CSSEQI ATOMS

REMARK 470 PRO A 66 CB CG CD

REMARK 470 THR A 68 OG1 CG2

REMARK 470 LYS A 76 CG CD CE NZ

REMARK 470 LYS A 106 CE NZ

REMARK 470 GLU A 129 CD OE1 OE2

REMARK 470 ASP A 131 CG OD1 OD2

REMARK 470 ARG A 159 CD NE CZ NH1 NH2

REMARK 470 GLU B 129 CD OE1 OE2

REMARK 470 ASP B 131 CG OD1 OD2

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: COVALENT BOND LENGTHS

REMARK 500

REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES

REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE

REMARK 500 THAN 6\*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT: (10X,I3,1X,2(A3,1X,A1,I4,A1,1X,A4,3X),1X,F6.3)

REMARK 500

REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999

REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996

REMARK 500

REMARK 500 M RES CSSEQI ATM1 RES CSSEQI ATM2 DEVIATION

REMARK 500 MET A 1 CA MET A 1 CB -0.162

REMARK 500 SER A 3 CB SER A 3 OG 0.100

REMARK 500 ALA A 6 CA ALA A 6 CB 0.158

REMARK 500 ALA A 6 C ALA A 6 O 0.127

REMARK 500 ALA A 9 C ALA A 9 O 0.140

REMARK 500 ARG A 12 CZ ARG A 12 NH1 0.084

REMARK 500 ARG A 12 CZ ARG A 12 NH2 0.085

REMARK 500 TRP A 22 CE2 TRP A 22 CD2 -0.148

REMARK 500 TRP A 22 CZ3 TRP A 22 CH2 -0.150

REMARK 500 TRP A 30 CE2 TRP A 30 CD2 -0.111

REMARK 500 TRP A 30 C PHE A 31 N -0.138

REMARK 500 ARG A 33 CZ ARG A 33 NH1 0.109

REMARK 500 ARG A 33 CZ ARG A 33 NH2 0.170

REMARK 500 GLY A 43 C GLY A 43 O 0.169

REMARK 500 ARG A 44 CG ARG A 44 CD -0.166

REMARK 500 ARG A 44 CD ARG A 44 NE 0.130

REMARK 500 ARG A 44 C HIS A 45 N -0.162

REMARK 500 TRP A 47 CD2 TRP A 47 CE3 -0.124

REMARK 500 GLU A 48 CB GLU A 48 CG -0.186

REMARK 500 GLU A 48 CD GLU A 48 OE2 0.162

REMARK 500 SER A 49 CB SER A 49 OG 0.093

REMARK 500 GLY A 51 N GLY A 51 CA -0.128

REMARK 500 ARG A 52 CZ ARG A 52 NH1 0.116

REMARK 500 PRO A 53 C PRO A 53 O -0.139

REMARK 500 GLY A 56 N GLY A 56 CA -0.109

REMARK 500 ARG A 57 CD ARG A 57 NE -0.107

REMARK 500 ARG A 57 CZ ARG A 57 NH2 0.116

REMARK 500 LYS A 58 CD LYS A 58 CE 0.243

REMARK 500 SER A 64 CB SER A 64 OG 0.156

REMARK 500 GLN A 65 C GLN A 65 O 0.143

REMARK 500 ARG A 71 NE ARG A 71 CZ -0.110

REMARK 500 TRP A 74 CB TRP A 74 CG -0.116

REMARK 500 SER A 77 CA SER A 77 CB 0.120

REMARK 500 VAL A 78 CB VAL A 78 CG2 0.172

REMARK 500 VAL A 78 C VAL A 78 O 0.158

REMARK 500 GLU A 90 CA GLU A 90 CB -0.165

REMARK 500 GLU A 90 CG GLU A 90 CD -0.106

REMARK 500 GLU A 90 CD GLU A 90 OE1 -0.066

REMARK 500 VAL A 93 C VAL A 93 O 0.139

REMARK 500 ARG A 98 CD ARG A 98 NE 0.120

REMARK 500 TYR A 100 C TYR A 100 O -0.150

REMARK 500 PHE A 103 CA PHE A 103 C -0.202

REMARK 500 PRO A 105 CD PRO A 105 N 0.101

REMARK 500 LYS A 109 CB LYS A 109 CG -0.216

REMARK 500 LYS A 109 CE LYS A 109 NZ 0.215

REMARK 500 LYS A 109 C LEU A 110 N -0.224

REMARK 500 TYR A 111 C TYR A 111 O 0.201

REMARK 500 TYR A 111 C LEU A 112 N -0.206

REMARK 500 THR A 113 CB THR A 113 OG1 -0.157

REMARK 500 ILE A 115 CA ILE A 115 CB 0.182

REMARK 500

REMARK 500 THIS ENTRY HAS 183 BOND DEVIATIONS.

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: COVALENT BOND ANGLES

REMARK 500

REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES

REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE

REMARK 500 THAN 6\*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)

REMARK 500

REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999

REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996

REMARK 500

REMARK 500 M RES CSSEQI ATM1 ATM2 ATM3

REMARK 500 MET A 1 CG - SD - CE ANGL. DEV. = 15.2 DEGREES

REMARK 500 LEU A 4 CB - CG - CD1 ANGL. DEV. = 16.6 DEGREES

REMARK 500 ALA A 6 O - C - N ANGL. DEV. = -15.1 DEGREES

REMARK 500 LEU A 8 CB - CG - CD2 ANGL. DEV. = 21.5 DEGREES

REMARK 500 VAL A 10 CG1 - CB - CG2 ANGL. DEV. = -16.6 DEGREES

REMARK 500 VAL A 10 CA - CB - CG1 ANGL. DEV. = 12.4 DEGREES

REMARK 500 VAL A 10 O - C - N ANGL. DEV. = -11.1 DEGREES

REMARK 500 ASP A 11 OD1 - CG - OD2 ANGL. DEV. = -11.8 DEGREES

REMARK 500 ASP A 11 CB - CG - OD1 ANGL. DEV. = 15.9 DEGREES

REMARK 500 ARG A 12 CG - CD - NE ANGL. DEV. = 16.2 DEGREES

REMARK 500 ARG A 12 CD - NE - CZ ANGL. DEV. = 11.2 DEGREES

REMARK 500 ARG A 12 NE - CZ - NH2 ANGL. DEV. = 8.4 DEGREES

REMARK 500 MET A 16 CG - SD - CE ANGL. DEV. = 30.5 DEGREES

REMARK 500 GLU A 17 O - C - N ANGL. DEV. = 9.7 DEGREES

REMARK 500 ASN A 18 OD1 - CG - ND2 ANGL. DEV. = 15.8 DEGREES

REMARK 500 PRO A 21 CA - N - CD ANGL. DEV. = -10.9 DEGREES

REMARK 500 PRO A 21 N - CD - CG ANGL. DEV. = 12.7 DEGREES

REMARK 500 TRP A 22 CD1 - CG - CD2 ANGL. DEV. = -8.9 DEGREES

REMARK 500 TRP A 22 CG - CD1 - NE1 ANGL. DEV. = 6.8 DEGREES

REMARK 500 TRP A 22 CD1 - NE1 - CE2 ANGL. DEV. = -10.5 DEGREES

REMARK 500 TRP A 22 NE1 - CE2 - CZ2 ANGL. DEV. = -16.5 DEGREES

REMARK 500 TRP A 22 CD2 - CE2 - CZ2 ANGL. DEV. = 12.3 DEGREES

REMARK 500 TRP A 22 CE2 - CD2 - CG ANGL. DEV. = 8.4 DEGREES

REMARK 500 TRP A 22 CG - CD2 - CE3 ANGL. DEV. = -8.6 DEGREES

REMARK 500 TRP A 22 CD2 - CE3 - CZ3 ANGL. DEV. = -11.0 DEGREES

REMARK 500 TRP A 22 CE3 - CZ3 - CH2 ANGL. DEV. = 9.3 DEGREES

REMARK 500 TRP A 22 CH2 - CZ2 - CE2 ANGL. DEV. = -16.5 DEGREES

REMARK 500 ASN A 23 CB - CG - OD1 ANGL. DEV. = 17.1 DEGREES

REMARK 500 PRO A 25 O - C - N ANGL. DEV. = -9.9 DEGREES

REMARK 500 ALA A 29 O - C - N ANGL. DEV. = -10.6 DEGREES

REMARK 500 TRP A 30 CG - CD1 - NE1 ANGL. DEV. = -6.5 DEGREES

REMARK 500 TRP A 30 CG - CD2 - CE3 ANGL. DEV. = -6.5 DEGREES

REMARK 500 TRP A 30 CE3 - CZ3 - CH2 ANGL. DEV. = -7.7 DEGREES

REMARK 500 TRP A 30 CZ3 - CH2 - CZ2 ANGL. DEV. = 8.7 DEGREES

REMARK 500 TRP A 30 CA - C - O ANGL. DEV. = -17.0 DEGREES

REMARK 500 TRP A 30 CA - C - N ANGL. DEV. = 17.4 DEGREES

REMARK 500 PHE A 31 CB - CG - CD2 ANGL. DEV. = -9.6 DEGREES

REMARK 500 PHE A 31 CD1 - CG - CD2 ANGL. DEV. = 8.4 DEGREES

REMARK 500 PHE A 31 CG - CD2 - CE2 ANGL. DEV. = -10.7 DEGREES

REMARK 500 LYS A 32 O - C - N ANGL. DEV. = 9.8 DEGREES

REMARK 500 ARG A 33 NE - CZ - NH2 ANGL. DEV. = 4.3 DEGREES

REMARK 500 ASN A 34 CA - C - N ANGL. DEV. = 14.8 DEGREES

REMARK 500 LEU A 36 CB - CG - CD1 ANGL. DEV. = 11.7 DEGREES

REMARK 500 ASP A 37 CB - CG - OD1 ANGL. DEV. = -5.6 DEGREES

REMARK 500 ASP A 37 CB - CG - OD2 ANGL. DEV. = 7.5 DEGREES

REMARK 500 LYS A 38 CA - CB - CG ANGL. DEV. = 16.4 DEGREES

REMARK 500 GLY A 43 CA - C - N ANGL. DEV. = 15.5 DEGREES

REMARK 500 GLY A 43 O - C - N ANGL. DEV. = -12.9 DEGREES

REMARK 500 ARG A 44 CB - CG - CD ANGL. DEV. = 27.9 DEGREES

REMARK 500 ARG A 44 CD - NE - CZ ANGL. DEV. = -12.7 DEGREES

REMARK 500

REMARK 500 THIS ENTRY HAS 461 ANGLE DEVIATIONS.

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: TORSION ANGLES

REMARK 500

REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:

REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT:(10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)

REMARK 500

REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-

REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400

REMARK 500

REMARK 500 M RES CSSEQI PSI PHI

REMARK 500 GLU A 17 -59.56 -145.93

REMARK 500 ASP A 37 11.00 82.49

REMARK 500 PRO A 126 152.49 -44.98

REMARK 500 PRO A 130 1.40 -55.48

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: NON-CIS, NON-TRANS

REMARK 500

REMARK 500 THE FOLLOWING PEPTIDE BONDS DEVIATE SIGNIFICANTLY FROM BOTH

REMARK 500 CIS AND TRANS CONFORMATION. CIS BONDS, IF ANY, ARE LISTED

REMARK 500 ON CISPEP RECORDS. TRANS IS DEFINED AS 180 +/- 30 AND

REMARK 500 CIS IS DEFINED AS 0 +/- 30 DEGREES.

REMARK 500 MODEL OMEGA

REMARK 500 GLN A 65 PRO A 66 -143.13

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: PLANAR GROUPS

REMARK 500

REMARK 500 PLANAR GROUPS IN THE FOLLOWING RESIDUES HAVE A TOTAL

REMARK 500 RMS DISTANCE OF ALL ATOMS FROM THE BEST-FIT PLANE

REMARK 500 BY MORE THAN AN EXPECTED VALUE OF 6\*RMSD, WITH AN

REMARK 500 RMSD 0.02 ANGSTROMS, OR AT LEAST ONE ATOM HAS

REMARK 500 AN RMSD GREATER THAN THIS VALUE

REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 M RES CSSEQI RMS TYPE

REMARK 500 ARG A 33 0.13 SIDE CHAIN

REMARK 500 ARG A 44 0.12 SIDE CHAIN

REMARK 500 ARG A 52 0.23 SIDE CHAIN

REMARK 500 ARG A 98 0.16 SIDE CHAIN

REMARK 500 ARG B 12 0.18 SIDE CHAIN

REMARK 500 ARG B 33 0.15 SIDE CHAIN

REMARK 500 ARG B 44 0.13 SIDE CHAIN

REMARK 500 ARG B 52 0.12 SIDE CHAIN

REMARK 500 ARG B 71 0.09 SIDE CHAIN

REMARK 500 ARG B 98 0.09 SIDE CHAIN

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: MAIN CHAIN PLANARITY

REMARK 500

REMARK 500 THE FOLLOWING RESIDUES HAVE A PSEUDO PLANARITY

REMARK 500 TORSION ANGLE, C(I) - CA(I) - N(I+1) - O(I), GREATER

REMARK 500 10.0 DEGREES. (M=MODEL NUMBER; RES=RESIDUE NAME;

REMARK 500 C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;

REMARK 500 I=INSERTION CODE).

REMARK 500

REMARK 500 M RES CSSEQI ANGLE

REMARK 500 GLN A 65 26.12

REMARK 500 ALA A 117 -10.52

REMARK 500 ALA B 7 -15.62

REMARK 500 ARG B 12 -10.06

REMARK 500 ALA B 29 -10.27

REMARK 500 ILE B 41 -12.81

REMARK 500 HIS B 45 13.58

REMARK 500 PRO B 55 12.67

REMARK 500 ILE B 60 -10.02

REMARK 500 SER B 64 14.61

REMARK 500 GLU B 101 -10.25

REMARK 500

REMARK 500 REMARK: NULL

REMARK 620

REMARK 620 METAL COORDINATION

REMARK 620 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 620 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE):

REMARK 620

REMARK 620 COORDINATION ANGLES FOR: M RES CSSEQI METAL

REMARK 620 CA B 161 CA

REMARK 620 N RES CSSEQI ATOM

REMARK 620 1 HOH B 205 O

REMARK 620 2 HOH B 221 O 165.0

REMARK 620 3 SER B 135 O 83.1 108.9

REMARK 620 4 HOH B 206 O 85.3 81.7 167.2

REMARK 620 5 HOH A 250 O 86.5 85.3 86.9 86.8

REMARK 620 6 HOH B 207 O 90.4 96.9 96.3 89.5 175.4

REMARK 620 N 1 2 3 4 5

REMARK 800

REMARK 800 SITE

REMARK 800 SITE\_IDENTIFIER: APT

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE PTERIDINE OF THE

REMARK 800 METHOTREXATE INHIBITOR. INCLUDE WATER MOLECULES WHICH ARE BOUND

REMARK 800 EITHER TO INVARIANT SIDE CHAINS OR TO STRUCTURALLY INVARIANT

REMARK 800 MAIN CHAIN SEGMENTS.

REMARK 800

REMARK 800 SITE\_IDENTIFIER: ANM

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE N(10) METHYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AAB

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE P-AMINO BENZOYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AGL

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE GLUTAMATE OF THE

REMARK 800 METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BPT

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE PTERIDINE OF THE

REMARK 800 METHOTREXATE INHIBITOR. INCLUDE WATER MOLECULES WHICH ARE BOUND

REMARK 800 EITHER TO INVARIANT SIDE CHAINS OR TO STRUCTURALLY INVARIANT

REMARK 800 MAIN CHAIN SEGMENTS.

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BNM

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE N(10) METHYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BAB

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE P-AMINO BENZOYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BGL

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE GLUTAMATE OF THE

REMARK 800 METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC1

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE CL A 160

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC2

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE CL B 160

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC3

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE CA B 161

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC4

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE MTX A 161

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC5

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE MTX B 162

REMARK 999

REMARK 999 SEQUENCE

REMARK 999 RESIDUE 142 IS LISTED AS ASN IN THE SEQUENCE PAPER

REMARK 999 (SEE REFERENCE 9 ABOVE). THE X-RAY STRUCTURE SUGGESTS IT

REMARK 999 IS ASP (EVIDENCE IS INTERMOLECULAR SALT-LINKAGE TO AN ARG).

DBREF 4DFR A 1 159 UNP P0ABQ4 DYR\_ECOLI 1 159

DBREF 4DFR B 1 159 UNP P0ABQ4 DYR\_ECOLI 1 159

SEQADV 4DFR ASP A 37 UNP P0ABQ4 ASN 37 CONFLICT

SEQADV 4DFR LYS A 154 UNP P0ABQ4 GLU 154 CONFLICT

SEQADV 4DFR ASP B 37 UNP P0ABQ4 ASN 37 CONFLICT

SEQADV 4DFR LYS B 154 UNP P0ABQ4 GLU 154 CONFLICT

SEQRES 1 A 159 MET ILE SER LEU ILE ALA ALA LEU ALA VAL ASP ARG VAL

SEQRES 2 A 159 ILE GLY MET GLU ASN ALA MET PRO TRP ASN LEU PRO ALA

SEQRES 3 A 159 ASP LEU ALA TRP PHE LYS ARG ASN THR LEU ASP LYS PRO

SEQRES 4 A 159 VAL ILE MET GLY ARG HIS THR TRP GLU SER ILE GLY ARG

SEQRES 5 A 159 PRO LEU PRO GLY ARG LYS ASN ILE ILE LEU SER SER GLN

SEQRES 6 A 159 PRO GLY THR ASP ASP ARG VAL THR TRP VAL LYS SER VAL

SEQRES 7 A 159 ASP GLU ALA ILE ALA ALA CYS GLY ASP VAL PRO GLU ILE

SEQRES 8 A 159 MET VAL ILE GLY GLY GLY ARG VAL TYR GLU GLN PHE LEU

SEQRES 9 A 159 PRO LYS ALA GLN LYS LEU TYR LEU THR HIS ILE ASP ALA

SEQRES 10 A 159 GLU VAL GLU GLY ASP THR HIS PHE PRO ASP TYR GLU PRO

SEQRES 11 A 159 ASP ASP TRP GLU SER VAL PHE SER GLU PHE HIS ASP ALA

SEQRES 12 A 159 ASP ALA GLN ASN SER HIS SER TYR CYS PHE LYS ILE LEU

SEQRES 13 A 159 GLU ARG ARG

SEQRES 1 B 159 MET ILE SER LEU ILE ALA ALA LEU ALA VAL ASP ARG VAL

SEQRES 2 B 159 ILE GLY MET GLU ASN ALA MET PRO TRP ASN LEU PRO ALA

SEQRES 3 B 159 ASP LEU ALA TRP PHE LYS ARG ASN THR LEU ASP LYS PRO

SEQRES 4 B 159 VAL ILE MET GLY ARG HIS THR TRP GLU SER ILE GLY ARG

SEQRES 5 B 159 PRO LEU PRO GLY ARG LYS ASN ILE ILE LEU SER SER GLN

SEQRES 6 B 159 PRO GLY THR ASP ASP ARG VAL THR TRP VAL LYS SER VAL

SEQRES 7 B 159 ASP GLU ALA ILE ALA ALA CYS GLY ASP VAL PRO GLU ILE

SEQRES 8 B 159 MET VAL ILE GLY GLY GLY ARG VAL TYR GLU GLN PHE LEU

SEQRES 9 B 159 PRO LYS ALA GLN LYS LEU TYR LEU THR HIS ILE ASP ALA

SEQRES 10 B 159 GLU VAL GLU GLY ASP THR HIS PHE PRO ASP TYR GLU PRO

SEQRES 11 B 159 ASP ASP TRP GLU SER VAL PHE SER GLU PHE HIS ASP ALA

SEQRES 12 B 159 ASP ALA GLN ASN SER HIS SER TYR CYS PHE LYS ILE LEU

SEQRES 13 B 159 GLU ARG ARG

HET CL A 160 1

HET MTX A 161 33

HET CL B 160 1

HET CA B 161 1

HET MTX B 162 33

HETNAM CL CHLORIDE ION

HETNAM MTX METHOTREXATE

HETNAM CA CALCIUM ION

FORMUL 3 CL 2(CL 1-)

FORMUL 4 MTX 2(C20 H22 N8 O5)

FORMUL 6 CA CA 2+

FORMUL 8 HOH \*428(H2 O)

HELIX 1 HBA LEU A 24 THR A 35 1 12

HELIX 2 HCA GLY A 43 ILE A 50 1 8

HELIX 3 HEA SER A 77 GLY A 86 1 10

HELIX 4 HFA GLY A 96 LEU A 104 1 9

HELIX 5 HBB LEU B 24 THR B 35 1 12

HELIX 6 HCB GLY B 43 ILE B 50 1 8

HELIX 7 HEB SER B 77 GLY B 86 1 10

HELIX 8 HFB GLY B 96 LEU B 104 1 9

SHEET 1 S1A 8 THR A 73 VAL A 75 0

SHEET 2 S1A 8 LYS A 58 SER A 63 1 O ASN A 59 N THR A 73

SHEET 3 S1A 8 PRO A 39 GLY A 43 1 N VAL A 40 O LYS A 58

SHEET 4 S1A 8 ILE A 91 GLY A 95 1 N MET A 92 O PRO A 39

SHEET 5 S1A 8 MET A 1 LEU A 8 1 O MET A 1 N ILE A 91

SHEET 6 S1A 8 GLN A 108 ASP A 116 1 O LYS A 109 N LEU A 4

SHEET 7 S1A 8 SER A 150 ARG A 159 -1 N ARG A 158 O GLN A 108

SHEET 8 S1A 8 ASP A 132 HIS A 141 -1 N GLU A 134 O GLU A 157

SHEET 1 S1B 8 THR B 73 VAL B 75 0

SHEET 2 S1B 8 LYS B 58 SER B 63 1 O ASN B 59 N THR B 73

SHEET 3 S1B 8 PRO B 39 GLY B 43 1 N VAL B 40 O LYS B 58

SHEET 4 S1B 8 PRO B 89 GLY B 95 1 N MET B 92 O PRO B 39

SHEET 5 S1B 8 MET B 1 LEU B 8 1 O MET B 1 N ILE B 91

SHEET 6 S1B 8 GLN B 108 ASP B 116 1 O LYS B 109 N LEU B 4

SHEET 7 S1B 8 SER B 150 ARG B 159 -1 N ARG B 158 O GLN B 108

SHEET 8 S1B 8 ASP B 132 HIS B 141 -1 N GLU B 134 O GLU B 157

LINK CA CA B 161 O HOH B 205 1555 1555 2.47

LINK CA CA B 161 O HOH B 221 1555 1555 2.59

LINK CA CA B 161 O SER B 135 1555 1555 2.45

LINK CA CA B 161 O HOH B 206 1555 2665 2.43

LINK CA CA B 161 O HOH A 250 1555 2665 2.56

LINK CA CA B 161 O HOH B 207 1555 2665 2.49

CISPEP 1 GLY A 95 GLY A 96 0 1.50

CISPEP 2 GLY B 95 GLY B 96 0 -2.65

SITE 1 APT 12 ILE A 5 ALA A 6 ALA A 7 TRP A 22

SITE 2 APT 12 ASP A 27 LEU A 28 PHE A 31 ILE A 94

SITE 3 APT 12 THR A 113 HOH A 163 HOH A 165 HOH A 172

SITE 1 ANM 1 SER A 49

SITE 1 AAB 5 LEU A 28 PHE A 31 ILE A 50 ARG A 52

SITE 2 AAB 5 LEU A 54

SITE 1 AGL 5 LEU A 28 PHE A 31 LYS A 32 LEU A 54

SITE 2 AGL 5 ARG A 57

SITE 1 BPT 12 ILE B 5 ALA B 6 ALA B 7 TRP B 22

SITE 2 BPT 12 ASP B 27 LEU B 28 PHE B 31 ILE B 94

SITE 3 BPT 12 THR B 113 HOH B 170 HOH B 171 HOH B 202

SITE 1 BNM 1 SER B 49

SITE 1 BAB 5 LEU B 28 PHE B 31 ILE B 50 ARG B 52

SITE 2 BAB 5 LEU B 54

SITE 1 BGL 5 LEU B 28 PHE B 31 LYS B 32 LEU B 54

SITE 2 BGL 5 ARG B 57

SITE 1 AC1 6 GLY A 43 HIS A 45 THR A 46 GLY A 96

SITE 2 AC1 6 HOH A 230 HOH A 374

SITE 1 AC2 4 GLY B 43 THR B 46 GLY B 96 HOH B 285

SITE 1 AC3 6 HOH A 250 SER B 135 HOH B 205 HOH B 206

SITE 2 AC3 6 HOH B 207 HOH B 221

SITE 1 AC4 14 ILE A 5 ALA A 6 ASP A 27 PHE A 31

SITE 2 AC4 14 LYS A 32 ARG A 52 ARG A 57 ILE A 94

SITE 3 AC4 14 TYR A 100 THR A 113 HOH A 263 HOH A 296

SITE 4 AC4 14 HOH A 323 HOH A 328

SITE 1 AC5 17 ILE B 5 ALA B 6 ALA B 7 ASP B 27

SITE 2 AC5 17 LEU B 28 PHE B 31 LYS B 32 ILE B 50

SITE 3 AC5 17 ARG B 52 LEU B 54 ARG B 57 ILE B 94

SITE 4 AC5 17 TYR B 100 THR B 113 HOH B 202 HOH B 242

SITE 5 AC5 17 HOH B 260

CRYST1 93.220 93.220 73.560 90.00 90.00 120.00 P 61 12

ORIGX1 0.010727 0.006193 0.000000 0.00000

ORIGX2 0.000000 0.012387 0.000000 0.00000

ORIGX3 0.000000 0.000000 0.013594 0.00000

SCALE1 0.010727 0.006193 0.000000 0.00000

SCALE2 0.000000 0.012387 0.000000 0.00000

SCALE3 0.000000 0.000000 0.013594 0.00000

MTRIX1 1 -0.921160 -0.379660 0.636818 59.21707 1

MTRIX2 1 -0.346230 0.699130 -0.625580 47.40033 1

MTRIX3 1 0.177743 -0.605172 -0.775593 96.59826 1

ATOM 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

ATOM 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

ATOM 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

ATOM 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

ATOM 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

ATOM 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

ATOM 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

ATOM 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

ATOM 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

ATOM 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

ATOM 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

ATOM 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

ATOM 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

ATOM 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

ATOM 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

ATOM 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

ATOM 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

ATOM 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

ATOM 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

ATOM 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

ATOM 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

ATOM 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

ATOM 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

ATOM 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

ATOM 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

ATOM 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

ATOM 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

ATOM 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

ATOM 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

ATOM 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

ATOM 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

ATOM 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

ATOM 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

ATOM 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

ATOM 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

ATOM 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

ATOM 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

ATOM 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

ATOM 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

ATOM 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

ATOM 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

ATOM 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

ATOM 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

ATOM 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

ATOM 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

ATOM 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

ATOM 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

ATOM 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

ATOM 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

ATOM 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

ATOM 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

ATOM 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

ATOM 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

ATOM 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

ATOM 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

ATOM 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

ATOM 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

ATOM 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

ATOM 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

ATOM 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

ATOM 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

ATOM 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

ATOM 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

ATOM 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

ATOM 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

ATOM 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

ATOM 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

ATOM 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

ATOM 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

ATOM 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

ATOM 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

ATOM 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

ATOM 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

ATOM 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

ATOM 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

ATOM 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

ATOM 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

ATOM 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

ATOM 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

ATOM 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

ATOM 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

ATOM 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

ATOM 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

ATOM 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

ATOM 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

ATOM 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

ATOM 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

ATOM 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

ATOM 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

ATOM 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

ATOM 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

ATOM 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

ATOM 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

ATOM 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

ATOM 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

ATOM 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

ATOM 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

ATOM 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

ATOM 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

ATOM 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

ATOM 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

ATOM 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

ATOM 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

ATOM 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

ATOM 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

ATOM 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

ATOM 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

ATOM 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

ATOM 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

ATOM 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

ATOM 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

ATOM 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

ATOM 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

ATOM 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

ATOM 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

ATOM 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

ATOM 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

ATOM 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

ATOM 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

ATOM 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

ATOM 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

ATOM 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

ATOM 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

ATOM 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

ATOM 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

ATOM 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

ATOM 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

ATOM 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

ATOM 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

ATOM 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

ATOM 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

ATOM 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

ATOM 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

ATOM 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

ATOM 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

ATOM 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

ATOM 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

ATOM 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

ATOM 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

ATOM 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

ATOM 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

ATOM 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

ATOM 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

ATOM 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

ATOM 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

ATOM 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

ATOM 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

ATOM 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

ATOM 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

ATOM 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

ATOM 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

ATOM 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

ATOM 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

ATOM 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

ATOM 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

ATOM 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

ATOM 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

ATOM 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

ATOM 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

ATOM 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

ATOM 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

ATOM 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

ATOM 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

ATOM 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

ATOM 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

ATOM 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

ATOM 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

ATOM 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

ATOM 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

ATOM 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

ATOM 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

ATOM 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

ATOM 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

ATOM 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

ATOM 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

ATOM 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

ATOM 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

ATOM 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

ATOM 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

ATOM 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

ATOM 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

ATOM 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

ATOM 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

ATOM 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

ATOM 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

ATOM 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

ATOM 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

ATOM 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

ATOM 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

ATOM 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

ATOM 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

ATOM 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

ATOM 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

ATOM 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

ATOM 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

ATOM 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

ATOM 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

ATOM 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

ATOM 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

ATOM 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

ATOM 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

ATOM 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

ATOM 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

ATOM 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

ATOM 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

ATOM 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

ATOM 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

ATOM 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

ATOM 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

ATOM 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

ATOM 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

ATOM 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

ATOM 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

ATOM 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

ATOM 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

ATOM 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

ATOM 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

ATOM 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

ATOM 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

ATOM 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

ATOM 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

ATOM 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

ATOM 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

ATOM 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

ATOM 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

ATOM 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

ATOM 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

ATOM 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

ATOM 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

ATOM 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

ATOM 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

ATOM 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

ATOM 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

ATOM 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

ATOM 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

ATOM 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

ATOM 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

ATOM 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

ATOM 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

ATOM 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

ATOM 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

ATOM 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

ATOM 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

ATOM 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

ATOM 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

ATOM 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

ATOM 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

ATOM 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

ATOM 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

ATOM 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

ATOM 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

ATOM 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

ATOM 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

ATOM 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

ATOM 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

ATOM 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

ATOM 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

ATOM 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

ATOM 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

ATOM 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

ATOM 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

ATOM 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

ATOM 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

ATOM 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

ATOM 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

ATOM 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

ATOM 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

ATOM 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

ATOM 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

ATOM 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

ATOM 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

ATOM 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

ATOM 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

ATOM 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

ATOM 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

ATOM 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

ATOM 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

ATOM 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

ATOM 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

ATOM 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

ATOM 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

ATOM 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

ATOM 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

ATOM 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

ATOM 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

ATOM 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

ATOM 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

ATOM 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

ATOM 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

ATOM 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

ATOM 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

ATOM 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

ATOM 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

ATOM 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

ATOM 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

ATOM 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

ATOM 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

ATOM 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

ATOM 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

ATOM 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

ATOM 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

ATOM 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

ATOM 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

ATOM 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

ATOM 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

ATOM 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

ATOM 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

ATOM 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

ATOM 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

ATOM 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

ATOM 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

ATOM 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

ATOM 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

ATOM 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

ATOM 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

ATOM 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

ATOM 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

ATOM 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

ATOM 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

ATOM 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

ATOM 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

ATOM 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

ATOM 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

ATOM 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

ATOM 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

ATOM 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

ATOM 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

ATOM 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

ATOM 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

ATOM 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

ATOM 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

ATOM 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

ATOM 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

ATOM 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

ATOM 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

ATOM 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

ATOM 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

ATOM 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

ATOM 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

ATOM 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

ATOM 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

ATOM 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

ATOM 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

ATOM 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

ATOM 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

ATOM 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

ATOM 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

ATOM 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

ATOM 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

ATOM 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

ATOM 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

ATOM 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

ATOM 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

ATOM 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

ATOM 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

ATOM 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

ATOM 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

ATOM 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

ATOM 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

ATOM 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

ATOM 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

ATOM 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

ATOM 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

ATOM 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

ATOM 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

ATOM 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

ATOM 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

ATOM 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

ATOM 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

ATOM 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

ATOM 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

ATOM 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

ATOM 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

ATOM 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

ATOM 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

ATOM 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

ATOM 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

ATOM 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

ATOM 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

ATOM 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

ATOM 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

ATOM 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

ATOM 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

ATOM 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

ATOM 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

ATOM 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

ATOM 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

ATOM 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

ATOM 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

ATOM 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

ATOM 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

ATOM 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

ATOM 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

ATOM 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

ATOM 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

ATOM 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

ATOM 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

ATOM 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

ATOM 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

ATOM 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

ATOM 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

ATOM 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

ATOM 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

ATOM 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

ATOM 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

ATOM 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

ATOM 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

ATOM 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

ATOM 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

ATOM 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

ATOM 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

ATOM 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

ATOM 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

ATOM 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

ATOM 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

ATOM 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

ATOM 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

ATOM 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

ATOM 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

ATOM 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

ATOM 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

ATOM 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

ATOM 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

ATOM 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

ATOM 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

ATOM 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

ATOM 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

ATOM 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

ATOM 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

ATOM 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

ATOM 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

ATOM 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

ATOM 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

ATOM 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

ATOM 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

ATOM 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

ATOM 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

ATOM 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

ATOM 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

ATOM 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

ATOM 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

ATOM 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

ATOM 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

ATOM 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

ATOM 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

ATOM 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

ATOM 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

ATOM 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

ATOM 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

ATOM 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

ATOM 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

ATOM 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

ATOM 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

ATOM 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

ATOM 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

ATOM 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

ATOM 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

ATOM 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

ATOM 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

ATOM 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

ATOM 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

ATOM 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

ATOM 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

ATOM 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

ATOM 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

ATOM 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

ATOM 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

ATOM 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

ATOM 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

ATOM 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

ATOM 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

ATOM 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

ATOM 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

ATOM 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

ATOM 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

ATOM 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

ATOM 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

ATOM 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

ATOM 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

ATOM 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

ATOM 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

ATOM 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

ATOM 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

ATOM 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

ATOM 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

ATOM 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

ATOM 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

ATOM 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

ATOM 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

ATOM 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

ATOM 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

ATOM 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

ATOM 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

ATOM 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

ATOM 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

ATOM 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

ATOM 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

ATOM 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

ATOM 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

ATOM 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

ATOM 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

ATOM 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

ATOM 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

ATOM 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

ATOM 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

ATOM 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

ATOM 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

ATOM 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

ATOM 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

ATOM 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

ATOM 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

ATOM 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

ATOM 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

ATOM 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

ATOM 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

ATOM 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

ATOM 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

ATOM 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

ATOM 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

ATOM 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

ATOM 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

ATOM 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

ATOM 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

ATOM 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

ATOM 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

ATOM 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

ATOM 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

ATOM 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

ATOM 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

ATOM 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

ATOM 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

ATOM 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

ATOM 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

ATOM 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

ATOM 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

ATOM 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

ATOM 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

ATOM 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

ATOM 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

ATOM 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

ATOM 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

ATOM 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

ATOM 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

ATOM 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

ATOM 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

ATOM 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

ATOM 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

ATOM 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

ATOM 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

ATOM 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

ATOM 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

ATOM 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

ATOM 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

ATOM 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

ATOM 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

ATOM 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

ATOM 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

ATOM 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

ATOM 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

ATOM 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

ATOM 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

ATOM 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

ATOM 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

ATOM 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

ATOM 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

ATOM 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

ATOM 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

ATOM 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

ATOM 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

ATOM 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

ATOM 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

ATOM 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

ATOM 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

ATOM 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

ATOM 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

ATOM 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

ATOM 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

ATOM 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

ATOM 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

ATOM 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

ATOM 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

ATOM 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

ATOM 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

ATOM 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

ATOM 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

ATOM 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

ATOM 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

ATOM 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

ATOM 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

ATOM 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

ATOM 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

ATOM 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

ATOM 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

ATOM 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

ATOM 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

ATOM 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

ATOM 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

ATOM 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

ATOM 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

ATOM 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

ATOM 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

ATOM 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

ATOM 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

ATOM 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

ATOM 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

ATOM 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

ATOM 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

ATOM 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

ATOM 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

ATOM 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

ATOM 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

ATOM 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

ATOM 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

ATOM 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

ATOM 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

ATOM 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

ATOM 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

ATOM 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

ATOM 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

ATOM 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

ATOM 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

ATOM 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

ATOM 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

ATOM 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

ATOM 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

ATOM 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

ATOM 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

ATOM 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

ATOM 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

ATOM 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

ATOM 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

ATOM 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

ATOM 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

ATOM 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

ATOM 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

ATOM 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

ATOM 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

ATOM 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

ATOM 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

ATOM 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

ATOM 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

ATOM 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

ATOM 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

ATOM 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

ATOM 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

ATOM 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

ATOM 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

ATOM 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

ATOM 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

ATOM 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

ATOM 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

ATOM 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

ATOM 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

ATOM 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

ATOM 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

ATOM 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

ATOM 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

ATOM 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

ATOM 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

ATOM 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

ATOM 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

ATOM 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

ATOM 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

ATOM 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

ATOM 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

ATOM 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

ATOM 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

ATOM 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

ATOM 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

ATOM 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

ATOM 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

ATOM 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

ATOM 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

ATOM 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

ATOM 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

ATOM 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

ATOM 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

ATOM 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

ATOM 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

ATOM 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

ATOM 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

ATOM 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

ATOM 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

ATOM 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

ATOM 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

ATOM 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

ATOM 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

ATOM 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

ATOM 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

ATOM 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

ATOM 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

ATOM 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

ATOM 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

ATOM 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

ATOM 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

ATOM 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

ATOM 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

ATOM 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

ATOM 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

ATOM 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

ATOM 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

ATOM 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

ATOM 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

ATOM 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

ATOM 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

ATOM 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

ATOM 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

ATOM 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

ATOM 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

ATOM 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

ATOM 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

ATOM 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

ATOM 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

ATOM 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

ATOM 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

ATOM 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

ATOM 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

ATOM 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

ATOM 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

ATOM 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

ATOM 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

ATOM 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

ATOM 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

ATOM 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

ATOM 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

ATOM 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

ATOM 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

ATOM 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

ATOM 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

ATOM 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

ATOM 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

ATOM 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

ATOM 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

ATOM 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

ATOM 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

ATOM 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

ATOM 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

ATOM 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

ATOM 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

ATOM 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

ATOM 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

ATOM 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

ATOM 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

ATOM 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

ATOM 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

ATOM 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

ATOM 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

ATOM 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

ATOM 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

ATOM 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

ATOM 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

ATOM 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

ATOM 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

ATOM 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

ATOM 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

ATOM 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

ATOM 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

ATOM 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

ATOM 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

ATOM 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

ATOM 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

ATOM 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

ATOM 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

ATOM 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

ATOM 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

ATOM 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

ATOM 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

ATOM 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

ATOM 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

ATOM 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

ATOM 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

ATOM 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

ATOM 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

ATOM 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

ATOM 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

ATOM 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

ATOM 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

ATOM 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

ATOM 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

ATOM 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

ATOM 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

ATOM 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

ATOM 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

ATOM 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

ATOM 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

ATOM 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

ATOM 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

ATOM 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

ATOM 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

ATOM 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

ATOM 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

ATOM 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

ATOM 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

ATOM 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

ATOM 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

ATOM 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

ATOM 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

ATOM 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

ATOM 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

ATOM 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

ATOM 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

ATOM 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

ATOM 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

ATOM 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

ATOM 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

ATOM 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

ATOM 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

ATOM 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

ATOM 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

ATOM 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

ATOM 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

ATOM 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

ATOM 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

ATOM 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

ATOM 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

ATOM 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

ATOM 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

ATOM 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

ATOM 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

ATOM 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

ATOM 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

ATOM 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

ATOM 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

ATOM 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

ATOM 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

ATOM 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

ATOM 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

ATOM 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

ATOM 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

ATOM 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

ATOM 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

ATOM 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

ATOM 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

ATOM 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

ATOM 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

ATOM 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

ATOM 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

ATOM 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

ATOM 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

ATOM 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

ATOM 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

ATOM 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

ATOM 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

ATOM 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

ATOM 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

ATOM 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

ATOM 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

ATOM 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

ATOM 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

ATOM 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

ATOM 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

ATOM 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

ATOM 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

ATOM 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

ATOM 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

ATOM 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

ATOM 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

ATOM 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

ATOM 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

ATOM 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

ATOM 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

ATOM 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

ATOM 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

ATOM 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

ATOM 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

ATOM 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

ATOM 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

ATOM 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

ATOM 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

ATOM 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

ATOM 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

ATOM 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

ATOM 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

ATOM 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

ATOM 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

ATOM 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

ATOM 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

ATOM 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

ATOM 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

ATOM 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

ATOM 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

ATOM 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

ATOM 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

ATOM 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

ATOM 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

ATOM 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

ATOM 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

ATOM 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

ATOM 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

ATOM 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

ATOM 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

ATOM 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

ATOM 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

ATOM 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

ATOM 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

ATOM 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

ATOM 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

ATOM 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

ATOM 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

ATOM 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

ATOM 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

ATOM 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

ATOM 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

ATOM 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

ATOM 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

ATOM 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

ATOM 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

ATOM 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

ATOM 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

ATOM 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

ATOM 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

ATOM 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

ATOM 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

ATOM 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

ATOM 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

ATOM 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

ATOM 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

ATOM 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

ATOM 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

ATOM 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

ATOM 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

ATOM 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

ATOM 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

ATOM 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

ATOM 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

ATOM 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

ATOM 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

ATOM 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

ATOM 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

ATOM 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

ATOM 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

ATOM 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

ATOM 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

ATOM 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

ATOM 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

ATOM 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

ATOM 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

ATOM 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

ATOM 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

ATOM 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

ATOM 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

ATOM 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

ATOM 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

ATOM 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

ATOM 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

ATOM 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

ATOM 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

ATOM 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

ATOM 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

ATOM 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

ATOM 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

ATOM 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

ATOM 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

ATOM 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

ATOM 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

ATOM 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

ATOM 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

ATOM 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

ATOM 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

ATOM 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

ATOM 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

ATOM 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

ATOM 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

ATOM 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

ATOM 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

ATOM 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

ATOM 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

ATOM 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

ATOM 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

ATOM 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

ATOM 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

ATOM 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

ATOM 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

ATOM 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

ATOM 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

ATOM 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

ATOM 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

ATOM 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

ATOM 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

ATOM 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

ATOM 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

ATOM 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

ATOM 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

ATOM 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

ATOM 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

ATOM 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

ATOM 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

ATOM 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

ATOM 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

ATOM 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

ATOM 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

ATOM 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

ATOM 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

ATOM 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

ATOM 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

ATOM 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

ATOM 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

ATOM 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

ATOM 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

ATOM 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

ATOM 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

ATOM 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

ATOM 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

ATOM 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

ATOM 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

ATOM 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

ATOM 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

ATOM 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

ATOM 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

ATOM 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

ATOM 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

ATOM 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

ATOM 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

ATOM 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

ATOM 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

ATOM 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

ATOM 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

ATOM 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

ATOM 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

ATOM 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

ATOM 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

ATOM 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

ATOM 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

ATOM 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

ATOM 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

ATOM 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

ATOM 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

ATOM 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

ATOM 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

ATOM 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

ATOM 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

ATOM 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

ATOM 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

ATOM 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

ATOM 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

ATOM 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

ATOM 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

ATOM 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

ATOM 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

ATOM 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

ATOM 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

ATOM 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

ATOM 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

ATOM 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

ATOM 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

ATOM 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

ATOM 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

ATOM 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

ATOM 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

ATOM 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

ATOM 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

ATOM 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

ATOM 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

ATOM 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

ATOM 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

ATOM 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

ATOM 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

ATOM 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

ATOM 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

ATOM 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

ATOM 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

ATOM 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

ATOM 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

ATOM 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

ATOM 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

ATOM 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

ATOM 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

ATOM 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

ATOM 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

ATOM 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

ATOM 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

ATOM 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

ATOM 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

ATOM 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

ATOM 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

ATOM 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

ATOM 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

ATOM 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

ATOM 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

ATOM 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

ATOM 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

ATOM 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

ATOM 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

ATOM 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

ATOM 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

ATOM 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

ATOM 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

ATOM 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

ATOM 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

ATOM 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

ATOM 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

ATOM 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

ATOM 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

ATOM 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

ATOM 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

ATOM 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

ATOM 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

ATOM 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

ATOM 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

ATOM 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

ATOM 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

ATOM 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

ATOM 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

ATOM 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

ATOM 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

ATOM 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

ATOM 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

ATOM 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

ATOM 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

ATOM 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

ATOM 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

ATOM 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

ATOM 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

ATOM 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

ATOM 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

ATOM 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

ATOM 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

ATOM 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

ATOM 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

ATOM 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

ATOM 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

ATOM 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

ATOM 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

ATOM 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

ATOM 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

ATOM 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

ATOM 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

ATOM 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

ATOM 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

ATOM 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

ATOM 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

ATOM 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

ATOM 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

ATOM 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

ATOM 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

ATOM 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

ATOM 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

ATOM 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

ATOM 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

ATOM 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

ATOM 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

ATOM 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

ATOM 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

ATOM 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

ATOM 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

ATOM 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

ATOM 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

ATOM 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

ATOM 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

ATOM 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

ATOM 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

ATOM 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

ATOM 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

ATOM 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

ATOM 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

ATOM 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

ATOM 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

ATOM 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

ATOM 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

ATOM 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

ATOM 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

ATOM 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

ATOM 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

ATOM 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

ATOM 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

ATOM 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

ATOM 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

ATOM 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

ATOM 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

ATOM 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

ATOM 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

ATOM 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

ATOM 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

ATOM 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

ATOM 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

ATOM 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

ATOM 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

ATOM 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

ATOM 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

ATOM 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

ATOM 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

ATOM 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

ATOM 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

ATOM 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

ATOM 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

ATOM 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

ATOM 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

ATOM 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

ATOM 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

ATOM 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

ATOM 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

ATOM 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

ATOM 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

ATOM 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

ATOM 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

ATOM 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

ATOM 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

ATOM 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

ATOM 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

ATOM 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

ATOM 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

ATOM 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

ATOM 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

ATOM 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

ATOM 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

ATOM 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

ATOM 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

ATOM 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

ATOM 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

ATOM 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

ATOM 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

ATOM 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

ATOM 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

ATOM 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

ATOM 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

ATOM 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

ATOM 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

ATOM 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

ATOM 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

ATOM 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

ATOM 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

ATOM 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

ATOM 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

ATOM 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

ATOM 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

ATOM 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

ATOM 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

ATOM 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

ATOM 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

ATOM 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

ATOM 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

ATOM 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

ATOM 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

ATOM 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

ATOM 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

ATOM 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

ATOM 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

ATOM 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

ATOM 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

ATOM 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

ATOM 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

ATOM 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

ATOM 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

ATOM 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

ATOM 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

ATOM 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

ATOM 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

ATOM 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

ATOM 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

ATOM 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

ATOM 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

ATOM 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

ATOM 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

ATOM 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

ATOM 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

ATOM 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

ATOM 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

ATOM 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

ATOM 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

ATOM 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

ATOM 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

ATOM 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

ATOM 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

ATOM 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

ATOM 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

ATOM 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

ATOM 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

ATOM 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

ATOM 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

ATOM 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

ATOM 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

ATOM 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

ATOM 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

ATOM 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

ATOM 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

ATOM 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

ATOM 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

ATOM 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

ATOM 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

ATOM 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

ATOM 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

ATOM 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

ATOM 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

ATOM 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

ATOM 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

ATOM 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

ATOM 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

ATOM 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

ATOM 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

ATOM 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

ATOM 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

ATOM 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

ATOM 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

ATOM 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

ATOM 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

ATOM 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

ATOM 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

ATOM 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

ATOM 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

ATOM 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

ATOM 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

ATOM 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

ATOM 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

ATOM 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

ATOM 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

ATOM 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

ATOM 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

ATOM 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

ATOM 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

ATOM 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

ATOM 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

ATOM 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

ATOM 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

ATOM 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

ATOM 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

ATOM 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

ATOM 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

ATOM 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

ATOM 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

ATOM 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

ATOM 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

ATOM 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

ATOM 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

ATOM 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

ATOM 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

ATOM 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

ATOM 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

ATOM 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

ATOM 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

ATOM 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

ATOM 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

ATOM 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

ATOM 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

ATOM 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

ATOM 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

ATOM 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

ATOM 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

ATOM 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

ATOM 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

ATOM 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

ATOM 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

ATOM 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

ATOM 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

ATOM 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

ATOM 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

ATOM 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

ATOM 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

ATOM 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

ATOM 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

ATOM 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

ATOM 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

ATOM 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

ATOM 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

ATOM 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

ATOM 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

ATOM 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

ATOM 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

ATOM 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

ATOM 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

ATOM 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

ATOM 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

ATOM 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

ATOM 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

ATOM 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

ATOM 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

ATOM 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

ATOM 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

ATOM 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

ATOM 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

ATOM 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

ATOM 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

ATOM 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

ATOM 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

ATOM 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

ATOM 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

ATOM 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

ATOM 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

ATOM 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

ATOM 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

ATOM 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

ATOM 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

ATOM 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

ATOM 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

ATOM 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

ATOM 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

ATOM 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

ATOM 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

ATOM 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

ATOM 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

ATOM 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

ATOM 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

ATOM 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

ATOM 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

ATOM 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

ATOM 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

ATOM 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

ATOM 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

ATOM 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

ATOM 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

ATOM 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

ATOM 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

ATOM 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

ATOM 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

ATOM 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

ATOM 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

ATOM 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

ATOM 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

ATOM 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

ATOM 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

ATOM 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

ATOM 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

ATOM 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

ATOM 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

ATOM 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

ATOM 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

ATOM 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

ATOM 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

ATOM 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

ATOM 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

ATOM 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

ATOM 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

ATOM 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

ATOM 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

ATOM 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

ATOM 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

ATOM 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

ATOM 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

ATOM 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

ATOM 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

ATOM 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

ATOM 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

ATOM 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

ATOM 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

ATOM 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

ATOM 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

ATOM 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

ATOM 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

ATOM 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

ATOM 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

ATOM 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

ATOM 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

ATOM 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

ATOM 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

ATOM 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

ATOM 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

ATOM 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

ATOM 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

ATOM 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

ATOM 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

ATOM 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

ATOM 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

ATOM 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

ATOM 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

ATOM 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

ATOM 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

ATOM 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

ATOM 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

ATOM 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

ATOM 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

ATOM 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

ATOM 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

ATOM 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

ATOM 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

ATOM 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

ATOM 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

ATOM 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

ATOM 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

ATOM 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

ATOM 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

ATOM 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

ATOM 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

ATOM 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

ATOM 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

ATOM 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

ATOM 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

ATOM 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

ATOM 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

ATOM 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

ATOM 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

ATOM 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

ATOM 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

ATOM 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

ATOM 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

ATOM 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

ATOM 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

ATOM 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

ATOM 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

ATOM 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

ATOM 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

ATOM 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

ATOM 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

ATOM 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

ATOM 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

ATOM 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

ATOM 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

ATOM 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

ATOM 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

ATOM 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

ATOM 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

ATOM 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

ATOM 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

ATOM 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

ATOM 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

ATOM 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

ATOM 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

ATOM 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

ATOM 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

ATOM 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

ATOM 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

ATOM 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

ATOM 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

ATOM 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

ATOM 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

ATOM 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

ATOM 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

ATOM 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

ATOM 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

ATOM 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

ATOM 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

ATOM 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

ATOM 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

ATOM 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

ATOM 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

ATOM 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

ATOM 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

ATOM 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

ATOM 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

ATOM 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

ATOM 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

ATOM 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

ATOM 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

ATOM 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

ATOM 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

ATOM 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

ATOM 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

ATOM 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

ATOM 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

ATOM 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

ATOM 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

ATOM 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

ATOM 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

ATOM 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

ATOM 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

ATOM 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

ATOM 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

ATOM 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

ATOM 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

ATOM 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

ATOM 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

ATOM 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

ATOM 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

ATOM 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

ATOM 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

ATOM 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

ATOM 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

ATOM 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

ATOM 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

ATOM 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

ATOM 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

ATOM 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

ATOM 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

ATOM 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

ATOM 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

ATOM 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

ATOM 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

ATOM 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

ATOM 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

ATOM 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

ATOM 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

ATOM 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

ATOM 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

ATOM 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

ATOM 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

ATOM 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

ATOM 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

ATOM 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

ATOM 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

ATOM 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

ATOM 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

ATOM 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

ATOM 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

ATOM 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

ATOM 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

ATOM 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

ATOM 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

ATOM 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

ATOM 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

ATOM 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

ATOM 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

ATOM 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

ATOM 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

ATOM 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

ATOM 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

ATOM 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

ATOM 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

ATOM 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

ATOM 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

ATOM 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

ATOM 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

ATOM 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

ATOM 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

ATOM 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

ATOM 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

ATOM 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

ATOM 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

ATOM 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

ATOM 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

ATOM 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

ATOM 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

ATOM 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

ATOM 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

ATOM 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

ATOM 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

ATOM 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

ATOM 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

ATOM 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

ATOM 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

ATOM 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

ATOM 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

ATOM 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

ATOM 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

ATOM 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

ATOM 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

ATOM 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

ATOM 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

ATOM 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

ATOM 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

ATOM 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

ATOM 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

ATOM 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

ATOM 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

ATOM 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

ATOM 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

ATOM 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

ATOM 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

ATOM 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

ATOM 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

ATOM 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

ATOM 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

ATOM 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

ATOM 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

ATOM 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

ATOM 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

ATOM 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

ATOM 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

ATOM 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

ATOM 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

ATOM 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

ATOM 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

ATOM 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

ATOM 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

ATOM 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

ATOM 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

ATOM 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

ATOM 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

ATOM 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

ATOM 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

ATOM 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

ATOM 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

ATOM 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

ATOM 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

ATOM 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

ATOM 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

ATOM 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

ATOM 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

ATOM 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

ATOM 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

ATOM 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

ATOM 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

ATOM 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

ATOM 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

ATOM 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

ATOM 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

ATOM 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

ATOM 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

ATOM 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

ATOM 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

ATOM 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

ATOM 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

ATOM 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

ATOM 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

ATOM 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

ATOM 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

ATOM 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

ATOM 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

ATOM 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

ATOM 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

ATOM 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

ATOM 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

ATOM 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

ATOM 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

ATOM 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

ATOM 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

ATOM 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

ATOM 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

ATOM 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

ATOM 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

ATOM 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

ATOM 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

ATOM 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

ATOM 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

ATOM 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

ATOM 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

ATOM 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

ATOM 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

ATOM 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

ATOM 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

ATOM 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

ATOM 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

ATOM 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

ATOM 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

ATOM 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

ATOM 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

ATOM 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

ATOM 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

ATOM 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

ATOM 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

ATOM 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

ATOM 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

ATOM 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

ATOM 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

ATOM 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

ATOM 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

ATOM 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

ATOM 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

ATOM 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

ATOM 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

ATOM 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

ATOM 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

ATOM 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

ATOM 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

ATOM 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

ATOM 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

ATOM 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

ATOM 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

ATOM 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

ATOM 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

ATOM 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

ATOM 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

ATOM 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

ATOM 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

ATOM 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

ATOM 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

ATOM 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

ATOM 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

ATOM 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

ATOM 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

ATOM 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

ATOM 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

ATOM 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

ATOM 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

ATOM 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

ATOM 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

ATOM 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

ATOM 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

ATOM 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

ATOM 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

ATOM 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

ATOM 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

ATOM 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

ATOM 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

ATOM 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

ATOM 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

ATOM 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

ATOM 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

ATOM 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

ATOM 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

ATOM 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

ATOM 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

ATOM 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

ATOM 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

ATOM 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

ATOM 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

ATOM 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

ATOM 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

ATOM 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

ATOM 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

ATOM 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

ATOM 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

ATOM 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

ATOM 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

ATOM 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

ATOM 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

ATOM 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

ATOM 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

ATOM 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

ATOM 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

ATOM 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

ATOM 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

ATOM 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

ATOM 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

ATOM 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

ATOM 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

ATOM 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

ATOM 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

ATOM 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

ATOM 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

ATOM 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

ATOM 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

ATOM 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

ATOM 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

ATOM 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

ATOM 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

ATOM 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

ATOM 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

ATOM 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

ATOM 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

ATOM 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

ATOM 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

ATOM 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

ATOM 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

ATOM 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

ATOM 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

ATOM 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

ATOM 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

ATOM 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

ATOM 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

ATOM 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

ATOM 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

ATOM 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

ATOM 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

ATOM 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

ATOM 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

ATOM 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

ATOM 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

ATOM 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

ATOM 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

ATOM 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

ATOM 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

ATOM 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

ATOM 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

ATOM 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

ATOM 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

ATOM 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

ATOM 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

ATOM 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

ATOM 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

ATOM 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

ATOM 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

ATOM 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

ATOM 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

ATOM 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

ATOM 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

ATOM 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

ATOM 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

ATOM 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

ATOM 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

ATOM 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

ATOM 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

ATOM 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

ATOM 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

ATOM 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

ATOM 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

ATOM 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

ATOM 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

ATOM 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

ATOM 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

ATOM 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

ATOM 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

ATOM 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

ATOM 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

ATOM 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

ATOM 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

ATOM 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

ATOM 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

ATOM 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

ATOM 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

ATOM 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

ATOM 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

ATOM 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

ATOM 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

ATOM 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

ATOM 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

ATOM 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

ATOM 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

ATOM 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

ATOM 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

ATOM 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

ATOM 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

ATOM 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

ATOM 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

ATOM 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

ATOM 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

ATOM 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

ATOM 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

ATOM 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

ATOM 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

ATOM 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

ATOM 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

ATOM 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

ATOM 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

ATOM 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

ATOM 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

ATOM 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

ATOM 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

ATOM 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

ATOM 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

ATOM 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

ATOM 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

ATOM 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

ATOM 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

ATOM 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

ATOM 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

ATOM 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

ATOM 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

ATOM 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

ATOM 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

ATOM 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

ATOM 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

ATOM 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

ATOM 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

ATOM 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

ATOM 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

ATOM 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

ATOM 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

ATOM 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

ATOM 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

ATOM 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

ATOM 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

ATOM 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

ATOM 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

ATOM 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

ATOM 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

ATOM 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

ATOM 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

ATOM 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

ATOM 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

ATOM 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

ATOM 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

ATOM 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

ATOM 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

ATOM 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

ATOM 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

ATOM 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

ATOM 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

ATOM 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

ATOM 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

ATOM 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

ATOM 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

ATOM 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

ATOM 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

ATOM 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

ATOM 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

ATOM 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

ATOM 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

ATOM 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

ATOM 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

ATOM 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

ATOM 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

ATOM 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

ATOM 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

ATOM 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

ATOM 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

ATOM 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

ATOM 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

ATOM 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

ATOM 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

ATOM 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

ATOM 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

ATOM 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

ATOM 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

ATOM 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

ATOM 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

ATOM 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

ATOM 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

ATOM 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

ATOM 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

ATOM 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

ATOM 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

ATOM 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

ATOM 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

ATOM 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

ATOM 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

ATOM 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

ATOM 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

ATOM 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

ATOM 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

ATOM 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

ATOM 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

ATOM 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

ATOM 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

ATOM 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

ATOM 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

ATOM 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

ATOM 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

ATOM 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

ATOM 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

ATOM 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

ATOM 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

ATOM 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

ATOM 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

ATOM 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

ATOM 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

ATOM 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

ATOM 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

ATOM 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

ATOM 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

ATOM 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

ATOM 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

ATOM 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

ATOM 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

ATOM 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

ATOM 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

ATOM 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

ATOM 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

ATOM 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

ATOM 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

ATOM 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

ATOM 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

ATOM 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

ATOM 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

ATOM 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

ATOM 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

ATOM 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

ATOM 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

ATOM 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

ATOM 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

ATOM 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

ATOM 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

ATOM 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

ATOM 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

ATOM 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

ATOM 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

ATOM 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

ATOM 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

ATOM 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

ATOM 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

ATOM 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

ATOM 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

ATOM 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

ATOM 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

ATOM 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

ATOM 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

ATOM 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

ATOM 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

ATOM 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

ATOM 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

ATOM 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

ATOM 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

ATOM 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

ATOM 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

ATOM 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

ATOM 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

ATOM 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

ATOM 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

ATOM 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

ATOM 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

ATOM 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

ATOM 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

ATOM 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

ATOM 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

ATOM 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

ATOM 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

ATOM 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

ATOM 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

ATOM 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

ATOM 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

ATOM 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

ATOM 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

ATOM 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

ATOM 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

ATOM 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

ATOM 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

ATOM 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

ATOM 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

ATOM 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

ATOM 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

ATOM 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

ATOM 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

ATOM 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

ATOM 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

ATOM 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

ATOM 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

ATOM 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

ATOM 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

ATOM 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

ATOM 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

ATOM 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

ATOM 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

ATOM 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

ATOM 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

ATOM 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

ATOM 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

ATOM 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

ATOM 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

ATOM 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

ATOM 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

ATOM 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

ATOM 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

ATOM 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

ATOM 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

ATOM 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

ATOM 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

ATOM 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

ATOM 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

ATOM 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

ATOM 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

ATOM 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

ATOM 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

ATOM 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

ATOM 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

ATOM 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

ATOM 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

ATOM 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

ATOM 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

ATOM 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

ATOM 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

ATOM 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

ATOM 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

ATOM 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

ATOM 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

ATOM 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

ATOM 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

ATOM 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

ATOM 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

ATOM 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

ATOM 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

ATOM 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

ATOM 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

ATOM 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

ATOM 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

ATOM 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

ATOM 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

ATOM 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

ATOM 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

ATOM 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

ATOM 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

ATOM 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

ATOM 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

ATOM 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

ATOM 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

ATOM 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

ATOM 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

ATOM 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

ATOM 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

ATOM 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

ATOM 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

ATOM 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

ATOM 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

ATOM 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

ATOM 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

ATOM 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

ATOM 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

ATOM 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

ATOM 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

ATOM 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

ATOM 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

ATOM 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

ATOM 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

ATOM 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

ATOM 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

ATOM 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

ATOM 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

ATOM 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

ATOM 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

ATOM 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

ATOM 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

ATOM 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

ATOM 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

ATOM 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

ATOM 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

ATOM 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

ATOM 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

ATOM 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

ATOM 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

ATOM 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

ATOM 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

ATOM 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

ATOM 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

ATOM 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

ATOM 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

ATOM 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

ATOM 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

ATOM 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

ATOM 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

ATOM 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

ATOM 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

ATOM 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

ATOM 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

ATOM 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

ATOM 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

ATOM 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

ATOM 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

ATOM 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

ATOM 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

ATOM 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

ATOM 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

ATOM 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

ATOM 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

ATOM 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

ATOM 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

ATOM 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

ATOM 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

ATOM 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

ATOM 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

ATOM 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

ATOM 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

ATOM 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

ATOM 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

ATOM 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

ATOM 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

ATOM 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

ATOM 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

ATOM 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

ATOM 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

ATOM 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

ATOM 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

ATOM 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

ATOM 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

ATOM 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

ATOM 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

ATOM 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

ATOM 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

ATOM 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

ATOM 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

ATOM 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

ATOM 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

ATOM 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

ATOM 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

ATOM 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

ATOM 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

ATOM 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

ATOM 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

ATOM 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

ATOM 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

ATOM 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

ATOM 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

ATOM 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

ATOM 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

ATOM 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

ATOM 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

ATOM 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

ATOM 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

ATOM 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

ATOM 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

ATOM 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

ATOM 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

ATOM 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

ATOM 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

ATOM 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

ATOM 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

ATOM 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

ATOM 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

ATOM 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

ATOM 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

ATOM 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

ATOM 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

ATOM 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

ATOM 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

ATOM 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

ATOM 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

ATOM 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

ATOM 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

ATOM 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

ATOM 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

ATOM 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

ATOM 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

ATOM 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

ATOM 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

ATOM 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

ATOM 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

ATOM 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

ATOM 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

ATOM 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

ATOM 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

ATOM 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

ATOM 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

ATOM 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

ATOM 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

ATOM 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

ATOM 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

ATOM 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

ATOM 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

ATOM 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

ATOM 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

ATOM 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

ATOM 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

ATOM 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

ATOM 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

ATOM 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

ATOM 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

ATOM 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

ATOM 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

ATOM 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

ATOM 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

ATOM 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

ATOM 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

ATOM 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

ATOM 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

ATOM 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

ATOM 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

ATOM 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

ATOM 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

ATOM 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

ATOM 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

ATOM 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

ATOM 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

ATOM 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

ATOM 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

ATOM 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

ATOM 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

ATOM 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

ATOM 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

ATOM 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

ATOM 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

ATOM 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

ATOM 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

ATOM 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

ATOM 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

ATOM 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

ATOM 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

ATOM 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

ATOM 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

ATOM 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

ATOM 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

ATOM 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

ATOM 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

ATOM 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

ATOM 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

ATOM 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

ATOM 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

ATOM 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

ATOM 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

ATOM 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

ATOM 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

ATOM 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

ATOM 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

ATOM 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

ATOM 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

ATOM 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

ATOM 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

ATOM 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

ATOM 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

ATOM 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

ATOM 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

ATOM 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

ATOM 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

ATOM 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

ATOM 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

ATOM 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

ATOM 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

ATOM 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

ATOM 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

ATOM 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

ATOM 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

ATOM 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

ATOM 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

ATOM 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

ATOM 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

ATOM 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

ATOM 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

ATOM 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

ATOM 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

ATOM 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

ATOM 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

ATOM 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

ATOM 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

ATOM 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

ATOM 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

ATOM 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

ATOM 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

ATOM 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

ATOM 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

ATOM 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

ATOM 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

ATOM 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

ATOM 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

ATOM 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

ATOM 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

ATOM 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

ATOM 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

ATOM 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

ATOM 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

ATOM 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

ATOM 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

ATOM 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

ATOM 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

ATOM 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

ATOM 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

ATOM 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

ATOM 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

ATOM 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

ATOM 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

ATOM 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

ATOM 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

ATOM 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

ATOM 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

ATOM 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

ATOM 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

ATOM 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

ATOM 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

ATOM 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

ATOM 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

ATOM 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

ATOM 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

ATOM 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

ATOM 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

ATOM 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

ATOM 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

ATOM 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

ATOM 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

ATOM 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

ATOM 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

ATOM 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

ATOM 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

ATOM 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

ATOM 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

ATOM 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

ATOM 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

ATOM 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

ATOM 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

ATOM 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

ATOM 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

ATOM 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

ATOM 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

ATOM 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

ATOM 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

ATOM 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

ATOM 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

ATOM 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

ATOM 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

ATOM 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

ATOM 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

ATOM 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

ATOM 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

ATOM 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

ATOM 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

ATOM 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

ATOM 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

ATOM 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

ATOM 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

ATOM 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

ATOM 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

ATOM 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

ATOM 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

ATOM 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

ATOM 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

ATOM 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

ATOM 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

ATOM 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

ATOM 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

ATOM 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

ATOM 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

ATOM 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

ATOM 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

ATOM 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

ATOM 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

ATOM 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

ATOM 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

ATOM 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

ATOM 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

ATOM 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

ATOM 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

ATOM 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

ATOM 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

ATOM 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

ATOM 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

ATOM 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

ATOM 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

ATOM 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

ATOM 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

ATOM 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

ATOM 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

ATOM 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

ATOM 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

ATOM 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

ATOM 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

ATOM 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

ATOM 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

ATOM 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

ATOM 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

ATOM 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

ATOM 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

ATOM 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

ATOM 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

ATOM 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

ATOM 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

TER 2540 ARG B 159

HETATM 2541 CL CL A 160 11.750 52.951 20.523 1.00 28.60 CL

HETATM 2542 N1 MTX A 161 22.983 58.667 24.488 1.00 15.10 N

HETATM 2543 C2 MTX A 161 23.468 58.215 23.282 1.00 17.30 C

HETATM 2544 NA2 MTX A 161 24.797 58.223 23.208 1.00 16.50 N

HETATM 2545 N3 MTX A 161 22.792 57.819 22.230 1.00 17.90 N

HETATM 2546 C4 MTX A 161 21.459 57.803 22.068 1.00 18.60 C

HETATM 2547 NA4 MTX A 161 20.821 57.440 21.075 1.00 18.10 N

HETATM 2548 C4A MTX A 161 20.900 58.304 23.363 1.00 18.90 C

HETATM 2549 N5 MTX A 161 19.558 58.514 23.370 1.00 19.80 N

HETATM 2550 C6 MTX A 161 18.989 58.982 24.422 1.00 18.60 C

HETATM 2551 C7 MTX A 161 19.781 59.256 25.628 1.00 18.80 C

HETATM 2552 N8 MTX A 161 21.096 59.176 25.562 1.00 21.90 N

HETATM 2553 C8A MTX A 161 21.608 58.594 24.363 1.00 19.50 C

HETATM 2554 C9 MTX A 161 17.465 59.006 24.451 1.00 20.50 C

HETATM 2555 N10 MTX A 161 16.957 59.967 25.533 1.00 17.40 N

HETATM 2556 CM MTX A 161 16.225 59.184 26.643 1.00 22.30 C

HETATM 2557 C11 MTX A 161 18.122 64.100 25.805 1.00 22.10 C

HETATM 2558 C12 MTX A 161 17.288 63.511 26.732 1.00 18.80 C

HETATM 2559 C13 MTX A 161 16.845 62.195 26.688 1.00 18.10 C

HETATM 2560 C14 MTX A 161 17.320 61.452 25.680 1.00 19.70 C

HETATM 2561 C15 MTX A 161 18.141 62.098 24.672 1.00 17.60 C

HETATM 2562 C16 MTX A 161 18.518 63.414 24.738 1.00 17.00 C

HETATM 2563 C MTX A 161 18.192 65.626 25.834 1.00 23.30 C

HETATM 2564 O MTX A 161 17.516 66.280 26.783 1.00 25.90 O

HETATM 2565 N MTX A 161 19.329 65.981 25.135 1.00 21.30 N

HETATM 2566 CA MTX A 161 19.837 67.459 25.135 1.00 22.60 C

HETATM 2567 CT MTX A 161 20.159 67.548 23.635 1.00 22.80 C

HETATM 2568 O1 MTX A 161 20.289 66.659 22.848 1.00 21.30 O

HETATM 2569 O2 MTX A 161 19.921 68.750 23.149 1.00 27.20 O

HETATM 2570 CB MTX A 161 21.217 67.669 25.761 1.00 27.40 C

HETATM 2571 CG MTX A 161 20.891 67.636 27.320 1.00 36.20 C

HETATM 2572 CD MTX A 161 19.921 68.524 28.357 1.00 41.50 C

HETATM 2573 OE1 MTX A 161 19.413 68.371 29.593 1.00 49.10 O

HETATM 2574 OE2 MTX A 161 19.441 69.469 27.489 1.00 42.50 O

HETATM 2575 CL CL B 160 28.190 68.250 51.411 1.00 31.90 CL

HETATM 2576 CA CA B 161 -0.163 59.862 58.649 1.00 25.90 CA

HETATM 2577 N1 MTX B 162 16.724 65.101 45.857 1.00 16.60 N

HETATM 2578 C2 MTX B 162 16.136 65.424 47.049 1.00 13.40 C

HETATM 2579 NA2 MTX B 162 14.808 64.996 47.270 1.00 16.10 N

HETATM 2580 N3 MTX B 162 16.766 66.078 48.071 1.00 15.30 N

HETATM 2581 C4 MTX B 162 18.001 66.587 47.924 1.00 15.70 C

HETATM 2582 NA4 MTX B 162 18.523 67.297 48.888 1.00 14.30 N

HETATM 2583 C4A MTX B 162 18.630 66.369 46.644 1.00 14.30 C

HETATM 2584 N5 MTX B 162 19.814 66.982 46.490 1.00 21.30 N

HETATM 2585 C6 MTX B 162 20.308 66.821 45.261 1.00 20.20 C

HETATM 2586 C7 MTX B 162 19.725 66.102 44.371 1.00 17.60 C

HETATM 2587 N8 MTX B 162 18.560 65.424 44.401 1.00 16.70 N

HETATM 2588 C8A MTX B 162 17.991 65.747 45.644 1.00 17.50 C

HETATM 2589 C9 MTX B 162 21.711 67.394 45.048 1.00 22.70 C

HETATM 2590 N10 MTX B 162 22.028 67.717 43.540 1.00 22.50 N

HETATM 2591 CM MTX B 162 23.296 66.877 43.297 1.00 22.60 C

HETATM 2592 C11 MTX B 162 19.702 69.969 41.061 1.00 20.90 C

HETATM 2593 C12 MTX B 162 20.746 69.211 40.495 1.00 22.10 C

HETATM 2594 C13 MTX B 162 21.534 68.508 41.355 1.00 21.50 C

HETATM 2595 C14 MTX B 162 21.189 68.492 42.724 1.00 22.70 C

HETATM 2596 C15 MTX B 162 20.168 69.307 43.231 1.00 22.10 C

HETATM 2597 C16 MTX B 162 19.422 70.099 42.451 1.00 23.10 C

HETATM 2598 C MTX B 162 18.966 70.777 40.090 1.00 25.00 C

HETATM 2599 O MTX B 162 19.469 71.019 39.002 1.00 28.90 O

HETATM 2600 N MTX B 162 17.735 71.051 40.429 1.00 26.70 N

HETATM 2601 CA MTX B 162 16.877 71.923 39.715 1.00 25.40 C

HETATM 2602 CT MTX B 162 16.397 72.948 40.561 1.00 25.90 C

HETATM 2603 O1 MTX B 162 16.202 72.626 41.863 1.00 22.50 O

HETATM 2604 O2 MTX B 162 15.866 74.111 40.362 1.00 25.00 O

HETATM 2605 CB MTX B 162 15.656 71.197 39.259 1.00 28.40 C

HETATM 2606 CG MTX B 162 16.080 70.349 37.905 1.00 41.00 C

HETATM 2607 CD MTX B 162 16.286 70.898 36.272 1.00 49.50 C

HETATM 2608 OE1 MTX B 162 17.507 70.413 35.853 1.00 55.40 O

HETATM 2609 OE2 MTX B 162 15.722 72.117 36.236 1.00 54.20 O

HETATM 2610 O HOH A 162 14.724 49.464 22.590 0.99 25.30 O

HETATM 2611 O HOH A 163 22.932 59.466 28.571 1.02 39.50 O

HETATM 2612 O HOH A 164 24.675 54.929 4.862 0.99 37.00 O

HETATM 2613 O HOH A 165 27.295 57.319 21.583 1.00 15.90 O

HETATM 2614 O HOH A 166 28.977 47.446 26.099 0.90 47.50 O

HETATM 2615 O HOH A 167 29.821 48.326 28.394 1.05 47.00 O

HETATM 2616 O HOH A 168 20.774 54.840 23.510 1.04 31.40 O

HETATM 2617 O HOH A 169 20.341 52.863 25.974 1.01 29.70 O

HETATM 2618 O HOH A 170 23.081 51.119 37.552 0.99 35.30 O

HETATM 2619 O HOH A 171 18.984 57.472 32.131 0.97 28.60 O

HETATM 2620 O HOH A 172 22.102 60.387 31.204 1.03 34.30 O

HETATM 2621 O HOH A 173 20.014 55.511 26.209 0.91 37.70 O

HETATM 2622 O HOH A 174 17.134 56.560 29.490 1.08 31.50 O

HETATM 2623 O HOH A 175 11.182 49.173 30.623 1.00 23.20 O

HETATM 2624 O HOH A 176 17.283 55.171 22.340 1.05 31.80 O

HETATM 2625 O HOH A 177 24.125 44.773 31.248 0.90 31.10 O

HETATM 2626 O HOH A 178 14.193 50.255 29.667 0.99 21.00 O

HETATM 2627 O HOH A 179 7.994 53.081 17.184 1.03 32.40 O

HETATM 2628 O HOH A 180 4.503 52.895 23.363 1.05 53.50 O

HETATM 2629 O HOH A 181 11.997 71.689 22.627 1.04 45.10 O

HETATM 2630 O HOH A 182 10.972 68.637 14.381 1.00 37.10 O

HETATM 2631 O HOH A 183 9.359 67.620 11.821 1.08 41.00 O

HETATM 2632 O HOH A 184 17.721 60.742 1.839 0.94 50.70 O

HETATM 2633 O HOH A 185 30.049 62.623 10.085 0.81 48.80 O

HETATM 2634 O HOH A 186 29.336 64.310 14.168 1.03 38.80 O

HETATM 2635 O HOH A 187 30.366 50.287 37.494 0.94 51.50 O

HETATM 2636 O HOH A 188 16.146 46.469 27.828 1.04 36.60 O

HETATM 2637 O HOH A 189 13.722 52.976 23.892 1.05 40.10 O

HETATM 2638 O HOH A 190 16.742 52.120 23.289 1.09 43.70 O

HETATM 2639 O HOH A 191 21.981 68.282 8.298 0.94 30.60 O

HETATM 2640 O HOH A 192 25.962 67.313 8.710 1.01 47.00 O

HETATM 2641 O HOH A 193 10.049 50.328 14.087 0.73 51.30 O

HETATM 2642 O HOH A 194 6.507 69.316 25.569 0.78 54.10 O

HETATM 2643 O HOH A 195 16.635 47.914 31.314 0.83 55.70 O

HETATM 2644 O HOH A 196 40.807 59.200 27.960 1.02 34.80 O

HETATM 2645 O HOH A 197 11.694 50.061 22.855 1.05 46.80 O

HETATM 2646 O HOH A 198 42.373 54.275 12.785 0.87 58.30 O

HETATM 2647 O HOH A 199 26.917 44.765 10.195 0.88 51.40 O

HETATM 2648 O HOH A 200 34.156 59.466 8.621 0.72 52.70 O

HETATM 2649 O HOH A 201 20.849 58.360 2.244 0.88 58.50 O

HETATM 2650 O HOH A 202 7.136 54.098 2.052 0.93 55.20 O

HETATM 2651 O HOH A 203 4.736 58.950 1.964 0.89 55.20 O

HETATM 2652 O HOH A 204 4.018 55.285 1.530 0.81 55.80 O

HETATM 2653 O HOH A 205 1.683 51.030 2.508 0.77 56.00 O

HETATM 2654 O HOH A 206 12.175 70.656 10.497 0.91 57.10 O

HETATM 2655 O HOH A 207 14.631 68.597 5.495 0.96 60.00 O

HETATM 2656 O HOH A 208 -0.997 49.714 11.630 1.02 54.70 O

HETATM 2657 O HOH A 209 2.354 55.389 4.450 0.88 61.10 O

HETATM 2658 O HOH A 210 23.375 65.917 8.231 1.00 31.70 O

HETATM 2659 O HOH A 211 18.877 69.816 3.759 0.76 57.50 O

HETATM 2660 O HOH A 212 28.055 65.336 9.114 1.08 44.20 O

HETATM 2661 O HOH A 213 28.595 63.753 6.635 0.79 57.90 O

HETATM 2662 O HOH A 214 30.800 66.748 9.982 0.81 57.20 O

HETATM 2663 O HOH A 215 28.996 66.353 12.593 0.98 56.30 O

HETATM 2664 O HOH A 216 33.280 66.425 13.778 0.64 55.80 O

HETATM 2665 O HOH A 217 27.579 70.179 17.110 1.02 45.70 O

HETATM 2666 O HOH A 218 10.967 44.894 24.782 1.03 43.80 O

HETATM 2667 O HOH A 219 19.651 42.351 13.954 0.74 51.00 O

HETATM 2668 O HOH A 220 24.713 38.202 14.874 0.76 57.80 O

HETATM 2669 O HOH A 221 1.305 58.578 3.641 0.62 57.70 O

HETATM 2670 O HOH A 222 29.649 44.394 26.585 0.97 53.00 O

HETATM 2671 O HOH A 223 31.392 44.006 23.936 0.87 58.50 O

HETATM 2672 O HOH A 224 32.436 48.737 20.097 0.80 48.70 O

HETATM 2673 O HOH A 225 37.423 47.026 14.315 0.76 58.90 O

HETATM 2674 O HOH A 226 39.982 48.858 13.947 0.68 57.30 O

HETATM 2675 O HOH A 227 12.720 66.966 3.112 0.97 56.70 O

HETATM 2676 O HOH A 228 12.147 70.769 6.473 0.87 61.50 O

HETATM 2677 O HOH A 229 4.526 51.369 16.897 0.94 56.70 O

HETATM 2678 O HOH A 230 12.286 51.070 18.721 0.91 49.00 O

HETATM 2679 O HOH A 231 9.877 50.804 17.471 1.12 47.70 O

HETATM 2680 O HOH A 232 15.116 53.678 28.129 0.99 29.40 O

HETATM 2681 O HOH A 233 13.456 54.146 26.121 0.94 39.40 O

HETATM 2682 O HOH A 234 16.812 55.632 24.738 0.80 58.80 O

HETATM 2683 O HOH A 235 6.973 54.703 26.570 1.01 43.30 O

HETATM 2684 O HOH A 236 9.555 54.849 26.768 0.98 25.60 O

HETATM 2685 O HOH A 237 35.158 64.544 24.142 1.14 57.30 O

HETATM 2686 O HOH A 238 34.160 69.259 21.274 0.71 58.20 O

HETATM 2687 O HOH A 239 29.812 70.252 18.169 0.91 56.70 O

HETATM 2688 O HOH A 240 19.902 73.546 12.505 1.12 42.00 O

HETATM 2689 O HOH A 241 17.595 70.954 11.505 1.07 50.50 O

HETATM 2690 O HOH A 242 29.938 66.466 15.602 0.94 57.20 O

HETATM 2691 O HOH A 243 14.468 71.415 10.960 1.00 54.20 O

HETATM 2692 O HOH A 244 13.205 70.696 16.602 0.98 45.40 O

HETATM 2693 O HOH A 245 17.824 38.977 27.585 0.79 55.20 O

HETATM 2694 O HOH A 246 14.412 38.832 31.234 0.97 55.00 O

HETATM 2695 O HOH A 247 12.780 47.696 32.602 0.78 37.80 O

HETATM 2696 O HOH A 248 20.630 48.552 37.626 0.89 52.00 O

HETATM 2697 O HOH A 249 12.659 49.569 35.081 0.82 38.80 O

HETATM 2698 O HOH A 250 6.870 51.409 32.153 0.98 21.10 O

HETATM 2699 O HOH A 251 25.267 49.916 38.060 0.85 52.70 O

HETATM 2700 O HOH A 252 28.246 48.632 37.773 0.87 50.60 O

HETATM 2701 O HOH A 253 30.427 53.702 39.046 1.04 49.20 O

HETATM 2702 O HOH A 254 31.522 52.451 36.478 1.05 39.10 O

HETATM 2703 O HOH A 255 35.577 55.389 37.015 1.03 39.50 O

HETATM 2704 O HOH A 256 33.527 63.559 29.078 0.91 54.10 O

HETATM 2705 O HOH A 257 31.010 64.980 26.489 0.96 36.60 O

HETATM 2706 O HOH A 258 30.604 66.974 29.718 0.80 51.20 O

HETATM 2707 O HOH A 259 24.936 67.426 29.365 0.91 29.10 O

HETATM 2708 O HOH A 260 30.674 69.986 34.728 0.83 55.60 O

HETATM 2709 O HOH A 261 28.003 68.056 33.896 0.91 53.10 O

HETATM 2710 O HOH A 262 29.364 71.624 36.677 0.84 60.00 O

HETATM 2711 O HOH A 263 19.050 70.890 24.687 1.03 43.70 O

HETATM 2712 O HOH A 264 25.552 64.811 40.738 0.84 47.50 O

HETATM 2713 O HOH A 265 36.365 62.502 32.293 0.80 49.90 O

HETATM 2714 O HOH A 266 39.814 62.437 30.138 0.78 57.40 O

HETATM 2715 O HOH A 267 1.855 54.025 1.258 0.90 54.80 O

HETATM 2716 O HOH A 268 -1.729 56.584 4.620 0.84 57.60 O

HETATM 2717 O HOH A 269 9.196 49.754 7.268 0.71 52.40 O

HETATM 2718 O HOH A 270 23.543 54.857 2.648 0.74 59.40 O

HETATM 2719 O HOH A 271 26.265 57.472 1.508 0.93 53.20 O

HETATM 2720 O HOH A 272 26.819 60.209 1.979 0.91 56.20 O

HETATM 2721 O HOH A 273 3.869 64.181 10.070 0.90 51.20 O

HETATM 2722 O HOH A 274 26.209 69.324 10.423 0.83 54.50 O

HETATM 2723 O HOH A 275 18.122 69.380 9.460 0.77 59.00 O

HETATM 2724 O HOH A 276 -2.722 55.995 15.131 0.97 54.60 O

HETATM 2725 O HOH A 277 16.155 44.999 19.795 0.90 51.20 O

HETATM 2726 O HOH A 278 20.257 46.162 37.037 0.77 56.70 O

HETATM 2727 O HOH A 279 13.857 44.733 35.610 0.94 67.10 O

HETATM 2728 O HOH A 280 23.380 40.220 29.211 0.82 53.00 O

HETATM 2729 O HOH A 281 33.620 61.735 33.330 0.97 34.60 O

HETATM 2730 O HOH A 282 29.868 66.102 32.668 0.92 45.40 O

HETATM 2731 O HOH A 283 38.416 45.112 11.085 0.97 56.60 O

HETATM 2732 O HOH A 284 6.083 49.593 15.543 0.81 57.40 O

HETATM 2733 O HOH A 285 36.305 49.997 28.688 0.99 48.00 O

HETATM 2734 O HOH A 286 37.838 50.457 25.761 0.85 51.60 O

HETATM 2735 O HOH A 287 26.307 68.169 15.028 0.92 44.40 O

HETATM 2736 O HOH A 288 29.113 69.170 12.814 0.84 58.40 O

HETATM 2737 O HOH A 289 31.662 69.856 15.698 0.79 54.60 O

HETATM 2738 O HOH A 290 26.852 70.841 20.817 1.04 47.70 O

HETATM 2739 O HOH A 291 27.057 72.973 16.853 0.70 56.30 O

HETATM 2740 O HOH A 292 32.287 67.757 17.169 0.60 58.10 O

HETATM 2741 O HOH A 293 32.576 63.624 12.542 0.73 59.60 O

HETATM 2742 O HOH A 294 33.443 53.210 38.053 1.14 51.50 O

HETATM 2743 O HOH A 295 19.031 59.959 29.012 0.94 48.40 O

HETATM 2744 O HOH A 296 18.029 66.248 29.976 1.11 52.20 O

HETATM 2745 O HOH A 297 27.323 69.073 30.579 0.93 58.10 O

HETATM 2746 O HOH A 298 22.909 67.661 30.954 0.99 46.50 O

HETATM 2747 O HOH A 299 21.869 71.576 26.908 0.91 52.90 O

HETATM 2748 O HOH A 300 21.357 52.443 2.266 0.84 53.20 O

HETATM 2749 O HOH A 301 19.273 42.392 18.552 0.99 58.70 O

HETATM 2750 O HOH A 302 5.351 50.764 10.857 0.73 52.30 O

HETATM 2751 O HOH A 303 -2.442 53.299 12.726 1.00 55.80 O

HETATM 2752 O HOH A 304 27.346 38.420 20.714 0.77 55.60 O

HETATM 2753 O HOH A 305 0.583 61.509 10.460 0.86 57.90 O

HETATM 2754 O HOH A 306 2.303 58.546 9.217 1.07 53.00 O

HETATM 2755 O HOH A 307 -3.128 57.149 18.316 1.03 57.00 O

HETATM 2756 O HOH A 308 -0.065 55.882 22.200 0.65 58.30 O

HETATM 2757 O HOH A 309 21.911 40.503 16.617 1.05 54.60 O

HETATM 2758 O HOH A 310 17.730 39.978 39.318 0.81 57.50 O

HETATM 2759 O HOH A 311 19.814 44.685 11.534 0.76 53.90 O

HETATM 2760 O HOH A 312 10.683 66.442 28.836 1.03 49.10 O

HETATM 2761 O HOH A 313 29.364 43.546 19.199 0.78 59.50 O

HETATM 2762 O HOH A 314 29.430 41.673 23.355 0.85 61.20 O

HETATM 2763 O HOH A 315 35.633 49.674 35.309 0.98 58.00 O

HETATM 2764 O HOH A 316 33.256 43.861 28.122 0.65 54.50 O

HETATM 2765 O HOH A 317 35.377 44.499 26.916 0.74 53.10 O

HETATM 2766 O HOH A 318 30.497 43.522 28.666 0.63 59.20 O

HETATM 2767 O HOH A 319 32.375 46.808 28.416 0.83 57.80 O

HETATM 2768 O HOH A 320 35.880 49.375 31.278 0.70 56.00 O

HETATM 2769 O HOH A 321 26.507 36.321 17.000 0.88 58.50 O

HETATM 2770 O HOH A 322 35.466 42.666 23.914 0.84 61.10 O

HETATM 2771 O HOH A 323 14.500 66.191 26.864 0.88 46.50 O

HETATM 2772 O HOH A 324 21.142 56.608 28.122 0.70 52.90 O

HETATM 2773 O HOH A 325 36.221 59.087 39.575 0.87 57.60 O

HETATM 2774 O HOH A 326 24.890 64.908 37.199 1.02 42.00 O

HETATM 2775 O HOH A 327 25.496 69.913 26.540 0.76 48.60 O

HETATM 2776 O HOH A 328 23.692 68.274 27.070 0.91 50.80 O

HETATM 2777 O HOH A 329 17.400 42.489 21.766 0.90 54.30 O

HETATM 2778 O HOH A 330 20.835 74.983 26.945 0.66 54.10 O

HETATM 2779 O HOH A 331 24.722 72.416 25.349 0.94 52.40 O

HETATM 2780 O HOH A 332 24.741 71.172 30.233 0.93 60.60 O

HETATM 2781 O HOH A 333 35.228 67.927 23.561 0.93 58.40 O

HETATM 2782 O HOH A 334 14.794 41.286 35.316 1.05 59.40 O

HETATM 2783 O HOH A 335 39.679 60.072 36.456 0.78 59.10 O

HETATM 2784 O HOH A 336 39.166 58.716 38.994 0.86 53.50 O

HETATM 2785 O HOH A 337 32.338 65.844 34.323 0.83 52.80 O

HETATM 2786 O HOH A 338 31.919 70.494 36.986 0.78 61.50 O

HETATM 2787 O HOH A 339 41.949 58.788 12.844 0.89 57.70 O

HETATM 2788 O HOH A 340 41.996 51.748 13.086 1.02 55.40 O

HETATM 2789 O HOH A 341 40.681 54.283 9.828 0.68 54.80 O

HETATM 2790 O HOH A 342 41.408 48.794 8.776 0.84 58.70 O

HETATM 2791 O HOH A 343 5.295 52.104 19.265 0.88 53.60 O

HETATM 2792 O HOH A 344 33.335 40.640 14.403 0.69 54.00 O

HETATM 2793 O HOH A 345 17.059 55.042 27.798 0.80 56.10 O

HETATM 2794 O HOH A 346 25.263 50.602 3.031 0.75 53.90 O

HETATM 2795 O HOH A 347 33.937 51.531 29.071 1.03 52.60 O

HETATM 2796 O HOH A 348 29.164 39.986 38.259 0.87 57.80 O

HETATM 2797 O HOH A 349 12.888 46.025 21.318 0.95 56.70 O

HETATM 2798 O HOH A 350 20.583 49.278 1.971 0.84 56.30 O

HETATM 2799 O HOH A 351 36.388 49.674 19.177 0.66 52.30 O

HETATM 2800 O HOH A 352 3.295 66.224 12.204 0.84 52.70 O

HETATM 2801 O HOH A 353 5.071 68.573 10.843 0.87 57.00 O

HETATM 2802 O HOH A 354 2.988 62.365 21.362 0.84 58.30 O

HETATM 2803 O HOH A 355 34.314 39.768 7.444 0.67 59.00 O

HETATM 2804 O HOH A 356 35.820 52.435 6.216 0.93 54.10 O

HETATM 2805 O HOH A 357 32.198 50.215 2.361 1.19 52.90 O

HETATM 2806 O HOH A 358 36.575 52.225 35.824 0.97 55.20 O

HETATM 2807 O HOH A 359 21.781 62.865 32.565 0.87 50.80 O

HETATM 2808 O HOH A 360 25.682 65.747 0.831 0.80 51.50 O

HETATM 2809 O HOH A 361 27.220 69.461 23.605 0.92 48.10 O

HETATM 2810 O HOH A 362 31.741 69.848 11.512 0.85 54.80 O

HETATM 2811 O HOH A 363 41.376 58.877 22.664 0.89 51.10 O

HETATM 2812 O HOH A 364 4.144 57.408 13.145 0.70 54.80 O

HETATM 2813 O HOH A 365 -0.489 53.839 2.891 0.77 56.10 O

HETATM 2814 O HOH A 366 -0.587 52.846 9.298 0.67 60.70 O

HETATM 2815 O HOH A 367 -0.075 53.557 6.076 0.69 57.80 O

HETATM 2816 O HOH A 368 21.119 40.696 20.862 0.82 57.50 O

HETATM 2817 O HOH A 369 29.444 58.054 1.927 0.38 48.50 O

HETATM 2818 O HOH A 370 16.570 68.210 7.018 0.72 55.50 O

HETATM 2819 O HOH A 371 40.155 51.159 18.419 0.90 56.70 O

HETATM 2820 O HOH A 372 43.142 50.941 9.717 0.79 55.60 O

HETATM 2821 O HOH A 373 40.980 49.504 11.512 0.80 54.00 O

HETATM 2822 O HOH A 374 9.154 52.233 19.788 0.31 42.90 O

HETATM 2823 O HOH A 375 12.053 49.101 20.023 0.26 34.50 O

HETATM 2824 O HOH A 376 15.805 55.680 20.766 0.46 56.30 O

HETATM 2825 O HOH A 377 18.784 40.075 22.392 0.78 58.20 O

HETATM 2826 O HOH A 378 14.281 43.659 21.788 0.66 58.90 O

HETATM 2827 O HOH A 379 30.171 47.139 2.207 0.68 49.70 O

HETATM 2828 O HOH A 380 28.409 49.561 1.854 0.76 54.30 O

HETATM 2829 O HOH A 381 33.326 48.648 23.399 0.81 57.50 O

HETATM 2830 O HOH A 382 33.555 47.962 25.695 0.57 50.90 O

HETATM 2831 O HOH A 383 22.340 61.493 4.774 0.83 56.20 O

HETATM 2832 O HOH A 384 22.093 71.834 8.952 0.65 52.40 O

HETATM 2833 O HOH A 385 20.849 65.384 32.433 0.81 56.50 O

HETATM 2834 O HOH A 386 22.419 65.344 35.552 0.72 53.00 O

HETATM 2835 O HOH A 387 33.014 66.546 37.839 0.65 54.00 O

HETATM 2836 O HOH A 388 20.578 62.897 40.178 1.14 52.90 O

HETATM 2837 O HOH A 389 3.687 52.677 29.829 0.67 57.50 O

HETATM 2838 O HOH A 390 17.936 63.228 30.630 0.93 51.20 O

HETATM 2839 O HOH A 391 22.438 61.275 39.641 1.00 38.50 O

HETATM 2840 O HOH A 392 21.315 65.013 39.038 0.87 51.30 O

HETATM 2841 O HOH A 393 19.315 65.311 36.155 0.84 55.90 O

HETATM 2842 O HOH A 394 16.351 66.651 35.301 0.93 50.90 O

HETATM 2843 O HOH A 395 28.316 63.931 43.121 1.08 48.80 O

HETATM 2844 O HOH A 396 14.892 60.621 29.792 0.97 48.30 O

HETATM 2845 O HOH A 397 30.940 68.847 39.825 0.83 53.60 O

HETATM 2846 O HOH A 398 14.524 45.855 38.494 0.89 51.10 O

HETATM 2847 O HOH A 399 5.537 56.980 28.291 0.76 54.20 O

HETATM 2848 O HOH A 400 21.790 48.204 40.443 0.80 55.80 O

HETATM 2849 O HOH B 163 14.901 51.450 34.926 1.02 38.30 O

HETATM 2850 O HOH B 164 17.036 50.110 37.346 0.94 57.70 O

HETATM 2851 O HOH B 165 16.798 49.117 34.441 0.92 51.90 O

HETATM 2852 O HOH B 166 24.456 67.887 39.141 0.79 51.70 O

HETATM 2853 O HOH B 167 10.254 64.197 28.387 0.42 58.00 O

HETATM 2854 O HOH B 168 30.231 54.509 46.350 0.89 50.80 O

HETATM 2855 O HOH B 169 26.978 60.887 45.107 1.01 30.30 O

HETATM 2856 O HOH B 170 17.432 62.857 42.260 0.95 33.10 O

HETATM 2857 O HOH B 171 18.089 62.558 39.016 0.93 38.40 O

HETATM 2858 O HOH B 172 14.976 54.534 51.779 0.98 32.40 O

HETATM 2859 O HOH B 173 14.179 52.540 49.543 0.99 42.00 O

HETATM 2860 O HOH B 174 8.641 76.323 47.799 1.00 34.30 O

HETATM 2861 O HOH B 175 8.847 71.657 40.333 0.93 40.80 O

HETATM 2862 O HOH B 176 29.145 64.706 54.368 1.02 27.20 O

HETATM 2863 O HOH B 177 33.168 84.445 48.307 0.97 50.50 O

HETATM 2864 O HOH B 178 22.886 66.829 48.998 1.00 44.00 O

HETATM 2865 O HOH B 179 26.661 63.132 51.507 0.98 28.30 O

HETATM 2866 O HOH B 180 31.033 71.511 53.691 1.03 30.20 O

HETATM 2867 O HOH B 181 13.060 73.772 63.335 1.00 36.80 O

HETATM 2868 O HOH B 182 21.697 50.901 49.190 1.00 35.20 O

HETATM 2869 O HOH B 183 22.862 58.441 62.577 0.81 43.90 O

HETATM 2870 O HOH B 184 13.326 50.626 41.282 0.96 27.60 O

HETATM 2871 O HOH B 185 9.457 50.481 39.340 0.95 37.70 O

HETATM 2872 O HOH B 186 2.773 66.611 68.028 0.87 56.70 O

HETATM 2873 O HOH B 187 19.725 63.794 49.042 1.00 25.10 O

HETATM 2874 O HOH B 188 20.807 61.565 47.645 0.99 24.50 O

HETATM 2875 O HOH B 189 21.166 63.059 45.791 1.01 38.60 O

HETATM 2876 O HOH B 190 21.725 51.014 59.973 0.69 57.10 O

HETATM 2877 O HOH B 191 29.248 61.105 49.719 1.02 39.50 O

HETATM 2878 O HOH B 192 35.661 55.696 41.120 0.82 58.10 O

HETATM 2879 O HOH B 193 16.882 46.937 53.566 0.87 57.70 O

HETATM 2880 O HOH B 194 7.583 59.668 31.579 0.72 52.70 O

HETATM 2881 O HOH B 195 7.481 65.368 41.061 0.96 31.40 O

HETATM 2882 O HOH B 196 7.043 65.126 37.957 0.95 50.30 O

HETATM 2883 O HOH B 197 5.654 63.430 41.010 0.95 47.70 O

HETATM 2884 O HOH B 198 22.391 82.588 46.152 0.99 39.00 O

HETATM 2885 O HOH B 199 23.333 84.251 48.836 1.01 48.50 O

HETATM 2886 O HOH B 200 14.552 81.635 61.003 1.09 53.70 O

HETATM 2887 O HOH B 201 10.720 83.815 61.217 0.81 55.60 O

HETATM 2888 O HOH B 202 12.678 64.552 49.190 0.99 18.30 O

HETATM 2889 O HOH B 203 21.706 43.732 44.908 0.58 55.40 O

HETATM 2890 O HOH B 204 1.361 59.337 55.288 1.02 33.30 O

HETATM 2891 O HOH B 205 -1.044 61.711 60.025 0.99 18.20 O

HETATM 2892 O HOH B 206 5.421 53.323 34.603 1.01 23.30 O

HETATM 2893 O HOH B 207 3.901 50.626 36.155 1.05 29.30 O

HETATM 2894 O HOH B 208 3.426 57.941 60.886 1.04 32.80 O

HETATM 2895 O HOH B 209 20.741 51.442 40.171 1.06 49.60 O

HETATM 2896 O HOH B 210 27.784 55.955 41.091 0.97 36.10 O

HETATM 2897 O HOH B 211 27.640 52.798 41.385 0.84 57.30 O

HETATM 2898 O HOH B 212 14.855 55.018 55.935 0.95 51.10 O

HETATM 2899 O HOH B 213 7.616 57.852 37.729 1.01 27.00 O

HETATM 2900 O HOH B 214 10.557 53.048 47.115 1.03 53.60 O

HETATM 2901 O HOH B 215 4.097 56.536 38.420 1.01 46.30 O

HETATM 2902 O HOH B 216 9.257 62.825 35.176 0.98 40.30 O

HETATM 2903 O HOH B 217 5.840 61.670 39.104 1.01 50.00 O

HETATM 2904 O HOH B 218 12.678 67.911 36.846 0.90 28.00 O

HETATM 2905 O HOH B 219 12.398 44.483 42.937 0.91 60.40 O

HETATM 2906 O HOH B 220 10.548 57.133 56.170 0.90 38.00 O

HETATM 2907 O HOH B 221 0.107 57.828 57.068 0.89 38.60 O

HETATM 2908 O HOH B 222 1.869 66.546 63.548 0.81 57.60 O

HETATM 2909 O HOH B 223 11.792 57.674 71.684 0.55 57.60 O

HETATM 2910 O HOH B 224 7.490 52.419 62.644 0.84 53.30 O

HETATM 2911 O HOH B 225 7.933 57.174 60.216 1.11 52.50 O

HETATM 2912 O HOH B 226 0.741 64.835 44.048 0.95 57.60 O

HETATM 2913 O HOH B 227 10.147 51.966 58.532 0.82 56.20 O

HETATM 2914 O HOH B 228 0.694 56.391 46.622 1.07 36.90 O

HETATM 2915 O HOH B 229 4.731 54.824 32.712 0.90 53.10 O

HETATM 2916 O HOH B 230 4.628 71.842 66.189 0.80 62.00 O

HETATM 2917 O HOH B 231 14.943 58.126 29.645 1.04 40.70 O

HETATM 2918 O HOH B 232 14.677 61.686 32.219 0.92 39.90 O

HETATM 2919 O HOH B 233 12.039 64.108 69.080 0.85 50.50 O

HETATM 2920 O HOH B 234 10.930 80.287 53.875 1.01 31.50 O

HETATM 2921 O HOH B 235 23.794 63.672 45.857 1.04 58.00 O

HETATM 2922 O HOH B 236 26.847 65.505 47.608 1.01 54.10 O

HETATM 2923 O HOH B 237 24.237 62.615 42.459 0.93 38.50 O

HETATM 2924 O HOH B 238 30.306 57.916 55.847 1.07 46.10 O

HETATM 2925 O HOH B 239 26.941 60.871 56.634 1.02 50.90 O

HETATM 2926 O HOH B 240 32.422 61.727 52.617 0.98 49.20 O

HETATM 2927 O HOH B 241 27.593 58.562 60.304 0.90 59.70 O

HETATM 2928 O HOH B 242 22.149 71.947 38.295 0.96 48.30 O

HETATM 2929 O HOH B 243 21.692 78.858 37.516 0.85 55.50 O

HETATM 2930 O HOH B 244 29.774 70.640 58.134 0.99 51.30 O

HETATM 2931 O HOH B 245 29.117 74.765 63.607 0.82 53.00 O

HETATM 2932 O HOH B 246 26.824 77.106 65.601 1.07 42.50 O

HETATM 2933 O HOH B 247 34.599 69.065 60.797 1.02 46.40 O

HETATM 2934 O HOH B 248 34.757 72.617 63.122 0.94 57.40 O

HETATM 2935 O HOH B 249 31.299 75.217 66.976 0.92 60.00 O

HETATM 2936 O HOH B 250 7.094 76.258 44.827 0.86 46.30 O

HETATM 2937 O HOH B 251 23.906 50.336 55.935 0.88 58.60 O

HETATM 2938 O HOH B 252 6.950 72.940 50.845 0.99 34.10 O

HETATM 2939 O HOH B 253 24.158 56.713 59.356 1.00 56.00 O

HETATM 2940 O HOH B 254 -1.403 58.296 51.073 0.91 44.80 O

HETATM 2941 O HOH B 255 6.129 62.155 36.809 0.77 56.10 O

HETATM 2942 O HOH B 256 14.524 60.920 65.741 1.01 49.90 O

HETATM 2943 O HOH B 257 15.861 53.985 53.986 0.92 54.30 O

HETATM 2944 O HOH B 258 16.188 50.659 53.816 1.11 51.30 O

HETATM 2945 O HOH B 259 19.152 62.268 44.268 0.77 53.70 O

HETATM 2946 O HOH B 260 15.214 75.112 37.883 1.01 42.10 O

HETATM 2947 O HOH B 261 7.234 79.149 47.865 0.88 63.50 O

HETATM 2948 O HOH B 262 8.022 78.559 61.651 0.92 52.80 O

HETATM 2949 O HOH B 263 27.770 50.521 54.067 1.03 54.10 O

HETATM 2950 O HOH B 264 32.389 58.490 54.493 1.12 54.30 O

HETATM 2951 O HOH B 265 28.027 56.746 56.626 1.02 44.50 O

HETATM 2952 O HOH B 266 24.829 59.733 61.540 0.70 51.90 O

HETATM 2953 O HOH B 267 28.288 62.187 47.534 0.90 51.90 O

HETATM 2954 O HOH B 268 25.980 63.729 49.300 0.90 54.80 O

HETATM 2955 O HOH B 269 7.970 49.375 41.333 1.00 45.90 O

HETATM 2956 O HOH B 270 11.708 54.558 57.568 0.63 57.20 O

HETATM 2957 O HOH B 271 0.536 57.182 44.055 0.99 38.30 O

HETATM 2958 O HOH B 272 1.827 55.817 48.689 1.03 52.30 O

HETATM 2959 O HOH B 273 2.969 53.355 50.492 0.74 56.90 O

HETATM 2960 O HOH B 274 6.390 54.905 30.961 1.00 53.00 O

HETATM 2961 O HOH B 275 27.118 50.683 44.261 0.82 50.20 O

HETATM 2962 O HOH B 276 25.962 51.248 52.110 0.97 47.80 O

HETATM 2963 O HOH B 277 23.855 49.278 51.794 1.06 54.30 O

HETATM 2964 O HOH B 278 30.026 51.894 52.382 0.52 27.10 O

HETATM 2965 O HOH B 279 31.490 51.345 50.492 0.46 29.40 O

HETATM 2966 O HOH B 280 31.858 53.274 48.491 0.93 55.90 O

HETATM 2967 O HOH B 281 9.728 71.374 37.339 0.80 53.30 O

HETATM 2968 O HOH B 282 30.259 56.027 42.797 1.01 50.60 O

HETATM 2969 O HOH B 283 35.955 60.371 41.826 0.79 57.20 O

HETATM 2970 O HOH B 284 30.324 69.235 55.185 1.04 53.50 O

HETATM 2971 O HOH B 285 28.176 67.467 54.199 1.12 46.30 O

HETATM 2972 O HOH B 286 17.362 82.790 60.944 1.13 56.80 O

HETATM 2973 O HOH B 287 29.131 77.599 38.862 0.72 51.20 O

HETATM 2974 O HOH B 288 36.677 68.888 45.269 0.89 55.30 O

HETATM 2975 O HOH B 289 36.971 71.027 48.167 1.10 61.60 O

HETATM 2976 O HOH B 290 36.141 69.978 53.250 1.05 52.90 O

HETATM 2977 O HOH B 291 31.247 73.045 59.098 0.89 54.10 O

HETATM 2978 O HOH B 292 25.617 84.993 58.215 0.83 51.80 O

HETATM 2979 O HOH B 293 34.477 74.894 45.725 0.85 58.30 O

HETATM 2980 O HOH B 294 32.669 79.254 54.280 1.07 51.40 O

HETATM 2981 O HOH B 295 6.339 68.218 42.069 1.09 50.30 O

HETATM 2982 O HOH B 296 4.316 69.994 48.138 1.03 60.20 O

HETATM 2983 O HOH B 297 5.374 58.021 68.977 0.79 55.10 O

HETATM 2984 O HOH B 298 14.011 50.069 38.141 0.80 51.10 O

HETATM 2985 O HOH B 299 11.583 48.818 37.670 0.78 49.20 O

HETATM 2986 O HOH B 300 15.717 47.486 42.481 0.70 50.20 O

HETATM 2987 O HOH B 301 8.078 46.687 45.982 0.83 60.50 O

HETATM 2988 O HOH B 302 6.581 48.019 43.459 0.84 51.50 O

HETATM 2989 O HOH B 303 17.786 45.242 51.970 0.92 51.40 O

HETATM 2990 O HOH B 304 7.150 60.968 34.448 0.92 49.60 O

HETATM 2991 O HOH B 305 2.731 64.294 41.973 0.88 53.50 O

HETATM 2992 O HOH B 306 3.230 69.727 56.347 0.82 52.50 O

HETATM 2993 O HOH B 307 17.353 48.818 39.340 0.81 53.90 O

HETATM 2994 O HOH B 308 23.794 45.088 43.025 0.70 58.30 O

HETATM 2995 O HOH B 309 19.292 45.540 42.782 0.46 59.50 O

HETATM 2996 O HOH B 310 23.962 52.564 57.472 0.84 54.80 O

HETATM 2997 O HOH B 311 11.937 70.518 37.479 0.83 54.80 O

HETATM 2998 O HOH B 312 6.707 69.630 63.813 0.93 53.20 O

HETATM 2999 O HOH B 313 7.826 76.541 63.541 0.80 55.40 O

HETATM 3000 O HOH B 314 8.385 84.953 58.885 0.76 58.10 O

HETATM 3001 O HOH B 315 37.819 52.653 45.188 0.67 57.50 O

HETATM 3002 O HOH B 316 38.253 55.632 42.437 0.73 55.50 O

HETATM 3003 O HOH B 317 34.538 61.146 46.299 0.79 58.70 O

HETATM 3004 O HOH B 318 21.347 77.938 67.388 0.90 57.30 O

HETATM 3005 O HOH B 319 21.124 71.334 67.756 0.78 56.10 O

HETATM 3006 O HOH B 320 6.330 82.781 48.505 0.94 61.80 O

HETATM 3007 O HOH B 321 26.092 78.923 36.250 0.87 58.40 O

HETATM 3008 O HOH B 322 23.338 85.276 43.577 0.78 48.50 O

HETATM 3009 O HOH B 323 11.433 82.208 52.220 0.97 49.00 O

HETATM 3010 O HOH B 324 22.382 65.053 47.174 0.92 55.40 O

HETATM 3011 O HOH B 325 24.461 65.957 65.983 0.90 56.90 O

HETATM 3012 O HOH B 326 14.636 83.314 48.851 0.89 53.70 O

HETATM 3013 O HOH B 327 9.914 87.666 56.362 0.77 52.30 O

HETATM 3014 O HOH B 328 21.580 82.087 64.748 0.79 53.20 O

HETATM 3015 O HOH B 329 33.680 67.604 46.740 0.82 54.20 O

HETATM 3016 O HOH B 330 38.523 77.800 48.498 1.01 58.10 O

HETATM 3017 O HOH B 331 37.367 73.070 50.940 0.94 51.90 O

HETATM 3018 O HOH B 332 38.994 75.225 49.476 0.86 58.60 O

HETATM 3019 O HOH B 333 34.692 83.726 45.519 0.80 56.80 O

HETATM 3020 O HOH B 334 37.265 82.773 44.673 0.64 55.50 O

HETATM 3021 O HOH B 335 4.764 57.222 63.718 0.82 55.50 O

HETATM 3022 O HOH B 336 34.426 72.303 53.434 0.94 51.90 O

HETATM 3023 O HOH B 337 29.434 85.228 51.551 0.87 45.60 O

HETATM 3024 O HOH B 338 8.814 57.924 70.000 0.74 53.10 O

HETATM 3025 O HOH B 339 27.038 47.962 53.434 0.33 46.10 O

HETATM 3026 O HOH B 340 15.652 53.056 63.394 0.77 57.10 O

HETATM 3027 O HOH B 341 15.027 55.398 60.437 0.80 58.20 O

HETATM 3028 O HOH B 342 22.149 55.930 56.774 0.68 53.20 O

HETATM 3029 O HOH B 343 7.956 68.823 68.352 0.65 55.30 O

HETATM 3030 O HOH B 344 8.511 76.404 39.310 0.70 55.20 O

HETATM 3031 O HOH B 345 8.646 79.851 52.890 0.71 50.30 O

HETATM 3032 O HOH B 346 30.380 47.518 46.387 0.68 52.90 O

HETATM 3033 O HOH B 347 30.777 62.623 44.143 0.68 49.60 O

HETATM 3034 O HOH B 348 21.776 64.988 49.807 0.70 46.90 O

HETATM 3035 O HOH B 349 20.266 84.977 46.453 0.82 59.50 O

HETATM 3036 O HOH B 350 37.773 67.879 49.410 0.80 60.60 O

HETATM 3037 O HOH B 351 34.720 83.338 52.316 0.81 56.30 O

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END

*FRND1*

MILIND 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

MILIND 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

MILIND 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

MILIND 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

MILIND 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

MILIND 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

MILIND 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

MILIND 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

MILIND 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

MILIND 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

MILIND 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

MILIND 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

MILIND 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

MILIND 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

MILIND 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

MILIND 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

MILIND 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

MILIND 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

MILIND 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

MILIND 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

MILIND 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

MILIND 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

MILIND 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

MILIND 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

MILIND 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

MILIND 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

MILIND 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

MILIND 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

MILIND 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

MILIND 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

MILIND 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

MILIND 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

MILIND 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

MILIND 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

MILIND 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

MILIND 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

MILIND 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

MILIND 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

MILIND 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

MILIND 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

MILIND 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

MILIND 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

MILIND 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

MILIND 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

MILIND 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

MILIND 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

MILIND 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

MILIND 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

MILIND 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

MILIND 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

MILIND 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

MILIND 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

MILIND 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

MILIND 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

MILIND 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

MILIND 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

MILIND 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

MILIND 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

MILIND 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

MILIND 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

MILIND 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

MILIND 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

MILIND 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

MILIND 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

MILIND 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

MILIND 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

MILIND 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

MILIND 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

MILIND 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

MILIND 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

MILIND 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

MILIND 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

MILIND 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

MILIND 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

MILIND 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

MILIND 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

MILIND 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

MILIND 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

MILIND 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

MILIND 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

MILIND 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

MILIND 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

MILIND 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

MILIND 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

MILIND 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

MILIND 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

MILIND 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

MILIND 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

MILIND 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

MILIND 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

MILIND 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

MILIND 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

MILIND 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

MILIND 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

MILIND 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

MILIND 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

MILIND 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

MILIND 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

MILIND 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

MILIND 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

MILIND 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

MILIND 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

MILIND 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

MILIND 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

MILIND 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

MILIND 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

MILIND 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

MILIND 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

MILIND 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

MILIND 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

MILIND 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

MILIND 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

MILIND 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

MILIND 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

MILIND 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

MILIND 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

MILIND 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

MILIND 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

MILIND 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

MILIND 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

MILIND 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

MILIND 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

MILIND 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

MILIND 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

MILIND 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

MILIND 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

MILIND 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

MILIND 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

MILIND 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

MILIND 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

MILIND 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

MILIND 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

MILIND 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

MILIND 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

MILIND 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

MILIND 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

MILIND 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

MILIND 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

MILIND 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

MILIND 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

MILIND 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

MILIND 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

MILIND 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

MILIND 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

MILIND 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

MILIND 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

MILIND 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

MILIND 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

MILIND 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

MILIND 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

MILIND 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

MILIND 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

MILIND 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

MILIND 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

MILIND 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

MILIND 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

MILIND 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

MILIND 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

MILIND 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

MILIND 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

MILIND 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

MILIND 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

MILIND 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

MILIND 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

MILIND 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

MILIND 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

MILIND 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

MILIND 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

MILIND 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

MILIND 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

MILIND 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

MILIND 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

MILIND 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

MILIND 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

MILIND 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

MILIND 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

MILIND 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

MILIND 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

MILIND 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

MILIND 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

MILIND 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

MILIND 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

MILIND 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

MILIND 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

MILIND 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

MILIND 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

MILIND 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

MILIND 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

MILIND 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

MILIND 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

MILIND 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

MILIND 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

MILIND 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

MILIND 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

MILIND 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

MILIND 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

MILIND 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

MILIND 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

MILIND 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

MILIND 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

MILIND 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

MILIND 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

MILIND 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

MILIND 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

MILIND 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

MILIND 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

MILIND 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

MILIND 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

MILIND 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

MILIND 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

MILIND 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

MILIND 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

MILIND 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

MILIND 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

MILIND 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

MILIND 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

MILIND 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

MILIND 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

MILIND 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

MILIND 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

MILIND 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

MILIND 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

MILIND 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

MILIND 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

MILIND 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

MILIND 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

MILIND 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

MILIND 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

MILIND 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

MILIND 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

MILIND 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

MILIND 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

MILIND 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

MILIND 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

MILIND 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

MILIND 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

MILIND 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

MILIND 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

MILIND 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

MILIND 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

MILIND 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

MILIND 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

MILIND 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

MILIND 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

MILIND 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

MILIND 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

MILIND 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

MILIND 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

MILIND 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

MILIND 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

MILIND 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

MILIND 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

MILIND 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

MILIND 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

MILIND 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

MILIND 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

MILIND 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

MILIND 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

MILIND 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

MILIND 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

MILIND 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

MILIND 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

MILIND 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

MILIND 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

MILIND 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

MILIND 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

MILIND 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

MILIND 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

MILIND 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

MILIND 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

MILIND 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

MILIND 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

MILIND 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

MILIND 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

MILIND 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

MILIND 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

MILIND 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

MILIND 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

MILIND 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

MILIND 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

MILIND 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

MILIND 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

MILIND 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

MILIND 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

MILIND 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

MILIND 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

MILIND 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

MILIND 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

MILIND 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

MILIND 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

MILIND 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

MILIND 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

MILIND 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

MILIND 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

MILIND 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

MILIND 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

MILIND 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

MILIND 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

MILIND 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

MILIND 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

MILIND 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

MILIND 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

MILIND 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

MILIND 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

MILIND 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

MILIND 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

MILIND 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

MILIND 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

MILIND 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

MILIND 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

MILIND 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

MILIND 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

MILIND 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

MILIND 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

MILIND 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

MILIND 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

MILIND 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

MILIND 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

MILIND 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

MILIND 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

MILIND 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

MILIND 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

MILIND 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

MILIND 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

MILIND 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

MILIND 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

MILIND 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

MILIND 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

MILIND 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

MILIND 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

MILIND 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

MILIND 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

MILIND 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

MILIND 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

MILIND 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

MILIND 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

MILIND 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

MILIND 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

MILIND 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

MILIND 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

MILIND 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

MILIND 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

MILIND 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

MILIND 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

MILIND 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

MILIND 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

MILIND 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

MILIND 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

MILIND 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

MILIND 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

MILIND 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

MILIND 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

MILIND 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

MILIND 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

MILIND 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

MILIND 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

MILIND 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

MILIND 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

MILIND 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

MILIND 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

MILIND 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

MILIND 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

MILIND 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

MILIND 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

MILIND 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

MILIND 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

MILIND 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

MILIND 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

MILIND 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

MILIND 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

MILIND 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

MILIND 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

MILIND 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

MILIND 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

MILIND 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

MILIND 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

MILIND 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

MILIND 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

MILIND 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

MILIND 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

MILIND 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

MILIND 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

MILIND 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

MILIND 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

MILIND 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

MILIND 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

MILIND 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

MILIND 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

MILIND 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

MILIND 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

MILIND 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

MILIND 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

MILIND 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

MILIND 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

MILIND 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

MILIND 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

MILIND 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

MILIND 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

MILIND 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

MILIND 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

MILIND 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

MILIND 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

MILIND 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

MILIND 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

MILIND 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

MILIND 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

MILIND 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

MILIND 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

MILIND 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

MILIND 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

MILIND 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

MILIND 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

MILIND 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

MILIND 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

MILIND 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

MILIND 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

MILIND 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

MILIND 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

MILIND 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

MILIND 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

MILIND 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

MILIND 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

MILIND 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

MILIND 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

MILIND 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

MILIND 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

MILIND 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

MILIND 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

MILIND 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

MILIND 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

MILIND 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

MILIND 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

MILIND 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

MILIND 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

MILIND 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

MILIND 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

MILIND 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

MILIND 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

MILIND 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

MILIND 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

MILIND 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

MILIND 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

MILIND 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

MILIND 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

MILIND 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

MILIND 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

MILIND 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

MILIND 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

MILIND 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

MILIND 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

MILIND 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

MILIND 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

MILIND 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

MILIND 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

MILIND 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

MILIND 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

MILIND 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

MILIND 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

MILIND 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

MILIND 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

MILIND 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

MILIND 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

MILIND 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

MILIND 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

MILIND 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

MILIND 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

MILIND 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

MILIND 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

MILIND 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

MILIND 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

MILIND 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

MILIND 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

MILIND 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

MILIND 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

MILIND 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

MILIND 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

MILIND 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

MILIND 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

MILIND 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

MILIND 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

MILIND 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

MILIND 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

MILIND 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

MILIND 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

MILIND 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

MILIND 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

MILIND 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

MILIND 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

MILIND 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

MILIND 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

MILIND 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

MILIND 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

MILIND 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

MILIND 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

MILIND 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

MILIND 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

MILIND 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

MILIND 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

MILIND 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

MILIND 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

MILIND 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

MILIND 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

MILIND 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

MILIND 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

MILIND 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

MILIND 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

MILIND 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

MILIND 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

MILIND 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

MILIND 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

MILIND 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

MILIND 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

MILIND 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

MILIND 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

MILIND 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

MILIND 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

MILIND 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

MILIND 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

MILIND 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

MILIND 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

MILIND 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

MILIND 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

MILIND 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

MILIND 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

MILIND 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

MILIND 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

MILIND 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

MILIND 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

MILIND 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

MILIND 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

MILIND 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

MILIND 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

MILIND 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

MILIND 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

MILIND 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

MILIND 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

MILIND 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

MILIND 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

MILIND 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

MILIND 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

MILIND 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

MILIND 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

MILIND 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

MILIND 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

MILIND 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

MILIND 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

MILIND 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

MILIND 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

MILIND 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

MILIND 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

MILIND 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

MILIND 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

MILIND 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

MILIND 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

MILIND 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

MILIND 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

MILIND 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

MILIND 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

MILIND 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

MILIND 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

MILIND 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

MILIND 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

MILIND 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

MILIND 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

MILIND 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

MILIND 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

MILIND 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

MILIND 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

MILIND 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

MILIND 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

MILIND 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

MILIND 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

MILIND 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

MILIND 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

MILIND 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

MILIND 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

MILIND 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

MILIND 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

MILIND 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

MILIND 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

MILIND 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

MILIND 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

MILIND 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

MILIND 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

MILIND 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

MILIND 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

MILIND 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

MILIND 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

MILIND 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

MILIND 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

MILIND 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

MILIND 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

MILIND 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

MILIND 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

MILIND 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

MILIND 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

MILIND 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

MILIND 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

MILIND 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

MILIND 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

MILIND 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

MILIND 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

MILIND 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

MILIND 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

MILIND 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

MILIND 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

MILIND 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

MILIND 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

MILIND 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

MILIND 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

MILIND 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

MILIND 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

MILIND 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

MILIND 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

MILIND 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

MILIND 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

MILIND 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

MILIND 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

MILIND 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

MILIND 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

MILIND 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

MILIND 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

MILIND 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

MILIND 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

MILIND 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

MILIND 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

MILIND 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

MILIND 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

MILIND 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

MILIND 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

MILIND 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

MILIND 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

MILIND 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

MILIND 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

MILIND 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

MILIND 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

MILIND 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

MILIND 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

MILIND 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

MILIND 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

MILIND 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

MILIND 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

MILIND 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

MILIND 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

MILIND 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

MILIND 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

MILIND 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

MILIND 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

MILIND 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

MILIND 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

MILIND 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

MILIND 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

MILIND 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

MILIND 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

MILIND 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

MILIND 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

MILIND 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

MILIND 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

MILIND 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

MILIND 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

MILIND 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

MILIND 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

MILIND 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

MILIND 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

MILIND 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

MILIND 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

MILIND 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

MILIND 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

MILIND 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

MILIND 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

MILIND 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

MILIND 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

MILIND 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

MILIND 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

MILIND 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

MILIND 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

MILIND 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

MILIND 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

MILIND 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

MILIND 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

MILIND 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

MILIND 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

MILIND 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

MILIND 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

MILIND 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

MILIND 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

MILIND 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

MILIND 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

MILIND 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

MILIND 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

MILIND 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

MILIND 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

MILIND 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

MILIND 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

MILIND 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

MILIND 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

MILIND 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

MILIND 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

MILIND 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

MILIND 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

MILIND 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

MILIND 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

MILIND 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

MILIND 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

MILIND 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

MILIND 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

MILIND 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

MILIND 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

MILIND 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

MILIND 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

MILIND 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

MILIND 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

MILIND 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

MILIND 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

MILIND 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

MILIND 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

MILIND 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

MILIND 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

MILIND 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

MILIND 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

MILIND 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

MILIND 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

MILIND 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

MILIND 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

MILIND 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

MILIND 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

MILIND 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

MILIND 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

MILIND 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

MILIND 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

MILIND 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

MILIND 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

MILIND 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

MILIND 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

MILIND 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

MILIND 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

MILIND 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

MILIND 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

MILIND 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

MILIND 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

MILIND 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

MILIND 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

MILIND 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

MILIND 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

MILIND 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

MILIND 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

MILIND 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

MILIND 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

MILIND 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

MILIND 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

MILIND 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

MILIND 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

MILIND 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

MILIND 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

MILIND 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

MILIND 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

MILIND 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

MILIND 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

MILIND 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

MILIND 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

MILIND 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

MILIND 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

MILIND 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

MILIND 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

MILIND 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

MILIND 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

MILIND 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

MILIND 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

MILIND 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

MILIND 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

MILIND 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

MILIND 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

MILIND 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

MILIND 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

MILIND 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

MILIND 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

MILIND 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

MILIND 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

MILIND 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

MILIND 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

MILIND 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

MILIND 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

MILIND 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

MILIND 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

MILIND 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

MILIND 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

MILIND 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

MILIND 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

MILIND 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

MILIND 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

MILIND 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

MILIND 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

MILIND 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

MILIND 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

MILIND 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

MILIND 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

MILIND 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

MILIND 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

MILIND 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

MILIND 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

MILIND 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

MILIND 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

MILIND 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

MILIND 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

MILIND 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

MILIND 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

MILIND 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

MILIND 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

MILIND 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

MILIND 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

MILIND 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

MILIND 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

MILIND 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

MILIND 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

MILIND 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

MILIND 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

MILIND 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

MILIND 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

MILIND 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

MILIND 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

MILIND 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

MILIND 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

MILIND 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

MILIND 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

MILIND 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

MILIND 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

MILIND 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

MILIND 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

MILIND 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

MILIND 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

MILIND 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

MILIND 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

MILIND 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

MILIND 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

MILIND 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

MILIND 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

MILIND 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

MILIND 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

MILIND 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

MILIND 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

MILIND 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

MILIND 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

MILIND 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

MILIND 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

MILIND 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

MILIND 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

MILIND 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

MILIND 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

MILIND 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

MILIND 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

MILIND 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

MILIND 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

MILIND 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

MILIND 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

MILIND 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

MILIND 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

MILIND 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

MILIND 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

MILIND 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

MILIND 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

MILIND 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

MILIND 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

MILIND 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

MILIND 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

MILIND 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

MILIND 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

MILIND 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

MILIND 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

MILIND 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

MILIND 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

MILIND 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

MILIND 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

MILIND 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

MILIND 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

MILIND 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

MILIND 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

MILIND 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

MILIND 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

MILIND 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

MILIND 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

MILIND 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

MILIND 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

MILIND 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

MILIND 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

MILIND 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

MILIND 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

MILIND 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

MILIND 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

MILIND 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

MILIND 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

MILIND 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

MILIND 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

MILIND 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

MILIND 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

MILIND 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

MILIND 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

MILIND 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

MILIND 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

MILIND 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

MILIND 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

MILIND 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

MILIND 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

MILIND 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

MILIND 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

MILIND 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

MILIND 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

MILIND 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

MILIND 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

MILIND 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

MILIND 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

MILIND 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

MILIND 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

MILIND 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

MILIND 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

MILIND 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

MILIND 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

MILIND 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

MILIND 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

MILIND 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

MILIND 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

MILIND 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

MILIND 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

MILIND 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

MILIND 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

MILIND 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

MILIND 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

MILIND 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

MILIND 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

MILIND 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

MILIND 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

MILIND 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

MILIND 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

MILIND 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

MILIND 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

MILIND 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

MILIND 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

MILIND 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

MILIND 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

MILIND 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

MILIND 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

MILIND 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

MILIND 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

MILIND 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

MILIND 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

MILIND 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

MILIND 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

MILIND 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

MILIND 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

MILIND 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

MILIND 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

MILIND 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

MILIND 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

MILIND 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

MILIND 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

MILIND 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

MILIND 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

MILIND 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

MILIND 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

MILIND 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

MILIND 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

MILIND 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

MILIND 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

MILIND 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

MILIND 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

MILIND 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

MILIND 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

MILIND 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

MILIND 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

MILIND 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

MILIND 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

MILIND 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

MILIND 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

MILIND 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

MILIND 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

MILIND 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

MILIND 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

MILIND 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

MILIND 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

MILIND 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

MILIND 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

MILIND 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

MILIND 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

MILIND 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

MILIND 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

MILIND 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

MILIND 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

MILIND 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

MILIND 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

MILIND 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

MILIND 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

MILIND 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

MILIND 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

MILIND 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

MILIND 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

MILIND 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

MILIND 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

MILIND 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

MILIND 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

MILIND 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

MILIND 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

MILIND 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

MILIND 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

MILIND 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

MILIND 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

MILIND 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

MILIND 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

MILIND 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

MILIND 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

MILIND 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

MILIND 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

MILIND 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

MILIND 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

MILIND 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

MILIND 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

MILIND 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

MILIND 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

MILIND 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

MILIND 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

MILIND 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

MILIND 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

MILIND 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

MILIND 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

MILIND 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

MILIND 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

MILIND 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

MILIND 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

MILIND 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

MILIND 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

MILIND 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

MILIND 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

MILIND 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

MILIND 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

MILIND 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

MILIND 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

MILIND 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

MILIND 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

MILIND 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

MILIND 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

MILIND 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

MILIND 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

MILIND 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

MILIND 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

MILIND 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

MILIND 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

MILIND 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

MILIND 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

MILIND 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

MILIND 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

MILIND 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

MILIND 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

MILIND 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

MILIND 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

MILIND 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

MILIND 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

MILIND 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

MILIND 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

MILIND 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

MILIND 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

MILIND 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

MILIND 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

MILIND 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

MILIND 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

MILIND 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

MILIND 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

MILIND 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

MILIND 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

MILIND 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

MILIND 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

MILIND 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

MILIND 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

MILIND 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

MILIND 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

MILIND 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

MILIND 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

MILIND 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

MILIND 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

MILIND 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

MILIND 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

MILIND 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

MILIND 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

MILIND 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

MILIND 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

MILIND 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

MILIND 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

MILIND 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

MILIND 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

MILIND 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

MILIND 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

MILIND 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

MILIND 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

MILIND 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

MILIND 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

MILIND 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

MILIND 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

MILIND 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

MILIND 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

MILIND 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

MILIND 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

MILIND 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

MILIND 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

MILIND 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

MILIND 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

MILIND 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

MILIND 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

MILIND 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

MILIND 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

MILIND 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

MILIND 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

MILIND 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

MILIND 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

MILIND 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

MILIND 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

MILIND 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

MILIND 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

MILIND 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

MILIND 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

MILIND 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

MILIND 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

MILIND 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

MILIND 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

MILIND 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

MILIND 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

MILIND 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

MILIND 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

MILIND 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

MILIND 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

MILIND 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

MILIND 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

MILIND 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

MILIND 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

MILIND 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

MILIND 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

MILIND 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

MILIND 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

MILIND 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

MILIND 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

MILIND 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

MILIND 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

MILIND 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

MILIND 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

MILIND 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

MILIND 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

MILIND 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

MILIND 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

MILIND 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

MILIND 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

MILIND 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

MILIND 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

MILIND 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

MILIND 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

MILIND 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

MILIND 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

MILIND 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

MILIND 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

MILIND 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

MILIND 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

MILIND 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

MILIND 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

MILIND 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

MILIND 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

MILIND 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

MILIND 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

MILIND 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

MILIND 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

MILIND 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

MILIND 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

MILIND 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

MILIND 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

MILIND 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

MILIND 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

MILIND 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

MILIND 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

MILIND 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

MILIND 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

MILIND 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

MILIND 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

MILIND 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

MILIND 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

MILIND 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

MILIND 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

MILIND 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

MILIND 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

MILIND 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

MILIND 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

MILIND 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

MILIND 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

MILIND 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

MILIND 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

MILIND 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

MILIND 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

MILIND 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

MILIND 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

MILIND 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

MILIND 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

MILIND 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

MILIND 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

MILIND 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

MILIND 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

MILIND 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

MILIND 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

MILIND 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

MILIND 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

MILIND 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

MILIND 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

MILIND 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

MILIND 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

MILIND 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

MILIND 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

MILIND 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

MILIND 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

MILIND 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

MILIND 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

MILIND 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

MILIND 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

MILIND 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

MILIND 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

MILIND 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

MILIND 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

MILIND 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

MILIND 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

MILIND 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

MILIND 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

MILIND 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

MILIND 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

MILIND 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

MILIND 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

MILIND 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

MILIND 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

MILIND 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

MILIND 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

MILIND 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

MILIND 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

MILIND 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

MILIND 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

MILIND 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

MILIND 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

MILIND 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

MILIND 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

MILIND 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

MILIND 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

MILIND 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

MILIND 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

MILIND 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

MILIND 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

MILIND 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

MILIND 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

MILIND 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

MILIND 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

MILIND 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

MILIND 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

MILIND 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

MILIND 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

MILIND 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

MILIND 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

MILIND 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

MILIND 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

MILIND 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

MILIND 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

MILIND 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

MILIND 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

MILIND 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

MILIND 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

MILIND 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

MILIND 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

MILIND 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

MILIND 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

MILIND 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

MILIND 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

MILIND 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

MILIND 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

MILIND 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

MILIND 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

MILIND 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

MILIND 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

MILIND 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

MILIND 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

MILIND 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

MILIND 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

MILIND 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

MILIND 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

MILIND 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

MILIND 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

MILIND 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

MILIND 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

MILIND 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

MILIND 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

MILIND 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

MILIND 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

MILIND 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

MILIND 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

MILIND 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

MILIND 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

MILIND 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

MILIND 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

MILIND 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

MILIND 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

MILIND 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

MILIND 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

MILIND 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

MILIND 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

MILIND 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

MILIND 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

MILIND 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

MILIND 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

MILIND 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

MILIND 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

MILIND 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

MILIND 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

MILIND 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

MILIND 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

MILIND 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

MILIND 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

MILIND 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

MILIND 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

MILIND 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

MILIND 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

MILIND 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

MILIND 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

MILIND 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

MILIND 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

MILIND 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

MILIND 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

MILIND 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

MILIND 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

MILIND 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

MILIND 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

MILIND 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

MILIND 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

MILIND 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

MILIND 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

MILIND 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

MILIND 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

MILIND 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

MILIND 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

MILIND 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

MILIND 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

MILIND 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

MILIND 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

MILIND 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

MILIND 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

MILIND 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

MILIND 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

MILIND 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

MILIND 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

MILIND 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

MILIND 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

MILIND 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

MILIND 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

MILIND 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

MILIND 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

MILIND 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

MILIND 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

MILIND 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

MILIND 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

MILIND 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

MILIND 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

MILIND 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

MILIND 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

MILIND 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

MILIND 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

MILIND 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

MILIND 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

MILIND 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

MILIND 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

MILIND 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

MILIND 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

MILIND 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

MILIND 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

MILIND 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

MILIND 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

MILIND 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

MILIND 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

MILIND 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

MILIND 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

MILIND 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

MILIND 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

MILIND 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

MILIND 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

MILIND 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

MILIND 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

MILIND 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

MILIND 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

MILIND 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

MILIND 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

MILIND 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

MILIND 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

MILIND 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

MILIND 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

MILIND 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

MILIND 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

MILIND 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

MILIND 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

MILIND 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

MILIND 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

MILIND 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

MILIND 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

MILIND 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

MILIND 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

MILIND 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

MILIND 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

MILIND 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

MILIND 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

MILIND 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

MILIND 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

MILIND 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

MILIND 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

MILIND 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

MILIND 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

MILIND 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

MILIND 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

MILIND 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

MILIND 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

MILIND 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

MILIND 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

MILIND 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

MILIND 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

MILIND 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

MILIND 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

MILIND 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

MILIND 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

MILIND 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

MILIND 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

MILIND 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

MILIND 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

MILIND 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

MILIND 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

MILIND 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

MILIND 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

MILIND 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

MILIND 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

MILIND 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

MILIND 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

MILIND 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

MILIND 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

MILIND 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

MILIND 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

MILIND 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

MILIND 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

MILIND 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

MILIND 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

MILIND 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

MILIND 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

MILIND 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

MILIND 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

MILIND 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

MILIND 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

MILIND 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

MILIND 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

MILIND 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

MILIND 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

MILIND 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

MILIND 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

MILIND 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

MILIND 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

MILIND 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

MILIND 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

MILIND 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

MILIND 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

MILIND 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

MILIND 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

MILIND 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

MILIND 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

MILIND 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

MILIND 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

MILIND 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

MILIND 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

MILIND 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

MILIND 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

MILIND 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

MILIND 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

MILIND 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

MILIND 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

MILIND 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

MILIND 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

MILIND 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

MILIND 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

MILIND 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

MILIND 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

MILIND 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

MILIND 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

MILIND 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

MILIND 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

MILIND 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

MILIND 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

MILIND 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

MILIND 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

MILIND 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

MILIND 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

MILIND 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

MILIND 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

MILIND 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

MILIND 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

MILIND 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

MILIND 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

MILIND 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

MILIND 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

MILIND 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

MILIND 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

MILIND 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

MILIND 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

MILIND 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

MILIND 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

MILIND 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

MILIND 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

MILIND 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

MILIND 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

MILIND 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

MILIND 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

MILIND 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

MILIND 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

MILIND 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

MILIND 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

MILIND 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

MILIND 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

MILIND 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

MILIND 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

MILIND 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

MILIND 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

MILIND 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

MILIND 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

MILIND 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

MILIND 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

MILIND 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

MILIND 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

MILIND 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

MILIND 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

MILIND 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

MILIND 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

MILIND 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

MILIND 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

MILIND 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

MILIND 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

MILIND 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

MILIND 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

MILIND 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

MILIND 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

MILIND 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

MILIND 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

MILIND 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

MILIND 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

MILIND 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

MILIND 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

MILIND 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

MILIND 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

MILIND 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

MILIND 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

MILIND 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

MILIND 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

MILIND 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

MILIND 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

MILIND 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

MILIND 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

MILIND 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

MILIND 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

MILIND 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

MILIND 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

MILIND 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

MILIND 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

MILIND 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

MILIND 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

MILIND 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

MILIND 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

MILIND 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

MILIND 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

MILIND 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

MILIND 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

MILIND 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

MILIND 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

MILIND 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

MILIND 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

MILIND 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

MILIND 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

MILIND 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

MILIND 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

MILIND 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

MILIND 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

MILIND 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

MILIND 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

MILIND 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

MILIND 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

MILIND 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

MILIND 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

MILIND 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

MILIND 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

MILIND 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

MILIND 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

MILIND 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

MILIND 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

MILIND 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

MILIND 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

MILIND 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

MILIND 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

MILIND 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

MILIND 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

MILIND 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

MILIND 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

MILIND 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

MILIND 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

MILIND 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

MILIND 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

MILIND 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

MILIND 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

MILIND 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

MILIND 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

MILIND 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

MILIND 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

MILIND 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

MILIND 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

MILIND 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

MILIND 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

MILIND 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

MILIND 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

MILIND 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

MILIND 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

MILIND 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

MILIND 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

MILIND 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

MILIND 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

MILIND 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

MILIND 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

MILIND 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

MILIND 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

MILIND 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

MILIND 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

MILIND 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

MILIND 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

MILIND 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

MILIND 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

MILIND 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

MILIND 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

MILIND 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

MILIND 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

MILIND 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

MILIND 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

MILIND 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

MILIND 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

MILIND 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

MILIND 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

MILIND 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

MILIND 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

MILIND 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

MILIND 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

MILIND 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

MILIND 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

MILIND 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

MILIND 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

MILIND 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

MILIND 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

MILIND 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

MILIND 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

MILIND 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

MILIND 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

MILIND 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

MILIND 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

MILIND 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

MILIND 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

MILIND 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

MILIND 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

MILIND 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

MILIND 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

MILIND 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

MILIND 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

MILIND 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

MILIND 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

MILIND 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

MILIND 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

MILIND 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

MILIND 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

MILIND 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

MILIND 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

MILIND 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

MILIND 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

MILIND 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

MILIND 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

MILIND 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

MILIND 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

MILIND 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

MILIND 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

MILIND 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

MILIND 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

MILIND 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

MILIND 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

MILIND 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

MILIND 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

MILIND 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

MILIND 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

MILIND 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

MILIND 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

MILIND 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

MILIND 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

MILIND 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

MILIND 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

MILIND 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

MILIND 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

MILIND 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

MILIND 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

MILIND 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

MILIND 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

MILIND 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

MILIND 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

MILIND 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

MILIND 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

MILIND 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

MILIND 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

MILIND 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

MILIND 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

MILIND 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

MILIND 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

MILIND 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

MILIND 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

MILIND 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

MILIND 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

MILIND 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

MILIND 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

MILIND 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

MILIND 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

MILIND 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

MILIND 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

MILIND 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

MILIND 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

MILIND 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

MILIND 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

MILIND 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

MILIND 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

MILIND 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

MILIND 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

MILIND 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

MILIND 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

MILIND 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

MILIND 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

MILIND 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

MILIND 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

MILIND 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

MILIND 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

MILIND 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

MILIND 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

MILIND 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

MILIND 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

MILIND 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

MILIND 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

MILIND 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

MILIND 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

MILIND 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

MILIND 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

MILIND 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

MILIND 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

MILIND 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

MILIND 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

MILIND 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

MILIND 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

MILIND 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

MILIND 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

MILIND 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

MILIND 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

MILIND 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

MILIND 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

MILIND 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

MILIND 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

MILIND 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

MILIND 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

MILIND 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

MILIND 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

MILIND 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

MILIND 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

MILIND 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

MILIND 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

MILIND 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

MILIND 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

MILIND 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

MILIND 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

MILIND 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

MILIND 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

MILIND 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

MILIND 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

MILIND 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

MILIND 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

MILIND 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

MILIND 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

MILIND 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

MILIND 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

MILIND 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

MILIND 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

MILIND 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

MILIND 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

MILIND 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

MILIND 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

MILIND 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

MILIND 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

MILIND 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

MILIND 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

MILIND 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

MILIND 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

MILIND 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

MILIND 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

MILIND 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

MILIND 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

MILIND 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

MILIND 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

MILIND 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

MILIND 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

MILIND 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

MILIND 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

MILIND 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

MILIND 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

MILIND 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

MILIND 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

MILIND 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

MILIND 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

MILIND 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

MILIND 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

MILIND 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

MILIND 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

MILIND 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

MILIND 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

MILIND 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

MILIND 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

MILIND 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

MILIND 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

MILIND 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

MILIND 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

MILIND 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

MILIND 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

MILIND 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

MILIND 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

MILIND 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

MILIND 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

MILIND 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

MILIND 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

MILIND 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

MILIND 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

MILIND 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

MILIND 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

MILIND 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

MILIND 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

MILIND 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

MILIND 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

MILIND 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

MILIND 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

MILIND 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

MILIND 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

MILIND 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

MILIND 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

MILIND 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

MILIND 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

MILIND 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

MILIND 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

MILIND 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

MILIND 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

MILIND 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

MILIND 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

MILIND 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

MILIND 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

MILIND 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

MILIND 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

MILIND 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

MILIND 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

MILIND 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

MILIND 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

MILIND 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

MILIND 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

MILIND 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

MILIND 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

MILIND 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

MILIND 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

MILIND 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

MILIND 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

MILIND 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

MILIND 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

MILIND 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

MILIND 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

MILIND 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

MILIND 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

MILIND 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

MILIND 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

MILIND 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

MILIND 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

MILIND 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

MILIND 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

MILIND 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

MILIND 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

MILIND 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

MILIND 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

MILIND 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

MILIND 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

MILIND 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

MILIND 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

MILIND 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

MILIND 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

MILIND 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

MILIND 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

MILIND 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

MILIND 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

MILIND 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

MILIND 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

MILIND 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

MILIND 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

MILIND 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

MILIND 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

MILIND 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

MILIND 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

MILIND 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

MILIND 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

MILIND 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

MILIND 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

MILIND 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

MILIND 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

MILIND 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

MILIND 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

MILIND 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

MILIND 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

MILIND 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

MILIND 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

MILIND 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

MILIND 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

MILIND 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

MILIND 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

MILIND 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

MILIND 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

MILIND 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

MILIND 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

MILIND 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

MILIND 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

MILIND 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

MILIND 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

MILIND 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

MILIND 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

MILIND 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

MILIND 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

MILIND 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

MILIND 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

MILIND 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

MILIND 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

MILIND 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

MILIND 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

MILIND 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

MILIND 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

MILIND 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

MILIND 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

MILIND 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

MILIND 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

MILIND 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

MILIND 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

MILIND 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

MILIND 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

MILIND 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

MILIND 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

MILIND 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

MILIND 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

MILIND 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

MILIND 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

MILIND 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

MILIND 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

MILIND 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

MILIND 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

MILIND 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

MILIND 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

MILIND 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

MILIND 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

MILIND 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

MILIND 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

MILIND 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

MILIND 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

MILIND 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

MILIND 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

MILIND 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

MILIND 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

MILIND 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

MILIND 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

MILIND 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

MILIND 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

MILIND 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

MILIND 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

MILIND 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

MILIND 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

MILIND 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

MILIND 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

MILIND 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

MILIND 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

MILIND 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

MILIND 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

MILIND 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

MILIND 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

MILIND 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

MILIND 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

MILIND 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

MILIND 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

MILIND 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

MILIND 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

MILIND 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

MILIND 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

MILIND 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

MILIND 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

MILIND 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

MILIND 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

MILIND 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

MILIND 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

MILIND 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

MILIND 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

MILIND 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

MILIND 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

MILIND 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

MILIND 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

MILIND 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

MILIND 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

MILIND 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

MILIND 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

MILIND 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

MILIND 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

MILIND 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

MILIND 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

MILIND 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

MILIND 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

MILIND 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

MILIND 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

MILIND 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

MILIND 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

MILIND 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

MILIND 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

MILIND 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

MILIND 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

MILIND 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

MILIND 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

MILIND 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

MILIND 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

MILIND 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

MILIND 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

MILIND 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

MILIND 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

MILIND 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

MILIND 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

MILIND 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

MILIND 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

MILIND 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

MILIND 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

MILIND 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

MILIND 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

MILIND 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

MILIND 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

MILIND 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

MILIND 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

MILIND 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

MILIND 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

MILIND 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

MILIND 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

MILIND 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

MILIND 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

MILIND 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

MILIND 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

MILIND 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

MILIND 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

MILIND 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

MILIND 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

MILIND 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

MILIND 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

MILIND 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

MILIND 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

MILIND 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

MILIND 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

MILIND 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

MILIND 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

MILIND 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

MILIND 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

MILIND 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

MILIND 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

MILIND 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

MILIND 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

MILIND 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

MILIND 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

MILIND 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

MILIND 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

MILIND 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

MILIND 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

MILIND 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

MILIND 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

MILIND 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

MILIND 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

MILIND 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

MILIND 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

MILIND 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

MILIND 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

MILIND 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

MILIND 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

MILIND 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

MILIND 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

MILIND 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

MILIND 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

MILIND 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

MILIND 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

MILIND 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

MILIND 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

MILIND 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

MILIND 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

MILIND 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

MILIND 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

MILIND 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

MILIND 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

MILIND 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

MILIND 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

MILIND 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

MILIND 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

MILIND 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

MILIND 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

MILIND 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

MILIND 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

MILIND 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

MILIND 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

MILIND 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

MILIND 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

MILIND 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

MILIND 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

MILIND 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

MILIND 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

MILIND 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

MILIND 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

MILIND 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

MILIND 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

MILIND 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

MILIND 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

MILIND 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

MILIND 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

MILIND 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

MILIND 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

MILIND 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

MILIND 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

MILIND 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

MILIND 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

MILIND 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

MILIND 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

MILIND 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

MILIND 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

MILIND 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

MILIND 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

MILIND 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

MILIND 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

MILIND 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

MILIND 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

MILIND 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

MILIND 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

MILIND 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

MILIND 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

MILIND 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

MILIND 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

MILIND 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

MILIND 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

MILIND 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

MILIND 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

MILIND 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

MILIND 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

MILIND 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

MILIND 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

MILIND 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

MILIND 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

MILIND 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

MILIND 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

MILIND 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

MILIND 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

MILIND 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

MILIND 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

MILIND 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

MILIND 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

MILIND 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

MILIND 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

MILIND 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

MILIND 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

MILIND 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

MILIND 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

MILIND 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

MILIND 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

MILIND 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

MILIND 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

MILIND 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

MILIND 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

MILIND 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

MILIND 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

MILIND 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

MILIND 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

MILIND 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

MILIND 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

MILIND 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

MILIND 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

MILIND 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

MILIND 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

MILIND 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

MILIND 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

MILIND 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

MILIND 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

MILIND 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

MILIND 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

MILIND 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

MILIND 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

MILIND 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

MILIND 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

MILIND 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

MILIND 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

MILIND 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

MILIND 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

MILIND 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

MILIND 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

MILIND 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

MILIND 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

MILIND 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

MILIND 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

MILIND 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

MILIND 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

MILIND 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

MILIND 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

MILIND 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

MILIND 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

MILIND 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

MILIND 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

MILIND 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

MILIND 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

MILIND 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

MILIND 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

MILIND 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

MILIND 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

MILIND 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

MILIND 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

MILIND 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

MILIND 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

MILIND 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

MILIND 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

MILIND 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

MILIND 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

MILIND 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

MILIND 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

MILIND 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

MILIND 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

MILIND 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

MILIND 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

MILIND 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

MILIND 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

MILIND 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

MILIND 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

MILIND 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

MILIND 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

MILIND 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

MILIND 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

MILIND 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

MILIND 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

MILIND 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

MILIND 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

MILIND 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

MILIND 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

MILIND 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

MILIND 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

MILIND 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

MILIND 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

MILIND 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

MILIND 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

MILIND 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

MILIND 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

MILIND 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

MILIND 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

MILIND 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

MILIND 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

MILIND 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

MILIND 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

MILIND 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

MILIND 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

MILIND 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

MILIND 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

MILIND 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

MILIND 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

MILIND 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

MILIND 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

MILIND 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

MILIND 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

MILIND 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

MILIND 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

MILIND 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

MILIND 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

MILIND 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

MILIND 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

MILIND 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

MILIND 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

MILIND 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

MILIND 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

MILIND 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

MILIND 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

MILIND 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

MILIND 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

MILIND 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

MILIND 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

MILIND 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

MILIND 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

MILIND 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

MILIND 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

MILIND 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

MILIND 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

MILIND 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

MILIND 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

MILIND 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

MILIND 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

MILIND 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

MILIND 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

MILIND 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

MILIND 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

MILIND 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

MILIND 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

MILIND 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

MILIND 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

MILIND 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

MILIND 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

MILIND 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

MILIND 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

MILIND 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

MILIND 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

MILIND 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

MILIND 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

MILIND 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

MILIND 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

MILIND 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

MILIND 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

MILIND 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

MILIND 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

MILIND 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

MILIND 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

MILIND 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

MILIND 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

MILIND 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

MILIND 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

MILIND 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

MILIND 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

MILIND 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

MILIND 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

MILIND 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

MILIND 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

MILIND 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

MILIND 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

MILIND 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

MILIND 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

MILIND 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

MILIND 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

MILIND 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

MILIND 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

MILIND 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

MILIND 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

MILIND 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

MILIND 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

MILIND 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

MILIND 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

MILIND 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

MILIND 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

MILIND 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

MILIND 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

MILIND 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

MILIND 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

MILIND 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

MILIND 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

MILIND 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

MILIND 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

MILIND 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

MILIND 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

MILIND 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

MILIND 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

MILIND 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

MILIND 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

MILIND 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

MILIND 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

MILIND 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

MILIND 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

MILIND 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

MILIND 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

MILIND 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

MILIND 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

MILIND 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

MILIND 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

MILIND 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

MILIND 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

MILIND 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

MILIND 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

MILIND 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

MILIND 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

MILIND 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

MILIND 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

MILIND 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

MILIND 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

MILIND 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

MILIND 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

MILIND 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

MILIND 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

MILIND 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

MILIND 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

MILIND 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

MILIND 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

MILIND 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

MILIND 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

MILIND 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

MILIND 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

MILIND 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

MILIND 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

MILIND 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

MILIND 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

MILIND 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

MILIND 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

MILIND 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

MILIND 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

MILIND 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

MILIND 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

MILIND 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

MILIND 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

MILIND 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

MILIND 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

MILIND 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

MILIND 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

MILIND 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

MILIND 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

MILIND 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

MILIND 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

MILIND 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

MILIND 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

MILIND 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

MILIND 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

MILIND 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

MILIND 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

MILIND 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

MILIND 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

MILIND 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

MILIND 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

MILIND 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

MILIND 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

MILIND 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

MILIND 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

MILIND 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

MILIND 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

MILIND 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

MILIND 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

MILIND 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

MILIND 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

MILIND 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

MILIND 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

MILIND 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

MILIND 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

MILIND 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

MILIND 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

MILIND 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

MILIND 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

MILIND 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

MILIND 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

MILIND 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

MILIND 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

MILIND 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

MILIND 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

MILIND 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

MILIND 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

MILIND 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

MILIND 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

MILIND 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

MILIND 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

MILIND 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

MILIND 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

MILIND 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

MILIND 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

MILIND 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

MILIND 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

MILIND 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

MILIND 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

MILIND 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

MILIND 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

MILIND 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

MILIND 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

MILIND 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

MILIND 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

MILIND 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

MILIND 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

MILIND 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

MILIND 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

MILIND 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

MILIND 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

MILIND 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

MILIND 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

MILIND 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

MILIND 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

MILIND 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

MILIND 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

MILIND 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

MILIND 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

MILIND 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

MILIND 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

MILIND 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

MILIND 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

MILIND 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

MILIND 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

MILIND 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

MILIND 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

MILIND 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

MILIND 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

MILIND 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

MILIND 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

MILIND 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

MILIND 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

MILIND 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

MILIND 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

MILIND 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

MILIND 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

MILIND 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

MILIND 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

MILIND 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

MILIND 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

MILIND 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

MILIND 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

MILIND 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

MILIND 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

MILIND 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

MILIND 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

MILIND 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

MILIND 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

MILIND 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

MILIND 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

MILIND 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

MILIND 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

MILIND 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

MILIND 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

MILIND 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

MILIND 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

MILIND 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

MILIND 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

MILIND 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

MILIND 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

MILIND 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

MILIND 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

MILIND 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

MILIND 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

MILIND 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

MILIND 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

MILIND 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

MILIND 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

MILIND 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

MILIND 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

MILIND 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

MILIND 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

MILIND 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

MILIND 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

MILIND 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

MILIND 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

MILIND 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

MILIND 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

*FRND2*

HARSH 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

HARSH 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

HARSH 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

HARSH 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

HARSH 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

HARSH 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

HARSH 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

HARSH 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

HARSH 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

HARSH 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

HARSH 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

HARSH 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

HARSH 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

HARSH 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

HARSH 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

HARSH 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

HARSH 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

HARSH 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

HARSH 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

HARSH 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

HARSH 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

HARSH 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

HARSH 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

HARSH 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

HARSH 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

HARSH 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

HARSH 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

HARSH 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

HARSH 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

HARSH 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

HARSH 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

HARSH 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

HARSH 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

HARSH 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

HARSH 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

HARSH 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

HARSH 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

HARSH 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

HARSH 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

HARSH 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

HARSH 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

HARSH 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

HARSH 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

HARSH 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

HARSH 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

HARSH 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

HARSH 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

HARSH 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

HARSH 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

HARSH 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

HARSH 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

HARSH 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

HARSH 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

HARSH 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

HARSH 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

HARSH 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

HARSH 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

HARSH 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

HARSH 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

HARSH 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

HARSH 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

HARSH 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

HARSH 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

HARSH 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

HARSH 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

HARSH 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

HARSH 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

HARSH 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

HARSH 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

HARSH 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

HARSH 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

HARSH 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

HARSH 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

HARSH 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

HARSH 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

HARSH 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

HARSH 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

HARSH 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

HARSH 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

HARSH 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

HARSH 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

HARSH 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

HARSH 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

HARSH 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

HARSH 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

HARSH 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

HARSH 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

HARSH 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

HARSH 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

HARSH 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

HARSH 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

HARSH 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

HARSH 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

HARSH 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

HARSH 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

HARSH 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

HARSH 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

HARSH 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

HARSH 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

HARSH 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

HARSH 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

HARSH 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

HARSH 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

HARSH 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

HARSH 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

HARSH 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

HARSH 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

HARSH 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

HARSH 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

HARSH 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

HARSH 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

HARSH 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

HARSH 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

HARSH 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

HARSH 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

HARSH 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

HARSH 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

HARSH 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

HARSH 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

HARSH 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

HARSH 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

HARSH 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

HARSH 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

HARSH 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

HARSH 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

HARSH 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

HARSH 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

HARSH 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

HARSH 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

HARSH 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

HARSH 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

HARSH 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

HARSH 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

HARSH 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

HARSH 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

HARSH 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

HARSH 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

HARSH 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

HARSH 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

HARSH 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

HARSH 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

HARSH 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

HARSH 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

HARSH 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

HARSH 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

HARSH 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

HARSH 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

HARSH 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

HARSH 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

HARSH 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

HARSH 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

HARSH 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

HARSH 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

HARSH 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

HARSH 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

HARSH 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

HARSH 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

HARSH 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

HARSH 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

HARSH 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

HARSH 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

HARSH 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

HARSH 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

HARSH 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

HARSH 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

HARSH 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

HARSH 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

HARSH 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

HARSH 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

HARSH 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

HARSH 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

HARSH 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

HARSH 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

HARSH 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

HARSH 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

HARSH 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

HARSH 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

HARSH 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

HARSH 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

HARSH 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

HARSH 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

HARSH 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

HARSH 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

HARSH 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

HARSH 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

HARSH 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

HARSH 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

HARSH 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

HARSH 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

HARSH 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

HARSH 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

HARSH 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

HARSH 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

HARSH 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

HARSH 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

HARSH 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

HARSH 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

HARSH 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

HARSH 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

HARSH 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

HARSH 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

HARSH 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

HARSH 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

HARSH 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

HARSH 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

HARSH 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

HARSH 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

HARSH 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

HARSH 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

HARSH 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

HARSH 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

HARSH 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

HARSH 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

HARSH 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

HARSH 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

HARSH 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

HARSH 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

HARSH 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

HARSH 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

HARSH 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

HARSH 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

HARSH 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

HARSH 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

HARSH 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

HARSH 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

HARSH 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

HARSH 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

HARSH 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

HARSH 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

HARSH 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

HARSH 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

HARSH 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

HARSH 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

HARSH 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

HARSH 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

HARSH 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

HARSH 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

HARSH 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

HARSH 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

HARSH 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

HARSH 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

HARSH 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

HARSH 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

HARSH 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

HARSH 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

HARSH 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

HARSH 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

HARSH 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

HARSH 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

HARSH 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

HARSH 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

HARSH 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

HARSH 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

HARSH 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

HARSH 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

HARSH 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

HARSH 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

HARSH 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

HARSH 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

HARSH 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

HARSH 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

HARSH 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

HARSH 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

HARSH 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

HARSH 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

HARSH 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

HARSH 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

HARSH 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

HARSH 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

HARSH 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

HARSH 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

HARSH 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

HARSH 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

HARSH 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

HARSH 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

HARSH 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

HARSH 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

HARSH 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

HARSH 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

HARSH 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

HARSH 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

HARSH 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

HARSH 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

HARSH 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

HARSH 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

HARSH 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

HARSH 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

HARSH 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

HARSH 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

HARSH 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

HARSH 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

HARSH 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

HARSH 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

HARSH 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

HARSH 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

HARSH 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

HARSH 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

HARSH 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

HARSH 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

HARSH 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

HARSH 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

HARSH 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

HARSH 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

HARSH 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

HARSH 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

HARSH 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

HARSH 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

HARSH 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

HARSH 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

HARSH 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

HARSH 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

HARSH 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

HARSH 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

HARSH 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

HARSH 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

HARSH 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

HARSH 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

HARSH 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

HARSH 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

HARSH 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

HARSH 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

HARSH 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

HARSH 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

HARSH 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

HARSH 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

HARSH 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

HARSH 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

HARSH 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

HARSH 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

HARSH 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

HARSH 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

HARSH 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

HARSH 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

HARSH 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

HARSH 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

HARSH 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

HARSH 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

HARSH 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

HARSH 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

HARSH 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

HARSH 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

HARSH 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

HARSH 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

HARSH 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

HARSH 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

HARSH 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

HARSH 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

HARSH 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

HARSH 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

HARSH 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

HARSH 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

HARSH 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

HARSH 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

HARSH 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

HARSH 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

HARSH 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

HARSH 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

HARSH 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

HARSH 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

HARSH 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

HARSH 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

HARSH 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

HARSH 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

HARSH 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

HARSH 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

HARSH 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

HARSH 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

HARSH 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

HARSH 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

HARSH 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

HARSH 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

HARSH 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

HARSH 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

HARSH 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

HARSH 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

HARSH 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

HARSH 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

HARSH 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

HARSH 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

HARSH 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

HARSH 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

HARSH 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

HARSH 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

HARSH 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

HARSH 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

HARSH 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

HARSH 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

HARSH 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

HARSH 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

HARSH 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

HARSH 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

HARSH 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

HARSH 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

HARSH 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

HARSH 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

HARSH 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

HARSH 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

HARSH 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

HARSH 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

HARSH 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

HARSH 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

HARSH 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

HARSH 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

HARSH 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

HARSH 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

HARSH 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

HARSH 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

HARSH 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

HARSH 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

HARSH 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

HARSH 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

HARSH 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

HARSH 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

HARSH 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

HARSH 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

HARSH 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

HARSH 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

HARSH 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

HARSH 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

HARSH 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

HARSH 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

HARSH 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

HARSH 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

HARSH 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

HARSH 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

HARSH 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

HARSH 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

HARSH 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

HARSH 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

HARSH 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

HARSH 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

HARSH 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

HARSH 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

HARSH 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

HARSH 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

HARSH 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

HARSH 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

HARSH 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

HARSH 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

HARSH 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

HARSH 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

HARSH 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

HARSH 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

HARSH 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

HARSH 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

HARSH 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

HARSH 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

HARSH 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

HARSH 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

HARSH 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

HARSH 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

HARSH 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

HARSH 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

HARSH 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

HARSH 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

HARSH 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

HARSH 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

HARSH 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

HARSH 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

HARSH 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

HARSH 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

HARSH 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

HARSH 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

HARSH 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

HARSH 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

HARSH 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

HARSH 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

HARSH 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

HARSH 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

HARSH 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

HARSH 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

HARSH 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

HARSH 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

HARSH 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

HARSH 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

HARSH 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

HARSH 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

HARSH 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

HARSH 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

HARSH 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

HARSH 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

HARSH 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

HARSH 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

HARSH 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

HARSH 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

HARSH 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

HARSH 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

HARSH 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

HARSH 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

HARSH 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

HARSH 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

HARSH 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

HARSH 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

HARSH 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

HARSH 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

HARSH 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

HARSH 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

HARSH 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

HARSH 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

HARSH 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

HARSH 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

HARSH 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

HARSH 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

HARSH 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

HARSH 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

HARSH 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

HARSH 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

HARSH 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

HARSH 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

HARSH 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

HARSH 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

HARSH 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

HARSH 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

HARSH 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

HARSH 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

HARSH 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

HARSH 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

HARSH 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

HARSH 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

HARSH 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

HARSH 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

HARSH 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

HARSH 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

HARSH 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

HARSH 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

HARSH 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

HARSH 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

HARSH 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

HARSH 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

HARSH 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

HARSH 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

HARSH 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

HARSH 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

HARSH 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

HARSH 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

HARSH 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

HARSH 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

HARSH 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

HARSH 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

HARSH 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

HARSH 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

HARSH 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

HARSH 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

HARSH 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

HARSH 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

HARSH 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

HARSH 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

HARSH 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

HARSH 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

HARSH 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

HARSH 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

HARSH 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

HARSH 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

HARSH 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

HARSH 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

HARSH 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

HARSH 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

HARSH 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

HARSH 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

HARSH 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

HARSH 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

HARSH 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

HARSH 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

HARSH 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

HARSH 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

HARSH 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

HARSH 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

HARSH 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

HARSH 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

HARSH 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

HARSH 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

HARSH 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

HARSH 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

HARSH 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

HARSH 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

HARSH 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

HARSH 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

HARSH 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

HARSH 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

HARSH 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

HARSH 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

HARSH 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

HARSH 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

HARSH 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

HARSH 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

HARSH 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

HARSH 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

HARSH 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

HARSH 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

HARSH 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

HARSH 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

HARSH 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

HARSH 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

HARSH 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

HARSH 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

HARSH 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

HARSH 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

HARSH 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

HARSH 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

HARSH 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

HARSH 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

HARSH 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

HARSH 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

HARSH 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

HARSH 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

HARSH 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

HARSH 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

HARSH 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

HARSH 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

HARSH 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

HARSH 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

HARSH 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

HARSH 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

HARSH 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

HARSH 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

HARSH 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

HARSH 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

HARSH 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

HARSH 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

HARSH 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

HARSH 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

HARSH 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

HARSH 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

HARSH 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

HARSH 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

HARSH 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

HARSH 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

HARSH 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

HARSH 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

HARSH 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

HARSH 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

HARSH 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

HARSH 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

HARSH 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

HARSH 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

HARSH 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

HARSH 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

HARSH 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

HARSH 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

HARSH 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

HARSH 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

HARSH 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

HARSH 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

HARSH 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

HARSH 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

HARSH 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

HARSH 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

HARSH 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

HARSH 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

HARSH 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

HARSH 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

HARSH 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

HARSH 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

HARSH 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

HARSH 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

HARSH 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

HARSH 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

HARSH 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

HARSH 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

HARSH 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

HARSH 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

HARSH 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

HARSH 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

HARSH 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

HARSH 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

HARSH 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

HARSH 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

HARSH 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

HARSH 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

HARSH 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

HARSH 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

HARSH 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

HARSH 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

HARSH 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

HARSH 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

HARSH 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

HARSH 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

HARSH 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

HARSH 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

HARSH 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

HARSH 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

HARSH 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

HARSH 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

HARSH 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

HARSH 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

HARSH 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

HARSH 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

HARSH 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

HARSH 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

HARSH 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

HARSH 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

HARSH 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

HARSH 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

HARSH 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

HARSH 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

HARSH 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

HARSH 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

HARSH 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

HARSH 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

HARSH 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

HARSH 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

HARSH 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

HARSH 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

HARSH 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

HARSH 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

HARSH 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

HARSH 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

HARSH 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

HARSH 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

HARSH 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

HARSH 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

HARSH 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

HARSH 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

HARSH 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

HARSH 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

HARSH 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

HARSH 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

HARSH 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

HARSH 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

HARSH 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

HARSH 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

HARSH 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

HARSH 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

HARSH 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

HARSH 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

HARSH 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

HARSH 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

HARSH 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

HARSH 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

HARSH 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

HARSH 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

HARSH 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

HARSH 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

HARSH 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

HARSH 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

HARSH 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

HARSH 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

HARSH 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

HARSH 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

HARSH 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

HARSH 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

HARSH 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

HARSH 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

HARSH 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

HARSH 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

HARSH 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

HARSH 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

HARSH 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

HARSH 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

HARSH 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

HARSH 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

HARSH 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

HARSH 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

HARSH 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

HARSH 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

HARSH 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

HARSH 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

HARSH 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

HARSH 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

HARSH 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

HARSH 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

HARSH 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

HARSH 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

HARSH 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

HARSH 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

HARSH 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

HARSH 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

HARSH 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

HARSH 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

HARSH 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

HARSH 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

HARSH 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

HARSH 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

HARSH 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

HARSH 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

HARSH 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

HARSH 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

HARSH 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

HARSH 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

HARSH 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

HARSH 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

HARSH 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

HARSH 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

HARSH 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

HARSH 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

HARSH 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

HARSH 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

HARSH 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

HARSH 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

HARSH 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

HARSH 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

HARSH 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

HARSH 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

HARSH 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

HARSH 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

HARSH 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

HARSH 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

HARSH 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

HARSH 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

HARSH 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

HARSH 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

HARSH 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

HARSH 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

HARSH 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

HARSH 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

HARSH 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

HARSH 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

HARSH 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

HARSH 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

HARSH 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

HARSH 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

HARSH 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

HARSH 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

HARSH 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

HARSH 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

HARSH 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

HARSH 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

HARSH 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

HARSH 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

HARSH 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

HARSH 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

HARSH 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

HARSH 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

HARSH 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

HARSH 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

HARSH 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

HARSH 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

HARSH 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

HARSH 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

HARSH 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

HARSH 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

HARSH 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

HARSH 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

HARSH 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

HARSH 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

HARSH 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

HARSH 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

HARSH 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

HARSH 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

HARSH 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

HARSH 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

HARSH 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

HARSH 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

HARSH 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

HARSH 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

HARSH 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

HARSH 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

HARSH 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

HARSH 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

HARSH 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

HARSH 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

HARSH 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

HARSH 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

HARSH 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

HARSH 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

HARSH 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

HARSH 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

HARSH 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

HARSH 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

HARSH 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

HARSH 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

HARSH 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

HARSH 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

HARSH 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

HARSH 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

HARSH 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

HARSH 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

HARSH 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

HARSH 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

HARSH 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

HARSH 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

HARSH 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

HARSH 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

HARSH 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

HARSH 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

HARSH 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

HARSH 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

HARSH 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

HARSH 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

HARSH 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

HARSH 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

HARSH 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

HARSH 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

HARSH 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

HARSH 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

HARSH 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

HARSH 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

HARSH 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

HARSH 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

HARSH 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

HARSH 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

HARSH 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

HARSH 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

HARSH 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

HARSH 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

HARSH 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

HARSH 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

HARSH 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

HARSH 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

HARSH 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

HARSH 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

HARSH 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

HARSH 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

HARSH 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

HARSH 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

HARSH 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

HARSH 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

HARSH 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

HARSH 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

HARSH 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

HARSH 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

HARSH 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

HARSH 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

HARSH 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

HARSH 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

HARSH 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

HARSH 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

HARSH 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

HARSH 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

HARSH 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

HARSH 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

HARSH 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

HARSH 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

HARSH 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

HARSH 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

HARSH 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

HARSH 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

HARSH 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

HARSH 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

HARSH 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

HARSH 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

HARSH 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

HARSH 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

HARSH 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

HARSH 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

HARSH 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

HARSH 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

HARSH 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

HARSH 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

HARSH 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

HARSH 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

HARSH 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

HARSH 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

HARSH 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

HARSH 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

HARSH 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

HARSH 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

HARSH 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

HARSH 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

HARSH 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

HARSH 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

HARSH 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

HARSH 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

HARSH 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

HARSH 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

HARSH 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

HARSH 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

HARSH 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

HARSH 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

HARSH 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

HARSH 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

HARSH 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

HARSH 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

HARSH 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

HARSH 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

HARSH 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

HARSH 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

HARSH 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

HARSH 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

HARSH 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

HARSH 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

HARSH 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

HARSH 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

HARSH 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

HARSH 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

HARSH 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

HARSH 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

HARSH 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

HARSH 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

HARSH 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

HARSH 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

HARSH 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

HARSH 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

HARSH 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

HARSH 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

HARSH 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

HARSH 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

HARSH 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

HARSH 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

HARSH 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

HARSH 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

HARSH 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

HARSH 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

HARSH 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

HARSH 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

HARSH 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

HARSH 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

HARSH 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

HARSH 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

HARSH 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

HARSH 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

HARSH 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

HARSH 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

HARSH 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

HARSH 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

HARSH 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

HARSH 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

HARSH 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

HARSH 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

HARSH 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

HARSH 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

HARSH 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

HARSH 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

HARSH 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

HARSH 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

HARSH 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

HARSH 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

HARSH 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

HARSH 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

HARSH 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

HARSH 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

HARSH 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

HARSH 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

HARSH 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

HARSH 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

HARSH 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

HARSH 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

HARSH 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

HARSH 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

HARSH 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

HARSH 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

HARSH 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

HARSH 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

HARSH 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

HARSH 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

HARSH 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

HARSH 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

HARSH 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

HARSH 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

HARSH 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

HARSH 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

HARSH 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

HARSH 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

HARSH 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

HARSH 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

HARSH 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

HARSH 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

HARSH 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

HARSH 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

HARSH 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

HARSH 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

HARSH 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

HARSH 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

HARSH 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

HARSH 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

HARSH 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

HARSH 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

HARSH 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

HARSH 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

HARSH 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

HARSH 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

HARSH 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

HARSH 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

HARSH 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

HARSH 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

HARSH 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

HARSH 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

HARSH 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

HARSH 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

HARSH 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

HARSH 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

HARSH 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

HARSH 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

HARSH 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

HARSH 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

HARSH 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

HARSH 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

HARSH 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

HARSH 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

HARSH 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

HARSH 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

HARSH 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

HARSH 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

HARSH 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

HARSH 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

HARSH 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

HARSH 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

HARSH 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

HARSH 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

HARSH 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

HARSH 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

HARSH 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

HARSH 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

HARSH 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

HARSH 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

HARSH 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

HARSH 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

HARSH 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

HARSH 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

HARSH 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

HARSH 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

HARSH 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

HARSH 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

HARSH 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

HARSH 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

HARSH 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

HARSH 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

HARSH 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

HARSH 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

HARSH 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

HARSH 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

HARSH 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

HARSH 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

HARSH 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

HARSH 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

HARSH 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

HARSH 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

HARSH 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

HARSH 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

HARSH 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

HARSH 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

HARSH 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

HARSH 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

HARSH 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

HARSH 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

HARSH 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

HARSH 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

HARSH 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

HARSH 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

HARSH 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

HARSH 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

HARSH 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

HARSH 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

HARSH 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

HARSH 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

HARSH 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

HARSH 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

HARSH 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

HARSH 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

HARSH 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

HARSH 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

HARSH 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

HARSH 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

HARSH 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

HARSH 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

HARSH 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

HARSH 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

HARSH 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

HARSH 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

HARSH 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

HARSH 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

HARSH 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

HARSH 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

HARSH 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

HARSH 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

HARSH 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

HARSH 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

HARSH 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

HARSH 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

HARSH 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

HARSH 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

HARSH 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

HARSH 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

HARSH 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

HARSH 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

HARSH 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

HARSH 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

HARSH 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

HARSH 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

HARSH 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

HARSH 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

HARSH 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

HARSH 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

HARSH 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

HARSH 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

HARSH 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

HARSH 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

HARSH 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

HARSH 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

HARSH 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

HARSH 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

HARSH 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

HARSH 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

HARSH 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

HARSH 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

HARSH 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

HARSH 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

HARSH 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

HARSH 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

HARSH 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

HARSH 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

HARSH 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

HARSH 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

HARSH 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

HARSH 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

HARSH 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

HARSH 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

HARSH 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

HARSH 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

HARSH 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

HARSH 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

HARSH 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

HARSH 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

HARSH 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

HARSH 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

HARSH 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

HARSH 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

HARSH 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

HARSH 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

HARSH 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

HARSH 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

HARSH 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

HARSH 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

HARSH 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

HARSH 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

HARSH 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

HARSH 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

HARSH 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

HARSH 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

HARSH 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

HARSH 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

HARSH 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

HARSH 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

HARSH 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

HARSH 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

HARSH 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

HARSH 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

HARSH 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

HARSH 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

HARSH 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

HARSH 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

HARSH 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

HARSH 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

HARSH 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

HARSH 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

HARSH 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

HARSH 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

HARSH 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

HARSH 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

HARSH 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

HARSH 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

HARSH 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

HARSH 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

HARSH 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

HARSH 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

HARSH 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

HARSH 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

HARSH 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

HARSH 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

HARSH 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

HARSH 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

HARSH 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

HARSH 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

HARSH 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

HARSH 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

HARSH 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

HARSH 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

HARSH 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

HARSH 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

HARSH 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

HARSH 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

HARSH 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

HARSH 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

HARSH 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

HARSH 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

HARSH 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

HARSH 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

HARSH 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

HARSH 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

HARSH 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

HARSH 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

HARSH 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

HARSH 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

HARSH 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

HARSH 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

HARSH 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

HARSH 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

HARSH 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

HARSH 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

HARSH 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

HARSH 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

HARSH 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

HARSH 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

HARSH 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

HARSH 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

HARSH 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

HARSH 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

HARSH 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

HARSH 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

HARSH 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

HARSH 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

HARSH 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

HARSH 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

HARSH 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

HARSH 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

HARSH 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

HARSH 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

HARSH 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

HARSH 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

HARSH 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

HARSH 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

HARSH 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

HARSH 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

HARSH 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

HARSH 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

HARSH 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

HARSH 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

HARSH 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

HARSH 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

HARSH 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

HARSH 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

HARSH 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

HARSH 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

HARSH 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

HARSH 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

HARSH 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

HARSH 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

HARSH 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

HARSH 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

HARSH 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

HARSH 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

HARSH 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

HARSH 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

HARSH 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

HARSH 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

HARSH 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

HARSH 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

HARSH 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

HARSH 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

HARSH 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

HARSH 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

HARSH 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

HARSH 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

HARSH 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

HARSH 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

HARSH 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

HARSH 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

HARSH 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

HARSH 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

HARSH 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

HARSH 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

HARSH 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

HARSH 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

HARSH 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

HARSH 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

HARSH 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

HARSH 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

HARSH 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

HARSH 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

HARSH 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

HARSH 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

HARSH 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

HARSH 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

HARSH 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

HARSH 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

HARSH 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

HARSH 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

HARSH 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

HARSH 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

HARSH 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

HARSH 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

HARSH 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

HARSH 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

HARSH 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

HARSH 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

HARSH 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

HARSH 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

HARSH 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

HARSH 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

HARSH 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

HARSH 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

HARSH 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

HARSH 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

HARSH 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

HARSH 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

HARSH 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

HARSH 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

HARSH 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

HARSH 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

HARSH 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

HARSH 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

HARSH 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

HARSH 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

HARSH 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

HARSH 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

HARSH 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

HARSH 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

HARSH 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

HARSH 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

HARSH 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

HARSH 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

HARSH 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

HARSH 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

HARSH 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

HARSH 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

HARSH 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

HARSH 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

HARSH 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

HARSH 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

HARSH 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

HARSH 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

HARSH 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

HARSH 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

HARSH 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

HARSH 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

HARSH 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

HARSH 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

HARSH 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

HARSH 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

HARSH 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

HARSH 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

HARSH 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

HARSH 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

HARSH 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

HARSH 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

HARSH 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

HARSH 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

HARSH 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

HARSH 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

HARSH 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

HARSH 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

HARSH 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

HARSH 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

HARSH 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

HARSH 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

HARSH 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

HARSH 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

HARSH 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

HARSH 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

HARSH 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

HARSH 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

HARSH 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

HARSH 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

HARSH 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

HARSH 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

HARSH 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

HARSH 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

HARSH 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

HARSH 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

HARSH 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

HARSH 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

HARSH 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

HARSH 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

HARSH 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

HARSH 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

HARSH 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

HARSH 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

HARSH 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

HARSH 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

HARSH 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

HARSH 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

HARSH 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

HARSH 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

HARSH 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

HARSH 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

HARSH 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

HARSH 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

HARSH 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

HARSH 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

HARSH 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

HARSH 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

HARSH 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

HARSH 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

HARSH 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

HARSH 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

HARSH 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

HARSH 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

HARSH 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

HARSH 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

HARSH 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

HARSH 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

HARSH 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

HARSH 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

HARSH 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

HARSH 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

HARSH 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

HARSH 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

HARSH 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

HARSH 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

HARSH 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

HARSH 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

HARSH 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

HARSH 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

HARSH 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

HARSH 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

HARSH 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

HARSH 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

HARSH 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

HARSH 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

HARSH 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

HARSH 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

HARSH 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

HARSH 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

HARSH 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

HARSH 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

HARSH 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

HARSH 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

HARSH 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

HARSH 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

HARSH 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

HARSH 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

HARSH 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

HARSH 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

HARSH 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

HARSH 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

HARSH 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

HARSH 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

HARSH 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

HARSH 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

HARSH 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

HARSH 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

HARSH 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

HARSH 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

HARSH 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

HARSH 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

HARSH 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

HARSH 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

HARSH 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

HARSH 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

HARSH 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

HARSH 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

HARSH 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

HARSH 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

HARSH 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

HARSH 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

HARSH 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

HARSH 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

HARSH 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

HARSH 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

HARSH 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

HARSH 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

HARSH 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

HARSH 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

HARSH 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

HARSH 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

HARSH 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

HARSH 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

HARSH 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

HARSH 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

HARSH 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

HARSH 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

HARSH 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

HARSH 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

HARSH 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

HARSH 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

HARSH 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

HARSH 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

HARSH 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

HARSH 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

HARSH 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

HARSH 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

HARSH 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

HARSH 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

HARSH 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

HARSH 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

HARSH 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

HARSH 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

HARSH 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

HARSH 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

HARSH 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

HARSH 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

HARSH 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

HARSH 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

HARSH 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

HARSH 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

HARSH 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

HARSH 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

HARSH 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

HARSH 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

HARSH 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

HARSH 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

HARSH 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

HARSH 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

HARSH 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

HARSH 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

HARSH 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

HARSH 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

HARSH 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

HARSH 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

HARSH 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

HARSH 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

HARSH 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

HARSH 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

HARSH 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

HARSH 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

HARSH 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

HARSH 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

HARSH 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

HARSH 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

HARSH 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

HARSH 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

HARSH 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

HARSH 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

HARSH 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

HARSH 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

HARSH 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

HARSH 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

HARSH 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

HARSH 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

HARSH 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

HARSH 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

HARSH 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

HARSH 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

HARSH 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

HARSH 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

HARSH 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

HARSH 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

HARSH 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

HARSH 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

HARSH 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

HARSH 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

HARSH 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

HARSH 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

HARSH 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

HARSH 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

HARSH 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

HARSH 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

HARSH 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

HARSH 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

HARSH 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

HARSH 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

HARSH 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

HARSH 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

HARSH 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

HARSH 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

HARSH 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

HARSH 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

HARSH 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

HARSH 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

HARSH 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

HARSH 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

HARSH 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

HARSH 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

HARSH 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

HARSH 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

HARSH 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

HARSH 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

HARSH 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

HARSH 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

HARSH 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

HARSH 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

HARSH 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

HARSH 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

HARSH 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

HARSH 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

HARSH 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

HARSH 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

HARSH 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

HARSH 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

HARSH 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

HARSH 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

HARSH 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

HARSH 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

HARSH 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

HARSH 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

HARSH 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

HARSH 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

HARSH 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

HARSH 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

HARSH 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

HARSH 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

HARSH 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

HARSH 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

HARSH 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

HARSH 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

HARSH 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

HARSH 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

HARSH 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

HARSH 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

HARSH 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

HARSH 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

HARSH 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

HARSH 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

HARSH 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

HARSH 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

HARSH 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

HARSH 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

HARSH 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

HARSH 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

HARSH 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

HARSH 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

HARSH 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

HARSH 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

HARSH 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

HARSH 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

HARSH 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

HARSH 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

HARSH 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

HARSH 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

HARSH 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

HARSH 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

HARSH 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

HARSH 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

HARSH 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

HARSH 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

HARSH 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

HARSH 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

HARSH 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

HARSH 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

HARSH 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

HARSH 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

HARSH 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

HARSH 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

HARSH 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

HARSH 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

HARSH 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

HARSH 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

HARSH 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

HARSH 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

HARSH 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

HARSH 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

HARSH 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

HARSH 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

HARSH 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

HARSH 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

HARSH 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

HARSH 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

HARSH 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

HARSH 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

HARSH 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

HARSH 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

HARSH 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

HARSH 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

HARSH 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

HARSH 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

HARSH 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

HARSH 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

HARSH 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

HARSH 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

HARSH 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

HARSH 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

HARSH 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

HARSH 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

HARSH 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

HARSH 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

HARSH 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

HARSH 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

HARSH 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

HARSH 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

HARSH 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

HARSH 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

HARSH 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

HARSH 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

HARSH 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

HARSH 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

HARSH 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

HARSH 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

HARSH 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

HARSH 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

HARSH 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

HARSH 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

HARSH 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

HARSH 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

HARSH 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

HARSH 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

HARSH 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

HARSH 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

HARSH 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

HARSH 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

HARSH 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

HARSH 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

HARSH 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

HARSH 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

HARSH 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

HARSH 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

HARSH 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

HARSH 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

HARSH 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

HARSH 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

HARSH 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

HARSH 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

HARSH 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

HARSH 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

HARSH 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

HARSH 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

HARSH 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

HARSH 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

HARSH 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

HARSH 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

HARSH 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

HARSH 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

HARSH 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

HARSH 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

HARSH 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

HARSH 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

HARSH 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

HARSH 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

HARSH 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

HARSH 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

HARSH 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

HARSH 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

HARSH 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

HARSH 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

HARSH 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

HARSH 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

HARSH 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

HARSH 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

HARSH 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

HARSH 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

HARSH 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

HARSH 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

HARSH 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

HARSH 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

HARSH 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

HARSH 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

HARSH 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

HARSH 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

HARSH 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

HARSH 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

HARSH 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

HARSH 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

HARSH 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

HARSH 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

HARSH 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

HARSH 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

HARSH 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

HARSH 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

HARSH 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

HARSH 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

HARSH 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

HARSH 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

HARSH 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

HARSH 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

HARSH 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

HARSH 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

HARSH 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

HARSH 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

HARSH 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

HARSH 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

HARSH 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

HARSH 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

HARSH 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

HARSH 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

HARSH 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

HARSH 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

HARSH 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

HARSH 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

HARSH 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

HARSH 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

HARSH 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

HARSH 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

HARSH 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

HARSH 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

HARSH 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

HARSH 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

HARSH 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

HARSH 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

HARSH 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

HARSH 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

HARSH 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

HARSH 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

HARSH 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

HARSH 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

HARSH 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

HARSH 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

HARSH 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

HARSH 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

HARSH 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

HARSH 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

HARSH 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

HARSH 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

HARSH 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

HARSH 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

HARSH 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

HARSH 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

HARSH 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

HARSH 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

HARSH 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

HARSH 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

HARSH 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

HARSH 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

HARSH 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

HARSH 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

HARSH 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

HARSH 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

HARSH 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

HARSH 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

HARSH 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

HARSH 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

HARSH 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

HARSH 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

HARSH 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

HARSH 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

HARSH 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

HARSH 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

HARSH 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

HARSH 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

HARSH 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

HARSH 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

HARSH 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

HARSH 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

HARSH 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

HARSH 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

HARSH 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

HARSH 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

HARSH 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

HARSH 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

HARSH 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

HARSH 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

HARSH 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

HARSH 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

HARSH 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

HARSH 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

HARSH 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

HARSH 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

HARSH 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

HARSH 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

HARSH 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

HARSH 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

HARSH 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

HARSH 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

HARSH 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

HARSH 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

HARSH 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

HARSH 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

HARSH 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

HARSH 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

HARSH 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

HARSH 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

HARSH 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

HARSH 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

HARSH 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

HARSH 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

HARSH 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

HARSH 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

HARSH 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

HARSH 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

HARSH 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

HARSH 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

HARSH 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

HARSH 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

HARSH 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

HARSH 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

HARSH 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

HARSH 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

HARSH 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

HARSH 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

HARSH 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

HARSH 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

HARSH 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

HARSH 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

HARSH 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

HARSH 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

HARSH 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

HARSH 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

HARSH 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

HARSH 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

HARSH 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

HARSH 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

HARSH 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

HARSH 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

HARSH 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

HARSH 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

HARSH 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

HARSH 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

HARSH 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

HARSH 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

HARSH 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

HARSH 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

HARSH 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

HARSH 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

HARSH 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

HARSH 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

HARSH 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

HARSH 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

HARSH 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

HARSH 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

HARSH 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

HARSH 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

HARSH 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

HARSH 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

HARSH 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

HARSH 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

HARSH 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

HARSH 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

HARSH 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

HARSH 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

HARSH 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

HARSH 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

HARSH 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

HARSH 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

HARSH 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

HARSH 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

HARSH 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

HARSH 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

HARSH 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

HARSH 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

HARSH 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

HARSH 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

HARSH 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

HARSH 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

HARSH 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

HARSH 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

HARSH 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

HARSH 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

HARSH 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

HARSH 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

HARSH 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

HARSH 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

HARSH 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

HARSH 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

HARSH 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

HARSH 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

HARSH 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

HARSH 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

HARSH 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

HARSH 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

HARSH 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

HARSH 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

HARSH 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

HARSH 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

HARSH 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

HARSH 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

HARSH 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

HARSH 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

HARSH 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

HARSH 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

HARSH 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

HARSH 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

HARSH 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

HARSH 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

HARSH 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

HARSH 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

HARSH 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

HARSH 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

HARSH 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

HARSH 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

HARSH 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

HARSH 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

HARSH 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

HARSH 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

HARSH 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

HARSH 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

HARSH 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

HARSH 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

HARSH 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

HARSH 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

HARSH 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

HARSH 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

HARSH 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

HARSH 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

HARSH 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

HARSH 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

HARSH 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

HARSH 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

HARSH 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

HARSH 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

HARSH 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

HARSH 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

HARSH 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

HARSH 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

HARSH 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

HARSH 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

HARSH 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

HARSH 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

HARSH 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

HARSH 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

HARSH 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

HARSH 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

HARSH 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

HARSH 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

HARSH 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

HARSH 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

HARSH 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

HARSH 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

HARSH 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

HARSH 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

HARSH 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

HARSH 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

HARSH 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

HARSH 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

HARSH 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

HARSH 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

HARSH 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

HARSH 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

HARSH 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

HARSH 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

HARSH 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

HARSH 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

HARSH 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

HARSH 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

HARSH 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

HARSH 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

HARSH 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

HARSH 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

HARSH 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

HARSH 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

HARSH 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

HARSH 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

HARSH 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

HARSH 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

HARSH 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

HARSH 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

HARSH 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

HARSH 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

HARSH 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

HARSH 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

HARSH 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

HARSH 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

HARSH 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

HARSH 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

HARSH 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

HARSH 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

HARSH 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

HARSH 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

HARSH 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

HARSH 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

HARSH 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

HARSH 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

HARSH 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

HARSH 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

HARSH 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

HARSH 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

HARSH 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

HARSH 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

HARSH 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

HARSH 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

HARSH 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

HARSH 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

HARSH 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

HARSH 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

HARSH 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

HARSH 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

HARSH 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

HARSH 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

HARSH 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

HARSH 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

HARSH 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

HARSH 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

HARSH 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

HARSH 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

HARSH 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

HARSH 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

HARSH 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

HARSH 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

HARSH 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

HARSH 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

HARSH 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

HARSH 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

HARSH 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

HARSH 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

HARSH 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

HARSH 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

HARSH 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

HARSH 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

HARSH 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

HARSH 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

HARSH 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

HARSH 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

HARSH 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

HARSH 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

HARSH 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

HARSH 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

HARSH 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

HARSH 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

HARSH 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

HARSH 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

HARSH 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

HARSH 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

HARSH 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

HARSH 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

HARSH 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

HARSH 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

HARSH 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

HARSH 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

HARSH 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

HARSH 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

HARSH 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

HARSH 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

HARSH 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

HARSH 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

HARSH 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

HARSH 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

HARSH 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

HARSH 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

HARSH 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

HARSH 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

HARSH 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

HARSH 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

HARSH 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

HARSH 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

HARSH 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

HARSH 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

HARSH 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

HARSH 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

HARSH 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

HARSH 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

HARSH 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

HARSH 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

HARSH 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

HARSH 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

HARSH 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

HARSH 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

HARSH 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

HARSH 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

HARSH 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

HARSH 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

HARSH 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

HARSH 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

HARSH 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

HARSH 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

HARSH 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

HARSH 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

HARSH 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

HARSH 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

HARSH 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

HARSH 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

HARSH 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

HARSH 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

HARSH 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

HARSH 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

HARSH 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

HARSH 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

HARSH 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

HARSH 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

HARSH 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

HARSH 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

HARSH 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

HARSH 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

HARSH 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

HARSH 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

HARSH 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

HARSH 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

HARSH 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

HARSH 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

HARSH 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

HARSH 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

HARSH 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

HARSH 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

HARSH 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

HARSH 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

HARSH 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

HARSH 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

HARSH 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

HARSH 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

HARSH 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

HARSH 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

HARSH 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

HARSH 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

HARSH 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

HARSH 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

HARSH 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

HARSH 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

HARSH 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

HARSH 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

HARSH 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

HARSH 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

HARSH 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

HARSH 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

HARSH 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

HARSH 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

HARSH 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

HARSH 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

HARSH 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

HARSH 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

HARSH 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

HARSH 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

HARSH 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

HARSH 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

HARSH 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

HARSH 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

HARSH 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

HARSH 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

HARSH 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

HARSH 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

HARSH 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

HARSH 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

HARSH 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

HARSH 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

HARSH 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

HARSH 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

HARSH 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

HARSH 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

HARSH 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

HARSH 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

HARSH 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

HARSH 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

HARSH 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

HARSH 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

HARSH 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

HARSH 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

HARSH 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

HARSH 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

HARSH 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

HARSH 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

HARSH 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

HARSH 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

HARSH 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

HARSH 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

HARSH 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

HARSH 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

HARSH 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

HARSH 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

HARSH 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

HARSH 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

HARSH 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

HARSH 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

HARSH 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

HARSH 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

HARSH 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

HARSH 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

HARSH 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

HARSH 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

HARSH 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

HARSH 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

HARSH 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

HARSH 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

HARSH 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

HARSH 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

HARSH 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

HARSH 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

HARSH 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

HARSH 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

HARSH 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

HARSH 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

HARSH 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

HARSH 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

HARSH 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

HARSH 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

HARSH 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

HARSH 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

HARSH 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

HARSH 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

HARSH 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

HARSH 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

HARSH 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

HARSH 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

HARSH 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

HARSH 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

HARSH 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

HARSH 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

HARSH 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

HARSH 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

HARSH 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

HARSH 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

HARSH 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

HARSH 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

HARSH 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

HARSH 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

HARSH 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

HARSH 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

HARSH 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

HARSH 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

HARSH 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

HARSH 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

HARSH 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

HARSH 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

HARSH 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

HARSH 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

HARSH 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

HARSH 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

HARSH 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

HARSH 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

HARSH 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

HARSH 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

HARSH 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

HARSH 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

HARSH 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

HARSH 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

HARSH 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

HARSH 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

HARSH 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

HARSH 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

HARSH 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

HARSH 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

HARSH 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

HARSH 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

HARSH 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

HARSH 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

HARSH 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

HARSH 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

HARSH 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

HARSH 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

HARSH 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

HARSH 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

HARSH 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

HARSH 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

HARSH 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

HARSH 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

HARSH 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

HARSH 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

HARSH 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

HARSH 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

HARSH 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

HARSH 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

HARSH 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

HARSH 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

HARSH 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

HARSH 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

HARSH 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

HARSH 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

HARSH 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

HARSH 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

HARSH 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

HARSH 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

HARSH 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

HARSH 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

HARSH 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

HARSH 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

HARSH 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

HARSH 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

HARSH 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

HARSH 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

HARSH 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

HARSH 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

HARSH 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

HARSH 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

HARSH 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

HARSH 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

HARSH 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

HARSH 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

HARSH 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

HARSH 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

HARSH 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

HARSH 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

HARSH 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

HARSH 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

HARSH 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

HARSH 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

HARSH 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

HARSH 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

HARSH 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

HARSH 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

HARSH 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

HARSH 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

HARSH 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

HARSH 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

HARSH 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

HARSH 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

HARSH 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

HARSH 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

HARSH 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

HARSH 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

HARSH 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

HARSH 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

HARSH 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

HARSH 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

HARSH 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

HARSH 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

HARSH 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

HARSH 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

HARSH 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

HARSH 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

HARSH 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

HARSH 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

HARSH 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

HARSH 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

HARSH 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

HARSH 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

HARSH 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

HARSH 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

HARSH 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

HARSH 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

HARSH 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

HARSH 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

HARSH 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

HARSH 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

HARSH 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

HARSH 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

HARSH 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

HARSH 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

HARSH 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

HARSH 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

HARSH 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

HARSH 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

HARSH 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

HARSH 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

HARSH 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

HARSH 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

HARSH 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

HARSH 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

HARSH 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

HARSH 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

HARSH 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

HARSH 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

HARSH 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

HARSH 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

HARSH 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

HARSH 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

HARSH 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

HARSH 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

HARSH 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

HARSH 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

HARSH 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

HARSH 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

HARSH 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

HARSH 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

HARSH 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

HARSH 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

HARSH 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

HARSH 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

HARSH 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

HARSH 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

HARSH 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

HARSH 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

HARSH 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

HARSH 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

HARSH 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

HARSH 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

HARSH 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

HARSH 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

HARSH 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

HARSH 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

HARSH 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

HARSH 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

HARSH 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

HARSH 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

HARSH 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

HARSH 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

HARSH 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

HARSH 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

HARSH 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

HARSH 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

HARSH 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

HARSH 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

HARSH 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

HARSH 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

HARSH 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

HARSH 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

HARSH 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

HARSH 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

HARSH 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

HARSH 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

HARSH 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

HARSH 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

HARSH 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

HARSH 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

HARSH 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

HARSH 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

HARSH 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

HARSH 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

HARSH 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

HARSH 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

HARSH 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

HARSH 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

HARSH 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

HARSH 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

HARSH 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

*FRND3*

KARN 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

KARN 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

KARN 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

KARN 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

KARN 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

KARN 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

KARN 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

KARN 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

KARN 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

KARN 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

KARN 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

KARN 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

KARN 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

KARN 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

KARN 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

KARN 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

KARN 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

KARN 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

KARN 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

KARN 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

KARN 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

KARN 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

KARN 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

KARN 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

KARN 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

KARN 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

KARN 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

KARN 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

KARN 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

KARN 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

KARN 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

KARN 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

KARN 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

KARN 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

KARN 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

KARN 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

KARN 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

KARN 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

KARN 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

KARN 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

KARN 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

KARN 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

KARN 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

KARN 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

KARN 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

KARN 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

KARN 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

KARN 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

KARN 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

KARN 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

KARN 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

KARN 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

KARN 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

KARN 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

KARN 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

KARN 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

KARN 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

KARN 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

KARN 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

KARN 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

KARN 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

KARN 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

KARN 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

KARN 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

KARN 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

KARN 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

KARN 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

KARN 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

KARN 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

KARN 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

KARN 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

KARN 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

KARN 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

KARN 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

KARN 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

KARN 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

KARN 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

KARN 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

KARN 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

KARN 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

KARN 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

KARN 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

KARN 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

KARN 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

KARN 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

KARN 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

KARN 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

KARN 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

KARN 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

KARN 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

KARN 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

KARN 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

KARN 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

KARN 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

KARN 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

KARN 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

KARN 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

KARN 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

KARN 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

KARN 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

KARN 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

KARN 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

KARN 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

KARN 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

KARN 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

KARN 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

KARN 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

KARN 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

KARN 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

KARN 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

KARN 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

KARN 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

KARN 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

KARN 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

KARN 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

KARN 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

KARN 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

KARN 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

KARN 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

KARN 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

KARN 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

KARN 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

KARN 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

KARN 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

KARN 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

KARN 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

KARN 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

KARN 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

KARN 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

KARN 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

KARN 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

KARN 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

KARN 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

KARN 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

KARN 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

KARN 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

KARN 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

KARN 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

KARN 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

KARN 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

KARN 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

KARN 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

KARN 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

KARN 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

KARN 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

KARN 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

KARN 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

KARN 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

KARN 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

KARN 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

KARN 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

KARN 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

KARN 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

KARN 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

KARN 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

KARN 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

KARN 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

KARN 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

KARN 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

KARN 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

KARN 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

KARN 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

KARN 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

KARN 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

KARN 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

KARN 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

KARN 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

KARN 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

KARN 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

KARN 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

KARN 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

KARN 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

KARN 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

KARN 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

KARN 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

KARN 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

KARN 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

KARN 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

KARN 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

KARN 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

KARN 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

KARN 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

KARN 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

KARN 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

KARN 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

KARN 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

KARN 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

KARN 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

KARN 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

KARN 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

KARN 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

KARN 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

KARN 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

KARN 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

KARN 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

KARN 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

KARN 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

KARN 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

KARN 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

KARN 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

KARN 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

KARN 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

KARN 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

KARN 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

KARN 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

KARN 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

KARN 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

KARN 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

KARN 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

KARN 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

KARN 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

KARN 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

KARN 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

KARN 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

KARN 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

KARN 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

KARN 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

KARN 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

KARN 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

KARN 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

KARN 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

KARN 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

KARN 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

KARN 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

KARN 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

KARN 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

KARN 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

KARN 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

KARN 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

KARN 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

KARN 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

KARN 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

KARN 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

KARN 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

KARN 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

KARN 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

KARN 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

KARN 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

KARN 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

KARN 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

KARN 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

KARN 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

KARN 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

KARN 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

KARN 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

KARN 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

KARN 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

KARN 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

KARN 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

KARN 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

KARN 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

KARN 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

KARN 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

KARN 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

KARN 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

KARN 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

KARN 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

KARN 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

KARN 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

KARN 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

KARN 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

KARN 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

KARN 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

KARN 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

KARN 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

KARN 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

KARN 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

KARN 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

KARN 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

KARN 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

KARN 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

KARN 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

KARN 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

KARN 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

KARN 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

KARN 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

KARN 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

KARN 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

KARN 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

KARN 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

KARN 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

KARN 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

KARN 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

KARN 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

KARN 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

KARN 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

KARN 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

KARN 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

KARN 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

KARN 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

KARN 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

KARN 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

KARN 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

KARN 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

KARN 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

KARN 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

KARN 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

KARN 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

KARN 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

KARN 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

KARN 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

KARN 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

KARN 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

KARN 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

KARN 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

KARN 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

KARN 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

KARN 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

KARN 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

KARN 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

KARN 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

KARN 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

KARN 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

KARN 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

KARN 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

KARN 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

KARN 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

KARN 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

KARN 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

KARN 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

KARN 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

KARN 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

KARN 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

KARN 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

KARN 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

KARN 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

KARN 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

KARN 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

KARN 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

KARN 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

KARN 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

KARN 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

KARN 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

KARN 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

KARN 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

KARN 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

KARN 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

KARN 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

KARN 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

KARN 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

KARN 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

KARN 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

KARN 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

KARN 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

KARN 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

KARN 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

KARN 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

KARN 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

KARN 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

KARN 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

KARN 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

KARN 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

KARN 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

KARN 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

KARN 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

KARN 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

KARN 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

KARN 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

KARN 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

KARN 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

KARN 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

KARN 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

KARN 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

KARN 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

KARN 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

KARN 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

KARN 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

KARN 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

KARN 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

KARN 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

KARN 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

KARN 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

KARN 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

KARN 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

KARN 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

KARN 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

KARN 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

KARN 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

KARN 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

KARN 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

KARN 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

KARN 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

KARN 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

KARN 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

KARN 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

KARN 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

KARN 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

KARN 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

KARN 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

KARN 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

KARN 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

KARN 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

KARN 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

KARN 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

KARN 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

KARN 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

KARN 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

KARN 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

KARN 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

KARN 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

KARN 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

KARN 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

KARN 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

KARN 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

KARN 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

KARN 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

KARN 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

KARN 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

KARN 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

KARN 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

KARN 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

KARN 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

KARN 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

KARN 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

KARN 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

KARN 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

KARN 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

KARN 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

KARN 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

KARN 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

KARN 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

KARN 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

KARN 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

KARN 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

KARN 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

KARN 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

KARN 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

KARN 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

KARN 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

KARN 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

KARN 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

KARN 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

KARN 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

KARN 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

KARN 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

KARN 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

KARN 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

KARN 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

KARN 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

KARN 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

KARN 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

KARN 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

KARN 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

KARN 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

KARN 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

KARN 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

KARN 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

KARN 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

KARN 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

KARN 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

KARN 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

KARN 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

KARN 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

KARN 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

KARN 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

KARN 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

KARN 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

KARN 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

KARN 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

KARN 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

KARN 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

KARN 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

KARN 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

KARN 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

KARN 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

KARN 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

KARN 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

KARN 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

KARN 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

KARN 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

KARN 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

KARN 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

KARN 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

KARN 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

KARN 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

KARN 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

KARN 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

KARN 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

KARN 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

KARN 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

KARN 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

KARN 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

KARN 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

KARN 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

KARN 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

KARN 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

KARN 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

KARN 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

KARN 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

KARN 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

KARN 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

KARN 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

KARN 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

KARN 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

KARN 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

KARN 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

KARN 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

KARN 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

KARN 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

KARN 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

KARN 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

KARN 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

KARN 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

KARN 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

KARN 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

KARN 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

KARN 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

KARN 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

KARN 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

KARN 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

KARN 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

KARN 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

KARN 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

KARN 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

KARN 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

KARN 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

KARN 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

KARN 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

KARN 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

KARN 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

KARN 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

KARN 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

KARN 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

KARN 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

KARN 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

KARN 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

KARN 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

KARN 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

KARN 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

KARN 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

KARN 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

KARN 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

KARN 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

KARN 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

KARN 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

KARN 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

KARN 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

KARN 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

KARN 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

KARN 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

KARN 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

KARN 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

KARN 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

KARN 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

KARN 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

KARN 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

KARN 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

KARN 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

KARN 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

KARN 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

KARN 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

KARN 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

KARN 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

KARN 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

KARN 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

KARN 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

KARN 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

KARN 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

KARN 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

KARN 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

KARN 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

KARN 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

KARN 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

KARN 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

KARN 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

KARN 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

KARN 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

KARN 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

KARN 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

KARN 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

KARN 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

KARN 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

KARN 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

KARN 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

KARN 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

KARN 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

KARN 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

KARN 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

KARN 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

KARN 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

KARN 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

KARN 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

KARN 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

KARN 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

KARN 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

KARN 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

KARN 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

KARN 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

KARN 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

KARN 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

KARN 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

KARN 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

KARN 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

KARN 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

KARN 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

KARN 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

KARN 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

KARN 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

KARN 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

KARN 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

KARN 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

KARN 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

KARN 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

KARN 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

KARN 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

KARN 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

KARN 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

KARN 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

KARN 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

KARN 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

KARN 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

KARN 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

KARN 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

KARN 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

KARN 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

KARN 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

KARN 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

KARN 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

KARN 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

KARN 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

KARN 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

KARN 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

KARN 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

KARN 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

KARN 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

KARN 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

KARN 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

KARN 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

KARN 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

KARN 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

KARN 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

KARN 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

KARN 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

KARN 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

KARN 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

KARN 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

KARN 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

KARN 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

KARN 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

KARN 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

KARN 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

KARN 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

KARN 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

KARN 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

KARN 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

KARN 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

KARN 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

KARN 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

KARN 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

KARN 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

KARN 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

KARN 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

KARN 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

KARN 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

KARN 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

KARN 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

KARN 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

KARN 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

KARN 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

KARN 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

KARN 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

KARN 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

KARN 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

KARN 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

KARN 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

KARN 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

KARN 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

KARN 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

KARN 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

KARN 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

KARN 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

KARN 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

KARN 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

KARN 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

KARN 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

KARN 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

KARN 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

KARN 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

KARN 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

KARN 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

KARN 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

KARN 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

KARN 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

KARN 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

KARN 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

KARN 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

KARN 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

KARN 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

KARN 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

KARN 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

KARN 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

KARN 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

KARN 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

KARN 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

KARN 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

KARN 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

KARN 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

KARN 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

KARN 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

KARN 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

KARN 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

KARN 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

KARN 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

KARN 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

KARN 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

KARN 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

KARN 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

KARN 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

KARN 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

KARN 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

KARN 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

KARN 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

KARN 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

KARN 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

KARN 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

KARN 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

KARN 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

KARN 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

KARN 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

KARN 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

KARN 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

KARN 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

KARN 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

KARN 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

KARN 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

KARN 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

KARN 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

KARN 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

KARN 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

KARN 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

KARN 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

KARN 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

KARN 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

KARN 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

KARN 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

KARN 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

KARN 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

KARN 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

KARN 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

KARN 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

KARN 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

KARN 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

KARN 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

KARN 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

KARN 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

KARN 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

KARN 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

KARN 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

KARN 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

KARN 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

KARN 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

KARN 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

KARN 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

KARN 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

KARN 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

KARN 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

KARN 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

KARN 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

KARN 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

KARN 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

KARN 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

KARN 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

KARN 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

KARN 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

KARN 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

KARN 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

KARN 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

KARN 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

KARN 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

KARN 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

KARN 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

KARN 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

KARN 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

KARN 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

KARN 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

KARN 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

KARN 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

KARN 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

KARN 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

KARN 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

KARN 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

KARN 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

KARN 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

KARN 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

KARN 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

KARN 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

KARN 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

KARN 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

KARN 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

KARN 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

KARN 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

KARN 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

KARN 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

KARN 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

KARN 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

KARN 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

KARN 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

KARN 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

KARN 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

KARN 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

KARN 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

KARN 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

KARN 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

KARN 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

KARN 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

KARN 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

KARN 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

KARN 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

KARN 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

KARN 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

KARN 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

KARN 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

KARN 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

KARN 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

KARN 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

KARN 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

KARN 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

KARN 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

KARN 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

KARN 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

KARN 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

KARN 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

KARN 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

KARN 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

KARN 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

KARN 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

KARN 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

KARN 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

KARN 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

KARN 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

KARN 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

KARN 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

KARN 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

KARN 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

KARN 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

KARN 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

KARN 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

KARN 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

KARN 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

KARN 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

KARN 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

KARN 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

KARN 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

KARN 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

KARN 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

KARN 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

KARN 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

KARN 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

KARN 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

KARN 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

KARN 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

KARN 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

KARN 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

KARN 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

KARN 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

KARN 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

KARN 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

KARN 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

KARN 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

KARN 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

KARN 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

KARN 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

KARN 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

KARN 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

KARN 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

KARN 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

KARN 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

KARN 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

KARN 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

KARN 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

KARN 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

KARN 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

KARN 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

KARN 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

KARN 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

KARN 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

KARN 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

KARN 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

KARN 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

KARN 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

KARN 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

KARN 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

KARN 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

KARN 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

KARN 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

KARN 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

KARN 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

KARN 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

KARN 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

KARN 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

KARN 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

KARN 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

KARN 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

KARN 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

KARN 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

KARN 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

KARN 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

KARN 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

KARN 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

KARN 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

KARN 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

KARN 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

KARN 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

KARN 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

KARN 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

KARN 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

KARN 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

KARN 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

KARN 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

KARN 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

KARN 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

KARN 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

KARN 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

KARN 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

KARN 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

KARN 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

KARN 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

KARN 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

KARN 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

KARN 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

KARN 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

KARN 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

KARN 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

KARN 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

KARN 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

KARN 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

KARN 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

KARN 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

KARN 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

KARN 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

KARN 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

KARN 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

KARN 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

KARN 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

KARN 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

KARN 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

KARN 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

KARN 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

KARN 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

KARN 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

KARN 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

KARN 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

KARN 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

KARN 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

KARN 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

KARN 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

KARN 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

KARN 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

KARN 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

KARN 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

KARN 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

KARN 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

KARN 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

KARN 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

KARN 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

KARN 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

KARN 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

KARN 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

KARN 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

KARN 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

KARN 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

KARN 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

KARN 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

KARN 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

KARN 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

KARN 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

KARN 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

KARN 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

KARN 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

KARN 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

KARN 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

KARN 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

KARN 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

KARN 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

KARN 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

KARN 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

KARN 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

KARN 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

KARN 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

KARN 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

KARN 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

KARN 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

KARN 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

KARN 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

KARN 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

KARN 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

KARN 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

KARN 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

KARN 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

KARN 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

KARN 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

KARN 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

KARN 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

KARN 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

KARN 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

KARN 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

KARN 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

KARN 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

KARN 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

KARN 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

KARN 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

KARN 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

KARN 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

KARN 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

KARN 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

KARN 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

KARN 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

KARN 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

KARN 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

KARN 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

KARN 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

KARN 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

KARN 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

KARN 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

KARN 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

KARN 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

KARN 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

KARN 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

KARN 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

KARN 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

KARN 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

KARN 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

KARN 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

KARN 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

KARN 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

KARN 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

KARN 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

KARN 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

KARN 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

KARN 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

KARN 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

KARN 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

KARN 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

KARN 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

KARN 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

KARN 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

KARN 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

KARN 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

KARN 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

KARN 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

KARN 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

KARN 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

KARN 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

KARN 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

KARN 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

KARN 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

KARN 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

KARN 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

KARN 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

KARN 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

KARN 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

KARN 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

KARN 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

KARN 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

KARN 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

KARN 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

KARN 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

KARN 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

KARN 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

KARN 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

KARN 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

KARN 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

KARN 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

KARN 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

KARN 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

KARN 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

KARN 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

KARN 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

KARN 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

KARN 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

KARN 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

KARN 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

KARN 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

KARN 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

KARN 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

KARN 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

KARN 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

KARN 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

KARN 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

KARN 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

KARN 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

KARN 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

KARN 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

KARN 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

KARN 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

KARN 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

KARN 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

KARN 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

KARN 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

KARN 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

KARN 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

KARN 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

KARN 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

KARN 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

KARN 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

KARN 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

KARN 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

KARN 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

KARN 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

KARN 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

KARN 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

KARN 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

KARN 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

KARN 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

KARN 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

KARN 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

KARN 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

KARN 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

KARN 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

KARN 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

KARN 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

KARN 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

KARN 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

KARN 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

KARN 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

KARN 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

KARN 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

KARN 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

KARN 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

KARN 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

KARN 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

KARN 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

KARN 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

KARN 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

KARN 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

KARN 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

KARN 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

KARN 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

KARN 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

KARN 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

KARN 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

KARN 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

KARN 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

KARN 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

KARN 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

KARN 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

KARN 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

KARN 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

KARN 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

KARN 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

KARN 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

KARN 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

KARN 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

KARN 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

KARN 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

KARN 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

KARN 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

KARN 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

KARN 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

KARN 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

KARN 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

KARN 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

KARN 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

KARN 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

KARN 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

KARN 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

KARN 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

KARN 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

KARN 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

KARN 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

KARN 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

KARN 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

KARN 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

KARN 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

KARN 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

KARN 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

KARN 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

KARN 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

KARN 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

KARN 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

KARN 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

KARN 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

KARN 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

KARN 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

KARN 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

KARN 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

KARN 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

KARN 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

KARN 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

KARN 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

KARN 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

KARN 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

KARN 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

KARN 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

KARN 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

KARN 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

KARN 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

KARN 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

KARN 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

KARN 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

KARN 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

KARN 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

KARN 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

KARN 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

KARN 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

KARN 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

KARN 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

KARN 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

KARN 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

KARN 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

KARN 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

KARN 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

KARN 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

KARN 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

KARN 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

KARN 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

KARN 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

KARN 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

KARN 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

KARN 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

KARN 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

KARN 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

KARN 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

KARN 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

KARN 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

KARN 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

KARN 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

KARN 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

KARN 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

KARN 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

KARN 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

KARN 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

KARN 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

KARN 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

KARN 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

KARN 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

KARN 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

KARN 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

KARN 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

KARN 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

KARN 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

KARN 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

KARN 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

KARN 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

KARN 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

KARN 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

KARN 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

KARN 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

KARN 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

KARN 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

KARN 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

KARN 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

KARN 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

KARN 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

KARN 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

KARN 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

KARN 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

KARN 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

KARN 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

KARN 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

KARN 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

KARN 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

KARN 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

KARN 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

KARN 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

KARN 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

KARN 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

KARN 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

KARN 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

KARN 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

KARN 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

KARN 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

KARN 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

KARN 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

KARN 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

KARN 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

KARN 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

KARN 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

KARN 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

KARN 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

KARN 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

KARN 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

KARN 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

KARN 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

KARN 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

KARN 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

KARN 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

KARN 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

KARN 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

KARN 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

KARN 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

KARN 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

KARN 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

KARN 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

KARN 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

KARN 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

KARN 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

KARN 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

KARN 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

KARN 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

KARN 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

KARN 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

KARN 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

KARN 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

KARN 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

KARN 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

KARN 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

KARN 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

KARN 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

KARN 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

KARN 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

KARN 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

KARN 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

KARN 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

KARN 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

KARN 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

KARN 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

KARN 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

KARN 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

KARN 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

KARN 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

KARN 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

KARN 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

KARN 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

KARN 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

KARN 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

KARN 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

KARN 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

KARN 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

KARN 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

KARN 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

KARN 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

KARN 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

KARN 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

KARN 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

KARN 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

KARN 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

KARN 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

KARN 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

KARN 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

KARN 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

KARN 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

KARN 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

KARN 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

KARN 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

KARN 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

KARN 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

KARN 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

KARN 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

KARN 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

KARN 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

KARN 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

KARN 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

KARN 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

KARN 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

KARN 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

KARN 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

KARN 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

KARN 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

KARN 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

KARN 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

KARN 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

KARN 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

KARN 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

KARN 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

KARN 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

KARN 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

KARN 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

KARN 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

KARN 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

KARN 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

KARN 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

KARN 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

KARN 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

KARN 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

KARN 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

KARN 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

KARN 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

KARN 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

KARN 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

KARN 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

KARN 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

KARN 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

KARN 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

KARN 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

KARN 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

KARN 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

KARN 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

KARN 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

KARN 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

KARN 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

KARN 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

KARN 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

KARN 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

KARN 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

KARN 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

KARN 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

KARN 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

KARN 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

KARN 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

KARN 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

KARN 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

KARN 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

KARN 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

KARN 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

KARN 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

KARN 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

KARN 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

KARN 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

KARN 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

KARN 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

KARN 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

KARN 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

KARN 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

KARN 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

KARN 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

KARN 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

KARN 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

KARN 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

KARN 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

KARN 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

KARN 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

KARN 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

KARN 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

KARN 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

KARN 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

KARN 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

KARN 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

KARN 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

KARN 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

KARN 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

KARN 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

KARN 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

KARN 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

KARN 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

KARN 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

KARN 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

KARN 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

KARN 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

KARN 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

KARN 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

KARN 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

KARN 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

KARN 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

KARN 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

KARN 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

KARN 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

KARN 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

KARN 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

KARN 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

KARN 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

KARN 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

KARN 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

KARN 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

KARN 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

KARN 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

KARN 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

KARN 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

KARN 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

KARN 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

KARN 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

KARN 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

KARN 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

KARN 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

KARN 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

KARN 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

KARN 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

KARN 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

KARN 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

KARN 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

KARN 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

KARN 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

KARN 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

KARN 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

KARN 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

KARN 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

KARN 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

KARN 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

KARN 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

KARN 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

KARN 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

KARN 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

KARN 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

KARN 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

KARN 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

KARN 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

KARN 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

KARN 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

KARN 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

KARN 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

KARN 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

KARN 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

KARN 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

KARN 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

KARN 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

KARN 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

KARN 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

KARN 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

KARN 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

KARN 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

KARN 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

KARN 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

KARN 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

KARN 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

KARN 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

KARN 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

KARN 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

KARN 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

KARN 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

KARN 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

KARN 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

KARN 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

KARN 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

KARN 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

KARN 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

KARN 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

KARN 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

KARN 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

KARN 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

KARN 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

KARN 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

KARN 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

KARN 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

KARN 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

KARN 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

KARN 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

KARN 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

KARN 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

KARN 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

KARN 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

KARN 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

KARN 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

KARN 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

KARN 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

KARN 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

KARN 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

KARN 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

KARN 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

KARN 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

KARN 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

KARN 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

KARN 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

KARN 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

KARN 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

KARN 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

KARN 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

KARN 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

KARN 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

KARN 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

KARN 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

KARN 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

KARN 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

KARN 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

KARN 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

KARN 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

KARN 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

KARN 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

KARN 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

KARN 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

KARN 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

KARN 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

KARN 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

KARN 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

KARN 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

KARN 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

KARN 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

KARN 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

KARN 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

KARN 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

KARN 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

KARN 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

KARN 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

KARN 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

KARN 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

KARN 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

KARN 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

KARN 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

KARN 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

KARN 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

KARN 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

KARN 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

KARN 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

KARN 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

KARN 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

KARN 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

KARN 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

KARN 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

KARN 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

KARN 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

KARN 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

KARN 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

KARN 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

KARN 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

KARN 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

KARN 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

KARN 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

KARN 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

KARN 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

KARN 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

KARN 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

KARN 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

KARN 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

KARN 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

KARN 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

KARN 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

KARN 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

KARN 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

KARN 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

KARN 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

KARN 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

KARN 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

KARN 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

KARN 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

KARN 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

KARN 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

KARN 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

KARN 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

KARN 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

KARN 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

KARN 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

KARN 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

KARN 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

KARN 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

KARN 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

KARN 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

KARN 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

KARN 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

KARN 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

KARN 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

KARN 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

KARN 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

KARN 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

KARN 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

KARN 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

KARN 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

KARN 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

KARN 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

KARN 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

KARN 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

KARN 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

KARN 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

KARN 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

KARN 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

KARN 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

KARN 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

KARN 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

KARN 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

KARN 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

KARN 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

KARN 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

KARN 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

KARN 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

KARN 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

KARN 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

KARN 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

KARN 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

KARN 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

KARN 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

KARN 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

KARN 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

KARN 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

KARN 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

KARN 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

KARN 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

KARN 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

KARN 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

KARN 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

KARN 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

KARN 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

KARN 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

KARN 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

KARN 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

KARN 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

KARN 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

KARN 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

KARN 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

KARN 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

KARN 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

KARN 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

KARN 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

KARN 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

KARN 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

KARN 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

KARN 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

KARN 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

KARN 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

KARN 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

KARN 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

KARN 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

KARN 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

KARN 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

KARN 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

KARN 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

KARN 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

KARN 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

KARN 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

KARN 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

KARN 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

KARN 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

KARN 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

KARN 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

KARN 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

KARN 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

KARN 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

KARN 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

KARN 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

KARN 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

KARN 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

KARN 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

KARN 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

KARN 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

KARN 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

KARN 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

KARN 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

KARN 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

KARN 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

KARN 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

KARN 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

KARN 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

KARN 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

KARN 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

KARN 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

KARN 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

KARN 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

KARN 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

KARN 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

KARN 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

KARN 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

KARN 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

KARN 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

KARN 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

KARN 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

KARN 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

KARN 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

KARN 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

KARN 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

KARN 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

KARN 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

KARN 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

KARN 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

KARN 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

KARN 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

KARN 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

KARN 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

KARN 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

KARN 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

KARN 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

KARN 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

KARN 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

KARN 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

KARN 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

KARN 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

KARN 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

KARN 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

KARN 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

KARN 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

KARN 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

KARN 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

KARN 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

KARN 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

KARN 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

KARN 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

KARN 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

KARN 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

KARN 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

KARN 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

KARN 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

KARN 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

KARN 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

KARN 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

KARN 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

KARN 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

KARN 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

KARN 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

KARN 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

KARN 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

KARN 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

KARN 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

KARN 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

KARN 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

KARN 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

KARN 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

KARN 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

KARN 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

KARN 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

KARN 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

KARN 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

KARN 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

KARN 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

KARN 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

KARN 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

KARN 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

KARN 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

KARN 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

KARN 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

KARN 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

KARN 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

KARN 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

KARN 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

KARN 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

KARN 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

KARN 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

KARN 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

KARN 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

KARN 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

KARN 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

KARN 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

KARN 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

KARN 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

KARN 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

KARN 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

KARN 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

KARN 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

KARN 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

KARN 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

KARN 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

KARN 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

KARN 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

KARN 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

KARN 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

KARN 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

KARN 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

KARN 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

KARN 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

KARN 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

KARN 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

KARN 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

KARN 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

KARN 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

KARN 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

KARN 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

KARN 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

KARN 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

KARN 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

KARN 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

KARN 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

KARN 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

KARN 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

KARN 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

KARN 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

KARN 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

KARN 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

KARN 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

KARN 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

KARN 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

KARN 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

KARN 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

KARN 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

KARN 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

KARN 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

KARN 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

KARN 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

KARN 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

KARN 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

KARN 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

KARN 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

KARN 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

KARN 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

KARN 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

KARN 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

KARN 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

KARN 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

KARN 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

KARN 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

KARN 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

KARN 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

KARN 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

KARN 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

KARN 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

KARN 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

KARN 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

KARN 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

KARN 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

KARN 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

KARN 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

KARN 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

KARN 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

KARN 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

KARN 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

KARN 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

KARN 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

KARN 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

KARN 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

KARN 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

KARN 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

KARN 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

KARN 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

KARN 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

KARN 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

KARN 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

KARN 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

KARN 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

KARN 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

KARN 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

KARN 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

KARN 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

KARN 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

KARN 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

KARN 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

KARN 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

KARN 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

KARN 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

KARN 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

KARN 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

KARN 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

KARN 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

KARN 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

KARN 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

KARN 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

KARN 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

KARN 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

KARN 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

KARN 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

KARN 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

KARN 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

KARN 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

KARN 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

KARN 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

KARN 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

KARN 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

KARN 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

KARN 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

KARN 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

KARN 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

KARN 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

KARN 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

KARN 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

KARN 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

KARN 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

KARN 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

KARN 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

KARN 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

KARN 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

KARN 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

KARN 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

KARN 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

KARN 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

KARN 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

KARN 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

KARN 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

KARN 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

KARN 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

KARN 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

KARN 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

KARN 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

KARN 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

KARN 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

KARN 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

KARN 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

KARN 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

KARN 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

KARN 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

KARN 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

KARN 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

KARN 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

KARN 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

KARN 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

KARN 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

KARN 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

KARN 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

KARN 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

KARN 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

KARN 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

KARN 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

KARN 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

KARN 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

KARN 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

KARN 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

KARN 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

KARN 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

KARN 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

KARN 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

KARN 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

KARN 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

KARN 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

KARN 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

KARN 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

KARN 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

KARN 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

KARN 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

KARN 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

KARN 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

KARN 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

KARN 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

KARN 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

KARN 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

KARN 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

KARN 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

KARN 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

KARN 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

KARN 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

KARN 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

KARN 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

KARN 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

KARN 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

KARN 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

KARN 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

KARN 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

KARN 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

KARN 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

KARN 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

KARN 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

KARN 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

KARN 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

KARN 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

KARN 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

KARN 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

KARN 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

KARN 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

KARN 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

KARN 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

KARN 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

KARN 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

KARN 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

KARN 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

KARN 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

KARN 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

KARN 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

KARN 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

KARN 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

KARN 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

KARN 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

KARN 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

KARN 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

KARN 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

KARN 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

KARN 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

KARN 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

KARN 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

KARN 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

KARN 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

KARN 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

KARN 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

KARN 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

KARN 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

KARN 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

KARN 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

KARN 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

KARN 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

KARN 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

KARN 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

KARN 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

KARN 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

KARN 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

KARN 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

KARN 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

KARN 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

KARN 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

KARN 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

KARN 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

KARN 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

KARN 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

KARN 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

KARN 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

KARN 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

KARN 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

KARN 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

KARN 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

KARN 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

KARN 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

KARN 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

KARN 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

KARN 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

KARN 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

KARN 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

KARN 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

KARN 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

KARN 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

KARN 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

KARN 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

KARN 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

KARN 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

KARN 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

KARN 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

KARN 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

KARN 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

KARN 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

KARN 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

KARN 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

KARN 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

KARN 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

KARN 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

KARN 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

KARN 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

KARN 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

KARN 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

KARN 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

KARN 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

KARN 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

KARN 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

KARN 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

KARN 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

KARN 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

KARN 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

KARN 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

KARN 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

KARN 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

KARN 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

KARN 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

KARN 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

KARN 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

KARN 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

KARN 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

KARN 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

KARN 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

KARN 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

KARN 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

KARN 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

KARN 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

KARN 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

KARN 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

KARN 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

KARN 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

KARN 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

KARN 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

KARN 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

KARN 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

KARN 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

KARN 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

KARN 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

KARN 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

KARN 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

KARN 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

KARN 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

KARN 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

KARN 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

KARN 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

KARN 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

KARN 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

KARN 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

KARN 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

KARN 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

KARN 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

KARN 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

KARN 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

KARN 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

KARN 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

KARN 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

KARN 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

KARN 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

KARN 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

KARN 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

KARN 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

KARN 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

KARN 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

KARN 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

KARN 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

KARN 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

KARN 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

KARN 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

KARN 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

KARN 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

KARN 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

KARN 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

KARN 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

KARN 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

KARN 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

KARN 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

KARN 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

KARN 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

KARN 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

KARN 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

KARN 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

KARN 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

KARN 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

KARN 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

KARN 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

KARN 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

KARN 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

KARN 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

KARN 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

KARN 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

KARN 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

KARN 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

KARN 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

KARN 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

KARN 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

KARN 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

KARN 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

KARN 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

KARN 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

KARN 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

KARN 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

KARN 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

KARN 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

KARN 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

KARN 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

KARN 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

KARN 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

KARN 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

KARN 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

KARN 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

KARN 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

KARN 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

KARN 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

KARN 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

KARN 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

KARN 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

KARN 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

KARN 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

KARN 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

KARN 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

KARN 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

KARN 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

KARN 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

KARN 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

KARN 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

KARN 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

KARN 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

KARN 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

KARN 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

KARN 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

KARN 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

KARN 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

KARN 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

KARN 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

KARN 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

KARN 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

KARN 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

KARN 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

KARN 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

KARN 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

KARN 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

KARN 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

KARN 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

KARN 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

KARN 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

KARN 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

KARN 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

KARN 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

KARN 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

KARN 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

KARN 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

KARN 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

KARN 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

KARN 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

KARN 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

KARN 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

KARN 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

KARN 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

KARN 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

KARN 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

KARN 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

KARN 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

KARN 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

KARN 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

KARN 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

KARN 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

KARN 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

KARN 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

KARN 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

KARN 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

KARN 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

KARN 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

KARN 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

KARN 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

KARN 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

KARN 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

KARN 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

KARN 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

KARN 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

KARN 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

KARN 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

KARN 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

KARN 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

KARN 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

KARN 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

KARN 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

KARN 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

KARN 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

KARN 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

KARN 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

KARN 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

KARN 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

KARN 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

KARN 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

KARN 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

KARN 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

KARN 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

KARN 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

KARN 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

KARN 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

KARN 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

KARN 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

KARN 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

KARN 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

KARN 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

KARN 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

KARN 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

KARN 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

KARN 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

KARN 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

KARN 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

KARN 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

KARN 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

KARN 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

KARN 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

KARN 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

KARN 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

KARN 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

KARN 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

KARN 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

KARN 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

KARN 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

KARN 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

KARN 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

KARN 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

KARN 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

KARN 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

KARN 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

KARN 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

KARN 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

KARN 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

KARN 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

KARN 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

KARN 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

KARN 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

KARN 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

KARN 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

KARN 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

KARN 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

KARN 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

KARN 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

KARN 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

KARN 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

KARN 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

KARN 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

KARN 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

KARN 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

KARN 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

KARN 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

KARN 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

KARN 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

KARN 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

KARN 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

KARN 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

KARN 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

KARN 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

KARN 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

KARN 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

KARN 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

KARN 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

KARN 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

KARN 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

KARN 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

KARN 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

KARN 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

KARN 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

KARN 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

KARN 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

KARN 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

KARN 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

KARN 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

KARN 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

KARN 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

KARN 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

KARN 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

KARN 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

KARN 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

KARN 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

KARN 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

KARN 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

KARN 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

KARN 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

KARN 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

KARN 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

KARN 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

KARN 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

KARN 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

KARN 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

KARN 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

KARN 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

KARN 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

KARN 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

KARN 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

KARN 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

KARN 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

KARN 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

KARN 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

KARN 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

KARN 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

KARN 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

KARN 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

KARN 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

KARN 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

KARN 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

KARN 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

KARN 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

KARN 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

KARN 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

KARN 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

KARN 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

KARN 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

KARN 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

KARN 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

KARN 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

KARN 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

KARN 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

KARN 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

KARN 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

KARN 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

KARN 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

KARN 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

KARN 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

KARN 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

KARN 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

KARN 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

KARN 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

KARN 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

KARN 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

KARN 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

KARN 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

KARN 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

KARN 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

KARN 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

KARN 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

KARN 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

KARN 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

KARN 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

KARN 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

KARN 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

KARN 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

KARN 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

KARN 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

KARN 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

KARN 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

KARN 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

KARN 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

KARN 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

KARN 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

KARN 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

KARN 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

KARN 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

KARN 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

KARN 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

KARN 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

KARN 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

KARN 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

KARN 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

KARN 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

KARN 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

KARN 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

KARN 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

KARN 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

KARN 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

KARN 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

KARN 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

KARN 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

KARN 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

KARN 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

KARN 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

KARN 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

KARN 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

KARN 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

KARN 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

KARN 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

KARN 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

KARN 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

KARN 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

KARN 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

KARN 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

KARN 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

KARN 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

KARN 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

KARN 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

KARN 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

KARN 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

KARN 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

KARN 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

KARN 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

KARN 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

KARN 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

KARN 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

KARN 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

KARN 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

KARN 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

KARN 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

KARN 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

KARN 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

KARN 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

KARN 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

KARN 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

KARN 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

KARN 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

KARN 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

KARN 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

KARN 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

KARN 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

KARN 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

KARN 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

KARN 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

KARN 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

KARN 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

KARN 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

KARN 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

KARN 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

KARN 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

KARN 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

KARN 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

KARN 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

KARN 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

KARN 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

KARN 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

KARN 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

KARN 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

KARN 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

KARN 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

KARN 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

KARN 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

KARN 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

KARN 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

KARN 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

KARN 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

KARN 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

KARN 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

KARN 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

KARN 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

KARN 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

KARN 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

KARN 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

KARN 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

KARN 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

KARN 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

KARN 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

KARN 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

KARN 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

KARN 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

KARN 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

KARN 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

KARN 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

KARN 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

KARN 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

KARN 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

KARN 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

KARN 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

KARN 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

KARN 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

KARN 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

KARN 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

KARN 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

KARN 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

KARN 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

KARN 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

KARN 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

KARN 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

KARN 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

KARN 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

KARN 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

*CODE.CPP*

// Author: Jash Kalpesh Desai

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// Date: 24.01.2023 (Tuesday)

// Course: BT305 - Computational Biology

// Lab Number: 02

// Description: This program reads the coordinates of all the atoms in a protein from a file and finds the central atom of the protein. It then reads the file that contains all the information regarding the atoms in the protein and prints the information regarding the central atom from the Protein Data Bank (PDB) file.

// Logic: The program first reads the coordinates of all the atoms in the protein from a file and stores them in three vectors - x, y and z. It then calculates the theoritical mean of the coordinates and finds the atom that is closest to this theoritical mean. It then reads the file that contains all the information regarding the atoms in the protein and prints the information regarding the central atom from the Protein Data Bank (PDB) file.

// Input: input00.txt, input01.txt

// Output: Central atom details from the PDB file

#include <bits/stdc++.h>

using namespace std;

// function to calculate the distance between two points in 3D space with respective x, y and z coordinates

float distance(float x1, float y1, float z1, float x2, float y2, float z2){

return sqrt((x1-x2)\*(x1-x2) + (y1-y2)\*(y1-y2) + (z1-z2)\*(z1-z2));

}

int main(){

// reading the input file that contains the coordinates of all the atoms in our protein - input00.txt

ifstream inputCoordinatesFile("input00.txt");

// vector to store the x, y and z coordinates of all the atoms in our protein

vector<float> x,y,z;

// sum of all the x, y and z coordinates of all the atoms in our protein

float xSum=0; float ySum=0; float zSum=0;

// reading the coordinates of all the atoms in our protein and storing them in the vectors x, y and z

while(!inputCoordinatesFile.eof()){

float a,b,c;

inputCoordinatesFile >> a >> b >> c;

// cout << a << " " << b << " " << c << '\n';

x.push\_back(a); y.push\_back(b); z.push\_back(c);

xSum+=a; ySum+=b; zSum+=c;

}

// calculating the total number of atoms in our protein

int numOfAtoms = x.size();

// checking if the number of atoms in our protein is equal to the number of x, y and z coordinates

assert(numOfAtoms == y.size() && numOfAtoms == z.size());

// calculating the mean of the coordinates

float xMean = xSum/numOfAtoms;

float yMean = ySum/numOfAtoms;

float zMean = zSum/numOfAtoms;

// declaring the minimum distance variable to keep track

float minDist = INT\_MAX;

// finding the central atom

float xCoordinate=0; float yCoordinate=0; float zCoordinate=0;

// iterating over all the atoms in our protein

for(int protein\_i=0; protein\_i<numOfAtoms; protein\_i++){

// distance between current coordinate and the mean coordinate

float currentDist = distance(xMean, yMean, zMean, x[protein\_i], y[protein\_i], z[protein\_i]);

// updating the minimum distance and the central atom coordinates if the current distance is less than the minimum distance

if(currentDist<minDist){

xCoordinate=x[protein\_i];

yCoordinate=y[protein\_i];

zCoordinate=z[protein\_i];

minDist=currentDist;

}

}

// printing the central atom coordinates

cout << "Central atom coordinates: " << xCoordinate << " " << yCoordinate << " " << zCoordinate << '\n';

// declaring iterator to find the position of the central atom in the vector x

auto itr = find(x.begin(), x.end(), xCoordinate);

// storing position of the central atom as an integer

int centralAtomNumber = itr - (x.begin());

// reading the file that contains all the information regarding atoms in our protein

ifstream inputAtomFile("input01.txt");

// declaring currentAtomNumber to keep track of current atom in the file

int currentAtomNumber=1;

// declaring atomDescription to store the description of the central atom

string atomDescription;

// iterating over the file until we reach our required atom

while(!inputAtomFile.eof()){

// reading the atom description corresponding to the current atom

getline(inputAtomFile, atomDescription);

// printing the information regarding the central atom from the Protein Data Bank (PDB) file

if(currentAtomNumber==centralAtomNumber){

cout << "Description of the central-atom corresponding to the PDB file: " << '\n';

cout << atomDescription << '\n';

}

// incrementing the currentAtomNumber

currentAtomNumber++;

}

// closing the input files

inputCoordinatesFile.close();

inputAtomFile.close();

return 0;

}

/\*

Post-Code Analysis and Discussion:

There can be another way to find the central atom in our protein structure by calculating the distance between all the atoms and storing it in a 2D matrix, then, finding the atom that has the minimum distance from all the other atoms. This is the same method that was discussed in Lab session 02.

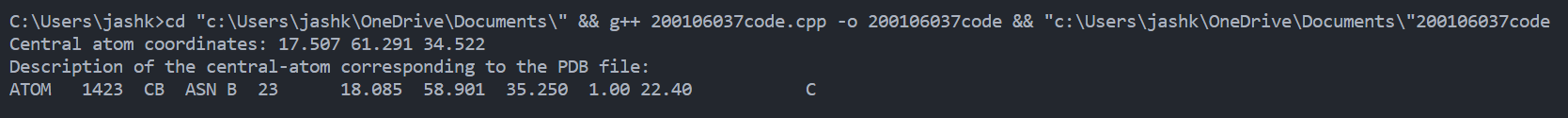
This method is more time consuming than the method used in this program. Also, it will require more memory to store the 2D matrix. Hence, the method used in this program is more efficient than the method discussed above.

Thus, I have used the method used in this program to find the central atom in our protein structure.

Note 01: The central atom obtained by the method used is same as that obtained by using the Brute-Force Method.

Note 02: The method used in this program is not the most efficient method to find the central atom in our protein structure. There are other methods that are more efficient than the method used in this program. However, the method used in this program is the most efficient method that I could think of.

\*/



*INPUT00.TXT*

24.293 59.579 4.215

25.127 58.554 4.958

24.186 58.457 6.297

23.827 59.402 6.804

26.311 59.103 5.385

27.346 58.263 5.966

28.097 59.208 7.157

28.875 60.685 6.576

23.920 57.222 6.665

23.091 56.867 7.886

24.088 56.447 8.960

25.020 55.656 8.827

22.121 55.672 7.672

21.100 56.229 6.650

21.263 55.107 8.938

20.299 55.309 5.914

23.864 57.125 10.173

24.643 56.810 11.306

23.655 56.407 12.483

22.615 56.915 12.468

25.584 57.908 11.917

26.335 58.368 10.681

24.135 55.543 13.270

23.491 55.091 14.491

24.265 55.607 15.654

25.528 55.551 15.727

23.286 53.589 14.763

22.294 52.855 13.726

21.935 53.282 12.410

22.708 51.377 13.734

23.529 56.140 16.683

24.107 56.528 17.919

23.282 55.874 19.045

22.074 56.043 19.096

24.195 58.134 17.941

24.736 58.796 19.243

22.834 58.893 17.713

25.570 60.064 19.008

24.037 55.406 19.876

23.547 54.606 21.016

24.405 54.574 22.142

25.743 54.760 22.259

23.463 53.024 20.464

23.911 54.396 23.377

24.545 54.348 24.709

24.135 52.927 25.172

22.979 52.443 25.238

23.981 55.244 25.731

25.174 51.999 25.334

25.137 50.594 25.695

25.710 50.311 26.997

26.740 50.723 27.438

26.060 49.754 24.716

25.948 49.916 23.311

26.749 48.818 22.355

24.824 50.279 22.443

24.964 49.569 27.754

25.505 49.052 29.100

26.325 47.744 28.850

26.484 47.228 27.592

24.391 48.737 29.924

26.889 47.155 29.770

27.663 45.815 29.564

26.782 44.838 28.843

25.486 44.725 29.093

28.199 45.371 30.888

28.908 46.323 31.881

27.052 45.016 31.866

27.178 43.958 27.990

26.437 43.030 27.202

25.631 43.587 26.224

24.708 43.102 25.650

25.887 41.915 28.115

27.010 40.987 28.659

28.246 40.834 28.387

26.684 40.374 29.755

25.897 44.951 25.915

25.118 45.556 24.885

23.571 45.863 25.143

22.788 46.089 24.319

25.258 44.894 23.466

26.563 44.184 23.046

26.624 43.756 21.538

25.594 43.118 20.751

24.764 42.037 20.935

25.011 41.205 22.046

23.631 41.657 20.185

23.258 45.774 26.393

21.851 46.081 26.982

21.501 47.639 26.629

22.396 48.495 26.864

21.809 45.750 28.512

20.392 46.267 28.990

22.074 44.144 28.666

20.383 47.817 26.158

19.856 49.004 25.783

18.462 49.302 26.496

17.884 48.221 26.864

19.912 49.520 24.275

18.947 48.463 23.473

21.422 49.456 23.856

18.816 48.818 21.928

18.043 50.546 26.423

16.742 50.699 27.048

15.633 50.053 26.254

15.661 50.037 25.025

14.552 49.730 27.048

13.302 49.181 26.401

12.156 50.311 26.452

11.457 50.634 25.496

13.055 47.914 27.173

12.049 47.010 26.452

11.872 45.653 27.489

11.830 45.548 29.262

11.867 50.699 27.592

10.851 51.619 27.909

11.242 52.588 29.218

11.070 53.775 28.939

9.476 51.014 28.166

8.371 51.700 28.828

6.954 51.264 28.600

6.563 50.860 27.489

6.418 51.078 29.674

11.480 51.983 30.329

11.825 52.838 31.476

13.172 53.460 31.285

14.067 52.814 30.527

11.666 51.918 32.727

10.100 51.644 33.028

9.247 52.346 32.462

10.128 50.675 33.911

13.405 54.526 31.932

14.780 55.260 31.851

15.773 54.396 32.462

15.600 53.533 33.367

14.715 56.552 32.697

16.961 54.453 31.822

18.215 53.605 32.219

18.770 54.098 33.565

18.625 55.252 33.801

19.180 53.678 31.101

18.691 52.943 29.792

18.369 51.159 30.093

20.047 50.497 29.792

19.208 53.210 34.367

19.739 53.533 35.640

21.142 54.074 35.647

22.070 53.436 36.192

19.516 52.386 36.581

19.902 51.167 35.581

19.427 51.765 34.338

21.375 55.252 35.162

22.573 55.955 35.147

22.294 57.424 35.015

21.184 57.892 34.595

23.496 55.438 34.095

23.174 55.430 32.734

22.764 56.399 31.940

23.114 54.372 31.778

22.419 56.027 30.557

22.704 54.695 30.630

23.459 53.000 32.035

22.485 53.977 29.387

23.310 52.306 30.866

22.965 52.693 29.733

23.300 58.199 35.338

23.328 59.652 35.257

24.615 60.088 34.433

25.570 60.193 35.162

23.049 60.330 36.611

22.806 61.735 36.272

22.541 62.421 35.272

23.147 62.373 37.346

24.596 60.411 33.190

25.719 60.693 32.337

25.477 61.840 31.543

25.295 61.896 30.307

25.957 59.474 31.403

26.344 58.110 32.219

26.456 57.061 31.042

27.574 58.159 33.006

25.575 63.010 32.285

25.430 64.229 31.469

26.414 64.383 30.329

26.255 64.948 29.328

25.719 65.344 32.285

26.041 64.738 33.558

25.724 63.350 33.661

27.738 63.834 30.454

28.712 63.842 29.490

28.283 63.067 28.276

28.712 63.487 27.173

30.068 63.059 29.976

27.435 62.017 28.453

26.964 61.331 27.239

25.924 62.195 26.636

25.934 62.130 25.393

26.470 59.975 27.659

25.668 59.184 26.518

26.419 58.853 25.503

24.414 59.192 26.445

25.086 62.889 27.408

24.130 63.705 26.717

24.755 64.883 25.930

24.181 65.327 24.856

23.021 64.221 27.710

22.214 63.261 28.416

21.142 63.923 29.262

21.357 62.453 27.364

25.841 65.392 26.430

26.614 66.425 25.636

27.178 65.949 24.429

27.108 66.490 23.348

27.733 66.910 26.702

27.719 64.738 24.348

28.208 63.971 23.193

27.006 63.745 22.473

27.323 64.052 21.281

28.884 62.607 23.708

29.089 61.493 22.679

28.171 60.451 22.428

30.147 61.259 21.766

28.791 59.700 21.435

29.970 60.161 21.097

31.471 61.937 21.722

30.907 59.636 20.178

32.408 61.460 20.692

31.970 60.314 20.030

25.906 63.374 22.767

24.741 63.196 21.958

24.396 64.504 21.288

24.228 64.456 20.045

23.645 62.704 22.899

22.368 62.510 22.178

22.074 61.339 21.516

21.529 63.656 22.296

20.900 61.178 20.729

20.289 63.446 21.560

19.944 62.284 20.869

24.377 65.586 22.134

23.911 66.829 21.369

24.983 67.281 20.310

24.540 67.661 19.265

23.822 67.838 22.502

23.272 69.243 21.980

23.342 70.155 23.201

22.876 71.560 22.598

22.494 72.303 23.929

26.232 67.217 20.795

27.299 67.677 19.729

27.230 66.942 18.405

27.458 67.531 17.338

28.605 67.515 20.288

29.914 67.862 19.545

31.210 67.233 20.060

31.345 67.144 21.590

31.956 66.167 22.348

32.963 65.327 21.766

31.578 65.820 23.753

26.983 65.626 18.419

26.913 64.843 17.294

25.584 64.754 16.713

25.575 64.302 15.477

27.304 63.358 17.676

28.777 63.341 17.971

29.686 63.656 17.081

29.117 62.881 19.074

24.461 65.198 17.095

23.161 65.222 16.419

22.764 66.700 16.117

21.893 66.756 15.175

22.019 64.633 17.323

21.949 65.271 18.515

22.298 63.115 17.581

23.296 67.701 16.705

22.643 68.960 16.374

22.783 69.412 14.874

23.799 69.041 14.271

23.561 69.986 17.095

22.666 71.245 17.588

21.487 71.092 18.471

23.785 72.343 17.941

21.688 69.969 14.344

21.846 70.389 12.954

21.641 69.194 11.983

21.935 69.348 10.799

22.932 71.366 12.542

23.165 72.545 13.373

22.070 73.279 13.542

24.172 72.787 13.984

21.152 68.056 12.446

20.914 66.966 11.637

19.548 66.490 11.917

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23.436 66.151 11.851

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17.758 65.037 11.181

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18.057 64.956 8.915

19.455 65.279 9.578

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17.204 62.801 15.389

18.569 63.374 15.904

16.015 63.729 15.830

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15.162 59.103 13.660

15.139 58.368 14.962

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15.181 59.168 11.137

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13.848 58.344 15.448

13.610 57.610 16.610

12.226 56.762 16.566

11.331 57.149 15.889

13.596 58.490 17.809

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13.209 61.824 17.890

12.128 55.737 17.544

10.944 55.058 17.618

9.979 55.583 18.603

10.417 56.633 19.420

8.861 55.180 18.993

8.054 55.769 19.891

8.418 55.624 21.340

8.040 56.665 21.980

6.619 55.155 19.692

5.575 55.801 20.523

4.642 56.770 20.428

3.594 56.084 19.449

2.494 56.891 19.265

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9.275 54.736 23.311

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10.487 56.415 24.613

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8.781 52.297 23.657

8.492 51.426 22.583

7.816 52.015 24.591

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7.085 51.070 23.995

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12.436 56.915 22.568

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13.955 55.575 21.641

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8.129 60.790 20.744

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8.399 62.195 20.744

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7.085 62.728 20.913

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6.875 64.141 20.803

9.205 64.415 20.325

7.905 64.956 20.567

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9.266 59.692 26.187

9.131 60.266 27.225

7.621 58.360 25.665

6.800 57.553 24.996

5.397 57.965 24.613

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12.081 60.564 26.960

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12.589 58.054 26.901

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12.249 61.113 25.783

12.794 62.494 25.628

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15.106 69.275 25.893

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16.225 68.839 26.460

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9.294 68.783 21.399

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16.118 70.446 21.605

16.999 72.214 17.353

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14.757 69.057 14.874

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13.307 67.112 8.960

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-0.806 50.949 15.440

-2.186 52.257 16.492

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-0.634 63.196 15.948

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-0.084 62.792 18.647

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-0.545 65.239 18.030

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2.633 66.482 16.573

3.272 66.038 15.580

3.142 65.909 19.015

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3.622 67.031 20.744

2.223 67.806 16.492

2.419 68.613 15.271

3.850 69.089 15.050

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1.268 70.430 17.654

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8.115 68.968 15.249

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5.775 65.658 13.226

7.789 65.336 15.823

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7.136 62.768 12.027

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5.528 60.128 10.924

4.936 60.540 9.901

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3.855 61.606 13.807

3.556 62.930 13.881

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3.584 63.220 15.220

3.911 62.122 16.043

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4.311 60.798 17.816

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6.507 58.223 9.570

6.078 56.786 10.063

6.013 56.366 11.188

7.770 58.231 8.849

8.161 59.587 8.150

8.954 57.731 9.614

5.696 56.011 9.048

5.174 54.606 9.166

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6.092 52.548 9.063

3.906 54.396 8.356

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8.185 53.008 7.400

9.569 53.549 7.216

9.741 54.784 7.135

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7.844 53.646 4.980

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13.130 52.564 1.920

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8.222 56.980 5.237

6.950 57.424 4.598

5.789 56.576 5.039

5.887 55.389 4.708

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14.333 59.604 4.009

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17.605 63.608 2.442

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23.897 65.206 4.355

24.969 64.286 4.458

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25.813 62.357 5.414

26.148 65.150 4.870

25.733 66.514 4.965

24.279 66.595 4.884

24.279 63.463 6.709

24.396 62.534 7.746

22.988 62.566 8.496

22.443 63.527 8.915

25.328 62.841 8.702

25.570 61.646 9.754

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27.379 62.825 10.784

27.244 60.750 10.968

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21.529 60.314 10.453

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35.372 45.476 13.579

33.895 45.242 16.139

33.564 44.055 17.051

32.496 43.126 16.294

34.687 43.401 13.020

35.605 43.070 11.954

35.209 43.611 10.541

35.946 43.433 9.401

35.447 41.520 11.556

34.053 44.095 10.394

33.405 44.685 9.217

33.284 46.170 9.445

32.552 46.711 8.805

31.965 43.998 9.335

31.578 42.876 8.393

32.338 42.448 7.400

30.380 42.432 8.783

34.016 46.711 10.409

33.983 48.059 10.916

35.326 48.398 11.564

35.755 47.655 12.380

32.902 48.108 12.233

31.513 47.865 11.954

30.805 46.703 11.976

30.581 48.883 11.483

29.462 46.864 11.549

29.374 48.293 11.196

30.697 50.231 11.247

28.227 48.891 10.762

29.574 50.788 10.784

28.376 50.150 10.629

35.904 49.512 11.255

37.074 50.198 11.725

36.934 51.280 12.880

36.300 52.265 12.719

37.521 50.957 10.490

38.915 51.563 10.563

39.316 51.805 9.188

38.635 52.774 8.584

40.173 50.949 8.835

37.544 51.191 14.109

37.540 52.088 15.139

38.341 53.202 14.638

39.553 53.040 14.278

38.118 51.991 16.500

37.791 50.957 17.279

37.721 54.292 14.587

38.332 55.607 14.116

38.565 56.334 15.418

39.427 57.230 15.381

37.288 56.156 13.189

36.808 57.569 13.167

37.698 55.591 11.799

37.819 56.173 16.544

38.010 57.036 17.713

37.600 56.245 18.890

36.640 55.519 18.773

37.130 58.223 17.441

36.985 59.216 18.611

37.894 60.177 18.809

36.002 58.950 19.611

37.796 60.960 19.927

35.848 59.781 20.641

36.757 60.726 20.810

38.262 56.342 19.949

38.034 55.640 21.207

38.598 56.520 22.370

39.740 56.851 22.274

38.784 54.292 21.303

38.365 53.759 22.465

37.763 56.883 23.363

38.244 57.666 24.488

37.456 57.319 25.709

36.127 57.472 25.731

37.945 59.119 24.061

38.407 60.209 24.952

37.698 61.582 24.657

36.631 62.106 24.885

38.458 62.155 23.973

38.183 56.964 26.754

37.591 56.504 27.990

37.535 57.634 28.975

38.430 58.457 29.005

38.528 55.414 28.497

38.104 54.824 29.851

37.111 53.815 29.807

38.742 55.285 31.006

36.663 53.331 30.976

38.192 54.768 32.146

37.283 53.823 32.138

36.524 57.432 29.755

36.458 58.401 30.836

36.099 57.811 32.109

35.219 56.899 32.190

35.330 59.515 30.520

35.652 60.298 29.314

36.197 61.598 29.593

35.521 59.959 28.048

36.486 62.082 28.394

36.020 61.081 27.563

36.547 58.167 33.227

36.244 57.739 34.522

34.874 58.449 35.029

34.696 59.450 34.485

37.339 58.134 35.596

38.458 56.939 35.684

38.183 55.769 36.066

39.516 57.464 35.243

34.235 57.779 35.875

32.991 58.288 36.567

33.387 59.491 37.324

34.729 59.539 37.641

32.483 57.230 37.700

32.860 60.467 37.744

33.009 61.646 38.494

31.933 62.155 39.266

30.791 61.501 39.310

33.760 62.623 37.479

32.804 63.245 36.427

31.588 63.301 36.552

33.471 63.737 35.515

31.821 63.317 39.870

30.809 63.939 40.605

29.425 64.141 39.855

28.474 64.157 40.605

31.466 65.029 41.429

29.630 64.270 38.604

28.344 64.399 37.677

28.045 63.253 36.949

26.922 63.132 36.375

28.903 65.416 36.736

28.320 66.764 37.258

29.206 67.410 38.156

30.595 67.313 38.016

28.451 67.959 39.097

28.949 62.252 36.677

28.782 61.073 35.853

28.875 59.846 36.714

29.910 59.620 37.310

29.788 61.073 34.684

29.313 62.090 33.720

28.488 62.130 32.837

29.956 63.204 33.882

27.831 59.038 36.868

27.644 57.876 37.633

28.549 56.713 37.368

28.917 55.963 38.310

26.204 57.464 37.655

25.780 57.036 36.353

28.987 56.520 36.155

29.737 55.365 35.794

30.823 55.793 34.816

30.669 56.883 34.205

28.917 54.364 34.912

27.649 53.864 35.662

26.507 54.534 35.971

27.621 52.717 36.184

25.747 53.848 36.706

26.353 52.669 36.773

31.853 54.945 34.617

32.832 54.962 33.573

32.142 54.768 32.330

31.191 53.993 32.013

34.081 54.187 33.941

34.748 54.727 35.044

32.655 55.252 31.248

32.310 55.317 29.873

33.289 55.511 28.916

34.198 56.294 29.071

31.042 56.302 29.770

31.373 57.763 30.027

31.373 58.263 31.314

31.788 58.708 29.012

31.853 59.628 31.726

32.161 59.902 29.350

32.203 60.346 30.660

32.613 61.654 30.917

33.182 55.002 27.842

33.899 54.970 26.563

33.331 55.470 25.452

32.338 54.719 24.996

34.613 53.573 26.526

36.034 53.759 25.290

33.569 56.463 24.724

33.163 56.923 23.436

33.774 56.302 22.311

35.032 56.350 22.443

33.191 58.490 23.201

32.459 59.305 24.216

31.094 59.135 24.503

33.158 60.403 24.760

30.446 59.870 25.444

32.529 61.218 25.790

31.154 60.920 26.121

33.116 55.842 21.288

33.676 55.099 20.133

33.065 55.414 18.839

31.825 55.607 18.861

33.545 53.549 20.354

34.543 53.097 21.369

34.841 51.724 21.715

36.132 51.167 22.451

37.190 50.885 21.244

33.713 55.632 17.691

33.284 55.906 16.463

33.778 54.744 15.587

35.013 54.590 15.668

33.601 57.262 15.624

32.972 58.272 16.595

32.702 57.384 14.432

33.391 59.838 16.433

32.925 54.090 14.896

33.270 52.992 14.006

32.846 53.194 12.711

31.718 53.759 12.461

32.664 51.748 14.594

33.266 51.030 15.654

33.811 51.652 16.875

32.534 49.811 16.036

33.606 52.976 11.600

33.298 53.202 10.225

33.242 51.829 9.533

34.067 50.998 9.828

34.310 53.936 9.504

34.193 55.317 9.864

34.911 56.479 9.372

35.410 56.245 8.224

35.009 57.634 10.034

32.189 51.684 8.812

31.849 50.465 8.062

32.860 50.505 6.804

32.739 51.377 5.907

30.525 50.352 7.305

30.189 48.786 7.231

28.814 48.971 6.554

28.115 47.777 7.282

26.861 47.801 7.812

25.924 48.665 7.731

26.498 46.687 8.584

33.592 49.480 7.054

34.659 49.036 6.032

33.951 47.793 5.282

33.704 48.253 3.980

35.899 48.487 6.547

36.216 47.712 7.812

33.513 46.695 5.892

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11.569 76.420 61.334

12.711 75.685 60.275

12.645 76.347 59.223

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10.040 74.402 60.584

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8.385 74.749 58.532

13.181 74.611 60.871

14.058 73.998 59.915

13.526 72.658 59.370

13.167 71.810 60.150

15.461 73.699 60.547

16.006 75.306 60.915

16.584 72.868 59.782

17.017 75.249 61.908

13.778 72.432 58.098

13.438 71.229 57.399

14.496 70.640 56.678

15.461 71.358 56.126

12.338 71.584 56.354

11.308 72.109 57.016

14.719 69.267 56.693

15.670 68.573 55.861

15.153 67.951 54.604

13.960 67.418 54.765

16.491 67.491 56.524

17.455 68.097 57.649

17.264 69.219 58.458

17.870 66.877 58.495

15.656 68.064 53.463

15.125 67.451 52.206

16.174 66.538 51.749

17.330 66.942 51.558

14.542 68.605 51.404

13.969 67.661 50.124

15.619 69.598 50.926

12.981 68.516 49.190

15.889 65.287 51.477

16.859 64.318 51.065

16.388 63.293 50.168

15.120 62.841 50.234

17.577 63.576 52.389

16.985 62.615 49.278

16.770 61.468 48.454

17.423 60.338 49.197

18.751 60.427 49.065

17.111 61.767 46.917

16.994 59.240 49.528

17.614 58.070 50.146

17.455 56.843 49.432

16.323 56.479 48.991

16.868 57.828 51.507

17.246 58.562 52.713

17.339 60.112 52.654

16.672 58.167 54.074

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18.397 54.744 48.410

18.178 53.912 49.668

17.861 54.106 50.852

19.660 54.477 47.711

18.010 52.556 49.388

17.856 51.514 50.477

19.105 51.660 51.455

20.229 52.120 51.183

18.047 50.150 49.844

17.870 48.907 50.896

16.607 49.819 49.087

18.779 51.466 52.676

19.669 51.555 53.802

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20.993 50.651 53.662

20.653 49.157 53.831

19.763 48.681 54.420

21.492 48.463 53.140

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19.586 55.236 53.905

20.839 55.825 53.250

21.245 56.899 53.618

19.539 55.607 55.376

18.434 55.083 56.325

18.663 55.963 57.612

19.548 55.123 58.429

20.704 54.784 58.701

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21.105 53.476 58.385

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22.354 55.785 51.301

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20.858 57.166 50.146

22.746 54.719 50.197

23.878 55.228 49.359

23.389 53.557 51.117

22.816 58.102 50.830

22.555 59.410 50.344

23.603 59.870 49.396

23.412 60.702 48.469

22.168 60.564 51.264

23.417 60.758 52.323

20.853 60.338 52.022

23.412 62.106 53.103

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25.971 59.660 48.483

26.983 58.570 48.277

26.997 57.755 49.116

27.486 58.586 47.167

28.474 57.585 46.556

29.653 58.481 46.335

29.798 59.717 46.365

28.017 56.875 45.254

27.062 55.753 45.931

26.055 55.010 44.658

27.253 53.678 44.077

30.777 57.828 45.887

31.919 58.756 45.556

31.727 59.555 44.268

32.147 60.637 43.967

33.056 57.723 45.166

33.690 56.770 45.887

34.967 55.882 45.497

35.605 56.455 44.496

34.934 54.873 46.453

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30.618 59.620 42.032

29.066 59.854 42.135

28.367 59.709 42.988

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32.552 58.191 41.032

33.298 59.095 40.995

32.366 56.818 41.083

28.595 60.395 40.966

27.122 60.702 40.796

26.265 59.474 41.127

26.773 58.385 40.892

26.843 61.267 39.509

25.104 59.628 41.753

24.111 58.586 42.047

23.697 58.094 40.811

23.510 58.659 39.818

23.119 58.788 43.025

23.482 59.499 44.342

24.302 58.368 45.409

22.918 57.634 46.196

23.519 56.673 40.671

23.170 56.003 39.428

21.641 55.858 39.244

21.152 54.752 39.244

23.916 54.679 39.575

23.687 54.348 41.024

23.766 55.680 41.863

21.044 56.988 39.119

19.609 56.988 38.854

19.408 58.336 38.134

20.140 59.281 38.082

18.910 56.972 40.193

19.213 57.900 41.260

19.096 59.232 41.113

19.474 57.690 42.569

19.245 59.927 42.348

19.539 58.966 43.239

19.613 56.560 43.349

19.721 59.184 44.599

19.879 56.826 44.813

19.879 57.989 45.225

18.360 58.393 37.442

17.842 59.434 36.699

16.295 59.628 37.111

15.484 58.885 36.648

18.085 58.901 35.250

17.786 60.112 34.411

17.507 61.291 34.522

17.605 60.040 33.080

16.337 60.718 37.964

15.008 60.984 38.612

14.514 62.373 38.590

14.435 63.107 39.472

14.943 60.387 40.046

15.353 58.966 40.333

15.335 58.950 41.892

14.072 58.183 39.789

14.123 62.744 37.324

13.629 64.084 37.163

12.477 64.447 37.964

12.123 65.545 38.442

13.275 64.213 35.728

13.233 62.897 35.125

14.202 62.106 35.927

11.639 63.398 38.332

10.539 63.592 39.274

10.860 64.100 40.539

10.264 64.827 41.304

9.434 62.486 39.207

12.011 63.495 41.083

12.655 63.866 42.363

13.149 65.336 42.238

12.995 65.989 43.283

13.685 62.873 42.863

14.155 63.301 44.187

13.610 63.519 45.210

15.395 63.769 43.996

13.811 65.707 41.201

14.197 67.184 41.076

13.032 68.088 40.988

13.279 69.114 41.576

15.181 67.176 39.803

16.519 66.555 40.134

17.367 66.700 38.796

17.483 67.095 41.355

11.965 67.741 40.377

10.776 68.670 40.311

10.212 68.565 41.701

9.923 69.760 42.150

9.765 67.967 39.310

10.194 67.661 42.562

9.737 67.628 43.908

10.683 68.492 44.688

10.291 69.380 45.570

9.672 66.240 44.423

9.811 66.030 45.960

10.800 65.788 46.850

8.581 65.998 46.769

10.305 65.626 48.027

8.940 65.699 48.152

7.164 66.175 46.497

7.961 65.618 49.168

6.260 66.078 47.483

6.689 65.804 48.792

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13.037 69.178 45.254

12.757 70.728 44.901

12.790 71.334 45.901

14.430 68.702 44.776

15.526 69.501 45.350

16.057 69.324 46.622

16.020 70.551 44.496

17.031 70.058 47.159

17.008 71.390 45.085

17.651 71.084 46.416

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12.464 72.496 43.378

11.186 72.948 43.901

11.158 74.030 44.460

12.319 72.521 41.812

12.436 74.046 41.333

12.272 74.022 39.862

12.249 75.532 39.347

11.634 75.370 37.869

10.105 72.335 43.871

8.833 72.730 44.313

8.833 73.199 45.740

8.273 73.974 46.365

7.658 71.600 44.195

6.264 71.867 44.504

5.295 70.559 44.945

4.409 70.204 43.717

3.412 71.156 43.136

2.848 72.181 43.687

3.183 71.035 41.789

9.602 72.190 46.497

9.714 72.335 47.968

10.874 73.263 48.410

10.907 73.449 49.660

9.853 70.898 48.623

8.441 70.292 48.719

7.411 70.704 49.131

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12.743 74.515 48.057

12.585 75.968 47.424

13.275 76.872 47.961

14.211 73.974 47.586

14.314 73.732 46.232

14.524 72.787 48.483

11.867 76.162 46.365

11.746 77.486 45.718

11.359 78.527 46.666

10.492 78.414 47.593

10.846 77.413 44.570

11.177 78.147 43.386

12.477 78.091 42.554

10.119 77.494 42.304

11.923 79.617 46.600

11.778 80.804 47.431

12.039 80.771 48.866

11.489 81.514 49.727

10.268 81.369 47.115

10.291 81.797 45.570

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9.108 81.312 45.497

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13.386 79.504 50.558

14.999 79.504 50.455

15.479 79.286 49.440

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11.387 77.897 51.161

10.958 76.638 51.742

9.415 76.371 50.984

9.154 75.047 51.669

15.372 79.859 51.676

16.863 79.649 51.632

17.339 78.228 51.735

16.630 77.405 52.397

17.288 80.255 53.000

16.090 80.376 53.897

15.008 80.408 52.890

18.262 77.744 51.043

18.928 76.460 51.080

20.289 76.396 51.786

21.152 77.276 51.286

18.737 75.774 49.749

17.339 75.516 49.182

19.623 76.484 48.704

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21.795 75.338 53.235

22.396 74.103 52.676

21.772 72.973 52.882

21.790 75.378 54.758

21.399 76.832 55.280

23.207 75.023 55.391

20.979 76.638 56.722

23.715 73.998 52.360

24.386 72.916 51.867

25.906 72.932 52.331

26.307 73.949 52.500

24.265 72.658 50.264

25.016 73.893 49.484

24.596 73.958 47.792

23.552 75.136 47.895

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27.882 71.673 52.316

28.497 71.867 51.080

27.975 71.915 49.866

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30.646 71.261 48.778

30.646 71.390 47.630

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34.501 73.110 49.763

34.547 74.337 50.617

35.093 75.508 49.999

35.195 75.750 48.697

35.587 76.379 50.933

30.683 69.986 49.101

30.921 69.671 49.123

30.693 68.807 48.219

30.623 68.637 48.130

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29.257 68.920 47.505

29.276 68.500 46.277

29.047 68.589 46.321

31.066 67.418 49.057

30.669 67.200 48.711

32.450 67.830 49.896

30.744 66.119 47.682

67.919 49.366 1.00

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68.331 51.257 1.00

65.739 46.836 0.50

68.468 50.212 1.00

64.439 46.497 0.56

68.637 51.293 1.00

64.698 46.107 0.51

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27.080 70.446 46.549

26.554 70.228 45.460

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25.747 68.137 49.160

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27.565 71.673 47.042

27.672 72.714 46.093

28.418 72.311 44.805

28.059 72.690 43.768

28.358 73.723 46.924

29.052 74.862 46.071

30.404 75.039 45.850

28.334 75.782 45.210

30.581 76.040 44.930

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26.992 76.008 44.938

28.856 77.607 43.621

26.642 76.985 44.151

27.574 77.808 43.511

29.490 71.600 44.982

30.329 71.293 43.717

29.700 70.381 42.871

29.816 70.405 41.701

31.588 70.744 44.261

32.562 71.334 45.181

33.932 70.801 45.592

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28.036 68.581 42.650

26.894 69.299 41.900

26.619 68.823 40.848

27.248 67.669 43.643

28.348 66.684 43.996

26.377 70.341 42.400

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25.994 71.842 40.487

25.141 71.737 39.494

24.340 71.818 42.525

23.683 70.874 43.724

23.286 72.642 41.686

23.128 71.770 44.805

27.076 72.375 40.774

27.486 73.053 39.502

27.197 74.442 39.590

28.013 75.354 39.163

26.106 74.959 40.046

25.915 76.388 40.112

25.025 76.751 41.127

24.494 75.814 41.863

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20.191 74.611 37.567

19.390 75.451 36.854

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23.711 78.414 42.238

22.308 78.018 41.738

21.818 77.800 40.620

23.575 80.004 42.268

25.016 80.206 42.025

25.333 79.237 40.701

21.497 77.502 42.753

20.117 77.082 42.444

19.236 78.414 42.268

19.222 79.229 43.091

19.502 76.081 43.658

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19.651 74.224 45.100

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16.789 80.133 41.598

16.001 79.060 42.209

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18.504 77.421 39.870

16.365 81.110 42.165

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14.291 81.022 44.989

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16.565 80.569 46.387

17.963 81.231 46.777

18.905 81.522 45.960

17.045 78.898 46.262

15.642 78.244 46.365

15.731 76.848 45.666

15.829 76.872 44.217

15.764 75.919 43.422

15.777 74.507 44.040

15.885 76.081 42.179

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19.315 81.958 48.623

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19.884 84.541 51.411

21.114 84.800 52.147

21.767 86.188 52.397

21.240 80.642 48.439

22.322 79.657 48.513

23.165 79.714 49.624

23.930 80.828 49.476

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22.112 78.745 46.218

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28.567 78.156 53.728

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29.728 73.788 54.412

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33.955 75.282 56.237

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35.121 75.863 56.928

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36.076 76.517 55.920

37.097 77.138 56.546

37.018 77.211 56.347

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35.820 74.862 57.818

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26.013 80.658 45.416

28.171 80.618 47.056

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26.866 83.104 50.823

27.607 81.982 51.426

27.099 80.860 51.396

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17.083 54.082 39.509

16.761 52.184 40.627

18.178 53.315 39.531

18.001 52.217 40.156

11.662 53.218 40.921

10.478 53.573 41.686

10.921 54.372 42.908

12.095 54.259 43.437

9.527 52.362 41.973

10.119 51.805 43.040

10.058 55.236 43.408

10.198 56.156 44.526

9.117 56.576 45.335

8.022 56.407 44.666

10.879 57.448 43.930

10.175 58.150 42.805

10.264 57.593 41.480

9.247 59.208 43.003

9.588 58.183 40.407

8.581 59.700 41.966

8.749 59.248 40.605

7.989 59.709 39.737

9.271 56.939 46.453

8.059 57.456 47.145

8.385 58.764 47.814

9.415 58.724 48.476

7.751 56.342 48.211

6.339 56.576 49.307

7.569 59.660 47.829

7.593 60.944 48.476

7.005 60.895 49.896

5.882 60.322 49.859

6.996 61.993 47.689

7.602 62.268 46.431

9.033 62.308 46.129

6.786 62.324 45.320

9.480 62.615 44.894

7.276 62.623 43.937

8.697 62.696 43.856

7.565 61.299 50.852

7.033 61.477 52.183

7.276 62.768 52.904

8.516 63.237 52.625

7.630 60.411 53.235

7.360 59.119 52.720

7.467 58.385 54.074

7.103 57.093 53.059

5.668 56.705 53.684

6.497 63.293 53.647

6.819 64.447 54.508

6.497 63.858 55.839

5.491 63.325 56.170

6.027 65.675 54.170

6.204 66.062 52.750

6.306 66.805 55.185

5.369 67.023 52.080

7.388 64.125 56.766

7.346 63.729 58.245

7.551 65.037 59.002

8.217 65.949 58.686

8.492 62.776 58.598

8.399 61.468 57.811

9.499 60.548 58.252

7.397 60.653 57.259

6.717 64.964 60.099

6.661 66.127 60.996

6.945 65.505 62.364

6.530 64.480 62.703

5.430 66.853 60.959

4.931 67.620 59.863

3.636 68.460 60.246

2.941 68.339 61.209

3.524 69.186 59.253

7.854 66.127 63.122

8.283 65.739 64.402

7.057 65.715 65.446

6.432 66.716 65.454

9.359 66.942 64.836

10.175 66.320 65.961

11.112 67.604 66.432

12.482 67.055 66.175

13.456 66.143 66.101

13.498 64.988 66.873

14.594 66.224 65.373

7.141 64.536 66.116

5.803 64.415 67.153

6.437 65.142 68.484

7.621 64.996 68.874

5.686 63.051 67.322

5.001 62.187 66.403

4.778 60.782 66.873

4.521 59.822 65.719

3.114 59.709 65.446

2.228 60.435 65.954

2.969 58.780 64.497

5.505 66.030 68.860

*INPUT01.TXT*

ATOM 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

ATOM 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

ATOM 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

ATOM 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

ATOM 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

ATOM 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

ATOM 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

ATOM 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

ATOM 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

ATOM 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

ATOM 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

ATOM 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

ATOM 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

ATOM 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

ATOM 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

ATOM 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

ATOM 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

ATOM 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

ATOM 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

ATOM 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

ATOM 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

ATOM 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

ATOM 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

ATOM 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

ATOM 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

ATOM 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

ATOM 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

ATOM 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

ATOM 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

ATOM 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

ATOM 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

ATOM 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

ATOM 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

ATOM 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

ATOM 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

ATOM 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

ATOM 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

ATOM 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

ATOM 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

ATOM 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

ATOM 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

ATOM 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

ATOM 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

ATOM 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

ATOM 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

ATOM 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

ATOM 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

ATOM 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

ATOM 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

ATOM 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

ATOM 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

ATOM 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

ATOM 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

ATOM 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

ATOM 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

ATOM 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

ATOM 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

ATOM 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

ATOM 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

ATOM 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

ATOM 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

ATOM 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

ATOM 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

ATOM 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

ATOM 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

ATOM 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

ATOM 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

ATOM 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

ATOM 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

ATOM 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

ATOM 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

ATOM 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

ATOM 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

ATOM 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

ATOM 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

ATOM 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

ATOM 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

ATOM 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

ATOM 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

ATOM 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

ATOM 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

ATOM 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

ATOM 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

ATOM 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

ATOM 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

ATOM 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

ATOM 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

ATOM 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

ATOM 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

ATOM 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

ATOM 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

ATOM 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

ATOM 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

ATOM 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

ATOM 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

ATOM 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

ATOM 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

ATOM 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

ATOM 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

ATOM 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

ATOM 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

ATOM 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

ATOM 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

ATOM 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

ATOM 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

ATOM 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

ATOM 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

ATOM 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

ATOM 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

ATOM 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

ATOM 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

ATOM 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

ATOM 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

ATOM 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

ATOM 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

ATOM 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

ATOM 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

ATOM 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

ATOM 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

ATOM 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

ATOM 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

ATOM 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

ATOM 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

ATOM 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

ATOM 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

ATOM 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

ATOM 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

ATOM 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

ATOM 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

ATOM 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

ATOM 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

ATOM 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

ATOM 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

ATOM 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

ATOM 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

ATOM 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

ATOM 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

ATOM 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

ATOM 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

ATOM 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

ATOM 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

ATOM 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

ATOM 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

ATOM 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

ATOM 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

ATOM 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

ATOM 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

ATOM 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

ATOM 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

ATOM 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

ATOM 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

ATOM 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

ATOM 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

ATOM 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

ATOM 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

ATOM 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

ATOM 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

ATOM 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

ATOM 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

ATOM 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

ATOM 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

ATOM 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

ATOM 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

ATOM 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

ATOM 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

ATOM 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

ATOM 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

ATOM 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

ATOM 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

ATOM 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

ATOM 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

ATOM 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

ATOM 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

ATOM 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

ATOM 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

ATOM 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

ATOM 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

ATOM 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

ATOM 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

ATOM 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

ATOM 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

ATOM 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

ATOM 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

ATOM 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

ATOM 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

ATOM 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

ATOM 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

ATOM 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

ATOM 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

ATOM 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

ATOM 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

ATOM 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

ATOM 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

ATOM 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

ATOM 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

ATOM 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

ATOM 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

ATOM 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

ATOM 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

ATOM 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

ATOM 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

ATOM 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

ATOM 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

ATOM 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

ATOM 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

ATOM 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

ATOM 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

ATOM 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

ATOM 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

ATOM 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

ATOM 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

ATOM 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

ATOM 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

ATOM 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

ATOM 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

ATOM 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

ATOM 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

ATOM 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

ATOM 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

ATOM 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

ATOM 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

ATOM 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

ATOM 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

ATOM 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

ATOM 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

ATOM 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

ATOM 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

ATOM 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

ATOM 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

ATOM 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

ATOM 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

ATOM 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

ATOM 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

ATOM 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

ATOM 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

ATOM 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

ATOM 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

ATOM 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

ATOM 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

ATOM 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

ATOM 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

ATOM 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

ATOM 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

ATOM 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

ATOM 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

ATOM 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

ATOM 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

ATOM 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

ATOM 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

ATOM 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

ATOM 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

ATOM 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

ATOM 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

ATOM 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

ATOM 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

ATOM 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

ATOM 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

ATOM 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

ATOM 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

ATOM 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

ATOM 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

ATOM 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

ATOM 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

ATOM 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

ATOM 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

ATOM 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

ATOM 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

ATOM 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

ATOM 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

ATOM 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

ATOM 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

ATOM 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

ATOM 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

ATOM 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

ATOM 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

ATOM 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

ATOM 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

ATOM 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

ATOM 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

ATOM 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

ATOM 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

ATOM 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

ATOM 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

ATOM 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

ATOM 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

ATOM 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

ATOM 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

ATOM 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

ATOM 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

ATOM 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

ATOM 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

ATOM 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

ATOM 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

ATOM 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

ATOM 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

ATOM 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

ATOM 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

ATOM 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

ATOM 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

ATOM 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

ATOM 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

ATOM 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

ATOM 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

ATOM 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

ATOM 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

ATOM 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

ATOM 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

ATOM 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

ATOM 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

ATOM 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

ATOM 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

ATOM 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

ATOM 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

ATOM 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

ATOM 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

ATOM 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

ATOM 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

ATOM 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

ATOM 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

ATOM 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

ATOM 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

ATOM 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

ATOM 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

ATOM 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

ATOM 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

ATOM 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

ATOM 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

ATOM 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

ATOM 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

ATOM 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

ATOM 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

ATOM 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

ATOM 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

ATOM 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

ATOM 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

ATOM 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

ATOM 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

ATOM 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

ATOM 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

ATOM 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

ATOM 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

ATOM 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

ATOM 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

ATOM 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

ATOM 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

ATOM 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

ATOM 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

ATOM 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

ATOM 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

ATOM 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

ATOM 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

ATOM 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

ATOM 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

ATOM 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

ATOM 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

ATOM 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

ATOM 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

ATOM 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

ATOM 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

ATOM 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

ATOM 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

ATOM 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

ATOM 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

ATOM 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

ATOM 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

ATOM 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

ATOM 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

ATOM 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

ATOM 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

ATOM 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

ATOM 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

ATOM 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

ATOM 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

ATOM 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

ATOM 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

ATOM 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

ATOM 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

ATOM 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

ATOM 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

ATOM 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

ATOM 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

ATOM 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

ATOM 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

ATOM 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

ATOM 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

ATOM 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

ATOM 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

ATOM 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

ATOM 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

ATOM 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

ATOM 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

ATOM 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

ATOM 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

ATOM 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

ATOM 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

ATOM 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

ATOM 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

ATOM 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

ATOM 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

ATOM 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

ATOM 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

ATOM 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

ATOM 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

ATOM 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

ATOM 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

ATOM 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

ATOM 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

ATOM 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

ATOM 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

ATOM 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

ATOM 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

ATOM 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

ATOM 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

ATOM 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

ATOM 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

ATOM 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

ATOM 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

ATOM 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

ATOM 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

ATOM 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

ATOM 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

ATOM 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

ATOM 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

ATOM 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

ATOM 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

ATOM 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

ATOM 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

ATOM 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

ATOM 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

ATOM 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

ATOM 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

ATOM 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

ATOM 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

ATOM 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

ATOM 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

ATOM 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

ATOM 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

ATOM 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

ATOM 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

ATOM 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

ATOM 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

ATOM 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

ATOM 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

ATOM 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

ATOM 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

ATOM 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

ATOM 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

ATOM 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

ATOM 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

ATOM 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

ATOM 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

ATOM 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

ATOM 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

ATOM 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

ATOM 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

ATOM 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

ATOM 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

ATOM 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

ATOM 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

ATOM 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

ATOM 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

ATOM 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

ATOM 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

ATOM 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

ATOM 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

ATOM 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

ATOM 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

ATOM 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

ATOM 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

ATOM 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

ATOM 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

ATOM 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

ATOM 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

ATOM 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

ATOM 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

ATOM 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

ATOM 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

ATOM 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

ATOM 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

ATOM 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

ATOM 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

ATOM 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

ATOM 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

ATOM 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

ATOM 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

ATOM 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

ATOM 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

ATOM 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

ATOM 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

ATOM 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

ATOM 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

ATOM 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

ATOM 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

ATOM 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

ATOM 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

ATOM 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

ATOM 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

ATOM 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

ATOM 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

ATOM 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

ATOM 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

ATOM 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

ATOM 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

ATOM 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

ATOM 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

ATOM 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

ATOM 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

ATOM 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

ATOM 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

ATOM 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

ATOM 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

ATOM 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

ATOM 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

ATOM 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

ATOM 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

ATOM 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

ATOM 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

ATOM 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

ATOM 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

ATOM 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

ATOM 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

ATOM 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

ATOM 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

ATOM 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

ATOM 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

ATOM 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

ATOM 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

ATOM 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

ATOM 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

ATOM 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

ATOM 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

ATOM 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

ATOM 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

ATOM 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

ATOM 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

ATOM 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

ATOM 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

ATOM 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

ATOM 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

ATOM 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

ATOM 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

ATOM 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

ATOM 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

ATOM 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

ATOM 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

ATOM 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

ATOM 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

ATOM 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

ATOM 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

ATOM 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

ATOM 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

ATOM 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

ATOM 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

ATOM 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

ATOM 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

ATOM 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

ATOM 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

ATOM 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

ATOM 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

ATOM 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

ATOM 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

ATOM 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

ATOM 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

ATOM 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

ATOM 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

ATOM 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

ATOM 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

ATOM 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

ATOM 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

ATOM 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

ATOM 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

ATOM 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

ATOM 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

ATOM 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

ATOM 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

ATOM 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

ATOM 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

ATOM 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

ATOM 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

ATOM 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

ATOM 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

ATOM 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

ATOM 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

ATOM 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

ATOM 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

ATOM 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

ATOM 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

ATOM 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

ATOM 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

ATOM 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

ATOM 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

ATOM 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

ATOM 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

ATOM 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

ATOM 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

ATOM 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

ATOM 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

ATOM 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

ATOM 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

ATOM 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

ATOM 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

ATOM 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

ATOM 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

ATOM 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

ATOM 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

ATOM 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

ATOM 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

ATOM 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

ATOM 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

ATOM 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

ATOM 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

ATOM 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

ATOM 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

ATOM 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

ATOM 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

ATOM 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

ATOM 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

ATOM 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

ATOM 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

ATOM 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

ATOM 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

ATOM 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

ATOM 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

ATOM 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

ATOM 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

ATOM 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

ATOM 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

ATOM 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

ATOM 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

ATOM 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

ATOM 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

ATOM 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

ATOM 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

ATOM 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

ATOM 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

ATOM 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

ATOM 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

ATOM 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

ATOM 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

ATOM 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

ATOM 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

ATOM 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

ATOM 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

ATOM 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

ATOM 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

ATOM 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

ATOM 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

ATOM 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

ATOM 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

ATOM 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

ATOM 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

ATOM 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

ATOM 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

ATOM 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

ATOM 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

ATOM 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

ATOM 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

ATOM 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

ATOM 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

ATOM 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

ATOM 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

ATOM 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

ATOM 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

ATOM 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

ATOM 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

ATOM 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

ATOM 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

ATOM 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

ATOM 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

ATOM 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

ATOM 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

ATOM 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

ATOM 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

ATOM 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

ATOM 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

ATOM 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

ATOM 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

ATOM 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

ATOM 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

ATOM 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

ATOM 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

ATOM 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

ATOM 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

ATOM 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

ATOM 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

ATOM 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

ATOM 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

ATOM 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

ATOM 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

ATOM 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

ATOM 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

ATOM 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

ATOM 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

ATOM 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

ATOM 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

ATOM 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

ATOM 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

ATOM 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

ATOM 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

ATOM 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

ATOM 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

ATOM 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

ATOM 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

ATOM 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

ATOM 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

ATOM 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

ATOM 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

ATOM 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

ATOM 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

ATOM 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

ATOM 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

ATOM 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

ATOM 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

ATOM 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

ATOM 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

ATOM 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

ATOM 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

ATOM 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

ATOM 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

ATOM 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

ATOM 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

ATOM 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

ATOM 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

ATOM 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

ATOM 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

ATOM 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

ATOM 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

ATOM 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

ATOM 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

ATOM 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

ATOM 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

ATOM 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

ATOM 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

ATOM 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

ATOM 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

ATOM 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

ATOM 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

ATOM 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

ATOM 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

ATOM 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

ATOM 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

ATOM 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

ATOM 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

ATOM 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

ATOM 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

ATOM 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

ATOM 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

ATOM 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

ATOM 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

ATOM 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

ATOM 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

ATOM 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

ATOM 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

ATOM 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

ATOM 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

ATOM 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

ATOM 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

ATOM 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

ATOM 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

ATOM 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

ATOM 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

ATOM 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

ATOM 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

ATOM 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

ATOM 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

ATOM 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

ATOM 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

ATOM 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

ATOM 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

ATOM 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

ATOM 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

ATOM 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

ATOM 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

ATOM 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

ATOM 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

ATOM 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

ATOM 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

ATOM 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

ATOM 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

ATOM 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

ATOM 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

ATOM 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

ATOM 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

ATOM 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

ATOM 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

ATOM 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

ATOM 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

ATOM 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

ATOM 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

ATOM 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

ATOM 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

ATOM 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

ATOM 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

ATOM 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

ATOM 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

ATOM 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

ATOM 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

ATOM 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

ATOM 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

ATOM 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

ATOM 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

ATOM 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

ATOM 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

ATOM 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

ATOM 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

ATOM 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

ATOM 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

ATOM 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

ATOM 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

ATOM 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

ATOM 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

ATOM 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

ATOM 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

ATOM 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

ATOM 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

ATOM 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

ATOM 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

ATOM 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

ATOM 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

ATOM 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

ATOM 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

ATOM 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

ATOM 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

ATOM 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

ATOM 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

ATOM 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

ATOM 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

ATOM 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

ATOM 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

ATOM 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

ATOM 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

ATOM 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

ATOM 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

ATOM 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

ATOM 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

ATOM 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

ATOM 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

ATOM 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

ATOM 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

ATOM 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

ATOM 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

ATOM 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

ATOM 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

ATOM 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

ATOM 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

ATOM 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

ATOM 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

ATOM 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

ATOM 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

ATOM 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

ATOM 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

ATOM 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

ATOM 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

ATOM 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

ATOM 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

ATOM 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

ATOM 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

ATOM 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

ATOM 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

ATOM 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

ATOM 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

ATOM 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

ATOM 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

ATOM 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

ATOM 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

ATOM 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

ATOM 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

ATOM 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

ATOM 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

ATOM 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

ATOM 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

ATOM 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

ATOM 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

ATOM 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

ATOM 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

ATOM 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

ATOM 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

ATOM 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

ATOM 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

ATOM 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

ATOM 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

ATOM 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

ATOM 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

ATOM 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

ATOM 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

ATOM 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

ATOM 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

ATOM 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

ATOM 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

ATOM 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

ATOM 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

ATOM 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

ATOM 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

ATOM 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

ATOM 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

ATOM 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

ATOM 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

ATOM 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

ATOM 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

ATOM 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

ATOM 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

ATOM 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

ATOM 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

ATOM 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

ATOM 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

ATOM 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

ATOM 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

ATOM 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

ATOM 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

ATOM 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

ATOM 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

ATOM 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

ATOM 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

ATOM 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

ATOM 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

ATOM 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

ATOM 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

ATOM 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

ATOM 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

ATOM 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

ATOM 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

ATOM 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

ATOM 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

ATOM 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

ATOM 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

ATOM 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

ATOM 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

ATOM 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

ATOM 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

ATOM 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

ATOM 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

ATOM 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

ATOM 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

ATOM 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

ATOM 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

ATOM 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

ATOM 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

ATOM 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

ATOM 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

ATOM 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

ATOM 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

ATOM 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

ATOM 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

ATOM 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

ATOM 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

ATOM 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

ATOM 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

ATOM 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

ATOM 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

ATOM 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

ATOM 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

ATOM 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

ATOM 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

ATOM 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

ATOM 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

ATOM 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

ATOM 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

ATOM 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

ATOM 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

ATOM 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

ATOM 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

ATOM 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

ATOM 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

ATOM 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

ATOM 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

ATOM 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

ATOM 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

ATOM 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

ATOM 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

ATOM 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

ATOM 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

ATOM 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

ATOM 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

ATOM 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

ATOM 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

ATOM 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

ATOM 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

ATOM 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

ATOM 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

ATOM 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

ATOM 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

ATOM 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

ATOM 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

ATOM 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

ATOM 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

ATOM 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

ATOM 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

ATOM 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

ATOM 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

ATOM 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

ATOM 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

ATOM 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

ATOM 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

ATOM 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

ATOM 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

ATOM 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

ATOM 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

ATOM 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

ATOM 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

ATOM 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

ATOM 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

ATOM 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

ATOM 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

ATOM 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

ATOM 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

ATOM 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

ATOM 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

ATOM 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

ATOM 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

ATOM 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

ATOM 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

ATOM 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

ATOM 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

ATOM 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

ATOM 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

ATOM 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

ATOM 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

ATOM 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

ATOM 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

ATOM 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

ATOM 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

ATOM 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

ATOM 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

ATOM 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

ATOM 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

ATOM 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

ATOM 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

ATOM 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

ATOM 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

ATOM 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

ATOM 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

ATOM 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

ATOM 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

ATOM 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

ATOM 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

ATOM 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

ATOM 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

ATOM 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

ATOM 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

ATOM 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

ATOM 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

ATOM 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

ATOM 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

ATOM 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

ATOM 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

ATOM 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

ATOM 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

ATOM 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

ATOM 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

ATOM 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

ATOM 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

ATOM 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

ATOM 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

ATOM 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

ATOM 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

ATOM 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

ATOM 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

ATOM 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

ATOM 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

ATOM 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

ATOM 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

ATOM 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

ATOM 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

ATOM 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

ATOM 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

ATOM 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

ATOM 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

ATOM 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

ATOM 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

ATOM 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

ATOM 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

ATOM 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

ATOM 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

ATOM 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

ATOM 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

ATOM 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

ATOM 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

ATOM 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

ATOM 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

ATOM 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

ATOM 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

ATOM 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

ATOM 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

ATOM 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

ATOM 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

ATOM 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

ATOM 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

ATOM 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

ATOM 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

ATOM 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

ATOM 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

ATOM 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

ATOM 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

ATOM 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

ATOM 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

ATOM 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

ATOM 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

ATOM 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

ATOM 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

ATOM 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

ATOM 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

ATOM 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

ATOM 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

ATOM 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

ATOM 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

ATOM 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

ATOM 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

ATOM 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

ATOM 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

ATOM 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

ATOM 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

ATOM 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

ATOM 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

ATOM 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

ATOM 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

ATOM 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

ATOM 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

ATOM 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

ATOM 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

ATOM 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

ATOM 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

ATOM 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

ATOM 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

ATOM 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

ATOM 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

ATOM 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

ATOM 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

ATOM 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

ATOM 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

ATOM 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

ATOM 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

ATOM 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

ATOM 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

ATOM 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

ATOM 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

ATOM 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

ATOM 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

ATOM 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

ATOM 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

ATOM 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

ATOM 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

ATOM 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

ATOM 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

ATOM 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

ATOM 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

ATOM 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

ATOM 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

ATOM 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

ATOM 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

ATOM 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

ATOM 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

ATOM 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

ATOM 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

ATOM 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

ATOM 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

ATOM 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

ATOM 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

ATOM 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

ATOM 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

ATOM 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

ATOM 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

ATOM 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

ATOM 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

ATOM 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

ATOM 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

ATOM 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

ATOM 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

ATOM 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

ATOM 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

ATOM 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

ATOM 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

ATOM 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

ATOM 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

ATOM 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

ATOM 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

ATOM 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

ATOM 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

ATOM 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

ATOM 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

ATOM 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

ATOM 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

ATOM 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

ATOM 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

ATOM 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

ATOM 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

ATOM 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

ATOM 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

ATOM 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

ATOM 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

ATOM 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

ATOM 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

ATOM 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

ATOM 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

ATOM 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

ATOM 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

ATOM 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

ATOM 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

ATOM 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

ATOM 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

ATOM 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

ATOM 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

ATOM 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

ATOM 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

ATOM 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

ATOM 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

ATOM 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

ATOM 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

ATOM 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

ATOM 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

ATOM 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

ATOM 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

ATOM 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

ATOM 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

ATOM 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

ATOM 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

ATOM 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

ATOM 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

ATOM 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

ATOM 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

ATOM 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

ATOM 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

ATOM 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

ATOM 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

ATOM 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

ATOM 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

ATOM 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

ATOM 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

ATOM 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

ATOM 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

ATOM 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

ATOM 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

ATOM 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

ATOM 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

ATOM 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

ATOM 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

ATOM 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

ATOM 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

ATOM 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

ATOM 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

ATOM 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

ATOM 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

ATOM 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

ATOM 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

ATOM 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

ATOM 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

ATOM 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

ATOM 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

ATOM 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

ATOM 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

ATOM 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

ATOM 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

ATOM 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

ATOM 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

ATOM 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

ATOM 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

ATOM 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

ATOM 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

ATOM 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

ATOM 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

ATOM 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

ATOM 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

ATOM 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

ATOM 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

ATOM 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

ATOM 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

ATOM 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

ATOM 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

ATOM 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

ATOM 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

ATOM 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

ATOM 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

ATOM 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

ATOM 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

ATOM 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

ATOM 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

ATOM 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

ATOM 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

ATOM 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

ATOM 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

ATOM 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

ATOM 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

ATOM 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

ATOM 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

ATOM 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

ATOM 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

ATOM 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

ATOM 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

ATOM 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

ATOM 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

ATOM 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

ATOM 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

ATOM 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

ATOM 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

ATOM 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

ATOM 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

ATOM 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

ATOM 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

ATOM 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

ATOM 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

ATOM 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

ATOM 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

ATOM 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

ATOM 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

ATOM 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

ATOM 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

ATOM 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

ATOM 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

ATOM 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

ATOM 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

ATOM 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

ATOM 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

ATOM 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

ATOM 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

ATOM 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

ATOM 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

ATOM 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

ATOM 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

ATOM 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

ATOM 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

ATOM 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

ATOM 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

ATOM 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

ATOM 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

ATOM 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

ATOM 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

ATOM 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

ATOM 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

ATOM 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

ATOM 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

ATOM 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

ATOM 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

ATOM 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

ATOM 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

ATOM 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

ATOM 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

ATOM 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

ATOM 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

ATOM 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

ATOM 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

ATOM 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

ATOM 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

ATOM 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

ATOM 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

ATOM 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

ATOM 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

ATOM 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

ATOM 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

ATOM 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

ATOM 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

ATOM 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

ATOM 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

ATOM 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

ATOM 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

ATOM 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

ATOM 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

ATOM 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

ATOM 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

ATOM 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

ATOM 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

ATOM 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

ATOM 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

ATOM 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

ATOM 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

ATOM 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

ATOM 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

ATOM 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

ATOM 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

ATOM 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

ATOM 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

ATOM 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

ATOM 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

ATOM 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

ATOM 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

ATOM 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

ATOM 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

ATOM 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

ATOM 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

ATOM 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

ATOM 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

ATOM 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

ATOM 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

ATOM 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

ATOM 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

ATOM 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

ATOM 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

ATOM 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

ATOM 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

ATOM 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

ATOM 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

ATOM 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

ATOM 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

ATOM 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

ATOM 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

ATOM 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

ATOM 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

ATOM 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

ATOM 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

ATOM 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

ATOM 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

ATOM 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

ATOM 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

ATOM 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

ATOM 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

ATOM 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

ATOM 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

ATOM 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

ATOM 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

ATOM 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

ATOM 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

ATOM 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

ATOM 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

ATOM 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

ATOM 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

ATOM 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

ATOM 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

ATOM 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

ATOM 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

ATOM 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

ATOM 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

ATOM 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

ATOM 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

ATOM 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

ATOM 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

ATOM 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

ATOM 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

ATOM 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

ATOM 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

ATOM 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

ATOM 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

ATOM 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

ATOM 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

ATOM 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

ATOM 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

ATOM 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

ATOM 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

ATOM 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

ATOM 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

ATOM 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

ATOM 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

ATOM 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

ATOM 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

ATOM 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

ATOM 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

ATOM 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

ATOM 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

ATOM 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

ATOM 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

ATOM 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

ATOM 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

ATOM 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

ATOM 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

ATOM 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

ATOM 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

ATOM 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

ATOM 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

ATOM 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

ATOM 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

ATOM 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

ATOM 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

ATOM 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

ATOM 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

ATOM 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

ATOM 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

ATOM 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

ATOM 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

ATOM 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

ATOM 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

ATOM 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

ATOM 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

ATOM 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

ATOM 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

ATOM 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

ATOM 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

ATOM 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

ATOM 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

ATOM 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

ATOM 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

ATOM 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

ATOM 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

ATOM 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

ATOM 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

ATOM 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

ATOM 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

ATOM 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

ATOM 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

ATOM 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

ATOM 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

ATOM 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

ATOM 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

ATOM 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

ATOM 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

ATOM 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

ATOM 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

ATOM 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

ATOM 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

ATOM 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

ATOM 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

ATOM 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

ATOM 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

ATOM 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

ATOM 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

ATOM 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

ATOM 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

ATOM 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

ATOM 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

ATOM 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

ATOM 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

ATOM 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

ATOM 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

ATOM 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

ATOM 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

ATOM 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

ATOM 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

ATOM 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

ATOM 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

ATOM 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

ATOM 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

ATOM 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

ATOM 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

ATOM 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

ATOM 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

ATOM 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

ATOM 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

ATOM 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

ATOM 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

ATOM 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

ATOM 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

ATOM 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

ATOM 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

ATOM 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

ATOM 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

ATOM 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

ATOM 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

ATOM 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

ATOM 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

ATOM 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

ATOM 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

ATOM 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

ATOM 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

ATOM 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

ATOM 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

ATOM 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

ATOM 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

ATOM 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

ATOM 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

ATOM 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

ATOM 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

ATOM 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

ATOM 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

ATOM 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

ATOM 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

ATOM 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

ATOM 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

ATOM 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

ATOM 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

ATOM 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

ATOM 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

ATOM 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

ATOM 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

ATOM 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

ATOM 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

ATOM 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

ATOM 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

ATOM 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

ATOM 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

ATOM 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

ATOM 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

ATOM 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

ATOM 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

ATOM 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

ATOM 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

ATOM 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

ATOM 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

ATOM 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

ATOM 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

ATOM 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

ATOM 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

ATOM 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

ATOM 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

ATOM 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

ATOM 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

ATOM 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

ATOM 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

ATOM 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

ATOM 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

ATOM 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

ATOM 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

ATOM 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

ATOM 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

ATOM 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

ATOM 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

ATOM 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

ATOM 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

ATOM 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

ATOM 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

ATOM 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

ATOM 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

ATOM 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

ATOM 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

ATOM 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

ATOM 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

ATOM 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

ATOM 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

ATOM 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

ATOM 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

ATOM 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

ATOM 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

ATOM 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

ATOM 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

ATOM 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

ATOM 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

ATOM 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

ATOM 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

ATOM 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

ATOM 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

ATOM 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

ATOM 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

ATOM 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

ATOM 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

ATOM 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

ATOM 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

ATOM 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

ATOM 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

ATOM 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

ATOM 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

ATOM 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

ATOM 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

ATOM 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

ATOM 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

ATOM 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

ATOM 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

ATOM 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

ATOM 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

ATOM 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

ATOM 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

ATOM 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

ATOM 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

ATOM 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

ATOM 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

ATOM 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

ATOM 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

ATOM 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

ATOM 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

ATOM 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

ATOM 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

ATOM 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

ATOM 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

ATOM 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

ATOM 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

ATOM 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

ATOM 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

ATOM 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

ATOM 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

ATOM 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

ATOM 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

ATOM 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

ATOM 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

ATOM 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

ATOM 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

ATOM 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

ATOM 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

ATOM 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

ATOM 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

ATOM 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

ATOM 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

ATOM 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

ATOM 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

ATOM 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

ATOM 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

ATOM 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

ATOM 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

ATOM 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

ATOM 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

ATOM 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

ATOM 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

ATOM 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

ATOM 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

ATOM 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

ATOM 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

ATOM 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

ATOM 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

ATOM 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

ATOM 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

ATOM 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

ATOM 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

ATOM 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

ATOM 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

ATOM 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

ATOM 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

ATOM 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

ATOM 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

ATOM 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

ATOM 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

ATOM 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

ATOM 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

ATOM 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

ATOM 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

ATOM 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

ATOM 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

ATOM 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

ATOM 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

ATOM 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

ATOM 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

ATOM 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

ATOM 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

ATOM 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

ATOM 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

ATOM 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

ATOM 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

ATOM 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

ATOM 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

ATOM 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

ATOM 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

ATOM 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

ATOM 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

ATOM 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

ATOM 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

ATOM 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

ATOM 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

ATOM 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

ATOM 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

ATOM 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

ATOM 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

ATOM 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

ATOM 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

ATOM 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

ATOM 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

ATOM 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

ATOM 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

ATOM 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

ATOM 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

ATOM 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

ATOM 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

ATOM 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

ATOM 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

ATOM 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

ATOM 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

ATOM 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

ATOM 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

ATOM 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

ATOM 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

ATOM 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

ATOM 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

ATOM 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

ATOM 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

ATOM 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

ATOM 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

ATOM 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

ATOM 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

ATOM 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

ATOM 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

ATOM 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

ATOM 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

ATOM 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

ATOM 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

ATOM 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

ATOM 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

ATOM 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

ATOM 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

ATOM 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

ATOM 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

ATOM 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

ATOM 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

ATOM 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

ATOM 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

ATOM 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

ATOM 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

ATOM 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

ATOM 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

ATOM 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

ATOM 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

ATOM 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

ATOM 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

ATOM 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

ATOM 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

ATOM 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

ATOM 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

ATOM 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

ATOM 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

ATOM 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

ATOM 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

ATOM 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

ATOM 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

ATOM 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

ATOM 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

ATOM 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

ATOM 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

ATOM 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

ATOM 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

ATOM 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

ATOM 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

ATOM 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

ATOM 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

ATOM 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

ATOM 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

ATOM 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

ATOM 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

ATOM 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

ATOM 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

ATOM 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

ATOM 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

ATOM 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

ATOM 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

ATOM 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

ATOM 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

ATOM 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

ATOM 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

ATOM 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

ATOM 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

ATOM 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

ATOM 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

ATOM 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

ATOM 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

ATOM 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

ATOM 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

ATOM 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

ATOM 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

ATOM 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

ATOM 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

ATOM 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

ATOM 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

ATOM 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

ATOM 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

ATOM 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

ATOM 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

ATOM 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

ATOM 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

ATOM 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

ATOM 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

ATOM 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

ATOM 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

ATOM 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

ATOM 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

ATOM 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

ATOM 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

ATOM 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

ATOM 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

ATOM 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

ATOM 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

ATOM 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

ATOM 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

ATOM 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

ATOM 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

ATOM 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

ATOM 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

ATOM 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

ATOM 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

ATOM 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

ATOM 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

ATOM 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

ATOM 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

ATOM 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

ATOM 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

ATOM 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

ATOM 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

ATOM 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

ATOM 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

ATOM 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

ATOM 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

ATOM 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

ATOM 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

ATOM 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

ATOM 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

ATOM 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

ATOM 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

ATOM 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

ATOM 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

ATOM 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

ATOM 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

ATOM 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

ATOM 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

ATOM 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

ATOM 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

ATOM 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

ATOM 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

ATOM 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

ATOM 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

ATOM 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

ATOM 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

ATOM 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

ATOM 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

ATOM 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

ATOM 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

ATOM 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

ATOM 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

ATOM 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

ATOM 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

ATOM 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

ATOM 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

ATOM 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

ATOM 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

ATOM 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

ATOM 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

ATOM 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

ATOM 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

ATOM 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

ATOM 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

ATOM 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

ATOM 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

ATOM 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

ATOM 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

ATOM 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

ATOM 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

ATOM 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

ATOM 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

ATOM 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

ATOM 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

ATOM 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

ATOM 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

ATOM 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

ATOM 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

ATOM 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

ATOM 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

ATOM 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

ATOM 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

ATOM 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

ATOM 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

ATOM 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

ATOM 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

ATOM 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

ATOM 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

ATOM 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

ATOM 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

ATOM 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

ATOM 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

ATOM 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

ATOM 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

ATOM 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

ATOM 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

ATOM 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

ATOM 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

ATOM 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

ATOM 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

ATOM 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

ATOM 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

ATOM 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

ATOM 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

ATOM 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

ATOM 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

ATOM 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

ATOM 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

ATOM 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

ATOM 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

ATOM 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

ATOM 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

ATOM 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

ATOM 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

ATOM 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

ATOM 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

ATOM 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

ATOM 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

ATOM 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

ATOM 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

ATOM 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

ATOM 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

ATOM 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

ATOM 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

ATOM 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

ATOM 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

ATOM 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

ATOM 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

ATOM 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

ATOM 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

ATOM 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

ATOM 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

ATOM 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

ATOM 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

ATOM 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

ATOM 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

ATOM 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

ATOM 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

ATOM 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

ATOM 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

ATOM 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

ATOM 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

ATOM 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

ATOM 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

ATOM 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

ATOM 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

ATOM 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

ATOM 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

ATOM 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

ATOM 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

ATOM 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

ATOM 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

ATOM 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

ATOM 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

ATOM 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

ATOM 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

ATOM 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

ATOM 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

ATOM 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

ATOM 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

ATOM 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

ATOM 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

ATOM 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

ATOM 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

ATOM 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

ATOM 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

ATOM 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

ATOM 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

ATOM 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

ATOM 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

ATOM 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

ATOM 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

ATOM 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

ATOM 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

ATOM 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

ATOM 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

ATOM 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

ATOM 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

ATOM 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

ATOM 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

ATOM 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

ATOM 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

ATOM 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

ATOM 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

ATOM 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

ATOM 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

ATOM 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

ATOM 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

ATOM 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

ATOM 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

ATOM 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

ATOM 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

ATOM 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

ATOM 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

ATOM 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

ATOM 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

ATOM 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

ATOM 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

ATOM 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

ATOM 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

ATOM 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

ATOM 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

ATOM 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

ATOM 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

ATOM 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

ATOM 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

ATOM 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

ATOM 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

ATOM 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

ATOM 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

ATOM 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

ATOM 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

ATOM 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

ATOM 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

ATOM 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

ATOM 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

ATOM 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

ATOM 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

ATOM 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

ATOM 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

ATOM 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

ATOM 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

ATOM 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

ATOM 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

ATOM 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

ATOM 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

ATOM 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

ATOM 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

ATOM 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

ATOM 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

ATOM 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

ATOM 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

ATOM 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

ATOM 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

ATOM 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

ATOM 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

ATOM 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

ATOM 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

ATOM 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

ATOM 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

ATOM 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

ATOM 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

ATOM 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

ATOM 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

ATOM 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

ATOM 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

ATOM 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

ATOM 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

ATOM 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

ATOM 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

ATOM 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

ATOM 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

ATOM 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

ATOM 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

ATOM 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

ATOM 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

ATOM 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

ATOM 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

ATOM 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

ATOM 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

ATOM 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

ATOM 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

ATOM 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

ATOM 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

ATOM 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

ATOM 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

ATOM 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

ATOM 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

ATOM 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

ATOM 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

ATOM 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

ATOM 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

ATOM 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

ATOM 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

ATOM 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

ATOM 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

ATOM 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

ATOM 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

ATOM 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

ATOM 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

ATOM 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

ATOM 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

ATOM 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

ATOM 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

ATOM 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

ATOM 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

ATOM 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

ATOM 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

ATOM 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

ATOM 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

ATOM 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

ATOM 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

ATOM 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

ATOM 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

ATOM 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

ATOM 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

ATOM 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

ATOM 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

ATOM 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

ATOM 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

ATOM 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

ATOM 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

ATOM 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

ATOM 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

ATOM 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

ATOM 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

ATOM 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

ATOM 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

ATOM 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

ATOM 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

ATOM 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

ATOM 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

ATOM 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

ATOM 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

ATOM 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

ATOM 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

ATOM 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

ATOM 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

ATOM 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

ATOM 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

ATOM 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

ATOM 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

ATOM 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

ATOM 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

ATOM 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

ATOM 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

ATOM 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

ATOM 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

ATOM 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

ATOM 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

ATOM 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

ATOM 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

ATOM 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

ATOM 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

ATOM 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

ATOM 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

ATOM 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

ATOM 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

ATOM 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

ATOM 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

ATOM 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

ATOM 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

ATOM 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

ATOM 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

ATOM 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

ATOM 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

ATOM 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

ATOM 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

ATOM 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

ATOM 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

ATOM 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

ATOM 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

ATOM 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

ATOM 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

ATOM 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

ATOM 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

ATOM 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

ATOM 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

ATOM 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

ATOM 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

ATOM 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

ATOM 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

ATOM 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

ATOM 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

ATOM 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

ATOM 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

ATOM 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

ATOM 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

ATOM 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

ATOM 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

ATOM 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

ATOM 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

ATOM 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

ATOM 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

ATOM 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

ATOM 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

ATOM 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

ATOM 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

ATOM 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

ATOM 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

ATOM 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

ATOM 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

ATOM 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

ATOM 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

ATOM 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

ATOM 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

ATOM 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

ATOM 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

ATOM 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

ATOM 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

ATOM 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

ATOM 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

ATOM 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

ATOM 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

ATOM 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

ATOM 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

ATOM 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

ATOM 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

ATOM 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

ATOM 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

ATOM 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

ATOM 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

ATOM 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

ATOM 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

ATOM 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

ATOM 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

ATOM 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

ATOM 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

ATOM 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

ATOM 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

ATOM 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

ATOM 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

ATOM 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

ATOM 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

ATOM 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

ATOM 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

ATOM 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

ATOM 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

ATOM 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

ATOM 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

ATOM 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

ATOM 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

ATOM 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

ATOM 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

ATOM 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

ATOM 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

ATOM 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

ATOM 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

ATOM 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

ATOM 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

ATOM 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

ATOM 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

ATOM 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

ATOM 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

ATOM 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

ATOM 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

ATOM 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

ATOM 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

ATOM 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

ATOM 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

ATOM 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

ATOM 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

ATOM 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

ATOM 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

ATOM 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

ATOM 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

ATOM 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

ATOM 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

ATOM 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

ATOM 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

ATOM 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

ATOM 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

ATOM 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

ATOM 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

ATOM 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

ATOM 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

ATOM 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

ATOM 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

ATOM 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

ATOM 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

ATOM 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

ATOM 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

ATOM 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

ATOM 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

ATOM 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

ATOM 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

ATOM 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

ATOM 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

ATOM 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

ATOM 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

ATOM 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

ATOM 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

ATOM 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

ATOM 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

ATOM 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

ATOM 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

ATOM 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

ATOM 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

ATOM 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

ATOM 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

ATOM 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

ATOM 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

ATOM 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

ATOM 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

ATOM 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

ATOM 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

ATOM 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

ATOM 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

ATOM 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

ATOM 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

ATOM 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

ATOM 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

ATOM 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

ATOM 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

ATOM 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

ATOM 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

ATOM 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

ATOM 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

ATOM 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

ATOM 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

ATOM 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

ATOM 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

ATOM 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

ATOM 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

ATOM 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

ATOM 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

ATOM 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

ATOM 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

ATOM 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

ATOM 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

ATOM 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

ATOM 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

ATOM 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

ATOM 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

ATOM 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

ATOM 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

ATOM 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

ATOM 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

ATOM 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

ATOM 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

ATOM 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

ATOM 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

ATOM 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

ATOM 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

ATOM 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

ATOM 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

ATOM 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

ATOM 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

ATOM 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

ATOM 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

ATOM 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

ATOM 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

ATOM 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

ATOM 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

ATOM 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

ATOM 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

ATOM 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

ATOM 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

ATOM 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

ATOM 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

ATOM 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

ATOM 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

ATOM 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

ATOM 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

ATOM 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

ATOM 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

ATOM 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

ATOM 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

ATOM 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

ATOM 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

ATOM 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

ATOM 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

ATOM 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

ATOM 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

ATOM 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

ATOM 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

ATOM 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

ATOM 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

ATOM 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

ATOM 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

ATOM 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

ATOM 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

ATOM 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

ATOM 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

ATOM 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

ATOM 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

ATOM 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

ATOM 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

ATOM 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

ATOM 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

ATOM 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

ATOM 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

ATOM 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

ATOM 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

ATOM 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

ATOM 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

ATOM 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

ATOM 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

ATOM 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

ATOM 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

ATOM 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

ATOM 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

ATOM 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

ATOM 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

ATOM 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

ATOM 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

ATOM 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

ATOM 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

ATOM 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

ATOM 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

ATOM 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

ATOM 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

ATOM 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

ATOM 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

ATOM 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

ATOM 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

ATOM 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

ATOM 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

ATOM 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

ATOM 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

ATOM 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

ATOM 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

ATOM 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

ATOM 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

ATOM 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

ATOM 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

ATOM 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

ATOM 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

ATOM 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

ATOM 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

ATOM 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

ATOM 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

ATOM 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

ATOM 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

ATOM 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

ATOM 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

ATOM 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

ATOM 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

ATOM 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

ATOM 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

ATOM 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

ATOM 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

ATOM 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

ATOM 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

ATOM 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

ATOM 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

ATOM 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

ATOM 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

ATOM 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

ATOM 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

ATOM 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

ATOM 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

ATOM 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

ATOM 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

ATOM 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

ATOM 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

ATOM 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

ATOM 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

ATOM 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

ATOM 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

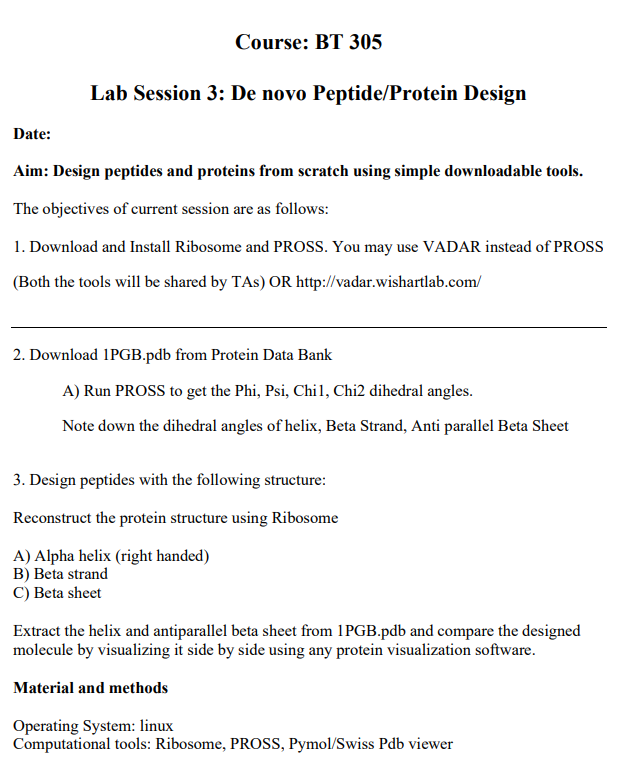
ATOM 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

ATOM 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

ATOM 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

ATOM 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

# LAB03



*ALPHA HELIX*



RIB file –

TITLE Alpha\_Helix\_200106037\_Jash\_Lab\_03\_Reconstructed

res ALA phi -69.20 psi -32.25 chi1 999.99 chi2 999.99

res ALA phi -73.49 psi -27.71 chi1 999.99 chi2 999.99

res THR phi -75.95 psi -40.40 chi1 -57.42 chi2 999.99

res ALA phi -65.91 psi -35.90 chi1 999.99 chi2 999.99

res GLU phi -64.39 psi -33.97 chi1 -166.30 chi2 -152.57

res LYS phi -64.60 psi -56.68 chi1 -130.39 chi2 167.16

res VAL phi -65.14 psi -35.58 chi1 170.82 chi2 999.99

res PHE phi -66.64 psi -40.97 chi1 -75.41 chi2 -32.73

res LYS phi -61.58 psi -44.91 chi1 -61.57 chi2 -106.55

res GLN phi -62.16 psi -42.02 chi1 -71.60 chi2 -157.73

res TYR phi -63.84 psi -39.98 chi1 168.68 chi2 75.47

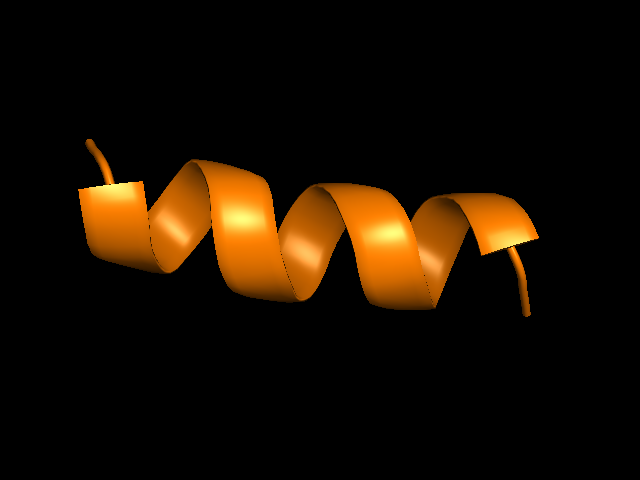
res ALA phi -68.05 psi -44.58 chi1 999.99 chi2 999.99

res ASN phi -66.57 psi -31.26 chi1 -172.55 chi2 70.76

res ASP phi -72.99 psi -27.34 chi1 -79.85 chi2 -14.25

Original PDB file –





Original Alpha Helix Structure

ATOM 169 N ALA A 23 12.672 10.488 28.602 1.00 18.23 N

ATOM 170 CA ALA A 23 12.452 10.118 27.226 1.00 18.86 C

ATOM 171 C ALA A 23 11.257 9.263 26.935 1.00 18.61 C

ATOM 172 O ALA A 23 10.658 9.456 25.918 1.00 18.16 O

ATOM 173 CB ALA A 23 13.706 9.528 26.602 1.00 18.07 C

ATOM 174 N ALA A 24 10.849 8.383 27.837 1.00 18.48 N

ATOM 175 CA ALA A 24 9.683 7.537 27.584 1.00 18.32 C

ATOM 176 C ALA A 24 8.402 8.350 27.688 1.00 18.46 C

ATOM 177 O ALA A 24 7.362 8.035 27.078 1.00 18.48 O

ATOM 178 CB ALA A 24 9.639 6.386 28.597 1.00 19.43 C

ATOM 179 N THR A 25 8.444 9.398 28.484 1.00 17.95 N

ATOM 180 CA THR A 25 7.249 10.206 28.617 1.00 16.86 C

ATOM 181 C THR A 25 7.090 11.062 27.380 1.00 15.33 C

ATOM 182 O THR A 25 5.959 11.259 26.902 1.00 14.94 O

ATOM 183 CB THR A 25 7.322 11.087 29.871 1.00 18.46 C

ATOM 184 OG1 THR A 25 7.509 10.240 31.014 1.00 20.25 O

ATOM 185 CG2 THR A 25 6.034 11.794 30.093 1.00 19.72 C

ATOM 186 N ALA A 26 8.203 11.601 26.881 1.00 14.97 N

ATOM 187 CA ALA A 26 8.146 12.442 25.683 1.00 13.53 C

ATOM 188 C ALA A 26 7.714 11.629 24.416 1.00 14.75 C

ATOM 189 O ALA A 26 6.938 12.111 23.579 1.00 13.31 O

ATOM 190 CB ALA A 26 9.461 13.156 25.466 1.00 14.89 C

ATOM 191 N GLU A 27 8.154 10.378 24.341 1.00 15.13 N

ATOM 192 CA GLU A 27 7.820 9.450 23.250 1.00 17.82 C

ATOM 193 C GLU A 27 6.311 9.168 23.271 1.00 16.72 C

ATOM 194 O GLU A 27 5.674 9.075 22.251 1.00 16.01 O

ATOM 195 CB GLU A 27 8.568 8.142 23.436 1.00 20.13 C

ATOM 196 CG GLU A 27 8.520 7.306 22.200 1.00 24.41 C

ATOM 197 CD GLU A 27 8.632 5.841 22.496 1.00 27.22 C

ATOM 198 OE1 GLU A 27 9.616 5.404 23.084 1.00 28.16 O

ATOM 199 OE2 GLU A 27 7.736 5.086 22.132 1.00 29.79 O

ATOM 200 N LYS A 28 5.737 9.141 24.464 1.00 17.07 N

ATOM 201 CA LYS A 28 4.309 8.916 24.682 1.00 16.77 C

ATOM 202 C LYS A 28 3.512 10.055 24.083 1.00 16.33 C

ATOM 203 O LYS A 28 2.562 9.839 23.323 1.00 15.88 O

ATOM 204 CB LYS A 28 4.030 8.930 26.195 1.00 19.04 C

ATOM 205 CG LYS A 28 3.240 7.794 26.717 1.00 22.58 C

ATOM 206 CD LYS A 28 3.372 7.848 28.264 1.00 24.65 C

ATOM 207 CE LYS A 28 4.842 7.593 28.786 1.00 24.97 C

ATOM 208 NZ LYS A 28 4.999 7.896 30.267 1.00 26.72 N

ATOM 209 N VAL A 29 3.810 11.267 24.514 1.00 14.87 N

ATOM 210 CA VAL A 29 3.067 12.375 23.977 1.00 15.81 C

ATOM 211 C VAL A 29 3.321 12.571 22.458 1.00 14.71 C

ATOM 212 O VAL A 29 2.396 12.980 21.753 1.00 14.07 O

ATOM 213 CB VAL A 29 3.280 13.702 24.765 1.00 16.97 C

ATOM 214 CG1 VAL A 29 2.657 14.908 24.038 1.00 14.55 C

ATOM 215 CG2 VAL A 29 2.728 13.594 26.066 1.00 17.42 C

ATOM 216 N PHE A 30 4.545 12.325 21.972 1.00 11.59 N

ATOM 217 CA PHE A 30 4.843 12.494 20.533 1.00 11.44 C

ATOM 218 C PHE A 30 4.080 11.466 19.686 1.00 10.70 C

ATOM 219 O PHE A 30 3.477 11.802 18.675 1.00 11.11 O

ATOM 220 CB PHE A 30 6.350 12.498 20.265 1.00 10.85 C

ATOM 221 CG PHE A 30 7.043 13.804 20.666 1.00 10.38 C

ATOM 222 CD1 PHE A 30 6.396 15.038 20.577 1.00 9.64 C

ATOM 223 CD2 PHE A 30 8.380 13.821 21.061 1.00 8.62 C

ATOM 224 CE1 PHE A 30 7.108 16.238 20.873 1.00 9.89 C

ATOM 225 CE2 PHE A 30 9.031 15.017 21.334 1.00 9.58 C

ATOM 226 CZ PHE A 30 8.419 16.197 21.243 1.00 6.81 C

ATOM 227 N LYS A 31 4.013 10.237 20.160 1.00 9.82 N

ATOM 228 CA LYS A 31 3.247 9.234 19.455 1.00 13.16 C

ATOM 229 C LYS A 31 1.754 9.611 19.369 1.00 13.88 C

ATOM 230 O LYS A 31 1.176 9.467 18.300 1.00 14.26 O

ATOM 231 CB LYS A 31 3.450 7.873 20.069 1.00 12.57 C

ATOM 232 CG LYS A 31 4.873 7.473 19.980 1.00 15.92 C

ATOM 233 CD LYS A 31 5.091 6.406 18.939 1.00 18.70 C

ATOM 234 CE LYS A 31 6.186 5.396 19.360 1.00 20.43 C

ATOM 235 NZ LYS A 31 5.824 4.564 20.562 1.00 24.60 N

ATOM 236 N GLN A 32 1.136 10.077 20.464 1.00 13.74 N

ATOM 237 CA GLN A 32 -0.277 10.493 20.449 1.00 13.99 C

ATOM 238 C GLN A 32 -0.468 11.627 19.522 1.00 11.86 C

ATOM 239 O GLN A 32 -1.398 11.636 18.773 1.00 13.29 O

ATOM 240 CB GLN A 32 -0.745 10.941 21.825 1.00 15.80 C

ATOM 241 CG GLN A 32 -0.878 9.779 22.752 1.00 19.09 C

ATOM 242 CD GLN A 32 -1.803 10.072 23.881 1.00 21.96 C

ATOM 243 OE1 GLN A 32 -1.549 10.966 24.699 1.00 24.24 O

ATOM 244 NE2 GLN A 32 -2.933 9.331 23.927 1.00 24.71 N

ATOM 245 N TYR A 33 0.439 12.578 19.532 1.00 12.15 N

ATOM 246 CA TYR A 33 0.341 13.738 18.651 1.00 14.44 C

ATOM 247 C TYR A 33 0.431 13.356 17.167 1.00 14.12 C

ATOM 248 O TYR A 33 -0.270 13.931 16.319 1.00 14.26 O

ATOM 249 CB TYR A 33 1.430 14.744 19.003 1.00 16.54 C

ATOM 250 CG TYR A 33 1.578 15.837 17.985 1.00 18.28 C

ATOM 251 CD1 TYR A 33 0.655 16.894 17.893 1.00 20.06 C

ATOM 252 CD2 TYR A 33 2.682 15.860 17.158 1.00 18.78 C

ATOM 253 CE1 TYR A 33 0.863 17.980 16.970 1.00 20.25 C

ATOM 254 CE2 TYR A 33 2.906 16.919 16.254 1.00 22.19 C

ATOM 255 CZ TYR A 33 2.009 17.972 16.173 1.00 21.54 C

ATOM 256 OH TYR A 33 2.364 19.024 15.348 1.00 24.66 O

ATOM 257 N ALA A 34 1.318 12.412 16.862 1.00 13.26 N

ATOM 258 CA ALA A 34 1.530 11.949 15.490 1.00 12.72 C

ATOM 259 C ALA A 34 0.290 11.209 15.042 1.00 14.22 C

ATOM 260 O ALA A 34 -0.280 11.464 13.994 1.00 14.58 O

ATOM 261 CB ALA A 34 2.761 11.037 15.438 1.00 12.78 C

ATOM 262 N ASN A 35 -0.207 10.370 15.913 1.00 15.68 N

ATOM 263 CA ASN A 35 -1.401 9.620 15.646 1.00 17.99 C

ATOM 264 C ASN A 35 -2.658 10.505 15.540 1.00 16.30 C

ATOM 265 O ASN A 35 -3.548 10.216 14.784 1.00 15.40 O

ATOM 266 CB ASN A 35 -1.547 8.570 16.733 1.00 22.00 C

ATOM 267 CG ASN A 35 -2.660 7.613 16.462 1.00 26.46 C

ATOM 268 OD1 ASN A 35 -2.571 6.779 15.559 1.00 28.18 O

ATOM 269 ND2 ASN A 35 -3.741 7.727 17.220 1.00 29.23 N

ATOM 270 N ASP A 36 -2.731 11.607 16.247 1.00 13.81 N

ATOM 271 CA ASP A 36 -3.917 12.441 16.160 1.00 14.79 C

ATOM 272 C ASP A 36 -3.918 13.163 14.807 1.00 14.60 C

ATOM 273 O ASP A 36 -4.940 13.684 14.353 1.00 14.67 O

ATOM 274 CB ASP A 36 -3.871 13.533 17.217 1.00 14.90 C

ATOM 275 CG ASP A 36 -4.284 13.066 18.618 1.00 15.74 C

ATOM 276 OD1 ASP A 36 -4.863 11.993 18.830 1.00 16.40 O

ATOM 277 OD2 ASP A 36 -4.010 13.837 19.538 1.00 15.76 O

Reconstructed PDB File –





Reconstructed Alpha Helix Structure

COMPND ALPHA\_HELIX\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 14 ALA ALA THR ALA GLU LYS VAL PHE LYS GLN TYR ALA ASN

SEQRES 2 14 ASP

ATOM 1 N ALA 1 0.000 0.000 0.000

ATOM 2 CA ALA 1 1.458 0.000 0.000

ATOM 3 C ALA 1 2.009 1.422 0.000

ATOM 4 O ALA 1 3.071 1.686 0.564

ATOM 5 CB ALA 1 1.988 -0.755 -1.209

ATOM 6 H ALA 1 -0.491 0.467 0.747

ATOM 7 N ALA 2 1.281 2.334 -0.636

ATOM 8 CA ALA 2 1.696 3.729 -0.711

ATOM 9 C ALA 2 1.506 4.433 0.628

ATOM 10 O ALA 2 2.214 5.390 0.944

ATOM 11 CB ALA 2 0.910 4.459 -1.790

ATOM 12 H ALA 2 0.420 2.053 -1.079

ATOM 13 N THR 3 0.545 3.954 1.412

ATOM 14 CA THR 3 0.260 4.536 2.718

ATOM 15 C THR 3 1.310 4.125 3.746

ATOM 16 O THR 3 1.735 4.934 4.571

ATOM 17 CB THR 3 -1.133 4.124 3.228

ATOM 18 OG1 THR 3 -2.129 4.518 2.276

ATOM 19 CG2 THR 3 -1.387 4.776 4.579

ATOM 20 H THR 3 0.055 3.175 1.021

ATOM 21 HG1 THR 3 -1.872 4.038 1.428

ATOM 22 N ALA 4 1.723 2.864 3.690

ATOM 23 CA ALA 4 2.722 2.343 4.615

ATOM 24 C ALA 4 4.076 3.011 4.398

ATOM 25 O ALA 4 4.820 3.253 5.348

ATOM 26 CB ALA 4 2.862 0.837 4.453

ATOM 27 H ALA 4 1.335 2.250 2.990

ATOM 28 N GLU 5 4.389 3.306 3.140

ATOM 29 CA GLU 5 5.653 3.946 2.795

ATOM 30 C GLU 5 5.743 5.346 3.393

ATOM 31 O GLU 5 6.822 5.801 3.772

ATOM 32 CB GLU 5 5.823 4.012 1.276

ATOM 33 CG GLU 5 7.233 4.356 0.824

ATOM 34 CD GLU 5 7.260 5.048 -0.525

ATOM 35 OE1 GLU 5 7.193 6.294 -0.554

ATOM 36 OE2 GLU 5 7.349 4.343 -1.552

ATOM 37 H GLU 5 3.736 3.081 2.406

ATOM 38 N LYS 6 4.603 6.024 3.473

ATOM 39 CA LYS 6 4.551 7.373 4.024

ATOM 40 C LYS 6 4.927 7.380 5.502

ATOM 41 O LYS 6 5.852 8.079 5.914

ATOM 42 CB LYS 6 3.154 7.971 3.845

ATOM 43 CG LYS 6 3.168 9.391 3.225

ATOM 44 CD LYS 6 1.803 9.897 2.747

ATOM 45 CE LYS 6 1.964 11.305 2.159

ATOM 46 NZ LYS 6 0.653 11.795 1.698

ATOM 47 H LYS 6 3.809 5.525 3.126

ATOM 48 1HZ LYS 6 0.747 12.713 1.313

ATOM 49 2HZ LYS 6 0.287 11.185 0.996

ATOM 50 3HZ LYS 6 0.012 11.829 2.465

ATOM 51 N VAL 7 4.202 6.598 6.295

ATOM 52 CA VAL 7 4.458 6.512 7.728

ATOM 53 C VAL 7 5.827 5.901 8.009

ATOM 54 O VAL 7 6.507 6.289 8.958

ATOM 55 CB VAL 7 3.371 5.691 8.447

ATOM 56 CG1 VAL 7 3.777 5.424 9.898

ATOM 57 CG2 VAL 7 3.120 4.382 7.714

ATOM 58 H VAL 7 3.457 6.049 5.896

ATOM 59 N PHE 8 6.223 4.944 7.177

ATOM 60 CA PHE 8 7.511 4.277 7.334

ATOM 61 C PHE 8 8.665 5.241 7.079

ATOM 62 O PHE 8 9.670 5.223 7.789

ATOM 63 CB PHE 8 7.616 3.085 6.381

ATOM 64 CG PHE 8 6.822 1.827 6.768

ATOM 65 CD1 PHE 8 6.641 1.513 8.119

ATOM 66 CD2 PHE 8 6.279 0.995 5.787

ATOM 67 CE1 PHE 8 5.925 0.378 8.485

ATOM 68 CE2 PHE 8 5.561 -0.140 6.153

ATOM 69 CZ PHE 8 5.384 -0.449 7.500

ATOM 70 H PHE 8 5.564 4.736 6.454

ATOM 71 N LYS 9 8.514 6.082 6.060

ATOM 72 CA LYS 9 9.542 7.053 5.710

ATOM 73 C LYS 9 9.790 8.031 6.854

ATOM 74 O LYS 9 10.935 8.330 7.191

ATOM 75 CB LYS 9 9.144 7.825 4.451

ATOM 76 CG LYS 9 8.978 6.923 3.203

ATOM 77 CD LYS 9 10.102 7.043 2.168

ATOM 78 CE LYS 9 9.809 6.100 0.994

ATOM 79 NZ LYS 9 10.889 6.213 -0.004

ATOM 80 H LYS 9 7.645 5.979 5.576

ATOM 81 1HZ LYS 9 10.708 5.601 -0.774

ATOM 82 2HZ LYS 9 10.946 7.152 -0.341

ATOM 83 3HZ LYS 9 11.764 5.963 0.410

ATOM 84 N GLN 10 8.708 8.527 7.446

ATOM 85 CA GLN 10 8.806 9.471 8.553

ATOM 86 C GLN 10 9.514 8.847 9.750

ATOM 87 O GLN 10 10.343 9.487 10.396

ATOM 88 CB GLN 10 7.415 9.962 8.963

ATOM 89 CG GLN 10 6.769 10.904 7.961

ATOM 90 CD GLN 10 5.698 11.775 8.587

ATOM 91 OE1 GLN 10 5.979 12.872 9.070

ATOM 92 NE2 GLN 10 4.462 11.287 8.581

ATOM 93 H GLN 10 7.797 8.242 7.122

ATOM 94 1HE1 GLN 10 3.706 11.822 8.984

ATOM 95 1HE2 GLN 10 4.279 10.382 8.173

ATOM 96 N TYR 11 9.181 7.594 10.041

ATOM 97 CA TYR 11 9.783 6.881 11.161

ATOM 98 C TYR 11 11.282 6.692 10.952

ATOM 99 O TYR 11 12.070 6.819 11.889

ATOM 100 CB TYR 11 9.115 5.518 11.350

ATOM 101 CG TYR 11 9.812 4.541 12.311

ATOM 102 CD1 TYR 11 9.715 4.743 13.692

ATOM 103 CD2 TYR 11 10.542 3.456 11.821

ATOM 104 CE1 TYR 11 10.340 3.868 14.574

ATOM 105 CE2 TYR 11 11.168 2.580 12.704

ATOM 106 CZ TYR 11 11.068 2.785 14.078

ATOM 107 OH TYR 11 11.684 1.923 14.941

ATOM 108 H TYR 11 8.493 7.205 9.428

ATOM 109 HH TYR 11 11.503 2.227 15.877

ATOM 110 N ALA 12 11.669 6.388 9.717

ATOM 111 CA ALA 12 13.073 6.182 9.383

ATOM 112 C ALA 12 13.861 7.483 9.484

ATOM 113 O ALA 12 14.962 7.512 10.034

ATOM 114 CB ALA 12 13.205 5.610 7.980

ATOM 115 H ALA 12 10.973 6.298 8.993

ATOM 116 N ASN 13 13.290 8.558 8.950

ATOM 117 CA ASN 13 13.938 9.864 8.979

ATOM 118 C ASN 13 14.047 10.394 10.405

ATOM 119 O ASN 13 14.986 11.116 10.739

ATOM 120 CB ASN 13 13.173 10.861 8.106

ATOM 121 CG ASN 13 13.901 12.182 7.957

ATOM 122 OD1 ASN 13 14.930 12.263 7.286

ATOM 123 ND2 ASN 13 13.367 13.225 8.583

ATOM 124 H ASN 13 12.386 8.468 8.513

ATOM 125 1HD2 ASN 13 13.807 14.131 8.520

ATOM 126 2HD2 ASN 13 12.521 13.111 9.122

ATOM 127 N ASP 14 13.080 10.030 11.241

ATOM 128 CA ASP 14 13.065 10.468 12.632

ATOM 129 C ASP 14 14.132 9.746 13.449

ATOM 130 O ASP 14 14.627 10.273 14.445

ATOM 131 CB ASP 14 11.689 10.227 13.255

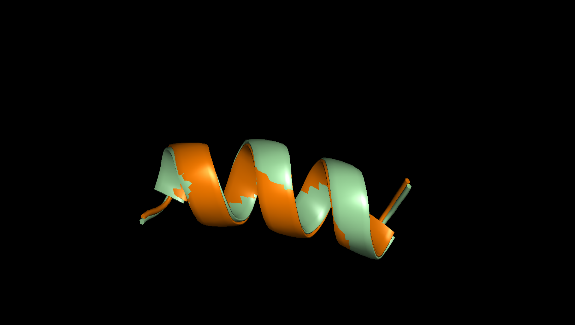
ATOM 132 CG ASP 14 10.684 11.298 12.879

ATOM 133 OD1 ASP 14 11.106 12.357 12.369

ATOM 134 OD2 ASP 14 9.473 11.078 13.095

ATOM 135 H ASP 14 12.338 9.437 10.906

TER



Compared Alpha Helices

*BETA SHEET*



RIB file 1 –

TITLE Beta\_Sheet01\_200106037\_Jash\_Lab\_03\_Reconstructed

res MET phi 999.99 psi 145.00 chi1 175.82 chi2 112.35

res THR phi -94.12 psi 130.16 chi1 -53.43 chi2 999.99

res TYR phi -118.91 psi 150.32 chi1 -70.60 chi2 -77.61

res LYS phi -119.14 psi 154.06 chi1 -166.50 chi2 -173.64

res LEU phi -130.24 psi 126.59 chi1 170.61 chi2 68.09

res ILE phi -102.91 psi 122.21 chi1 -64.65 chi2 173.96

res LEU phi -102.99 psi 122.37 chi1 -62.88 chi2 136.30

res ASN phi -130.49 psi 61.26 chi1 171.08 chi2 58.40

res GLY phi -85.39 psi 179.91 chi1 999.99 chi2 999.99

res LYS phi -73.01 psi -36.64 chi1 -45.70 chi2 -174.10

res THR phi -108.35 psi -37.93 chi1 -82.35 chi2 999.99

res LEU phi -109.46 psi 127.61 chi1 -149.07 chi2 -163.96

res LYS phi -132.35 psi 146.40 chi1 -69.23 chi2 -152.93

res GLY phi 143.28 psi -158.04 chi1 999.99 chi2 999.99

res GLU phi -143.26 psi 143.28 chi1 -53.13 chi2 177.84

res THR phi -140.45 psi 163.51 chi1 27.98 chi2 999.99

res THR phi -131.97 psi 172.07 chi1 65.65 chi2 999.99

res THR phi -158.62 psi 156.12 chi1 -165.47 chi2 999.99

res GLU phi -100.12 psi 135.93 chi1 -51.73 chi2 -64.66

res ALA phi -152.52 psi 155.52 chi1 999.99 chi2 999.99

RIB file 2 –

TITLE Beta\_Sheet02\_200106037\_Jash\_Lab\_03\_Reconstructed

res GLU phi -92.44 psi 146.10 chi1 -49.77 chi2 -65.77

res TRP phi -119.10 psi 142.92 chi1 -72.58 chi2 78.70

res THR phi -134.25 psi 154.92 chi1 69.98 chi2 999.99

res TYR phi -138.74 psi 127.94 chi1 175.09 chi2 64.77

res ASP phi -118.34 psi 110.00 chi1 -174.84 chi2 -17.48

res ASP phi -75.06 psi -11.27 chi1 -166.66 chi2 41.84

res ALA phi -81.66 psi -17.03 chi1 999.99 chi2 999.99

res THR phi -132.30 psi -0.98 chi1 57.81 chi2 999.99

res LYS phi 57.83 psi 42.60 chi1 -90.76 chi2 75.74

res THR phi -120.90 psi 130.84 chi1 -61.92 chi2 999.99

res PHE phi -101.12 psi 151.42 chi1 -70.02 chi2 84.73

res THR phi -138.39 psi 143.39 chi1 76.60 chi2 999.99

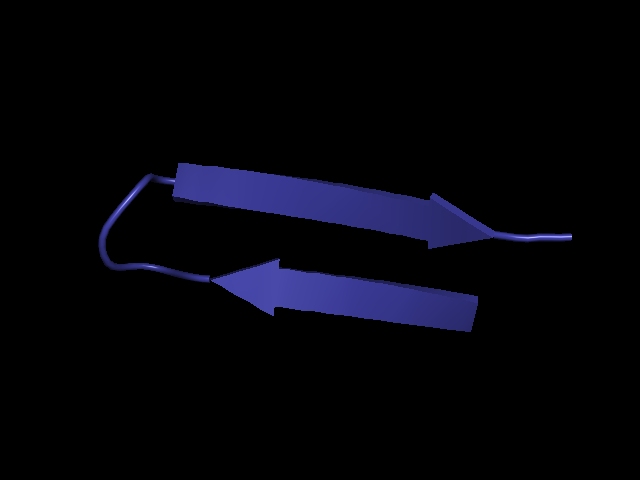
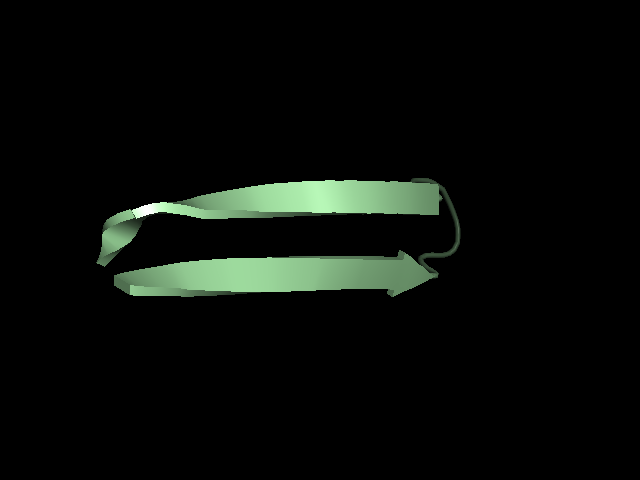
res VAL phi -125.66 psi 126.65 chi1 57.23 chi2 999.99

res THR phi -123.28 psi 125.57 chi1 -64.38 chi2 999.99

res GLU phi -94.99 psi 999.99 chi1 -79.21 chi2 -172.24

Original PDB file –





Original Beta Sheet 2

Original Beta Sheet 1

PDB file 1 –

ATOM 1 N MET A 1 12.969 18.506 30.954 1.00 15.93 N

ATOM 2 CA MET A 1 13.935 18.529 29.843 1.00 17.40 C

ATOM 3 C MET A 1 13.138 18.692 28.517 1.00 14.65 C

ATOM 4 O MET A 1 12.007 18.222 28.397 1.00 13.04 O

ATOM 5 CB MET A 1 14.733 17.216 29.882 1.00 20.72 C

ATOM 6 CG MET A 1 15.742 16.983 28.738 1.00 23.81 C

ATOM 7 SD MET A 1 17.378 17.025 29.359 1.00 28.11 S

ATOM 8 CE MET A 1 17.166 16.055 30.819 1.00 27.51 C

ATOM 9 N THR A 2 13.719 19.413 27.573 1.00 12.63 N

ATOM 10 CA THR A 2 13.088 19.661 26.283 1.00 12.68 C

ATOM 11 C THR A 2 13.561 18.631 25.300 1.00 12.02 C

ATOM 12 O THR A 2 14.763 18.432 25.121 1.00 13.07 O

ATOM 13 CB THR A 2 13.527 20.980 25.667 1.00 14.62 C

ATOM 14 OG1 THR A 2 13.307 22.020 26.627 1.00 15.31 O

ATOM 15 CG2 THR A 2 12.704 21.284 24.409 1.00 14.47 C

ATOM 16 N TYR A 3 12.574 18.048 24.642 1.00 11.17 N

ATOM 17 CA TYR A 3 12.726 17.033 23.612 1.00 10.11 C

ATOM 18 C TYR A 3 12.109 17.637 22.316 1.00 10.52 C

ATOM 19 O TYR A 3 11.165 18.449 22.364 1.00 9.38 O

ATOM 20 CB TYR A 3 11.907 15.809 24.042 1.00 10.96 C

ATOM 21 CG TYR A 3 12.497 15.093 25.196 1.00 10.60 C

ATOM 22 CD1 TYR A 3 13.560 14.276 25.012 1.00 12.20 C

ATOM 23 CD2 TYR A 3 12.045 15.324 26.492 1.00 11.77 C

ATOM 24 CE1 TYR A 3 14.205 13.693 26.058 1.00 13.25 C

ATOM 25 CE2 TYR A 3 12.663 14.737 27.567 1.00 12.45 C

ATOM 26 CZ TYR A 3 13.772 13.910 27.323 1.00 11.39 C

ATOM 27 OH TYR A 3 14.476 13.300 28.344 1.00 14.48 O

ATOM 28 N LYS A 4 12.633 17.222 21.175 1.00 9.63 N

ATOM 29 CA LYS A 4 12.179 17.659 19.887 1.00 9.41 C

ATOM 30 C LYS A 4 11.677 16.470 19.087 1.00 9.49 C

ATOM 31 O LYS A 4 12.151 15.336 19.237 1.00 8.55 O

ATOM 32 CB LYS A 4 13.376 18.247 19.100 1.00 12.36 C

ATOM 33 CG LYS A 4 12.954 19.035 17.857 1.00 17.46 C

ATOM 34 CD LYS A 4 14.119 19.494 16.982 1.00 20.77 C

ATOM 35 CE LYS A 4 14.184 21.056 16.755 1.00 24.12 C

ATOM 36 NZ LYS A 4 12.929 21.820 16.303 1.00 25.14 N

ATOM 37 N LEU A 5 10.771 16.761 18.157 1.00 8.76 N

ATOM 38 CA LEU A 5 10.253 15.790 17.221 1.00 7.91 C

ATOM 39 C LEU A 5 10.360 16.415 15.781 1.00 9.03 C

ATOM 40 O LEU A 5 9.916 17.539 15.553 1.00 6.35 O

ATOM 41 CB LEU A 5 8.765 15.468 17.506 1.00 8.63 C

ATOM 42 CG LEU A 5 8.058 14.607 16.411 1.00 8.98 C

ATOM 43 CD1 LEU A 5 8.626 13.160 16.373 1.00 8.38 C

ATOM 44 CD2 LEU A 5 6.577 14.522 16.660 1.00 9.13 C

ATOM 45 N ILE A 6 10.995 15.689 14.856 1.00 7.05 N

ATOM 46 CA ILE A 6 11.082 16.103 13.475 1.00 9.67 C

ATOM 47 C ILE A 6 10.046 15.228 12.753 1.00 8.83 C

ATOM 48 O ILE A 6 10.068 14.016 12.892 1.00 7.29 O

ATOM 49 CB ILE A 6 12.484 15.880 12.922 1.00 9.90 C

ATOM 50 CG1 ILE A 6 13.453 16.788 13.678 1.00 13.88 C

ATOM 51 CG2 ILE A 6 12.520 16.275 11.428 1.00 9.38 C

ATOM 52 CD1 ILE A 6 14.844 16.502 13.276 1.00 15.90 C

ATOM 53 N LEU A 7 9.085 15.850 12.087 1.00 9.18 N

ATOM 54 CA LEU A 7 8.009 15.163 11.389 1.00 7.98 C

ATOM 55 C LEU A 7 8.312 15.181 9.902 1.00 9.81 C

ATOM 56 O LEU A 7 8.580 16.234 9.291 1.00 7.52 O

ATOM 57 CB LEU A 7 6.690 15.903 11.602 1.00 11.14 C

ATOM 58 CG LEU A 7 6.147 16.007 13.030 1.00 13.03 C

ATOM 59 CD1 LEU A 7 5.647 17.410 13.283 1.00 14.31 C

ATOM 60 CD2 LEU A 7 5.037 14.952 13.247 1.00 12.67 C

ATOM 61 N ASN A 8 8.383 14.018 9.323 1.00 10.71 N

ATOM 62 CA ASN A 8 8.628 13.975 7.913 1.00 13.03 C

ATOM 63 C ASN A 8 7.575 13.039 7.320 1.00 12.38 C

ATOM 64 O ASN A 8 7.885 11.921 6.936 1.00 11.56 O

ATOM 65 CB ASN A 8 10.025 13.485 7.676 1.00 15.38 C

ATOM 66 CG ASN A 8 10.270 13.214 6.226 1.00 19.45 C

ATOM 67 OD1 ASN A 8 10.134 14.101 5.386 1.00 19.46 O

ATOM 68 ND2 ASN A 8 10.497 11.955 5.900 1.00 22.31 N

ATOM 69 N GLY A 9 6.309 13.415 7.484 1.00 10.44 N

ATOM 70 CA GLY A 9 5.213 12.642 6.966 1.00 12.52 C

ATOM 71 C GLY A 9 4.914 12.990 5.506 1.00 12.67 C

ATOM 72 O GLY A 9 5.571 13.842 4.929 1.00 14.71 O

ATOM 73 N LYS A 10 3.922 12.342 4.909 1.00 14.25 N

ATOM 74 CA LYS A 10 3.589 12.601 3.497 1.00 15.77 C

ATOM 75 C LYS A 10 2.910 13.955 3.387 1.00 16.15 C

ATOM 76 O LYS A 10 3.170 14.710 2.434 1.00 15.37 O

ATOM 77 CB LYS A 10 2.611 11.571 2.910 1.00 18.26 C

ATOM 78 CG LYS A 10 2.910 10.139 3.208 1.00 21.67 C

ATOM 79 CD LYS A 10 1.958 9.176 2.456 1.00 23.96 C

ATOM 80 CE LYS A 10 0.438 9.229 2.864 1.00 25.86 C

ATOM 81 NZ LYS A 10 -0.453 10.379 2.316 1.00 27.03 N

ATOM 82 N THR A 11 2.097 14.250 4.410 1.00 14.06 N

ATOM 83 CA THR A 11 1.291 15.471 4.538 1.00 17.77 C

ATOM 84 C THR A 11 1.723 16.512 5.586 1.00 16.78 C

ATOM 85 O THR A 11 1.571 17.680 5.335 1.00 15.84 O

ATOM 86 CB THR A 11 -0.184 15.081 4.825 1.00 18.41 C

ATOM 87 OG1 THR A 11 -0.812 14.768 3.583 1.00 22.26 O

ATOM 88 CG2 THR A 11 -0.936 16.215 5.481 1.00 22.81 C

ATOM 89 N LEU A 12 2.202 16.086 6.760 1.00 15.99 N

ATOM 90 CA LEU A 12 2.624 17.021 7.787 1.00 13.96 C

ATOM 91 C LEU A 12 4.149 16.952 7.892 1.00 13.07 C

ATOM 92 O LEU A 12 4.723 15.876 8.026 1.00 11.55 O

ATOM 93 CB LEU A 12 2.051 16.588 9.114 1.00 16.48 C

ATOM 94 CG LEU A 12 1.664 17.531 10.256 1.00 18.00 C

ATOM 95 CD1 LEU A 12 1.514 16.689 11.541 1.00 19.80 C

ATOM 96 CD2 LEU A 12 2.635 18.673 10.367 1.00 19.00 C

ATOM 97 N LYS A 13 4.789 18.112 7.806 1.00 12.54 N

ATOM 98 CA LYS A 13 6.240 18.276 7.903 1.00 12.83 C

ATOM 99 C LYS A 13 6.603 19.425 8.876 1.00 11.77 C

ATOM 100 O LYS A 13 5.907 20.419 8.910 1.00 11.59 O

ATOM 101 CB LYS A 13 6.814 18.597 6.516 1.00 14.47 C

ATOM 102 CG LYS A 13 6.736 17.387 5.533 1.00 16.10 C

ATOM 103 CD LYS A 13 7.843 17.514 4.511 1.00 19.87 C

ATOM 104 CE LYS A 13 8.047 16.220 3.665 1.00 18.59 C

ATOM 105 NZ LYS A 13 6.799 15.840 3.092 1.00 19.82 N

ATOM 106 N GLY A 14 7.713 19.307 9.596 1.00 11.38 N

ATOM 107 CA GLY A 14 8.146 20.352 10.511 1.00 10.32 C

ATOM 108 C GLY A 14 8.790 19.827 11.800 1.00 10.18 C

ATOM 109 O GLY A 14 9.296 18.709 11.800 1.00 8.21 O

ATOM 110 N GLU A 15 8.811 20.636 12.874 1.00 10.59 N

ATOM 111 CA GLU A 15 9.429 20.303 14.170 1.00 13.74 C

ATOM 112 C GLU A 15 8.601 20.865 15.250 1.00 13.79 C

ATOM 113 O GLU A 15 8.079 21.962 15.075 1.00 13.45 O

ATOM 114 CB GLU A 15 10.723 21.056 14.402 1.00 16.48 C

ATOM 115 CG GLU A 15 11.688 20.927 13.340 1.00 22.84 C

ATOM 116 CD GLU A 15 12.923 21.752 13.633 1.00 26.38 C

ATOM 117 OE1 GLU A 15 12.774 22.953 14.009 1.00 28.66 O

ATOM 118 OE2 GLU A 15 14.042 21.169 13.563 1.00 28.91 O

ATOM 119 N THR A 16 8.498 20.128 16.364 1.00 14.41 N

ATOM 120 CA THR A 16 7.799 20.583 17.589 1.00 14.61 C

ATOM 121 C THR A 16 8.600 20.132 18.786 1.00 13.99 C

ATOM 122 O THR A 16 9.452 19.232 18.698 1.00 11.78 O

ATOM 123 CB THR A 16 6.418 20.025 17.891 1.00 16.41 C

ATOM 124 OG1 THR A 16 6.248 18.718 17.338 1.00 18.88 O

ATOM 125 CG2 THR A 16 5.408 20.931 17.470 1.00 17.82 C

ATOM 126 N THR A 17 8.316 20.728 19.929 1.00 13.62 N

ATOM 127 CA THR A 17 9.057 20.314 21.095 1.00 14.15 C

ATOM 128 C THR A 17 8.072 20.069 22.204 1.00 15.20 C

ATOM 129 O THR A 17 6.871 20.259 22.043 1.00 15.18 O

ATOM 130 CB THR A 17 10.076 21.387 21.511 1.00 14.95 C

ATOM 131 OG1 THR A 17 9.372 22.542 21.931 1.00 14.25 O

ATOM 132 CG2 THR A 17 10.976 21.781 20.361 1.00 15.92 C

ATOM 133 N THR A 18 8.563 19.529 23.294 1.00 12.55 N

ATOM 134 CA THR A 18 7.744 19.307 24.468 1.00 13.94 C

ATOM 135 C THR A 18 8.690 19.191 25.671 1.00 14.46 C

ATOM 136 O THR A 18 9.884 19.024 25.507 1.00 12.38 O

ATOM 137 CB THR A 18 6.807 18.023 24.371 1.00 14.16 C

ATOM 138 OG1 THR A 18 5.837 18.121 25.413 1.00 14.09 O

ATOM 139 CG2 THR A 18 7.595 16.670 24.590 1.00 13.14 C

ATOM 140 N GLU A 19 8.165 19.473 26.847 1.00 15.51 N

ATOM 141 CA GLU A 19 8.907 19.331 28.095 1.00 17.06 C

ATOM 142 C GLU A 19 8.424 18.020 28.654 1.00 16.26 C

ATOM 143 O GLU A 19 7.221 17.765 28.689 1.00 14.96 O

ATOM 144 CB GLU A 19 8.483 20.362 29.126 1.00 20.36 C

ATOM 145 CG GLU A 19 8.493 21.750 28.658 1.00 26.21 C

ATOM 146 CD GLU A 19 9.861 22.241 28.311 1.00 30.24 C

ATOM 147 OE1 GLU A 19 10.750 22.041 29.159 1.00 33.22 O

ATOM 148 OE2 GLU A 19 10.050 22.860 27.207 1.00 32.89 O

ATOM 149 N ALA A 20 9.346 17.206 29.144 1.00 16.69 N

ATOM 150 CA ALA A 20 8.985 15.930 29.750 1.00 18.60 C

ATOM 151 C ALA A 20 10.067 15.607 30.760 1.00 19.02 C

ATOM 152 O ALA A 20 11.193 16.119 30.686 1.00 18.77 O

ATOM 153 CB ALA A 20 8.856 14.815 28.714 1.00 16.05 C

PDB file 2 –

ATOM 309 N GLU A 42 8.139 5.298 10.543 1.00 14.75 N

ATOM 310 CA GLU A 42 9.219 4.653 11.307 1.00 14.14 C

ATOM 311 C GLU A 42 9.740 5.726 12.207 1.00 9.89 C

ATOM 312 O GLU A 42 9.873 6.857 11.803 1.00 9.62 O

ATOM 313 CB GLU A 42 10.367 4.275 10.423 1.00 19.23 C

ATOM 314 CG GLU A 42 10.011 3.533 9.215 1.00 26.98 C

ATOM 315 CD GLU A 42 9.424 2.117 9.480 1.00 31.15 C

ATOM 316 OE1 GLU A 42 8.924 1.827 10.642 1.00 34.13 O

ATOM 317 OE2 GLU A 42 9.407 1.308 8.469 1.00 33.25 O

ATOM 318 N TRP A 43 10.164 5.339 13.393 1.00 9.87 N

ATOM 319 CA TRP A 43 10.629 6.260 14.430 1.00 8.25 C

ATOM 320 C TRP A 43 12.040 6.054 14.844 1.00 8.60 C

ATOM 321 O TRP A 43 12.488 4.912 14.892 1.00 7.77 O

ATOM 322 CB TRP A 43 9.777 5.988 15.671 1.00 8.68 C

ATOM 323 CG TRP A 43 8.350 6.470 15.591 1.00 7.48 C

ATOM 324 CD1 TRP A 43 7.284 5.877 14.941 1.00 8.56 C

ATOM 325 CD2 TRP A 43 7.851 7.685 16.147 1.00 7.32 C

ATOM 326 NE1 TRP A 43 6.163 6.665 15.067 1.00 7.51 N

ATOM 327 CE2 TRP A 43 6.486 7.778 15.791 1.00 8.24 C

ATOM 328 CE3 TRP A 43 8.440 8.713 16.910 1.00 7.27 C

ATOM 329 CZ2 TRP A 43 5.700 8.847 16.148 1.00 8.58 C

ATOM 330 CZ3 TRP A 43 7.661 9.784 17.274 1.00 8.41 C

ATOM 331 CH2 TRP A 43 6.282 9.843 16.883 1.00 9.15 C

ATOM 332 N THR A 44 12.768 7.128 15.129 1.00 7.53 N

ATOM 333 CA THR A 44 14.117 6.981 15.677 1.00 8.33 C

ATOM 334 C THR A 44 14.237 7.954 16.840 1.00 9.34 C

ATOM 335 O THR A 44 13.436 8.903 16.921 1.00 8.31 O

ATOM 336 CB THR A 44 15.244 7.317 14.746 1.00 10.23 C

ATOM 337 OG1 THR A 44 15.255 8.718 14.527 1.00 11.54 O

ATOM 338 CG2 THR A 44 15.108 6.598 13.425 1.00 10.15 C

ATOM 339 N TYR A 45 15.144 7.649 17.794 1.00 8.15 N

ATOM 340 CA TYR A 45 15.402 8.494 18.951 1.00 10.42 C

ATOM 341 C TYR A 45 16.901 8.531 19.193 1.00 10.23 C

ATOM 342 O TYR A 45 17.581 7.514 19.054 1.00 8.07 O

ATOM 343 CB TYR A 45 14.682 8.034 20.192 1.00 11.98 C

ATOM 344 CG TYR A 45 15.069 8.873 21.422 1.00 12.00 C

ATOM 345 CD1 TYR A 45 14.754 10.244 21.497 1.00 12.14 C

ATOM 346 CD2 TYR A 45 15.810 8.311 22.474 1.00 13.51 C

ATOM 347 CE1 TYR A 45 15.156 11.013 22.538 1.00 12.88 C

ATOM 348 CE2 TYR A 45 16.221 9.101 23.544 1.00 15.33 C

ATOM 349 CZ TYR A 45 15.887 10.451 23.560 1.00 14.30 C

ATOM 350 OH TYR A 45 16.280 11.228 24.643 1.00 15.66 O

ATOM 351 N ASP A 46 17.402 9.760 19.291 1.00 9.88 N

ATOM 352 CA ASP A 46 18.798 10.067 19.525 1.00 14.19 C

ATOM 353 C ASP A 46 18.889 10.831 20.860 1.00 16.48 C

ATOM 354 O ASP A 46 18.584 12.016 20.953 1.00 16.58 O

ATOM 355 CB ASP A 46 19.330 10.949 18.410 1.00 14.31 C

ATOM 356 CG ASP A 46 20.809 11.204 18.527 1.00 18.91 C

ATOM 357 OD1 ASP A 46 21.375 10.992 19.614 1.00 19.79 O

ATOM 358 OD2 ASP A 46 21.440 11.623 17.521 1.00 21.36 O

ATOM 359 N ASP A 47 19.450 10.157 21.844 1.00 18.26 N

ATOM 360 CA ASP A 47 19.598 10.679 23.190 1.00 21.03 C

ATOM 361 C ASP A 47 20.680 11.714 23.371 1.00 21.68 C

ATOM 362 O ASP A 47 20.736 12.352 24.425 1.00 23.61 O

ATOM 363 CB ASP A 47 19.811 9.531 24.141 1.00 22.88 C

ATOM 364 CG ASP A 47 19.655 9.944 25.566 1.00 24.59 C

ATOM 365 OD1 ASP A 47 18.716 10.723 25.890 1.00 24.47 O

ATOM 366 OD2 ASP A 47 20.477 9.453 26.365 1.00 26.18 O

ATOM 367 N ALA A 48 21.529 11.871 22.356 1.00 22.45 N

ATOM 368 CA ALA A 48 22.584 12.858 22.345 1.00 22.79 C

ATOM 369 C ALA A 48 22.060 14.258 21.934 1.00 23.33 C

ATOM 370 O ALA A 48 22.758 15.267 22.083 1.00 24.83 O

ATOM 371 CB ALA A 48 23.675 12.428 21.380 1.00 23.59 C

ATOM 372 N THR A 49 20.883 14.320 21.332 1.00 20.97 N

ATOM 373 CA THR A 49 20.338 15.595 20.936 1.00 19.69 C

ATOM 374 C THR A 49 18.906 15.666 21.390 1.00 17.02 C

ATOM 375 O THR A 49 18.229 16.623 21.103 1.00 17.68 O

ATOM 376 CB THR A 49 20.397 15.773 19.443 1.00 19.96 C

ATOM 377 OG1 THR A 49 19.683 14.708 18.800 1.00 19.38 O

ATOM 378 CG2 THR A 49 21.822 15.728 18.971 1.00 23.83 C

ATOM 379 N LYS A 50 18.424 14.598 22.017 1.00 15.41 N

ATOM 380 CA LYS A 50 17.089 14.516 22.580 1.00 14.25 C

ATOM 381 C LYS A 50 16.051 14.764 21.515 1.00 13.29 C

ATOM 382 O LYS A 50 15.033 15.433 21.746 1.00 11.76 O

ATOM 383 CB LYS A 50 16.939 15.531 23.742 1.00 17.93 C

ATOM 384 CG LYS A 50 17.308 14.982 25.200 1.00 18.57 C

ATOM 385 CD LYS A 50 18.772 14.874 25.402 1.00 22.33 C

ATOM 386 CE LYS A 50 19.145 13.947 26.529 1.00 22.51 C

ATOM 387 NZ LYS A 50 20.636 13.874 26.457 1.00 24.90 N

ATOM 388 N THR A 51 16.292 14.165 20.358 1.00 12.83 N

ATOM 389 CA THR A 51 15.427 14.336 19.205 1.00 10.92 C

ATOM 390 C THR A 51 14.834 13.031 18.692 1.00 10.27 C

ATOM 391 O THR A 51 15.512 12.004 18.635 1.00 10.13 O

ATOM 392 CB THR A 51 16.234 14.967 18.113 1.00 11.83 C

ATOM 393 OG1 THR A 51 16.672 16.247 18.566 1.00 12.26 O

ATOM 394 CG2 THR A 51 15.417 15.121 16.872 1.00 11.68 C

ATOM 395 N PHE A 52 13.520 13.059 18.491 1.00 8.07 N

ATOM 396 CA PHE A 52 12.767 11.942 17.920 1.00 7.91 C

ATOM 397 C PHE A 52 12.512 12.276 16.459 1.00 8.15 C

ATOM 398 O PHE A 52 12.488 13.473 16.053 1.00 7.99 O

ATOM 399 CB PHE A 52 11.391 11.794 18.550 1.00 8.29 C

ATOM 400 CG PHE A 52 11.413 11.327 19.934 1.00 9.03 C

ATOM 401 CD1 PHE A 52 11.586 12.222 20.988 1.00 8.99 C

ATOM 402 CD2 PHE A 52 11.234 9.983 20.229 1.00 11.01 C

ATOM 403 CE1 PHE A 52 11.582 11.768 22.321 1.00 9.06 C

ATOM 404 CE2 PHE A 52 11.230 9.538 21.610 1.00 9.75 C

ATOM 405 CZ PHE A 52 11.405 10.437 22.603 1.00 8.96 C

ATOM 406 N THR A 53 12.393 11.251 15.635 1.00 9.12 N

ATOM 407 CA THR A 53 11.971 11.553 14.286 1.00 9.11 C

ATOM 408 C THR A 53 10.952 10.507 13.815 1.00 9.18 C

ATOM 409 O THR A 53 11.057 9.342 14.166 1.00 8.31 O

ATOM 410 CB THR A 53 13.118 11.617 13.264 1.00 11.31 C

ATOM 411 OG1 THR A 53 13.534 10.273 12.933 1.00 16.07 O

ATOM 412 CG2 THR A 53 14.273 12.420 13.777 1.00 11.54 C

ATOM 413 N VAL A 54 9.949 10.944 13.038 1.00 8.70 N

ATOM 414 CA VAL A 54 8.973 10.040 12.475 1.00 9.53 C

ATOM 415 C VAL A 54 8.949 10.268 10.943 1.00 10.67 C

ATOM 416 O VAL A 54 8.839 11.405 10.480 1.00 10.71 O

ATOM 417 CB VAL A 54 7.541 10.151 13.123 1.00 9.89 C

ATOM 418 CG1 VAL A 54 6.961 11.600 13.021 1.00 8.64 C

ATOM 419 CG2 VAL A 54 6.593 9.142 12.422 1.00 11.46 C

ATOM 420 N THR A 55 9.115 9.207 10.180 1.00 11.61 N

ATOM 421 CA THR A 55 9.147 9.339 8.722 1.00 14.89 C

ATOM 422 C THR A 55 8.104 8.482 8.023 1.00 15.39 C

ATOM 423 O THR A 55 8.028 7.304 8.318 1.00 15.56 O

ATOM 424 CB THR A 55 10.517 8.929 8.220 1.00 15.41 C

ATOM 425 OG1 THR A 55 11.467 9.845 8.732 1.00 15.65 O

ATOM 426 CG2 THR A 55 10.599 8.945 6.679 1.00 15.48 C

ATOM 427 N GLU A 56 7.248 9.043 7.175 1.00 16.36 N

ATOM 428 CA GLU A 56 6.283 8.177 6.480 1.00 19.22 C

ATOM 429 C GLU A 56 6.780 7.744 5.081 1.00 22.26 C

ATOM 430 O GLU A 56 7.521 8.520 4.401 1.00 23.58 O

ATOM 431 CB GLU A 56 4.960 8.864 6.307 1.00 19.26 C

ATOM 432 CG GLU A 56 4.093 8.873 7.512 1.00 19.10 C

ATOM 433 CD GLU A 56 2.702 9.417 7.201 1.00 18.54 C

ATOM 434 OE1 GLU A 56 2.544 10.440 6.499 1.00 18.16 O

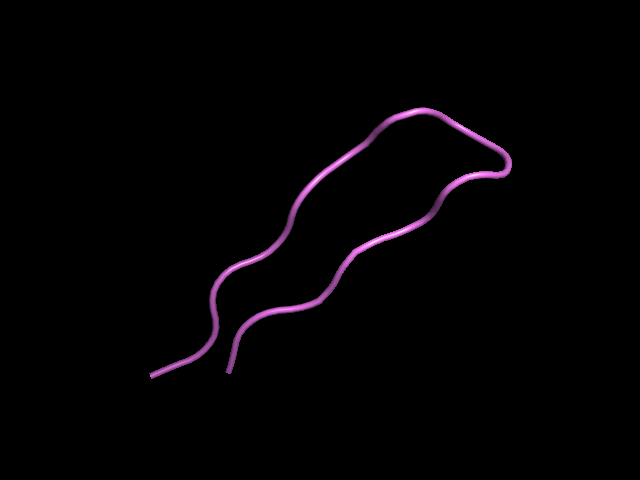
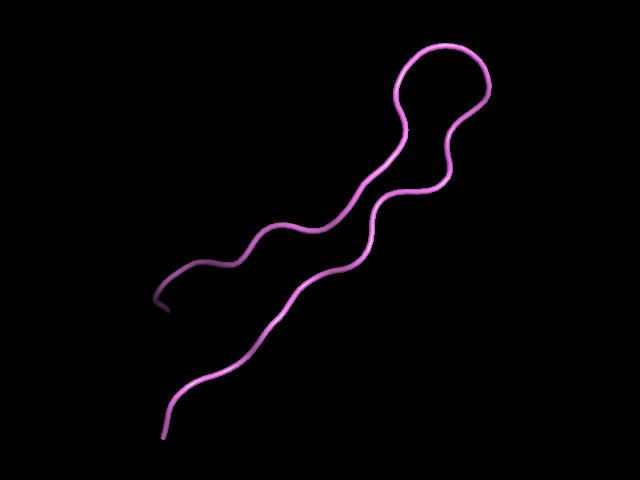
ATOM 435 OE2 GLU A 56 1.737 8.791 7.641 1.00 20.42 O

ATOM 436 OXT GLU A 56 6.410 6.617 4.667 1.00 24.74 O

TER 437 GLU A 56

Reconstructed PDB File –





Reconstructed Beta Sheet 2

Reconstructed Beta Sheet 1

PDB file 1 –

COMPND BETA\_SHEET01\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 20 MET THR TYR LYS LEU ILE LEU ASN GLY LYS THR LEU LYS

SEQRES 2 20 GLY GLU THR THR THR GLU ALA

ATOM 1 N MET 1 0.000 0.000 0.000

ATOM 2 CA MET 1 1.458 0.000 0.000

ATOM 3 C MET 1 2.009 1.422 0.000

ATOM 4 O MET 1 1.430 2.323 -0.606

ATOM 5 CB MET 1 1.994 -0.759 -1.215

ATOM 6 CG MET 1 3.528 -0.750 -1.392

ATOM 7 SD MET 1 4.181 -2.409 -1.132

ATOM 8 CE MET 1 5.922 -2.054 -1.402

ATOM 9 H MET 1 -0.565 0.681 0.465

ATOM 10 N THR 2 3.132 1.616 0.684

ATOM 11 CA THR 2 3.764 2.927 0.764

ATOM 12 C THR 2 4.835 3.090 -0.309

ATOM 13 O THR 2 5.701 2.230 -0.471

ATOM 14 CB THR 2 4.396 3.166 2.148

ATOM 15 OG1 THR 2 3.418 2.938 3.169

ATOM 16 CG2 THR 2 4.931 4.588 2.218

ATOM 17 H THR 2 3.486 0.790 1.124

ATOM 18 HG1 THR 2 3.132 1.981 3.037

ATOM 19 N TYR 3 4.771 4.199 -1.039

ATOM 20 CA TYR 3 5.734 4.476 -2.097

ATOM 21 C TYR 3 6.512 5.757 -1.814

ATOM 22 O TYR 3 6.001 6.675 -1.172

ATOM 23 CB TYR 3 5.027 4.593 -3.449

ATOM 24 CG TYR 3 4.465 3.291 -4.042

ATOM 25 CD1 TYR 3 5.332 2.381 -4.658

ATOM 26 CD2 TYR 3 3.100 3.005 -3.973

ATOM 27 CE1 TYR 3 4.838 1.199 -5.199

ATOM 28 CE2 TYR 3 2.606 1.821 -4.515

ATOM 29 CZ TYR 3 3.473 0.919 -5.127

ATOM 30 OH TYR 3 2.984 -0.241 -5.657

ATOM 31 H TYR 3 4.013 4.803 -0.792

ATOM 32 HH TYR 3 3.746 -0.756 -6.049

ATOM 33 N LYS 4 7.749 5.811 -2.296

ATOM 34 CA LYS 4 8.599 6.979 -2.095

ATOM 35 C LYS 4 8.997 7.607 -3.426

ATOM 36 O LYS 4 9.038 6.932 -4.454

ATOM 37 CB LYS 4 9.856 6.598 -1.310

ATOM 38 CG LYS 4 10.639 7.821 -0.772

ATOM 39 CD LYS 4 11.982 7.487 -0.114

ATOM 40 CE LYS 4 12.644 8.783 0.370

ATOM 41 NZ LYS 4 13.936 8.465 1.004

ATOM 42 H LYS 4 8.026 4.991 -2.795

ATOM 43 1HZ LYS 4 14.376 9.304 1.323

ATOM 44 2HZ LYS 4 13.794 7.856 1.784

ATOM 45 3HZ LYS 4 14.538 8.013 0.345

ATOM 46 N LEU 5 9.289 8.903 -3.399

ATOM 47 CA LEU 5 9.683 9.625 -4.603

ATOM 48 C LEU 5 10.956 10.432 -4.370

ATOM 49 O LEU 5 11.037 11.225 -3.432

ATOM 50 CB LEU 5 8.555 10.548 -5.068

ATOM 51 CG LEU 5 8.903 11.532 -6.187

ATOM 52 CD1 LEU 5 9.159 10.794 -7.492

ATOM 53 CD2 LEU 5 10.152 12.326 -5.837

ATOM 54 H LEU 5 9.236 9.401 -2.524

ATOM 55 N ILE 6 11.949 10.223 -5.229

ATOM 56 CA ILE 6 13.219 10.930 -5.119

ATOM 57 C ILE 6 13.316 12.054 -6.145

ATOM 58 O ILE 6 13.210 11.818 -7.349

ATOM 59 CB ILE 6 14.414 9.974 -5.289

ATOM 60 CG1 ILE 6 14.449 8.956 -4.147

ATOM 61 CG2 ILE 6 15.717 10.755 -5.349

ATOM 62 CD1 ILE 6 15.508 7.888 -4.315

ATOM 63 H ILE 6 11.819 9.559 -5.977

ATOM 64 N LEU 7 13.518 13.275 -5.661

ATOM 65 CA LEU 7 13.630 14.436 -6.535

ATOM 66 C LEU 7 15.083 14.870 -6.694

ATOM 67 O LEU 7 15.763 15.167 -5.711

ATOM 68 CB LEU 7 12.793 15.597 -5.994

ATOM 69 CG LEU 7 11.282 15.365 -5.915

ATOM 70 CD1 LEU 7 10.728 15.878 -4.595

ATOM 71 CD2 LEU 7 10.960 13.882 -6.021

ATOM 72 H LEU 7 13.596 13.401 -4.664

ATOM 73 N ASN 8 15.554 14.903 -7.936

ATOM 74 CA ASN 8 16.927 15.300 -8.225

ATOM 75 C ASN 8 16.976 16.352 -9.328

ATOM 76 O ASN 8 17.564 16.128 -10.386

ATOM 77 CB ASN 8 17.764 14.083 -8.623

ATOM 78 CG ASN 8 19.137 14.464 -9.141

ATOM 79 OD1 ASN 8 19.917 15.110 -8.442

ATOM 80 ND2 ASN 8 19.436 14.064 -10.371

ATOM 81 H ASN 8 14.946 14.648 -8.698

ATOM 82 1HD2 ASN 8 20.336 14.288 -10.770

ATOM 83 2HD2 ASN 8 18.763 13.535 -10.908

ATOM 84 N GLY 9 16.356 17.499 -9.073

ATOM 85 CA GLY 9 16.328 18.587 -10.044

ATOM 86 C GLY 9 17.574 19.459 -9.931

ATOM 87 O GLY 9 18.445 19.208 -9.098

ATOM 88 H GLY 9 15.893 17.620 -8.186

ATOM 89 N LYS 10 17.652 20.483 -10.774

ATOM 90 CA LYS 10 18.791 21.393 -10.770

ATOM 91 C LYS 10 18.757 22.314 -9.555

ATOM 92 O LYS 10 19.797 22.643 -8.984

ATOM 93 CB LYS 10 18.811 22.232 -12.050

ATOM 94 CG LYS 10 18.564 21.401 -13.334

ATOM 95 CD LYS 10 18.717 22.180 -14.644

ATOM 96 CE LYS 10 18.447 21.240 -15.825

ATOM 97 NZ LYS 10 18.593 21.986 -17.088

ATOM 98 H LYS 10 16.870 20.560 -11.392

ATOM 99 1HZ LYS 10 18.419 21.381 -17.865

ATOM 100 2HZ LYS 10 17.942 22.744 -17.114

ATOM 101 3HZ LYS 10 19.521 22.352 -17.163

ATOM 102 N THR 11 17.556 22.727 -9.164

ATOM 103 CA THR 11 17.384 23.609 -8.017

ATOM 104 C THR 11 16.771 22.865 -6.835

ATOM 105 O THR 11 17.137 23.100 -5.684

ATOM 106 CB THR 11 16.499 24.821 -8.364

ATOM 107 OG1 THR 11 17.291 25.826 -9.008

ATOM 108 CG2 THR 11 15.868 25.363 -7.091

ATOM 109 H THR 11 16.805 22.377 -9.725

ATOM 110 HG1 THR 11 17.659 25.371 -9.828

ATOM 111 N LEU 12 15.836 21.968 -7.129

ATOM 112 CA LEU 12 15.171 21.188 -6.092

ATOM 113 C LEU 12 15.604 19.726 -6.138

ATOM 114 O LEU 12 15.543 19.083 -7.186

ATOM 115 CB LEU 12 13.651 21.289 -6.238

ATOM 116 CG LEU 12 12.838 21.197 -4.945

ATOM 117 CD1 LEU 12 11.374 20.916 -5.249

ATOM 118 CD2 LEU 12 12.920 22.500 -4.165

ATOM 119 H LEU 12 15.581 21.822 -8.093

ATOM 120 N LYS 13 16.040 19.208 -4.995

ATOM 121 CA LYS 13 16.484 17.822 -4.902

ATOM 122 C LYS 13 15.863 17.123 -3.697

ATOM 123 O LYS 13 15.633 17.743 -2.659

ATOM 124 CB LYS 13 18.010 17.753 -4.806

ATOM 125 CG LYS 13 18.727 18.166 -6.115

ATOM 126 CD LYS 13 20.108 17.533 -6.320

ATOM 127 CE LYS 13 20.698 18.026 -7.647

ATOM 128 NZ LYS 13 22.026 17.419 -7.847

ATOM 129 H LYS 13 16.032 19.851 -4.229

ATOM 130 1HZ LYS 13 22.420 17.735 -8.710

ATOM 131 2HZ LYS 13 22.637 17.678 -7.098

ATOM 132 3HZ LYS 13 21.947 16.423 -7.871

ATOM 133 N GLY 14 15.594 15.830 -3.843

ATOM 134 CA GLY 14 15.000 15.045 -2.768

ATOM 135 C GLY 14 14.015 14.017 -3.315

ATOM 136 O GLY 14 14.084 13.638 -4.484

ATOM 137 H GLY 14 15.807 15.380 -4.720

ATOM 138 N GLU 15 13.099 13.570 -2.462

ATOM 139 CA GLU 15 12.099 12.586 -2.858

ATOM 140 C GLU 15 10.756 12.865 -2.192

ATOM 141 O GLU 15 10.701 13.289 -1.037

ATOM 142 CB GLU 15 12.572 11.172 -2.513

ATOM 143 CG GLU 15 13.948 10.827 -3.059

ATOM 144 CD GLU 15 14.404 9.440 -2.653

ATOM 145 OE1 GLU 15 14.120 8.479 -3.398

ATOM 146 OE2 GLU 15 15.047 9.313 -1.589

ATOM 147 H GLU 15 13.096 13.920 -1.517

ATOM 148 N THR 16 9.675 12.625 -2.927

ATOM 149 CA THR 16 8.331 12.850 -2.408

ATOM 150 C THR 16 7.376 11.748 -2.855

ATOM 151 O THR 16 7.670 10.998 -3.786

ATOM 152 CB THR 16 7.773 14.213 -2.859

ATOM 153 OG1 THR 16 8.365 14.584 -4.110

ATOM 154 CG2 THR 16 8.067 15.255 -1.791

ATOM 155 H THR 16 9.877 12.284 -3.845

ATOM 156 HG1 THR 16 8.114 13.838 -4.740

ATOM 157 N THR 17 6.233 11.655 -2.184

ATOM 158 CA THR 17 5.233 10.644 -2.509

ATOM 159 C THR 17 3.842 11.260 -2.618

ATOM 160 O THR 17 3.645 12.432 -2.299

ATOM 161 CB THR 17 5.205 9.519 -1.459

ATOM 162 OG1 THR 17 4.762 10.045 -0.202

ATOM 163 CG2 THR 17 6.595 8.915 -1.332

ATOM 164 H THR 17 6.135 12.331 -1.454

ATOM 165 HG1 THR 17 3.844 10.416 -0.393

ATOM 166 N THR 18 2.881 10.461 -3.071

ATOM 167 CA THR 18 1.507 10.926 -3.223

ATOM 168 C THR 18 0.528 9.757 -3.240

ATOM 169 O THR 18 0.899 8.630 -3.569

ATOM 170 CB THR 18 1.329 11.751 -4.511

ATOM 171 OG1 THR 18 0.087 12.462 -4.459

ATOM 172 CG2 THR 18 1.369 10.820 -5.713

ATOM 173 H THR 18 3.192 9.537 -3.289

ATOM 174 HG1 THR 18 0.163 13.042 -3.638

ATOM 175 N GLU 19 -0.722 10.033 -2.883

ATOM 176 CA GLU 19 -1.756 9.005 -2.857

ATOM 177 C GLU 19 -2.631 9.071 -4.104

ATOM 178 O GLU 19 -3.038 10.151 -4.533

ATOM 179 CB GLU 19 -2.620 9.146 -1.603

ATOM 180 CG GLU 19 -1.827 9.216 -0.307

ATOM 181 CD GLU 19 -1.070 7.935 -0.018

ATOM 182 OE1 GLU 19 0.094 7.820 -0.457

ATOM 183 OE2 GLU 19 -1.641 7.045 0.647

ATOM 184 H GLU 19 -0.961 10.977 -2.625

ATOM 185 N ALA 20 -2.916 7.909 -4.683

ATOM 186 CA ALA 20 -3.743 7.833 -5.882

ATOM 187 C ALA 20 -4.469 6.494 -5.966

ATOM 188 O ALA 20 -4.024 5.498 -5.396

ATOM 189 CB ALA 20 -2.892 8.034 -7.126

ATOM 190 H ALA 20 -2.552 7.059 -4.283

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PDB file 2 –

COMPND BETA\_SHEET02\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 15 GLU TRP THR TYR ASP ASP ALA THR LYS THR PHE THR VAL

SEQRES 2 15 THR GLU

ATOM 1 N GLU 1 0.000 0.000 0.000

ATOM 2 CA GLU 1 1.458 0.000 0.000

ATOM 3 C GLU 1 2.009 1.422 0.000

ATOM 4 O GLU 1 1.419 2.327 -0.590

ATOM 5 CB GLU 1 1.994 -0.770 -1.209

ATOM 6 CG GLU 1 1.372 -2.144 -1.395

ATOM 7 CD GLU 1 1.721 -3.099 -0.269

ATOM 8 OE1 GLU 1 0.967 -3.145 0.726

ATOM 9 OE2 GLU 1 2.747 -3.801 -0.383

ATOM 10 H GLU 1 -0.491 0.876 0.088

ATOM 11 N TRP 2 3.144 1.611 0.665

ATOM 12 CA TRP 2 3.777 2.922 0.743

ATOM 13 C TRP 2 5.171 2.899 0.125

ATOM 14 O TRP 2 5.903 1.917 0.256

ATOM 15 CB TRP 2 3.867 3.388 2.198

ATOM 16 CG TRP 2 2.533 3.812 2.820

ATOM 17 CD1 TRP 2 1.539 2.938 3.309

ATOM 18 CD2 TRP 2 2.050 5.088 3.020

ATOM 19 NE1 TRP 2 0.432 3.645 3.818

ATOM 20 CE2 TRP 2 0.771 4.974 3.628

ATOM 21 CE3 TRP 2 2.606 6.360 2.729

ATOM 22 CZ2 TRP 2 0.038 6.138 3.949

ATOM 23 CZ3 TRP 2 1.867 7.497 3.054

ATOM 24 CH2 TRP 2 0.603 7.392 3.654

ATOM 25 H TRP 2 3.575 0.834 1.124

ATOM 26 HE1 TRP 2 -0.404 3.273 4.222

ATOM 27 N THR 3 5.533 3.987 -0.547

ATOM 28 CA THR 3 6.839 4.093 -1.186

ATOM 29 C THR 3 7.487 5.443 -0.896

ATOM 30 O THR 3 6.799 6.426 -0.621

ATOM 31 CB THR 3 6.740 3.900 -2.711

ATOM 32 OG1 THR 3 6.078 5.028 -3.296

ATOM 33 CG2 THR 3 5.981 2.615 -3.006

ATOM 34 H THR 3 4.834 4.702 -0.567

ATOM 35 HG1 THR 3 6.654 5.817 -3.045

ATOM 36 N TYR 4 8.814 5.483 -0.958

ATOM 37 CA TYR 4 9.556 6.711 -0.702

ATOM 38 C TYR 4 10.706 6.877 -1.691

ATOM 39 O TYR 4 11.521 5.972 -1.867

ATOM 40 CB TYR 4 10.102 6.720 0.727

ATOM 41 CG TYR 4 11.008 7.902 1.107

ATOM 42 CD1 TYR 4 10.479 9.197 1.134

ATOM 43 CD2 TYR 4 12.352 7.699 1.426

ATOM 44 CE1 TYR 4 11.286 10.277 1.475

ATOM 45 CE2 TYR 4 13.160 8.779 1.768

ATOM 46 CZ TYR 4 12.629 10.067 1.793

ATOM 47 OH TYR 4 13.425 11.125 2.129

ATOM 48 H TYR 4 9.235 4.607 -1.193

ATOM 49 HH TYR 4 12.875 11.960 2.093

ATOM 50 N ASP 5 10.764 8.039 -2.333

ATOM 51 CA ASP 5 11.813 8.325 -3.305

ATOM 52 C ASP 5 12.662 9.514 -2.866

ATOM 53 O ASP 5 12.198 10.654 -2.867

ATOM 54 CB ASP 5 11.206 8.607 -4.681

ATOM 55 CG ASP 5 12.260 8.788 -5.756

ATOM 56 OD1 ASP 5 13.434 9.026 -5.403

ATOM 57 OD2 ASP 5 11.911 8.692 -6.951

ATOM 58 H ASP 5 10.065 8.740 -2.144

ATOM 59 N ASP 6 13.907 9.239 -2.491

ATOM 60 CA ASP 6 14.822 10.285 -2.049

ATOM 61 C ASP 6 15.334 11.104 -3.229

ATOM 62 O ASP 6 15.950 12.155 -3.047

ATOM 63 CB ASP 6 16.005 9.677 -1.294

ATOM 64 CG ASP 6 16.811 10.716 -0.540

ATOM 65 OD1 ASP 6 16.197 11.612 0.076

ATOM 66 OD2 ASP 6 18.057 10.634 -0.564

ATOM 67 H ASP 6 14.227 8.284 -2.513

ATOM 68 N ALA 7 15.075 10.618 -4.438

ATOM 69 CA ALA 7 15.509 11.304 -5.649

ATOM 70 C ALA 7 14.547 12.427 -6.022

ATOM 71 O ALA 7 14.884 13.311 -6.809

ATOM 72 CB ALA 7 15.620 10.320 -6.805

ATOM 73 H ALA 7 14.566 9.752 -4.520

ATOM 74 N THR 8 13.348 12.386 -5.450

ATOM 75 CA THR 8 12.335 13.399 -5.720

ATOM 76 C THR 8 11.710 13.913 -4.428

ATOM 77 O THR 8 10.845 14.789 -4.450

ATOM 78 CB THR 8 11.223 12.856 -6.636

ATOM 79 OG1 THR 8 10.620 11.706 -6.030

ATOM 80 CG2 THR 8 11.815 12.503 -7.992

ATOM 81 H THR 8 13.219 11.609 -4.834

ATOM 82 HG1 THR 8 10.263 12.043 -5.149

ATOM 83 N LYS 9 12.154 13.363 -3.302

ATOM 84 CA LYS 9 11.640 13.765 -1.998

ATOM 85 C LYS 9 10.130 13.568 -1.917

ATOM 86 O LYS 9 9.410 14.421 -1.397

ATOM 87 CB LYS 9 11.984 15.228 -1.714

ATOM 88 CG LYS 9 13.334 15.410 -0.977

ATOM 89 CD LYS 9 14.576 15.228 -1.854

ATOM 90 CE LYS 9 15.833 15.435 -1.000

ATOM 91 NZ LYS 9 17.031 15.260 -1.841

ATOM 92 H LYS 9 12.857 12.666 -3.442

ATOM 93 1HZ LYS 9 17.856 15.394 -1.293

ATOM 94 2HZ LYS 9 17.044 14.339 -2.229

ATOM 95 3HZ LYS 9 17.025 15.926 -2.587

ATOM 96 N THR 10 9.656 12.439 -2.434

ATOM 97 CA THR 10 8.232 12.128 -2.421

ATOM 98 C THR 10 7.958 10.828 -1.673

ATOM 99 O THR 10 8.604 9.810 -1.920

ATOM 100 CB THR 10 7.665 12.017 -3.849

ATOM 101 OG1 THR 10 7.810 13.273 -4.523

ATOM 102 CG2 THR 10 6.202 11.607 -3.778

ATOM 103 H THR 10 10.361 11.844 -2.821

ATOM 104 HG1 THR 10 8.802 13.451 -4.515

ATOM 105 N PHE 11 6.996 10.870 -0.756

ATOM 106 CA PHE 11 6.634 9.696 0.029

ATOM 107 C PHE 11 5.369 9.039 -0.511

ATOM 108 O PHE 11 4.513 9.705 -1.094

ATOM 109 CB PHE 11 6.430 10.076 1.497

ATOM 110 CG PHE 11 7.691 10.465 2.285

ATOM 111 CD1 PHE 11 8.165 11.781 2.227

ATOM 112 CD2 PHE 11 8.370 9.521 3.059

ATOM 113 CE1 PHE 11 9.305 12.147 2.934

ATOM 114 CE2 PHE 11 9.511 9.888 3.767

ATOM 115 CZ PHE 11 9.978 11.199 3.705

ATOM 116 H PHE 11 6.560 11.766 -0.667

ATOM 117 N THR 12 5.257 7.730 -0.313

ATOM 118 CA THR 12 4.097 6.981 -0.780

ATOM 119 C THR 12 3.641 5.965 0.262

ATOM 120 O THR 12 4.460 5.361 0.955

ATOM 121 CB THR 12 4.392 6.248 -2.102

ATOM 122 OG1 THR 12 5.183 5.083 -1.839

ATOM 123 CG2 THR 12 5.118 7.192 -3.048

ATOM 124 H THR 12 6.031 7.326 0.175

ATOM 125 HG1 THR 12 4.620 4.531 -1.211

ATOM 126 N VAL 13 2.329 5.782 0.368

ATOM 127 CA VAL 13 1.761 4.839 1.326

ATOM 128 C VAL 13 0.837 3.842 0.636

ATOM 129 O VAL 13 -0.087 4.229 -0.080

ATOM 130 CB VAL 13 0.990 5.566 2.443

ATOM 131 CG1 VAL 13 -0.114 6.440 1.848

ATOM 132 CG2 VAL 13 1.939 6.404 3.287

ATOM 133 H VAL 13 1.710 6.308 -0.228

ATOM 134 N THR 14 1.093 2.556 0.855

ATOM 135 CA THR 14 0.285 1.501 0.256

ATOM 136 C THR 14 -0.301 0.581 1.322

ATOM 137 O THR 14 0.427 0.031 2.149

ATOM 138 CB THR 14 1.104 0.660 -0.740

ATOM 139 OG1 THR 14 1.512 1.481 -1.842

ATOM 140 CG2 THR 14 0.262 -0.511 -1.222

ATOM 141 H THR 14 1.875 2.396 1.458

ATOM 142 HG1 THR 14 2.056 2.217 -1.420

ATOM 143 N GLU 15 -1.619 0.418 1.297

ATOM 144 CA GLU 15 -2.305 -0.435 2.261

ATOM 145 C GLU 15 -2.519 -1.837 1.701

ATOM 146 O GLU 15 -1.771 -2.763 2.017

ATOM 147 CB GLU 15 -3.647 0.181 2.661

ATOM 148 CG GLU 15 -3.537 1.296 3.688

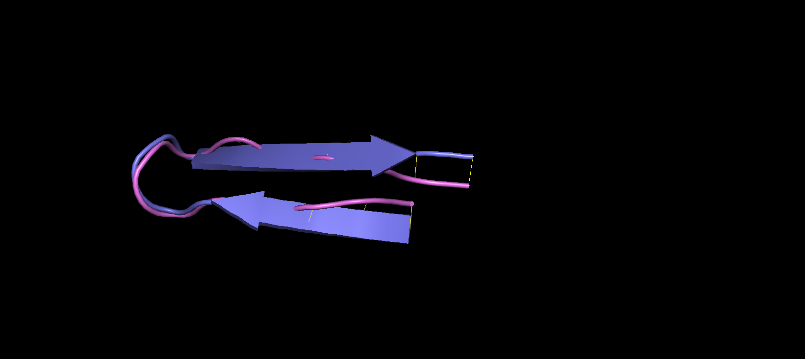
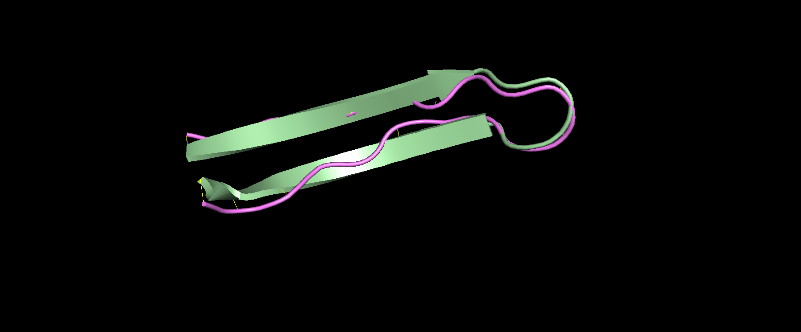
ATOM 149 CD GLU 15 -4.889 1.753 4.199

ATOM 150 OE1 GLU 15 -5.366 1.186 5.205

ATOM 151 OE2 GLU 15 -5.471 2.678 3.595

ATOM 152 H GLU 15 -2.160 0.897 0.593

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Compared Beta Sheet 2

Compared Beta Sheet 1

*BETA STRAND*



RIB file 1 –

TITLE Beta\_Strand01\_200106037\_Jash\_Lab\_03\_Reconstructed

res met phi 999.99 psi 145.00 chi1 175.82 chi2 112.35

res thr phi -94.12 psi 130.16 chi1 -53.43 chi2 999.99

res tyr phi -118.91 psi 150.32 chi1 -70.60 chi2 -77.61

res lys phi -119.14 psi 154.06 chi1 -166.50 chi2 -173.64

res leu phi -130.24 psi 126.59 chi1 170.61 chi2 68.09

res ile phi -102.91 psi 122.21 chi1 -64.65 chi2 173.96

res leu phi -102.99 psi 122.37 chi1 -62.88 chi2 136.30

res asn phi -130.49 psi 61.26 chi1 171.08 chi2 58.40

res gly phi -85.39 psi -179.91 chi1 999.99 chi2 999.99

RIB file 2 –

TITLE Beta\_Strand02\_200106037\_Jash\_Lab\_03\_Reconstructed

res LEU phi -109.46 psi 127.61 chi1 -149.07 chi2 -163.96

res LYS phi -132.35 psi 146.40 chi1 -69.23 chi2 -152.93

res GLY phi 143.28 psi -158.04 chi1 999.99 chi2 999.99

res GLU phi -143.26 psi 143.28 chi1 -53.13 chi2 177.84

res THR phi -140.45 psi 163.51 chi1 27.98 chi2 999.99

res THR phi -131.97 psi 172.07 chi1 65.65 chi2 999.99

res THR phi -158.62 psi 156.12 chi1 -165.47 chi2 999.99

res GLU phi -100.12 psi 135.93 chi1 -51.73 chi2 -64.66

res ALA phi -152.52 psi 155.52 chi1 999.99 chi2 999.99

RIB file 3 –

TITLE Beta\_Strand03\_200106037\_Jash\_Lab\_03\_Reconstructed

res GLU phi -92.44 psi 146.10 chi1 -49.77 chi2 -65.77

res TRP phi -119.10 psi 142.92 chi1 -72.58 chi2 78.70

res THR phi -134.25 psi 154.92 chi1 69.98 chi2 999.99

res TYR phi -138.74 psi 127.94 chi1 175.09 chi2 64.77

res ASP phi -118.34 psi 110.00 chi1 -174.84 chi2 -17.48

RIB file 4 –

TITLE Beta\_Strand04\_200106037\_Jash\_Lab\_03\_Reconstructed

res LYS phi 57.83 psi 42.60 chi1 -90.76 chi2 75.74

res THR phi -120.90 psi 130.84 chi1 -61.92 chi2 999.99

res PHE phi -101.12 psi 151.42 chi1 -70.02 chi2 84.73

res THR phi -138.39 psi 143.39 chi1 76.60 chi2 999.99

res VAL phi -125.66 psi 126.65 chi1 57.23 chi2 999.99

res THR phi -123.28 psi 125.57 chi1 -64.38 chi2 999.99

res glu phi -94.99 psi 999.99 chi1 -79.21 chi1 -172.24

Reconstructed PDB File –



PDB file 1 –

COMPND BETA\_STRAND01\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 9 MET THR TYR LYS LEU ILE LEU ASN GLY

ATOM 1 N MET 1 0.000 0.000 0.000

ATOM 2 CA MET 1 1.458 0.000 0.000

ATOM 3 C MET 1 2.009 1.422 0.000

ATOM 4 O MET 1 1.430 2.323 -0.606

ATOM 5 CB MET 1 1.994 -0.759 -1.215

ATOM 6 CG MET 1 3.528 -0.750 -1.392

ATOM 7 SD MET 1 4.181 -2.409 -1.132

ATOM 8 CE MET 1 5.922 -2.054 -1.402

ATOM 9 H MET 1 -0.565 0.681 0.465

ATOM 10 N THR 2 3.132 1.616 0.684

ATOM 11 CA THR 2 3.764 2.927 0.764

ATOM 12 C THR 2 4.835 3.090 -0.309

ATOM 13 O THR 2 5.701 2.230 -0.471

ATOM 14 CB THR 2 4.396 3.166 2.148

ATOM 15 OG1 THR 2 3.418 2.938 3.169

ATOM 16 CG2 THR 2 4.931 4.588 2.218

ATOM 17 H THR 2 3.486 0.790 1.124

ATOM 18 HG1 THR 2 3.132 1.981 3.037

ATOM 19 N TYR 3 4.771 4.199 -1.039

ATOM 20 CA TYR 3 5.734 4.476 -2.097

ATOM 21 C TYR 3 6.512 5.757 -1.814

ATOM 22 O TYR 3 6.001 6.675 -1.172

ATOM 23 CB TYR 3 5.027 4.593 -3.449

ATOM 24 CG TYR 3 4.465 3.291 -4.042

ATOM 25 CD1 TYR 3 5.332 2.381 -4.658

ATOM 26 CD2 TYR 3 3.100 3.005 -3.973

ATOM 27 CE1 TYR 3 4.838 1.199 -5.199

ATOM 28 CE2 TYR 3 2.606 1.821 -4.515

ATOM 29 CZ TYR 3 3.473 0.919 -5.127

ATOM 30 OH TYR 3 2.984 -0.241 -5.657

ATOM 31 H TYR 3 4.013 4.803 -0.792

ATOM 32 HH TYR 3 3.746 -0.756 -6.049

ATOM 33 N LYS 4 7.749 5.811 -2.296

ATOM 34 CA LYS 4 8.599 6.979 -2.095

ATOM 35 C LYS 4 8.997 7.607 -3.426

ATOM 36 O LYS 4 9.038 6.932 -4.454

ATOM 37 CB LYS 4 9.856 6.598 -1.310

ATOM 38 CG LYS 4 10.639 7.821 -0.772

ATOM 39 CD LYS 4 11.982 7.487 -0.114

ATOM 40 CE LYS 4 12.644 8.783 0.370

ATOM 41 NZ LYS 4 13.936 8.465 1.004

ATOM 42 H LYS 4 8.026 4.991 -2.795

ATOM 43 1HZ LYS 4 14.376 9.304 1.323

ATOM 44 2HZ LYS 4 13.794 7.856 1.784

ATOM 45 3HZ LYS 4 14.538 8.013 0.345

ATOM 46 N LEU 5 9.289 8.903 -3.399

ATOM 47 CA LEU 5 9.683 9.625 -4.603

ATOM 48 C LEU 5 10.956 10.432 -4.370

ATOM 49 O LEU 5 11.037 11.225 -3.432

ATOM 50 CB LEU 5 8.555 10.548 -5.068

ATOM 51 CG LEU 5 8.903 11.532 -6.187

ATOM 52 CD1 LEU 5 9.159 10.794 -7.492

ATOM 53 CD2 LEU 5 10.152 12.326 -5.837

ATOM 54 H LEU 5 9.236 9.401 -2.524

ATOM 55 N ILE 6 11.949 10.223 -5.229

ATOM 56 CA ILE 6 13.219 10.930 -5.119

ATOM 57 C ILE 6 13.316 12.054 -6.145

ATOM 58 O ILE 6 13.210 11.818 -7.349

ATOM 59 CB ILE 6 14.414 9.974 -5.289

ATOM 60 CG1 ILE 6 14.449 8.956 -4.147

ATOM 61 CG2 ILE 6 15.717 10.755 -5.349

ATOM 62 CD1 ILE 6 15.508 7.888 -4.315

ATOM 63 H ILE 6 11.819 9.559 -5.977

ATOM 64 N LEU 7 13.518 13.275 -5.661

ATOM 65 CA LEU 7 13.630 14.436 -6.535

ATOM 66 C LEU 7 15.083 14.870 -6.694

ATOM 67 O LEU 7 15.763 15.167 -5.711

ATOM 68 CB LEU 7 12.793 15.597 -5.994

ATOM 69 CG LEU 7 11.282 15.365 -5.915

ATOM 70 CD1 LEU 7 10.728 15.878 -4.595

ATOM 71 CD2 LEU 7 10.960 13.882 -6.021

ATOM 72 H LEU 7 13.596 13.401 -4.664

ATOM 73 N ASN 8 15.554 14.903 -7.936

ATOM 74 CA ASN 8 16.927 15.300 -8.225

ATOM 75 C ASN 8 16.976 16.352 -9.328

ATOM 76 O ASN 8 17.564 16.128 -10.386

ATOM 77 CB ASN 8 17.764 14.083 -8.623

ATOM 78 CG ASN 8 19.137 14.464 -9.141

ATOM 79 OD1 ASN 8 19.917 15.110 -8.442

ATOM 80 ND2 ASN 8 19.436 14.064 -10.371

ATOM 81 H ASN 8 14.946 14.648 -8.698

ATOM 82 1HD2 ASN 8 20.336 14.288 -10.770

ATOM 83 2HD2 ASN 8 18.763 13.535 -10.908

ATOM 84 N GLY 9 16.356 17.499 -9.073

ATOM 85 CA GLY 9 16.328 18.587 -10.044

ATOM 86 C GLY 9 17.574 19.459 -9.931

ATOM 87 O GLY 9 18.447 19.206 -9.100

ATOM 88 H GLY 9 15.893 17.620 -8.186

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PDB file 2 –

COMPND BETA\_STRAND02\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 9 LEU LYS GLY GLU THR THR THR GLU ALA

ATOM 1 N LEU 1 0.000 0.000 0.000

ATOM 2 CA LEU 1 1.458 0.000 0.000

ATOM 3 C LEU 1 2.009 1.422 0.000

ATOM 4 O LEU 1 1.636 2.243 -0.838

ATOM 5 CB LEU 1 1.994 -0.770 -1.209

ATOM 6 CG LEU 1 3.333 -1.484 -1.018

ATOM 7 CD1 LEU 1 3.936 -1.865 -2.362

ATOM 8 CD2 LEU 1 3.154 -2.754 -0.200

ATOM 9 H LEU 1 -0.491 0.878 0.064

ATOM 10 N LYS 2 2.900 1.706 0.945

ATOM 11 CA LYS 2 3.504 3.028 1.055

ATOM 12 C LYS 2 5.018 2.931 1.211

ATOM 13 O LYS 2 5.531 1.992 1.820

ATOM 14 CB LYS 2 2.913 3.790 2.243

ATOM 15 CG LYS 2 1.434 4.200 2.036

ATOM 16 CD LYS 2 0.997 5.447 2.811

ATOM 17 CE LYS 2 -0.480 5.735 2.514

ATOM 18 NZ LYS 2 -0.904 6.934 3.258

ATOM 19 H LYS 2 3.105 0.938 1.552

ATOM 20 1HZ LYS 2 -1.866 7.131 3.071

ATOM 21 2HZ LYS 2 -0.788 6.786 4.241

ATOM 22 3HZ LYS 2 -0.352 7.721 2.982

ATOM 23 N GLY 3 5.729 3.908 0.657

ATOM 24 CA GLY 3 7.185 3.934 0.733

ATOM 25 C GLY 3 7.795 4.472 -0.557

ATOM 26 O GLY 3 7.135 5.176 -1.321

ATOM 27 H GLY 3 5.249 4.649 0.171

ATOM 28 N GLU 4 9.059 4.135 -0.793

ATOM 29 CA GLU 4 9.760 4.583 -1.990

ATOM 30 C GLU 4 10.698 3.502 -2.517

ATOM 31 O GLU 4 11.317 2.772 -1.743

ATOM 32 CB GLU 4 10.546 5.864 -1.704

ATOM 33 CG GLU 4 9.714 6.978 -1.089

ATOM 34 CD GLU 4 10.536 8.211 -0.771

ATOM 35 OE1 GLU 4 10.650 9.092 -1.649

ATOM 36 OE2 GLU 4 11.067 8.297 0.357

ATOM 37 H GLU 4 9.545 3.555 -0.127

ATOM 38 N THR 5 10.797 3.404 -3.839

ATOM 39 CA THR 5 11.659 2.413 -4.471

ATOM 40 C THR 5 12.367 2.995 -5.690

ATOM 41 O THR 5 11.971 4.038 -6.211

ATOM 42 CB THR 5 10.864 1.165 -4.899

ATOM 43 OG1 THR 5 9.506 1.530 -5.171

ATOM 44 CG2 THR 5 10.932 0.123 -3.793

ATOM 45 H THR 5 10.235 4.064 -4.337

ATOM 46 HG1 THR 5 9.571 2.215 -5.908

ATOM 47 N THR 6 13.416 2.314 -6.140

ATOM 48 CA THR 6 14.181 2.761 -7.298

ATOM 49 C THR 6 14.409 1.620 -8.283

ATOM 50 O THR 6 14.099 0.465 -7.992

ATOM 51 CB THR 6 15.542 3.348 -6.882

ATOM 52 OG1 THR 6 16.357 2.316 -6.313

ATOM 53 CG2 THR 6 15.321 4.474 -5.884

ATOM 54 H THR 6 13.617 1.487 -5.615

ATOM 55 HG1 THR 6 16.442 1.628 -7.045

ATOM 56 N THR 7 14.953 1.951 -9.449

ATOM 57 CA THR 7 15.224 0.955 -10.479

ATOM 58 C THR 7 16.284 1.449 -11.458

ATOM 59 O THR 7 16.484 2.653 -11.617

ATOM 60 CB THR 7 13.948 0.590 -11.260

ATOM 61 OG1 THR 7 14.172 -0.609 -12.013

ATOM 62 CG2 THR 7 13.573 1.743 -12.179

ATOM 63 H THR 7 15.150 2.927 -9.541

ATOM 64 HG1 THR 7 14.411 -1.301 -11.320

ATOM 65 N GLU 8 16.960 0.510 -12.112

ATOM 66 CA GLU 8 18.001 0.847 -13.077

ATOM 67 C GLU 8 17.478 0.756 -14.506

ATOM 68 O GLU 8 16.782 -0.194 -14.863

ATOM 69 CB GLU 8 19.212 -0.071 -12.902

ATOM 70 CG GLU 8 19.734 -0.145 -11.476

ATOM 71 CD GLU 8 20.279 1.182 -10.986

ATOM 72 OE1 GLU 8 19.497 1.971 -10.415

ATOM 73 OE2 GLU 8 21.488 1.432 -11.172

ATOM 74 H GLU 8 16.749 -0.460 -11.937

ATOM 75 N ALA 9 17.818 1.750 -15.320

ATOM 76 CA ALA 9 17.384 1.784 -16.712

ATOM 77 C ALA 9 18.371 2.558 -17.579

ATOM 78 O ALA 9 19.106 3.414 -17.086

ATOM 79 CB ALA 9 16.003 2.411 -16.821

ATOM 80 H ALA 9 18.391 2.500 -14.966

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PDB file 3 –

COMPND BETA\_STRAND03\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 5 GLU TRP THR TYR ASP

ATOM 1 N GLU 1 0.000 0.000 0.000

ATOM 2 CA GLU 1 1.458 0.000 0.000

ATOM 3 C GLU 1 2.009 1.422 0.000

ATOM 4 O GLU 1 1.419 2.327 -0.590

ATOM 5 CB GLU 1 1.994 -0.770 -1.209

ATOM 6 CG GLU 1 1.372 -2.144 -1.395

ATOM 7 CD GLU 1 1.721 -3.099 -0.269

ATOM 8 OE1 GLU 1 0.967 -3.145 0.726

ATOM 9 OE2 GLU 1 2.747 -3.801 -0.383

ATOM 10 H GLU 1 -0.491 0.876 0.088

ATOM 11 N TRP 2 3.144 1.611 0.665

ATOM 12 CA TRP 2 3.777 2.922 0.743

ATOM 13 C TRP 2 5.171 2.899 0.125

ATOM 14 O TRP 2 5.903 1.917 0.256

ATOM 15 CB TRP 2 3.867 3.388 2.198

ATOM 16 CG TRP 2 2.533 3.812 2.820

ATOM 17 CD1 TRP 2 1.539 2.938 3.309

ATOM 18 CD2 TRP 2 2.050 5.088 3.020

ATOM 19 NE1 TRP 2 0.432 3.645 3.818

ATOM 20 CE2 TRP 2 0.771 4.974 3.628

ATOM 21 CE3 TRP 2 2.606 6.360 2.729

ATOM 22 CZ2 TRP 2 0.038 6.138 3.949

ATOM 23 CZ3 TRP 2 1.867 7.497 3.054

ATOM 24 CH2 TRP 2 0.603 7.392 3.654

ATOM 25 H TRP 2 3.575 0.834 1.124

ATOM 26 HE1 TRP 2 -0.404 3.273 4.222

ATOM 27 N THR 3 5.533 3.987 -0.547

ATOM 28 CA THR 3 6.839 4.093 -1.186

ATOM 29 C THR 3 7.487 5.443 -0.896

ATOM 30 O THR 3 6.799 6.426 -0.621

ATOM 31 CB THR 3 6.740 3.900 -2.711

ATOM 32 OG1 THR 3 6.078 5.028 -3.296

ATOM 33 CG2 THR 3 5.981 2.615 -3.006

ATOM 34 H THR 3 4.834 4.702 -0.567

ATOM 35 HG1 THR 3 6.654 5.817 -3.045

ATOM 36 N TYR 4 8.814 5.483 -0.958

ATOM 37 CA TYR 4 9.556 6.711 -0.702

ATOM 38 C TYR 4 10.706 6.877 -1.691

ATOM 39 O TYR 4 11.521 5.972 -1.867

ATOM 40 CB TYR 4 10.102 6.720 0.727

ATOM 41 CG TYR 4 11.008 7.902 1.107

ATOM 42 CD1 TYR 4 10.479 9.197 1.134

ATOM 43 CD2 TYR 4 12.352 7.699 1.426

ATOM 44 CE1 TYR 4 11.286 10.277 1.475

ATOM 45 CE2 TYR 4 13.160 8.779 1.768

ATOM 46 CZ TYR 4 12.629 10.067 1.793

ATOM 47 OH TYR 4 13.425 11.125 2.129

ATOM 48 H TYR 4 9.235 4.607 -1.193

ATOM 49 HH TYR 4 12.875 11.960 2.093

ATOM 50 N ASP 5 10.764 8.039 -2.333

ATOM 51 CA ASP 5 11.813 8.325 -3.305

ATOM 52 C ASP 5 12.662 9.514 -2.866

ATOM 53 O ASP 5 12.198 10.654 -2.867

ATOM 54 CB ASP 5 11.206 8.607 -4.681

ATOM 55 CG ASP 5 12.260 8.788 -5.756

ATOM 56 OD1 ASP 5 13.434 9.026 -5.403

ATOM 57 OD2 ASP 5 11.911 8.692 -6.951

ATOM 58 H ASP 5 10.065 8.740 -2.144

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PDB file 4 –

COMPND BETA\_STRAND04\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 7 LYS THR PHE THR VAL THR GLU

ATOM 1 N LYS 1 0.000 0.000 0.000

ATOM 2 CA LYS 1 1.458 0.000 0.000

ATOM 3 C LYS 1 2.009 1.422 0.000

ATOM 4 O LYS 1 2.963 1.728 -0.716

ATOM 5 CB LYS 1 1.994 -0.759 -1.215

ATOM 6 CG LYS 1 2.227 -2.267 -0.945

ATOM 7 CD LYS 1 0.954 -3.117 -0.901

ATOM 8 CE LYS 1 1.332 -4.579 -0.628

ATOM 9 NZ LYS 1 0.108 -5.400 -0.585

ATOM 10 H LYS 1 -0.565 0.820 0.089

ATOM 11 1HZ LYS 1 0.344 -6.356 -0.407

ATOM 12 2HZ LYS 1 -0.497 -5.075 0.141

ATOM 13 3HZ LYS 1 -0.373 -5.342 -1.459

ATOM 14 N THR 2 1.403 2.286 0.807

ATOM 15 CA THR 2 1.832 3.677 0.902

ATOM 16 C THR 2 2.240 4.032 2.327

ATOM 17 O THR 2 1.511 3.755 3.280

ATOM 18 CB THR 2 0.725 4.642 0.439

ATOM 19 OG1 THR 2 0.417 4.395 -0.938

ATOM 20 CG2 THR 2 1.191 6.075 0.641

ATOM 21 H THR 2 0.645 1.892 1.326

ATOM 22 HG1 THR 2 0.122 3.431 -0.963

ATOM 23 N PHE 3 3.410 4.646 2.467

ATOM 24 CA PHE 3 3.917 5.041 3.776

ATOM 25 C PHE 3 3.700 6.529 4.026

ATOM 26 O PHE 3 3.664 7.327 3.089

ATOM 27 CB PHE 3 5.407 4.711 3.895

ATOM 28 CG PHE 3 5.773 3.221 3.978

ATOM 29 CD1 PHE 3 5.916 2.478 2.802

ATOM 30 CD2 PHE 3 5.965 2.600 5.215

ATOM 31 CE1 PHE 3 6.248 1.128 2.861

ATOM 32 CE2 PHE 3 6.297 1.250 5.274

ATOM 33 CZ PHE 3 6.439 0.514 4.100

Reconstructed Beta Strand 1

ATOM 34 H PHE 3 3.891 4.804 1.604

ATOM 35 N THR 4 3.556 6.896 5.295

ATOM 36 CA THR 4 3.342 8.289 5.671

ATOM 37 C THR 4 4.155 8.658 6.907

ATOM 38 O THR 4 4.319 7.847 7.819

ATOM 39 CB THR 4 1.854 8.578 5.942

ATOM 40 OG1 THR 4 1.488 8.055 7.225

ATOM 41 CG2 THR 4 1.011 7.949 4.843

Reconstructed Beta Strand 2

ATOM 42 H THR 4 3.608 6.137 5.945

ATOM 43 HG1 THR 4 2.097 8.530 7.874

ATOM 44 N VAL 5 4.662 9.886 6.931

ATOM 45 CA VAL 5 5.459 10.364 8.054

ATOM 46 C VAL 5 4.893 11.664 8.617

ATOM 47 O VAL 5 4.686 12.631 7.885

ATOM 48 CB VAL 5 6.931 10.576 7.653

ATOM 49 CG1 VAL 5 7.029 11.556 6.482

Reconstructed Beta Strand 3

ATOM 50 CG2 VAL 5 7.581 9.249 7.293

ATOM 51 H VAL 5 4.492 10.502 6.152

ATOM 52 N THR 6 4.646 11.679 9.923

ATOM 53 CA THR 6 4.104 12.858 10.587

ATOM 54 C THR 6 5.011 13.316 11.724

ATOM 55 O THR 6 5.342 12.538 12.618

ATOM 56 CB THR 6 2.693 12.595 11.143

ATOM 57 OG1 THR 6 1.790 12.336 10.061

Reconstructed Beta Strand 4

ATOM 58 CG2 THR 6 2.237 13.801 11.950

ATOM 59 H THR 6 4.865 10.820 10.387

ATOM 60 HG1 THR 6 2.177 11.529 9.596

ATOM 61 N GLU 7 5.409 14.584 11.683

ATOM 62 CA GLU 7 6.278 15.148 12.709

ATOM 63 C GLU 7 5.467 15.852 13.792

ATOM 64 O GLU 7 5.231 15.295 14.864

ATOM 65 CB GLU 7 7.279 16.123 12.087

ATOM 66 CG GLU 7 8.345 16.618 13.051

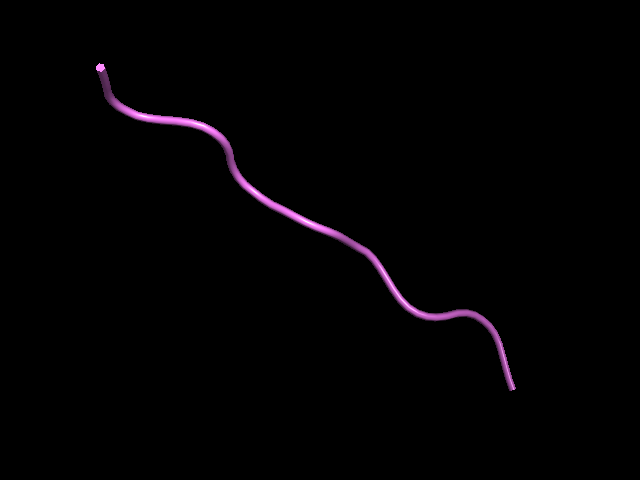
ATOM 67 CD GLU 7 9.318 17.581 12.400

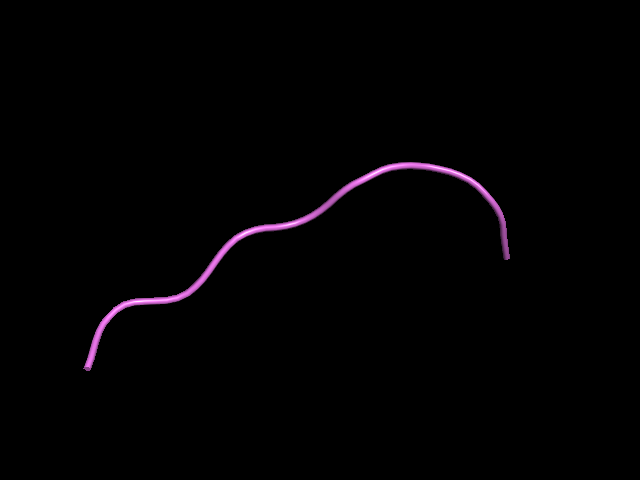
ATOM 68 OE1 GLU 7 9.053 18.801 12.426

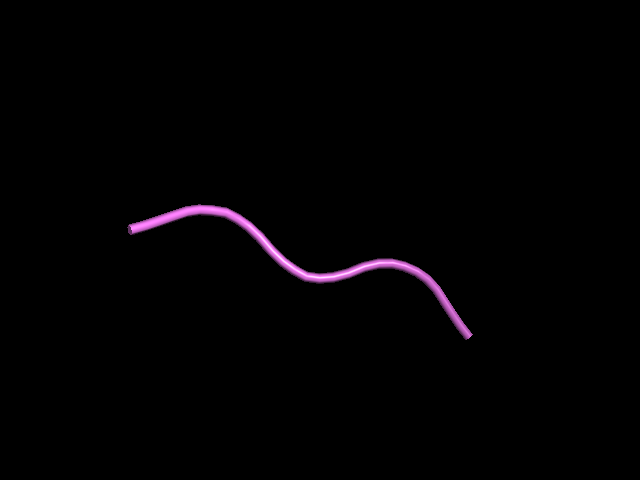
ATOM 69 OE2 GLU 7 10.345 17.115 11.863

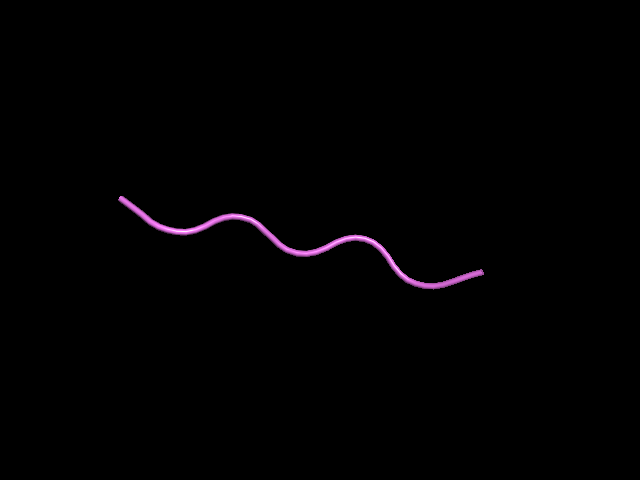
ATOM 70 H GLU 7 5.102 15.170 10.923

TER

Beta Strand 1

Beta Strand 2

Beta Strand 3

Beta Strand 4

VADAR INFORMATION FILE



\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Package...: VADAR (c)

\* Version...: 1.5, December 2007

\* Location..: University of Alberta

\* Protein Engineering Network of

\* Centres of Excellence

\* Input.....: /var/www/html/vadar/public\_html/temp/1675162923/1675162923.txt\_m0

\* Date......: Tue Jan 31 11:02:04 2023

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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\* MAIN CHAIN INFORMATION PANEL \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

RES. RES. SCND HBOND BTURN RES. FRAC. RES. FRAC. PHI PSI OMEGA PRBLM

NUM. NAME STRUC HBOND BTURN ASA ASA VOL. VOL. PHI PSI OMEGA PRBLM

----------------------------------------------------------------------------------------

Chain A

1 MET BCC C 20A 132.8 0.61 154.6 0.95 0.0 145.0 -179.5

2 THR BBB B 71.4 0.47 103.0 0.88 -94.1 130.2 178.8

3 TYR BBB B 18A,18A 7.4 0.03 195.9 1.02 -118.9 150.3 179.2

4 LYS BBB B 52A,50A 61.0 0.28 163.1 1.06 -119.1 154.1 174.8

5 LEU BBB B 16A,16A 0.0 0.00 157.9 0.97 -130.2 126.6 175.6

6 ILE BBB B 54A,52A 68.7 0.35 152.1 0.94 -102.9 122.2 -178.0

7 LEU BBB B 14A,14A 6.3 0.03 172.2 1.05 -103.0 122.4 178.2

8 ASN BCB B 56A,54A 52.7 0.32 103.6 0.88 -130.5 61.3 179.3

9 GLY BCC C 12A 2.3 0.02 63.8 1.01 -85.4 179.9 -178.8

10 LYS CCC C 168.9 0.79 151.2 0.98 -73.0 -36.6 -178.2

11 THR CBC C 127.3 0.84 100.3 0.86 -108.3 -37.9 -180.0

12 LEU CBC C 9A 49.4 0.24 167.4 1.02 -109.5 127.6 178.9

13 LYS CBC C 131.3 0.61 140.9 0.91 -132.4 146.4 178.5

14 GLY CCC C 7A,7A 38.3 0.42 59.6 0.95 143.3 -158.0 -177.9

15 GLU BBB B 99.9 0.53 116.3 0.87 -143.3 143.3 174.9

16 THR BBB B 5A,5A 55.7 0.37 126.5 1.08 -140.4 163.5 179.6

17 THR BBB B 73.9 0.49 107.1 0.92 -132.0 172.1 176.5

18 THR BBB B 3A,3A 32.6 0.22 117.3 1.00 -158.6 156.1 176.1

19 GLU BBB B 128.7 0.68 116.3 0.87 -100.1 135.9 178.0

20 ALA BBB B 1A 12.7 0.10 78.9 0.90 -152.5 155.5 -179.8

21 VAL CCC C 133.3 0.78 117.5 0.86 -69.4 -39.4 179.7

22 ASP CCH C 25A,26A 65.0 0.41 103.3 0.91 -146.8 -179.3 -178.2

23 ALA HHH H 26A,27A 30.7 0.25 80.3 0.92 -69.2 -32.2 179.8

24 ALA HHH H 27A,28A 64.6 0.52 74.7 0.86 -73.5 -27.7 180.0

25 THR HHH H 22A,29A 41.3 0.27 104.6 0.90 -75.9 -40.4 179.9

26 ALA HHH H 22A,30A 0.1 0.00 89.0 1.02 -65.9 -35.9 178.1

27 GLU HHH H 23A,31A 60.5 0.32 126.2 0.95 -64.4 -34.0 178.7

28 LYS HHH H 24A,32A 120.8 0.56 150.9 0.98 -64.6 -56.7 -179.5

29 VAL HHH H 25A,33A 77.0 0.45 131.1 0.96 -65.1 -35.6 179.9

30 PHE HHH H 26A,34A 4.5 0.02 197.2 1.01 -66.6 -41.0 176.5

31 LYS HHH H 27A,35A 86.1 0.40 148.0 0.96 -61.6 -44.9 178.2

32 GLN HHH H 28A,36A 116.9 0.62 179.0 1.29 -62.2 -42.0 179.9 V

33 TYR HHH H 29A,37A 74.4 0.31 188.7 0.99 -63.8 -40.0 -179.4

34 ALA HHH H 30A,39A 1.9 0.02 94.2 1.08 -68.0 -44.6 178.4

35 ASN HHH H 31A,38A I 107.9 0.65 102.3 0.87 -66.6 -31.3 -179.5

36 ASP HHH H 32A,33A I 118.5 0.75 97.1 0.85 -73.0 -27.3 -179.1

37 ASN HCH H 33A,34A I 69.0 0.42 116.2 0.99 -98.9 20.4 178.2

38 GLY CCC C 35A I 63.7 0.70 56.3 0.89 61.9 15.5 -179.9

39 VAL CCC C 34A,37A 9.6 0.06 166.6 1.23 -84.0 133.6 -177.7 V

40 ASP BCC C 121.3 0.77 112.4 0.99 -142.1 94.0 -179.6

41 GLY BCC C 23.9 0.26 60.2 0.96 -140.7 -157.5 177.9

42 GLU BBB B 55A,55A 136.1 0.72 123.6 0.93 -92.4 146.1 -176.1

43 TRP BBB B 65.2 0.24 205.0 0.89 -119.1 142.9 173.5

44 THR BBB B 53A,53A 89.2 0.59 108.1 0.93 -134.2 154.9 178.4

45 TYR BBB B 77.9 0.32 177.0 0.93 -138.7 127.9 179.8

46 ASP BBB B 50A,51A 69.7 0.44 109.9 0.97 -118.3 110.0 -178.2

47 ASP CCC C 82.7 0.53 99.1 0.87 -75.1 -11.3 177.2

48 ALA CCC C 46A 93.7 0.76 72.0 0.83 -81.7 -17.0 179.5

49 THR CCC C 46A 89.6 0.59 101.9 0.87 -132.3 -1.0 176.8

50 LYS CCC C 46A,4A 61.3 0.29 154.1 1.00 57.8 42.6 -177.5

51 THR BBB B 46A 17.3 0.11 116.8 1.00 -120.9 130.8 175.9

52 PHE BBB B 4A,6A 4.5 0.02 189.8 0.97 -101.1 151.4 171.8

53 THR BBB B 44A,44A 36.6 0.24 122.7 1.05 -138.4 143.4 176.5

54 VAL BBB B 6A,8A 0.2 0.00 138.6 1.02 -125.7 126.6 -178.1

55 THR BBB B 42A,42A 61.2 0.40 115.8 0.99 -123.3 125.6 177.9

56 GLU BBB B 8A 80.8 0.43 149.0 1.12 -95.0 148.7 0.0 C

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Notes on PRBLM column:

A - indicates possible problem with fractional ASA (fASA > 1.0)

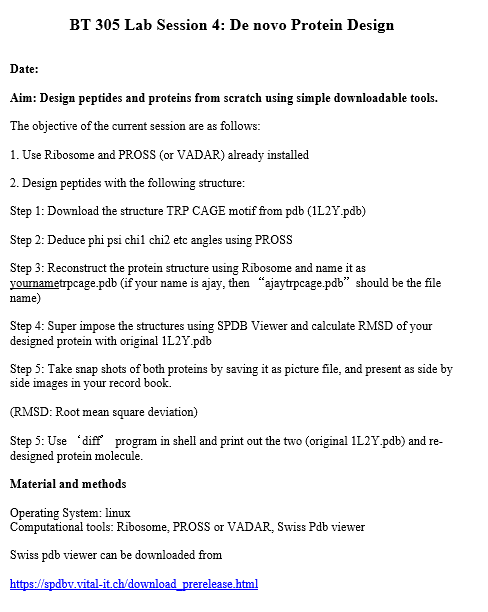
V - indicates possible problem with fractional volume (fV < 0.8 or fV > 1.2)

P - indicates possible problem with Phi and Psi angles (Morris, et al, 1992)

O - indicates possible problem with Omega angle (omega > 170 or omega < -170)

C - indicates cis peptide bond (-20 < omega < 20)

# LAB04



MODEL 13 RIB FILE –

TITLE 1L2Y\_JASH\_TRPCAGE\_200106037\_MODEL-13

default helix

res asn phi 0.0 psi -44.5 chi1 -78.4

res leu phi 66.3 psi -33.7 chi1 -60.2

res tyr phi -56.0 psi -33.5 chi1 -146.5

res ile phi -63.6 psi -50.8 chi1 -52.1

res gln phi -60.9 psi -42.1 chi1 -77.4

res trp phi -62.0 psi -46.1 chi1 -177.5

res leu phi -60.9 psi -37.8 chi1 -76.6

res lys phi -56.7 psi -28.3 chi1 -165.8

res asp phi -75.9 psi -11.0 chi1 -58.2

res gly phi 106.7 psi 11.2

res gly phi 59.9 psi -127.8

res pro phi -58.0 psi -20.7 chi1 -20.7

res ser phi -89.0 psi 5.0 chi1 66.5

res ser phi -99.1 psi -1.2 chi1 -49.4

res gly phi 75.8 psi -35.0

res arg phi -72.9 psi 133.8 chi1 -164.2

res pro phi -66.4 psi 157.7 chi1 26.6

res pro phi -70.2 psi 134.9 chi1 27.3

res pro phi -77.1 psi 142.1 chi1 32.1

res ser phi -103.8 psi -49.1 chi1 -165.6

Original PDB File (Model 13) –



ATOM 1 N ASN A 1 -7.908 6.785 -1.311 1.00 0.00 N

ATOM 2 CA ASN A 1 -7.019 6.327 -0.216 1.00 0.00 C

ATOM 3 C ASN A 1 -5.683 5.747 -0.661 1.00 0.00 C

ATOM 4 O ASN A 1 -4.708 6.050 0.013 1.00 0.00 O

ATOM 5 CB ASN A 1 -7.728 5.352 0.732 1.00 0.00 C

ATOM 6 CG ASN A 1 -8.620 6.137 1.676 1.00 0.00 C

ATOM 7 OD1 ASN A 1 -9.560 6.770 1.223 1.00 0.00 O

ATOM 8 ND2 ASN A 1 -8.313 6.173 2.959 1.00 0.00 N

ATOM 9 H1 ASN A 1 -7.434 7.466 -1.890 1.00 0.00 H

ATOM 10 H2 ASN A 1 -8.205 6.004 -1.879 1.00 0.00 H

ATOM 11 H3 ASN A 1 -8.733 7.210 -0.902 1.00 0.00 H

ATOM 12 HA ASN A 1 -6.754 7.204 0.378 1.00 0.00 H

ATOM 13 HB2 ASN A 1 -8.324 4.666 0.162 1.00 0.00 H

ATOM 14 HB3 ASN A 1 -6.996 4.787 1.311 1.00 0.00 H

ATOM 15 HD21 ASN A 1 -7.513 5.701 3.351 1.00 0.00 H

ATOM 16 HD22 ASN A 1 -8.923 6.730 3.536 1.00 0.00 H

ATOM 17 N LEU A 2 -5.615 4.880 -1.688 1.00 0.00 N

ATOM 18 CA LEU A 2 -4.406 4.163 -2.156 1.00 0.00 C

ATOM 19 C LEU A 2 -3.837 3.130 -1.158 1.00 0.00 C

ATOM 20 O LEU A 2 -3.364 2.071 -1.568 1.00 0.00 O

ATOM 21 CB LEU A 2 -3.322 5.161 -2.622 1.00 0.00 C

ATOM 22 CG LEU A 2 -3.769 6.069 -3.790 1.00 0.00 C

ATOM 23 CD1 LEU A 2 -3.562 7.551 -3.463 1.00 0.00 C

ATOM 24 CD2 LEU A 2 -3.001 5.730 -5.068 1.00 0.00 C

ATOM 25 H LEU A 2 -6.452 4.624 -2.189 1.00 0.00 H

ATOM 26 HA LEU A 2 -4.692 3.585 -3.037 1.00 0.00 H

ATOM 27 HB2 LEU A 2 -3.057 5.785 -1.790 1.00 0.00 H

ATOM 28 HB3 LEU A 2 -2.440 4.595 -2.923 1.00 0.00 H

ATOM 29 HG LEU A 2 -4.830 5.921 -3.991 1.00 0.00 H

ATOM 30 HD11 LEU A 2 -4.099 7.813 -2.552 1.00 0.00 H

ATOM 31 HD12 LEU A 2 -2.502 7.762 -3.318 1.00 0.00 H

ATOM 32 HD13 LEU A 2 -3.938 8.167 -4.281 1.00 0.00 H

ATOM 33 HD21 LEU A 2 -1.934 5.911 -4.924 1.00 0.00 H

ATOM 34 HD22 LEU A 2 -3.157 4.681 -5.323 1.00 0.00 H

ATOM 35 HD23 LEU A 2 -3.359 6.350 -5.889 1.00 0.00 H

ATOM 36 N TYR A 3 -3.941 3.391 0.150 1.00 0.00 N

ATOM 37 CA TYR A 3 -3.446 2.538 1.230 1.00 0.00 C

ATOM 38 C TYR A 3 -4.000 1.103 1.182 1.00 0.00 C

ATOM 39 O TYR A 3 -3.277 0.167 1.508 1.00 0.00 O

ATOM 40 CB TYR A 3 -3.738 3.210 2.583 1.00 0.00 C

ATOM 41 CG TYR A 3 -2.672 2.927 3.623 1.00 0.00 C

ATOM 42 CD1 TYR A 3 -2.765 1.788 4.444 1.00 0.00 C

ATOM 43 CD2 TYR A 3 -1.567 3.795 3.740 1.00 0.00 C

ATOM 44 CE1 TYR A 3 -1.751 1.512 5.382 1.00 0.00 C

ATOM 45 CE2 TYR A 3 -0.550 3.520 4.672 1.00 0.00 C

ATOM 46 CZ TYR A 3 -0.641 2.375 5.495 1.00 0.00 C

ATOM 47 OH TYR A 3 0.344 2.091 6.389 1.00 0.00 O

ATOM 48 H TYR A 3 -4.221 4.340 0.385 1.00 0.00 H

ATOM 49 HA TYR A 3 -2.363 2.475 1.122 1.00 0.00 H

ATOM 50 HB2 TYR A 3 -3.797 4.271 2.433 1.00 0.00 H

ATOM 51 HB3 TYR A 3 -4.711 2.883 2.955 1.00 0.00 H

ATOM 52 HD1 TYR A 3 -3.607 1.120 4.349 1.00 0.00 H

ATOM 53 HD2 TYR A 3 -1.493 4.677 3.117 1.00 0.00 H

ATOM 54 HE1 TYR A 3 -1.801 0.643 6.018 1.00 0.00 H

ATOM 55 HE2 TYR A 3 0.291 4.191 4.755 1.00 0.00 H

ATOM 56 HH TYR A 3 1.086 2.690 6.302 1.00 0.00 H

ATOM 57 N ILE A 4 -5.249 0.909 0.731 1.00 0.00 N

ATOM 58 CA ILE A 4 -5.862 -0.418 0.547 1.00 0.00 C

ATOM 59 C ILE A 4 -5.108 -1.223 -0.524 1.00 0.00 C

ATOM 60 O ILE A 4 -4.705 -2.359 -0.275 1.00 0.00 O

ATOM 61 CB ILE A 4 -7.371 -0.307 0.207 1.00 0.00 C

ATOM 62 CG1 ILE A 4 -8.145 0.575 1.218 1.00 0.00 C

ATOM 63 CG2 ILE A 4 -8.018 -1.702 0.164 1.00 0.00 C

ATOM 64 CD1 ILE A 4 -8.506 1.935 0.617 1.00 0.00 C

ATOM 65 H ILE A 4 -5.779 1.731 0.489 1.00 0.00 H

ATOM 66 HA ILE A 4 -5.769 -0.964 1.487 1.00 0.00 H

ATOM 67 HB ILE A 4 -7.472 0.126 -0.790 1.00 0.00 H

ATOM 68 HG12 ILE A 4 -9.048 0.069 1.502 1.00 0.00 H

ATOM 69 HG13 ILE A 4 -7.554 0.726 2.123 1.00 0.00 H

ATOM 70 HG21 ILE A 4 -7.562 -2.315 -0.613 1.00 0.00 H

ATOM 71 HG22 ILE A 4 -7.904 -2.200 1.127 1.00 0.00 H

ATOM 72 HG23 ILE A 4 -9.081 -1.610 -0.065 1.00 0.00 H

ATOM 73 HD11 ILE A 4 -7.611 2.423 0.233 1.00 0.00 H

ATOM 74 HD12 ILE A 4 -9.219 1.799 -0.198 1.00 0.00 H

ATOM 75 HD13 ILE A 4 -8.963 2.563 1.384 1.00 0.00 H

ATOM 76 N GLN A 5 -4.883 -0.627 -1.705 1.00 0.00 N

ATOM 77 CA GLN A 5 -4.097 -1.237 -2.779 1.00 0.00 C

ATOM 78 C GLN A 5 -2.654 -1.511 -2.339 1.00 0.00 C

ATOM 79 O GLN A 5 -2.134 -2.592 -2.614 1.00 0.00 O

ATOM 80 CB GLN A 5 -4.124 -0.349 -4.035 1.00 0.00 C

ATOM 81 CG GLN A 5 -5.446 -0.464 -4.826 1.00 0.00 C

ATOM 82 CD GLN A 5 -6.302 0.803 -4.886 1.00 0.00 C

ATOM 83 OE1 GLN A 5 -5.896 1.911 -4.564 1.00 0.00 O

ATOM 84 NE2 GLN A 5 -7.545 0.678 -5.313 1.00 0.00 N

ATOM 85 H GLN A 5 -5.163 0.337 -1.814 1.00 0.00 H

ATOM 86 HA GLN A 5 -4.533 -2.207 -3.026 1.00 0.00 H

ATOM 87 HB2 GLN A 5 -3.993 0.673 -3.735 1.00 0.00 H

ATOM 88 HB3 GLN A 5 -3.318 -0.674 -4.696 1.00 0.00 H

ATOM 89 HG2 GLN A 5 -5.203 -0.745 -5.833 1.00 0.00 H

ATOM 90 HG3 GLN A 5 -6.054 -1.268 -4.411 1.00 0.00 H

ATOM 91 HE21 GLN A 5 -7.934 -0.208 -5.587 1.00 0.00 H

ATOM 92 HE22 GLN A 5 -8.048 1.544 -5.402 1.00 0.00 H

ATOM 93 N TRP A 6 -2.027 -0.572 -1.618 1.00 0.00 N

ATOM 94 CA TRP A 6 -0.693 -0.764 -1.047 1.00 0.00 C

ATOM 95 C TRP A 6 -0.644 -1.917 -0.026 1.00 0.00 C

ATOM 96 O TRP A 6 0.231 -2.778 -0.111 1.00 0.00 O

ATOM 97 CB TRP A 6 -0.213 0.557 -0.443 1.00 0.00 C

ATOM 98 CG TRP A 6 1.169 0.505 0.124 1.00 0.00 C

ATOM 99 CD1 TRP A 6 2.314 0.542 -0.597 1.00 0.00 C

ATOM 100 CD2 TRP A 6 1.577 0.373 1.518 1.00 0.00 C

ATOM 101 NE1 TRP A 6 3.396 0.430 0.252 1.00 0.00 N

ATOM 102 CE2 TRP A 6 3.001 0.346 1.569 1.00 0.00 C

ATOM 103 CE3 TRP A 6 0.887 0.268 2.747 1.00 0.00 C

ATOM 104 CZ2 TRP A 6 3.712 0.258 2.772 1.00 0.00 C

ATOM 105 CZ3 TRP A 6 1.592 0.150 3.960 1.00 0.00 C

ATOM 106 CH2 TRP A 6 2.998 0.165 3.978 1.00 0.00 C

ATOM 107 H TRP A 6 -2.505 0.316 -1.478 1.00 0.00 H

ATOM 108 HA TRP A 6 -0.010 -1.033 -1.856 1.00 0.00 H

ATOM 109 HB2 TRP A 6 -0.234 1.306 -1.211 1.00 0.00 H

ATOM 110 HB3 TRP A 6 -0.898 0.860 0.348 1.00 0.00 H

ATOM 111 HD1 TRP A 6 2.368 0.630 -1.674 1.00 0.00 H

ATOM 112 HE1 TRP A 6 4.370 0.409 -0.063 1.00 0.00 H

ATOM 113 HE3 TRP A 6 -0.194 0.280 2.749 1.00 0.00 H

ATOM 114 HZ2 TRP A 6 4.792 0.247 2.758 1.00 0.00 H

ATOM 115 HZ3 TRP A 6 1.046 0.055 4.888 1.00 0.00 H

ATOM 116 HH2 TRP A 6 3.527 0.092 4.916 1.00 0.00 H

ATOM 117 N LEU A 7 -1.605 -2.000 0.907 1.00 0.00 N

ATOM 118 CA LEU A 7 -1.710 -3.134 1.832 1.00 0.00 C

ATOM 119 C LEU A 7 -1.929 -4.466 1.106 1.00 0.00 C

ATOM 120 O LEU A 7 -1.324 -5.461 1.502 1.00 0.00 O

ATOM 121 CB LEU A 7 -2.824 -2.903 2.868 1.00 0.00 C

ATOM 122 CG LEU A 7 -2.460 -1.924 4.000 1.00 0.00 C

ATOM 123 CD1 LEU A 7 -3.711 -1.690 4.853 1.00 0.00 C

ATOM 124 CD2 LEU A 7 -1.353 -2.460 4.918 1.00 0.00 C

ATOM 125 H LEU A 7 -2.291 -1.251 0.973 1.00 0.00 H

ATOM 126 HA LEU A 7 -0.757 -3.234 2.349 1.00 0.00 H

ATOM 127 HB2 LEU A 7 -3.682 -2.515 2.354 1.00 0.00 H

ATOM 128 HB3 LEU A 7 -3.076 -3.862 3.324 1.00 0.00 H

ATOM 129 HG LEU A 7 -2.134 -0.976 3.579 1.00 0.00 H

ATOM 130 HD11 LEU A 7 -4.496 -1.248 4.240 1.00 0.00 H

ATOM 131 HD12 LEU A 7 -4.067 -2.637 5.262 1.00 0.00 H

ATOM 132 HD13 LEU A 7 -3.483 -1.016 5.677 1.00 0.00 H

ATOM 133 HD21 LEU A 7 -1.664 -3.401 5.371 1.00 0.00 H

ATOM 134 HD22 LEU A 7 -0.433 -2.614 4.360 1.00 0.00 H

ATOM 135 HD23 LEU A 7 -1.147 -1.735 5.706 1.00 0.00 H

ATOM 136 N LYS A 8 -2.718 -4.492 0.018 1.00 0.00 N

ATOM 137 CA LYS A 8 -2.894 -5.686 -0.829 1.00 0.00 C

ATOM 138 C LYS A 8 -1.564 -6.220 -1.379 1.00 0.00 C

ATOM 139 O LYS A 8 -1.459 -7.409 -1.665 1.00 0.00 O

ATOM 140 CB LYS A 8 -3.864 -5.370 -1.980 1.00 0.00 C

ATOM 141 CG LYS A 8 -4.388 -6.622 -2.718 1.00 0.00 C

ATOM 142 CD LYS A 8 -4.505 -6.437 -4.242 1.00 0.00 C

ATOM 143 CE LYS A 8 -3.209 -6.745 -5.018 1.00 0.00 C

ATOM 144 NZ LYS A 8 -2.118 -5.779 -4.739 1.00 0.00 N

ATOM 145 H LYS A 8 -3.231 -3.643 -0.211 1.00 0.00 H

ATOM 146 HA LYS A 8 -3.325 -6.477 -0.214 1.00 0.00 H

ATOM 147 HB2 LYS A 8 -4.705 -4.839 -1.577 1.00 0.00 H

ATOM 148 HB3 LYS A 8 -3.360 -4.716 -2.685 1.00 0.00 H

ATOM 149 HG2 LYS A 8 -3.715 -7.435 -2.526 1.00 0.00 H

ATOM 150 HG3 LYS A 8 -5.377 -6.849 -2.317 1.00 0.00 H

ATOM 151 HD2 LYS A 8 -5.276 -7.091 -4.602 1.00 0.00 H

ATOM 152 HD3 LYS A 8 -4.855 -5.430 -4.471 1.00 0.00 H

ATOM 153 HE2 LYS A 8 -2.873 -7.727 -4.745 1.00 0.00 H

ATOM 154 HE3 LYS A 8 -3.446 -6.733 -6.086 1.00 0.00 H

ATOM 155 HZ1 LYS A 8 -2.396 -4.819 -4.880 1.00 0.00 H

ATOM 156 HZ2 LYS A 8 -1.774 -5.854 -3.793 1.00 0.00 H

ATOM 157 HZ3 LYS A 8 -1.282 -5.906 -5.304 1.00 0.00 H

ATOM 158 N ASP A 9 -0.551 -5.368 -1.570 1.00 0.00 N

ATOM 159 CA ASP A 9 0.787 -5.808 -1.980 1.00 0.00 C

ATOM 160 C ASP A 9 1.595 -6.452 -0.830 1.00 0.00 C

ATOM 161 O ASP A 9 2.685 -6.970 -1.090 1.00 0.00 O

ATOM 162 CB ASP A 9 1.594 -4.630 -2.566 1.00 0.00 C

ATOM 163 CG ASP A 9 0.973 -3.926 -3.776 1.00 0.00 C

ATOM 164 OD1 ASP A 9 0.255 -4.603 -4.551 1.00 0.00 O

ATOM 165 OD2 ASP A 9 1.306 -2.727 -3.970 1.00 0.00 O

ATOM 166 H ASP A 9 -0.687 -4.388 -1.343 1.00 0.00 H

ATOM 167 HA ASP A 9 0.689 -6.562 -2.762 1.00 0.00 H

ATOM 168 HB2 ASP A 9 1.719 -3.900 -1.790 1.00 0.00 H

ATOM 169 HB3 ASP A 9 2.559 -5.017 -2.894 1.00 0.00 H

ATOM 170 N GLY A 10 1.155 -6.367 0.440 1.00 0.00 N

ATOM 171 CA GLY A 10 1.920 -6.800 1.627 1.00 0.00 C

ATOM 172 C GLY A 10 2.495 -5.666 2.504 1.00 0.00 C

ATOM 173 O GLY A 10 3.323 -5.931 3.387 1.00 0.00 O

ATOM 174 H GLY A 10 0.231 -5.972 0.604 1.00 0.00 H

ATOM 175 HA2 GLY A 10 1.260 -7.399 2.254 1.00 0.00 H

ATOM 176 HA3 GLY A 10 2.750 -7.439 1.326 1.00 0.00 H

ATOM 177 N GLY A 11 2.078 -4.413 2.271 1.00 0.00 N

ATOM 178 CA GLY A 11 2.452 -3.248 3.072 1.00 0.00 C

ATOM 179 C GLY A 11 3.971 -2.986 3.103 1.00 0.00 C

ATOM 180 O GLY A 11 4.593 -2.901 2.043 1.00 0.00 O

ATOM 181 H GLY A 11 1.509 -4.255 1.448 1.00 0.00 H

ATOM 182 HA2 GLY A 11 1.968 -2.368 2.650 1.00 0.00 H

ATOM 183 HA3 GLY A 11 2.064 -3.396 4.078 1.00 0.00 H

ATOM 184 N PRO A 12 4.608 -2.840 4.289 1.00 0.00 N

ATOM 185 CA PRO A 12 6.049 -2.569 4.388 1.00 0.00 C

ATOM 186 C PRO A 12 6.947 -3.622 3.719 1.00 0.00 C

ATOM 187 O PRO A 12 8.100 -3.334 3.404 1.00 0.00 O

ATOM 188 CB PRO A 12 6.365 -2.497 5.887 1.00 0.00 C

ATOM 189 CG PRO A 12 5.019 -2.212 6.546 1.00 0.00 C

ATOM 190 CD PRO A 12 4.017 -2.897 5.618 1.00 0.00 C

ATOM 191 HA PRO A 12 6.252 -1.600 3.932 1.00 0.00 H

ATOM 192 HB2 PRO A 12 6.768 -3.428 6.235 1.00 0.00 H

ATOM 193 HB3 PRO A 12 7.091 -1.712 6.104 1.00 0.00 H

ATOM 194 HG2 PRO A 12 4.978 -2.632 7.532 1.00 0.00 H

ATOM 195 HG3 PRO A 12 4.836 -1.136 6.553 1.00 0.00 H

ATOM 196 HD2 PRO A 12 3.866 -3.916 5.917 1.00 0.00 H

ATOM 197 HD3 PRO A 12 3.061 -2.377 5.665 1.00 0.00 H

ATOM 198 N SER A 13 6.430 -4.838 3.502 1.00 0.00 N

ATOM 199 CA SER A 13 7.167 -5.968 2.930 1.00 0.00 C

ATOM 200 C SER A 13 7.113 -6.043 1.392 1.00 0.00 C

ATOM 201 O SER A 13 7.652 -6.980 0.805 1.00 0.00 O

ATOM 202 CB SER A 13 6.723 -7.269 3.614 1.00 0.00 C

ATOM 203 OG SER A 13 5.376 -7.634 3.349 1.00 0.00 O

ATOM 204 H SER A 13 5.454 -4.968 3.734 1.00 0.00 H

ATOM 205 HA SER A 13 8.222 -5.839 3.177 1.00 0.00 H

ATOM 206 HB2 SER A 13 7.360 -8.063 3.274 1.00 0.00 H

ATOM 207 HB3 SER A 13 6.865 -7.162 4.691 1.00 0.00 H

ATOM 208 HG SER A 13 4.737 -6.918 3.537 1.00 0.00 H

ATOM 209 N SER A 14 6.508 -5.047 0.733 1.00 0.00 N

ATOM 210 CA SER A 14 6.226 -5.028 -0.713 1.00 0.00 C

ATOM 211 C SER A 14 7.223 -4.235 -1.564 1.00 0.00 C

ATOM 212 O SER A 14 7.035 -4.116 -2.774 1.00 0.00 O

ATOM 213 CB SER A 14 4.854 -4.397 -0.935 1.00 0.00 C

ATOM 214 OG SER A 14 3.928 -5.006 -0.081 1.00 0.00 O

ATOM 215 H SER A 14 6.017 -4.350 1.287 1.00 0.00 H

ATOM 216 HA SER A 14 6.196 -6.052 -1.088 1.00 0.00 H

ATOM 217 HB2 SER A 14 4.903 -3.346 -0.722 1.00 0.00 H

ATOM 218 HB3 SER A 14 4.546 -4.527 -1.971 1.00 0.00 H

ATOM 219 HG SER A 14 3.589 -5.837 -0.501 1.00 0.00 H

ATOM 220 N GLY A 15 8.236 -3.613 -0.954 1.00 0.00 N

ATOM 221 CA GLY A 15 9.241 -2.785 -1.634 1.00 0.00 C

ATOM 222 C GLY A 15 8.755 -1.388 -2.056 1.00 0.00 C

ATOM 223 O GLY A 15 9.534 -0.439 -2.013 1.00 0.00 O

ATOM 224 H GLY A 15 8.306 -3.739 0.046 1.00 0.00 H

ATOM 225 HA2 GLY A 15 10.102 -2.664 -0.978 1.00 0.00 H

ATOM 226 HA3 GLY A 15 9.576 -3.308 -2.531 1.00 0.00 H

ATOM 227 N ARG A 16 7.484 -1.243 -2.458 1.00 0.00 N

ATOM 228 CA ARG A 16 6.866 0.043 -2.822 1.00 0.00 C

ATOM 229 C ARG A 16 6.607 0.907 -1.567 1.00 0.00 C

ATOM 230 O ARG A 16 6.048 0.385 -0.598 1.00 0.00 O

ATOM 231 CB ARG A 16 5.566 -0.231 -3.600 1.00 0.00 C

ATOM 232 CG ARG A 16 5.057 1.011 -4.351 1.00 0.00 C

ATOM 233 CD ARG A 16 3.793 0.732 -5.180 1.00 0.00 C

ATOM 234 NE ARG A 16 4.079 -0.101 -6.363 1.00 0.00 N

ATOM 235 CZ ARG A 16 3.877 -1.406 -6.533 1.00 0.00 C

ATOM 236 NH1 ARG A 16 3.266 -2.191 -5.676 1.00 0.00 N

ATOM 237 NH2 ARG A 16 4.308 -1.979 -7.632 1.00 0.00 N

ATOM 238 H ARG A 16 6.937 -2.095 -2.518 1.00 0.00 H

ATOM 239 HA ARG A 16 7.569 0.558 -3.476 1.00 0.00 H

ATOM 240 HB2 ARG A 16 5.749 -1.013 -4.312 1.00 0.00 H

ATOM 241 HB3 ARG A 16 4.793 -0.580 -2.914 1.00 0.00 H

ATOM 242 HG2 ARG A 16 4.834 1.777 -3.634 1.00 0.00 H

ATOM 243 HG3 ARG A 16 5.843 1.374 -5.018 1.00 0.00 H

ATOM 244 HD2 ARG A 16 3.079 0.222 -4.562 1.00 0.00 H

ATOM 245 HD3 ARG A 16 3.407 1.693 -5.529 1.00 0.00 H

ATOM 246 HE ARG A 16 4.530 0.371 -7.128 1.00 0.00 H

ATOM 247 HH11 ARG A 16 2.673 -1.883 -4.893 1.00 0.00 H

ATOM 248 HH12 ARG A 16 3.162 -3.167 -5.861 1.00 0.00 H

ATOM 249 HH21 ARG A 16 4.765 -1.448 -8.350 1.00 0.00 H

ATOM 250 HH22 ARG A 16 4.157 -2.963 -7.759 1.00 0.00 H

ATOM 251 N PRO A 17 6.947 2.213 -1.560 1.00 0.00 N

ATOM 252 CA PRO A 17 6.730 3.085 -0.400 1.00 0.00 C

ATOM 253 C PRO A 17 5.232 3.312 -0.095 1.00 0.00 C

ATOM 254 O PRO A 17 4.400 3.172 -0.996 1.00 0.00 O

ATOM 255 CB PRO A 17 7.438 4.403 -0.744 1.00 0.00 C

ATOM 256 CG PRO A 17 7.414 4.433 -2.270 1.00 0.00 C

ATOM 257 CD PRO A 17 7.583 2.961 -2.635 1.00 0.00 C

ATOM 258 HA PRO A 17 7.208 2.638 0.471 1.00 0.00 H

ATOM 259 HB2 PRO A 17 6.907 5.241 -0.336 1.00 0.00 H

ATOM 260 HB3 PRO A 17 8.472 4.360 -0.399 1.00 0.00 H

ATOM 261 HG2 PRO A 17 6.481 4.818 -2.635 1.00 0.00 H

ATOM 262 HG3 PRO A 17 8.216 5.048 -2.679 1.00 0.00 H

ATOM 263 HD2 PRO A 17 7.104 2.750 -3.572 1.00 0.00 H

ATOM 264 HD3 PRO A 17 8.643 2.709 -2.673 1.00 0.00 H

ATOM 265 N PRO A 18 4.878 3.687 1.151 1.00 0.00 N

ATOM 266 CA PRO A 18 3.495 3.929 1.554 1.00 0.00 C

ATOM 267 C PRO A 18 2.938 5.209 0.903 1.00 0.00 C

ATOM 268 O PRO A 18 3.617 6.239 0.913 1.00 0.00 O

ATOM 269 CB PRO A 18 3.524 4.048 3.081 1.00 0.00 C

ATOM 270 CG PRO A 18 4.937 4.549 3.376 1.00 0.00 C

ATOM 271 CD PRO A 18 5.775 3.886 2.283 1.00 0.00 C

ATOM 272 HA PRO A 18 2.889 3.069 1.280 1.00 0.00 H

ATOM 273 HB2 PRO A 18 2.789 4.750 3.425 1.00 0.00 H

ATOM 274 HB3 PRO A 18 3.390 3.061 3.527 1.00 0.00 H

ATOM 275 HG2 PRO A 18 4.989 5.618 3.306 1.00 0.00 H

ATOM 276 HG3 PRO A 18 5.272 4.261 4.373 1.00 0.00 H

ATOM 277 HD2 PRO A 18 6.593 4.522 2.003 1.00 0.00 H

ATOM 278 HD3 PRO A 18 6.135 2.918 2.635 1.00 0.00 H

ATOM 279 N PRO A 19 1.706 5.185 0.359 1.00 0.00 N

ATOM 280 CA PRO A 19 1.071 6.373 -0.198 1.00 0.00 C

ATOM 281 C PRO A 19 0.534 7.279 0.922 1.00 0.00 C

ATOM 282 O PRO A 19 0.005 6.793 1.925 1.00 0.00 O

ATOM 283 CB PRO A 19 -0.043 5.831 -1.093 1.00 0.00 C

ATOM 284 CG PRO A 19 -0.475 4.546 -0.383 1.00 0.00 C

ATOM 285 CD PRO A 19 0.817 4.036 0.254 1.00 0.00 C

ATOM 286 HA PRO A 19 1.785 6.932 -0.806 1.00 0.00 H

ATOM 287 HB2 PRO A 19 -0.857 6.527 -1.157 1.00 0.00 H

ATOM 288 HB3 PRO A 19 0.371 5.580 -2.071 1.00 0.00 H

ATOM 289 HG2 PRO A 19 -1.216 4.752 0.365 1.00 0.00 H

ATOM 290 HG3 PRO A 19 -0.885 3.819 -1.084 1.00 0.00 H

ATOM 291 HD2 PRO A 19 0.616 3.632 1.228 1.00 0.00 H

ATOM 292 HD3 PRO A 19 1.276 3.286 -0.389 1.00 0.00 H

ATOM 293 N SER A 20 0.660 8.597 0.722 1.00 0.00 N

ATOM 294 CA SER A 20 0.150 9.654 1.607 1.00 0.00 C

ATOM 295 C SER A 20 -1.110 10.284 1.016 1.00 0.00 C

ATOM 296 O SER A 20 -2.094 10.380 1.786 1.00 0.00 O

ATOM 297 CB SER A 20 1.248 10.701 1.823 1.00 0.00 C

ATOM 298 OG SER A 20 0.910 11.534 2.908 1.00 0.00 O

ATOM 299 OXT SER A 20 -1.067 10.639 -0.179 1.00 0.00 O

ATOM 300 H SER A 20 1.051 8.910 -0.152 1.00 0.00 H

ATOM 301 HA SER A 20 -0.125 9.214 2.563 1.00 0.00 H

ATOM 302 HB2 SER A 20 2.177 10.205 2.031 1.00 0.00 H

ATOM 303 HB3 SER A 20 1.371 11.300 0.918 1.00 0.00 H

ATOM 304 HG SER A 20 0.272 11.069 3.455 1.00 0.00 H

TER 305 SER A 20

ENDMDL

JASHTRPCAGE : Reconstructed PDB File –



COMPND 1L2Y\_JASH\_TRPCAGE\_200106037\_MODEL-13

SEQRES 1 20 ASN LEU TYR ILE GLN TRP LEU LYS ASP GLY GLY PRO SER

SEQRES 2 20 SER GLY ARG PRO PRO PRO SER

ATOM 1 N ASN 1 0.000 0.000 0.000

ATOM 2 CA ASN 1 1.458 0.000 0.000

ATOM 3 C ASN 1 2.009 1.422 0.000

ATOM 4 O ASN 1 2.941 1.737 0.741

ATOM 5 CB ASN 1 1.994 -0.770 -1.209

ATOM 6 CG ASN 1 1.934 -2.272 -1.015

ATOM 7 OD1 ASN 1 0.939 -2.913 -1.355

ATOM 8 ND2 ASN 1 3.002 -2.840 -0.467

ATOM 9 H ASN 1 -0.491 0.869 0.143

ATOM 10 1HD2 ASN 1 3.021 -3.838 -0.314

ATOM 11 2HD2 ASN 1 3.796 -2.274 -0.204

ATOM 12 N LEU 2 1.429 2.276 -0.836

ATOM 13 CA LEU 2 1.861 3.666 -0.934

ATOM 14 C LEU 2 3.273 3.765 -1.501

ATOM 15 O LEU 2 3.600 4.713 -2.215

ATOM 16 CB LEU 2 1.796 4.344 0.436

ATOM 17 CG LEU 2 0.420 4.398 1.102

ATOM 18 CD1 LEU 2 0.502 5.097 2.451

ATOM 19 CD2 LEU 2 -0.124 2.996 1.325

ATOM 20 H LEU 2 0.670 1.956 -1.417

ATOM 21 N TYR 3 4.106 2.781 -1.178

ATOM 22 CA TYR 3 5.483 2.756 -1.654

ATOM 23 C TYR 3 5.542 2.829 -3.176

ATOM 24 O TYR 3 6.468 3.409 -3.744

ATOM 25 CB TYR 3 6.194 1.490 -1.172

ATOM 26 CG TYR 3 7.694 1.622 -0.864

ATOM 27 CD1 TYR 3 8.106 1.973 0.426

ATOM 28 CD2 TYR 3 8.650 1.397 -1.857

ATOM 29 CE1 TYR 3 9.460 2.097 0.720

ATOM 30 CE2 TYR 3 10.005 1.521 -1.563

ATOM 31 CZ TYR 3 10.411 1.870 -0.277

ATOM 32 OH TYR 3 11.741 1.991 0.008

ATOM 33 H TYR 3 3.698 2.081 -0.592

ATOM 34 HH TYR 3 11.838 2.245 0.970

ATOM 35 N ILE 4 4.549 2.237 -3.831

ATOM 36 CA ILE 4 4.486 2.234 -5.288

ATOM 37 C ILE 4 4.336 3.648 -5.836

ATOM 38 O ILE 4 5.084 4.064 -6.721

ATOM 39 CB ILE 4 3.327 1.358 -5.800

ATOM 40 CG1 ILE 4 3.396 -0.037 -5.175

ATOM 41 CG2 ILE 4 3.361 1.265 -7.318

ATOM 42 CD1 ILE 4 2.289 -0.964 -5.628

ATOM 43 H ILE 4 3.820 1.778 -3.307

ATOM 44 N GLN 5 3.365 4.384 -5.305

ATOM 45 CA GLN 5 3.115 5.753 -5.740

ATOM 46 C GLN 5 4.330 6.640 -5.494

ATOM 47 O GLN 5 4.693 7.460 -6.337

ATOM 48 CB GLN 5 1.892 6.328 -5.023

ATOM 49 CG GLN 5 0.562 5.840 -5.575

ATOM 50 CD GLN 5 -0.625 6.430 -4.841

ATOM 51 OE1 GLN 5 -1.136 7.487 -5.214

ATOM 52 NE2 GLN 5 -1.070 5.748 -3.791

ATOM 53 H GLN 5 2.786 3.985 -4.582

ATOM 54 1HE1 GLN 5 -1.858 6.092 -3.262

ATOM 55 1HE2 GLN 5 -0.619 4.885 -3.522

ATOM 56 N TRP 6 4.955 6.471 -4.333

ATOM 57 CA TRP 6 6.130 7.256 -3.974

ATOM 58 C TRP 6 7.278 7.007 -4.946

ATOM 59 O TRP 6 7.924 7.945 -5.412

ATOM 60 CB TRP 6 6.581 6.923 -2.550

ATOM 61 CG TRP 6 7.777 7.739 -2.048

ATOM 62 CD1 TRP 6 7.704 8.972 -1.367

ATOM 63 CD2 TRP 6 9.120 7.443 -2.158

ATOM 64 NE1 TRP 6 8.984 9.462 -1.043

ATOM 65 CE2 TRP 6 9.844 8.499 -1.542

ATOM 66 CE3 TRP 6 9.795 6.341 -2.742

ATOM 67 CZ2 TRP 6 11.256 8.456 -1.508

ATOM 68 CZ3 TRP 6 11.189 6.318 -2.698

ATOM 69 CH2 TRP 6 11.911 7.357 -2.091

ATOM 70 H TRP 6 4.610 5.787 -3.690

ATOM 71 HE1 TRP 6 9.218 10.308 -0.563

ATOM 72 N LEU 7 7.525 5.737 -5.249

ATOM 73 CA LEU 7 8.595 5.362 -6.167

ATOM 74 C LEU 7 8.369 5.961 -7.551

ATOM 75 O LEU 7 9.315 6.378 -8.219

ATOM 76 CB LEU 7 8.708 3.840 -6.266

ATOM 77 CG LEU 7 9.385 3.132 -5.091

ATOM 78 CD1 LEU 7 9.428 1.629 -5.321

ATOM 79 CD2 LEU 7 8.629 3.393 -3.797

ATOM 80 H LEU 7 6.959 5.013 -4.834

ATOM 81 N LYS 8 7.110 5.999 -7.975

ATOM 82 CA LYS 8 6.758 6.546 -9.280

ATOM 83 C LYS 8 7.245 7.983 -9.425

ATOM 84 O LYS 8 7.524 8.445 -10.532

ATOM 85 CB LYS 8 5.244 6.492 -9.492

ATOM 86 CG LYS 8 4.820 6.723 -10.964

ATOM 87 CD LYS 8 3.309 6.677 -11.214

ATOM 88 CE LYS 8 3.036 6.920 -12.704

ATOM 89 NZ LYS 8 1.583 6.876 -12.948

ATOM 90 H LYS 8 6.451 5.623 -7.323

ATOM 91 1HZ LYS 8 1.394 7.034 -13.917

ATOM 92 2HZ LYS 8 1.219 5.981 -12.688

ATOM 93 3HZ LYS 8 1.124 7.582 -12.409

ATOM 94 N ASP 9 7.346 8.685 -8.301

ATOM 95 CA ASP 9 7.799 10.071 -8.302

ATOM 96 C ASP 9 9.310 10.157 -8.495

ATOM 97 O ASP 9 9.855 11.236 -8.724

ATOM 98 CB ASP 9 7.409 10.763 -6.994

ATOM 99 CG ASP 9 5.913 10.740 -6.747

ATOM 100 OD1 ASP 9 5.430 9.777 -6.115

ATOM 101 OD2 ASP 9 5.224 11.685 -7.186

ATOM 102 H ASP 9 7.102 8.248 -7.426

ATOM 103 N GLY 10 9.979 9.012 -8.402

ATOM 104 CA GLY 10 11.427 8.956 -8.567

ATOM 105 C GLY 10 12.126 8.733 -7.230

ATOM 106 O GLY 10 13.346 8.860 -7.128

ATOM 107 H GLY 10 9.473 8.161 -8.213

ATOM 108 N GLY 11 11.344 8.401 -6.208

ATOM 109 CA GLY 11 11.887 8.160 -4.876

ATOM 110 C GLY 11 12.601 9.396 -4.340

ATOM 111 O GLY 11 12.041 10.492 -4.326

ATOM 112 H GLY 11 10.351 8.313 -6.357

ATOM 113 N PRO 12 13.857 9.246 -3.887

ATOM 114 CA PRO 12 14.652 10.339 -3.350

ATOM 115 C PRO 12 14.817 11.474 -4.364

ATOM 116 O PRO 12 15.114 12.607 -3.990

ATOM 117 CB PRO 12 16.005 9.709 -3.006

ATOM 118 CG PRO 12 15.689 8.217 -2.890

ATOM 119 CD PRO 12 14.269 8.208 -2.323

ATOM 120 N SER 13 14.622 11.154 -5.640

ATOM 121 CA SER 13 14.748 12.142 -6.705

ATOM 122 C SER 13 13.422 12.851 -6.959

ATOM 123 O SER 13 13.304 13.655 -7.884

ATOM 124 CB SER 13 15.232 11.478 -7.996

ATOM 125 OG SER 13 14.258 10.586 -8.507

ATOM 126 H SER 13 14.386 10.193 -5.785

ATOM 127 HG SER 13 14.655 10.228 -9.305

ATOM 128 N SER 14 12.426 12.547 -6.133

ATOM 129 CA SER 14 11.107 13.154 -6.267

ATOM 130 C SER 14 10.929 14.307 -5.285

ATOM 131 O SER 14 9.885 14.960 -5.262

ATOM 132 CB SER 14 10.011 12.111 -6.040

ATOM 133 OG SER 14 10.247 10.947 -6.813

ATOM 134 H SER 14 12.671 11.878 -5.431

ATOM 135 HG SER 14 9.514 10.365 -6.601

ATOM 136 N GLY 15 11.953 14.552 -4.475

ATOM 137 CA GLY 15 11.912 15.626 -3.489

ATOM 138 C GLY 15 11.048 15.243 -2.292

ATOM 139 O GLY 15 11.341 15.619 -1.157

ATOM 140 H GLY 15 12.781 13.980 -4.543

ATOM 141 N ARG 16 9.982 14.493 -2.554

ATOM 142 CA ARG 16 9.074 14.058 -1.499

ATOM 143 C ARG 16 9.710 12.971 -0.638

ATOM 144 O ARG 16 10.296 12.020 -1.154

ATOM 145 CB ARG 16 7.766 13.539 -2.099

ATOM 146 CG ARG 16 6.628 13.420 -1.098

ATOM 147 CD ARG 16 5.362 12.900 -1.760

ATOM 148 NE ARG 16 4.259 12.780 -0.812

ATOM 149 CZ ARG 16 4.000 11.687 -0.101

ATOM 150 NH1 ARG 16 2.974 11.670 0.738

ATOM 151 NH2 ARG 16 4.769 10.614 -0.231

ATOM 152 H ARG 16 9.797 14.218 -3.506

ATOM 153 HE ARG 16 3.655 13.577 -0.688

ATOM 154 1HH1 ARG 16 2.390 12.485 0.837

ATOM 155 2HH1 ARG 16 2.778 10.841 1.277

ATOM 156 1HH2 ARG 16 5.549 10.628 -0.869

ATOM 157 2HH2 ARG 16 4.572 9.785 0.308

ATOM 158 N PRO 17 9.607 13.090 0.696

ATOM 159 CA PRO 17 10.166 12.128 1.632

ATOM 160 C PRO 17 9.466 10.769 1.537

ATOM 161 O PRO 17 8.330 10.683 1.073

ATOM 162 CB PRO 17 9.959 12.757 3.014

ATOM 163 CG PRO 17 8.742 13.661 2.818

ATOM 164 CD PRO 17 8.897 14.145 1.376

ATOM 165 N PRO 18 10.133 9.689 1.975

ATOM 166 CA PRO 18 9.587 8.342 1.944

ATOM 167 C PRO 18 8.454 8.163 2.958

ATOM 168 O PRO 18 8.571 8.588 4.106

ATOM 169 CB PRO 18 10.772 7.429 2.277

ATOM 170 CG PRO 18 11.683 8.318 3.124

ATOM 171 CD PRO 18 11.470 9.707 2.522

ATOM 172 N PRO 19 7.341 7.532 2.549

ATOM 173 CA PRO 19 6.192 7.295 3.407

ATOM 174 C PRO 19 6.435 6.135 4.376

ATOM 175 O PRO 19 7.057 5.138 4.012

ATOM 176 CB PRO 19 5.042 6.977 2.446

ATOM 177 CG PRO 19 5.734 6.278 1.276

ATOM 178 CD PRO 19 7.092 6.977 1.209

ATOM 179 N SER 20 5.939 6.279 5.600

ATOM 180 CA SER 20 6.100 5.248 6.618

ATOM 181 C SER 20 4.809 4.460 6.815

ATOM 182 O SER 20 4.815 3.230 6.818

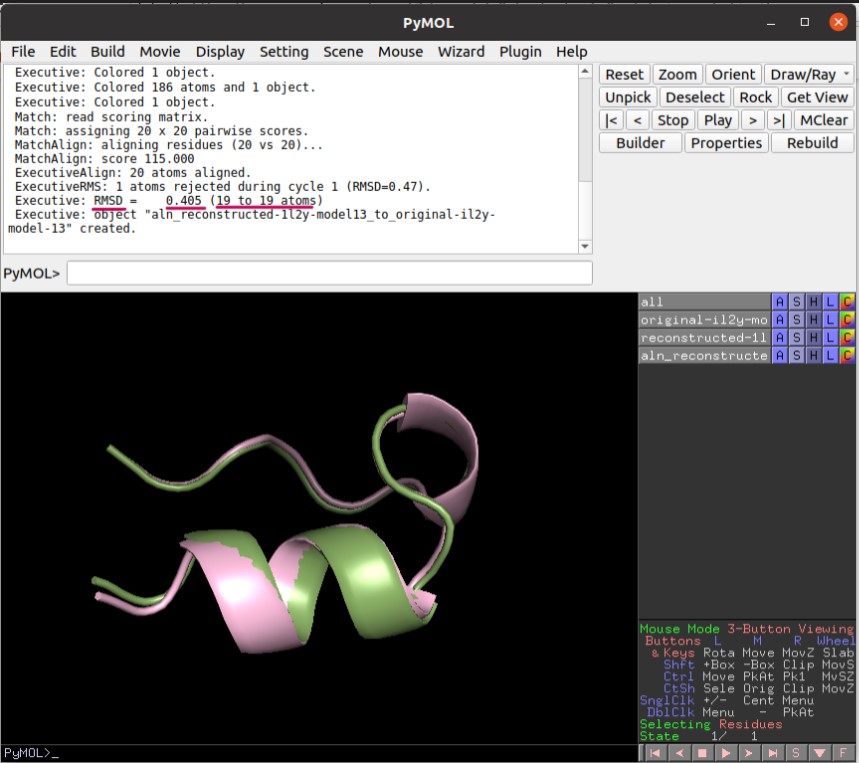
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ATOM 184 OG SER 20 7.006 4.881 8.844

ATOM 185 H SER 20 5.458 7.144 5.743

ATOM 186 HG SER 20 7.247 5.369 9.635

TER



Aligned TRP Cage with RMSD Value

DIFF Command Output –



# cclab@cclab-HP-ProDesk-600-G4-PCI-MT:/media/cclab/200106037\_Jash\_Lab04/pdb-files $ diff jashtrpcage.pdb original-1l2y-model-13.pdb

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< SEQRES 1 20 ASN LEU TYR ILE GLN TRP LEU LYS ASP GLY GLY PRO SER

< SEQRES 2 20 SER GLY ARG PRO PRO PRO SER

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< ATOM 5 CB ASN 1 1.994 -0.770 -1.209

< ATOM 6 CG ASN 1 1.934 -2.272 -1.015

< ATOM 7 OD1 ASN 1 0.939 -2.913 -1.355

< ATOM 8 ND2 ASN 1 3.002 -2.840 -0.467

< ATOM 9 H ASN 1 -0.491 0.869 0.143

< ATOM 10 1HD2 ASN 1 3.021 -3.838 -0.314

< ATOM 11 2HD2 ASN 1 3.796 -2.274 -0.204

< ATOM 12 N LEU 2 1.429 2.276 -0.836

< ATOM 13 CA LEU 2 1.861 3.666 -0.934

< ATOM 14 C LEU 2 3.273 3.765 -1.501

< ATOM 15 O LEU 2 3.600 4.713 -2.215

< ATOM 16 CB LEU 2 1.796 4.344 0.436

< ATOM 17 CG LEU 2 0.420 4.398 1.102

< ATOM 18 CD1 LEU 2 0.502 5.097 2.451

< ATOM 19 CD2 LEU 2 -0.124 2.996 1.325

< ATOM 20 H LEU 2 0.670 1.956 -1.417

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< ATOM 32 OH TYR 3 11.741 1.991 0.008

< ATOM 33 H TYR 3 3.698 2.081 -0.592

< ATOM 34 HH TYR 3 11.838 2.245 0.970

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< ATOM 38 O ILE 4 5.084 4.064 -6.721

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< ATOM 41 CG2 ILE 4 3.361 1.265 -7.318

< ATOM 42 CD1 ILE 4 2.289 -0.964 -5.628

< ATOM 43 H ILE 4 3.820 1.778 -3.307

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< ATOM 90 H LYS 8 6.451 5.623 -7.323

< ATOM 91 1HZ LYS 8 1.394 7.034 -13.917

< ATOM 92 2HZ LYS 8 1.219 5.981 -12.688

< ATOM 93 3HZ LYS 8 1.124 7.582 -12.409

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< ATOM 134 H SER 14 12.671 11.878 -5.431

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< ATOM 145 CB ARG 16 7.766 13.539 -2.099

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> ATOM 4 O ASN A 1 -4.708 6.050 0.013 1.00 0.00 O

> ATOM 5 CB ASN A 1 -7.728 5.352 0.732 1.00 0.00 C

> ATOM 6 CG ASN A 1 -8.620 6.137 1.676 1.00 0.00 C

> ATOM 7 OD1 ASN A 1 -9.560 6.770 1.223 1.00 0.00 O

> ATOM 8 ND2 ASN A 1 -8.313 6.173 2.959 1.00 0.00 N

> ATOM 9 H1 ASN A 1 -7.434 7.466 -1.890 1.00 0.00 H

> ATOM 10 H2 ASN A 1 -8.205 6.004 -1.879 1.00 0.00 H

> ATOM 11 H3 ASN A 1 -8.733 7.210 -0.902 1.00 0.00 H

> ATOM 12 HA ASN A 1 -6.754 7.204 0.378 1.00 0.00 H

> ATOM 13 HB2 ASN A 1 -8.324 4.666 0.162 1.00 0.00 H

> ATOM 14 HB3 ASN A 1 -6.996 4.787 1.311 1.00 0.00 H

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> ATOM 16 HD22 ASN A 1 -8.923 6.730 3.536 1.00 0.00 H

> ATOM 17 N LEU A 2 -5.615 4.880 -1.688 1.00 0.00 N

> ATOM 18 CA LEU A 2 -4.406 4.163 -2.156 1.00 0.00 C

> ATOM 19 C LEU A 2 -3.837 3.130 -1.158 1.00 0.00 C

> ATOM 20 O LEU A 2 -3.364 2.071 -1.568 1.00 0.00 O

> ATOM 21 CB LEU A 2 -3.322 5.161 -2.622 1.00 0.00 C

> ATOM 22 CG LEU A 2 -3.769 6.069 -3.790 1.00 0.00 C

> ATOM 23 CD1 LEU A 2 -3.562 7.551 -3.463 1.00 0.00 C

> ATOM 24 CD2 LEU A 2 -3.001 5.730 -5.068 1.00 0.00 C

> ATOM 25 H LEU A 2 -6.452 4.624 -2.189 1.00 0.00 H

> ATOM 26 HA LEU A 2 -4.692 3.585 -3.037 1.00 0.00 H

> ATOM 27 HB2 LEU A 2 -3.057 5.785 -1.790 1.00 0.00 H

> ATOM 28 HB3 LEU A 2 -2.440 4.595 -2.923 1.00 0.00 H

> ATOM 29 HG LEU A 2 -4.830 5.921 -3.991 1.00 0.00 H

> ATOM 30 HD11 LEU A 2 -4.099 7.813 -2.552 1.00 0.00 H

> ATOM 31 HD12 LEU A 2 -2.502 7.762 -3.318 1.00 0.00 H

> ATOM 32 HD13 LEU A 2 -3.938 8.167 -4.281 1.00 0.00 H

> ATOM 33 HD21 LEU A 2 -1.934 5.911 -4.924 1.00 0.00 H

> ATOM 34 HD22 LEU A 2 -3.157 4.681 -5.323 1.00 0.00 H

> ATOM 35 HD23 LEU A 2 -3.359 6.350 -5.889 1.00 0.00 H

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> ATOM 37 CA TYR A 3 -3.446 2.538 1.230 1.00 0.00 C

> ATOM 38 C TYR A 3 -4.000 1.103 1.182 1.00 0.00 C

> ATOM 39 O TYR A 3 -3.277 0.167 1.508 1.00 0.00 O

> ATOM 40 CB TYR A 3 -3.738 3.210 2.583 1.00 0.00 C

> ATOM 41 CG TYR A 3 -2.672 2.927 3.623 1.00 0.00 C

> ATOM 42 CD1 TYR A 3 -2.765 1.788 4.444 1.00 0.00 C

> ATOM 43 CD2 TYR A 3 -1.567 3.795 3.740 1.00 0.00 C

> ATOM 44 CE1 TYR A 3 -1.751 1.512 5.382 1.00 0.00 C

> ATOM 45 CE2 TYR A 3 -0.550 3.520 4.672 1.00 0.00 C

> ATOM 46 CZ TYR A 3 -0.641 2.375 5.495 1.00 0.00 C

> ATOM 47 OH TYR A 3 0.344 2.091 6.389 1.00 0.00 O

> ATOM 48 H TYR A 3 -4.221 4.340 0.385 1.00 0.00 H

> ATOM 49 HA TYR A 3 -2.363 2.475 1.122 1.00 0.00 H

> ATOM 50 HB2 TYR A 3 -3.797 4.271 2.433 1.00 0.00 H

> ATOM 51 HB3 TYR A 3 -4.711 2.883 2.955 1.00 0.00 H

> ATOM 52 HD1 TYR A 3 -3.607 1.120 4.349 1.00 0.00 H

> ATOM 53 HD2 TYR A 3 -1.493 4.677 3.117 1.00 0.00 H

> ATOM 54 HE1 TYR A 3 -1.801 0.643 6.018 1.00 0.00 H

> ATOM 55 HE2 TYR A 3 0.291 4.191 4.755 1.00 0.00 H

> ATOM 56 HH TYR A 3 1.086 2.690 6.302 1.00 0.00 H

> ATOM 57 N ILE A 4 -5.249 0.909 0.731 1.00 0.00 N

> ATOM 58 CA ILE A 4 -5.862 -0.418 0.547 1.00 0.00 C

> ATOM 59 C ILE A 4 -5.108 -1.223 -0.524 1.00 0.00 C

> ATOM 60 O ILE A 4 -4.705 -2.359 -0.275 1.00 0.00 O

> ATOM 61 CB ILE A 4 -7.371 -0.307 0.207 1.00 0.00 C

> ATOM 62 CG1 ILE A 4 -8.145 0.575 1.218 1.00 0.00 C

> ATOM 63 CG2 ILE A 4 -8.018 -1.702 0.164 1.00 0.00 C

> ATOM 64 CD1 ILE A 4 -8.506 1.935 0.617 1.00 0.00 C

> ATOM 65 H ILE A 4 -5.779 1.731 0.489 1.00 0.00 H

> ATOM 66 HA ILE A 4 -5.769 -0.964 1.487 1.00 0.00 H

> ATOM 67 HB ILE A 4 -7.472 0.126 -0.790 1.00 0.00 H

> ATOM 68 HG12 ILE A 4 -9.048 0.069 1.502 1.00 0.00 H

> ATOM 69 HG13 ILE A 4 -7.554 0.726 2.123 1.00 0.00 H

> ATOM 70 HG21 ILE A 4 -7.562 -2.315 -0.613 1.00 0.00 H

> ATOM 71 HG22 ILE A 4 -7.904 -2.200 1.127 1.00 0.00 H

> ATOM 72 HG23 ILE A 4 -9.081 -1.610 -0.065 1.00 0.00 H

> ATOM 73 HD11 ILE A 4 -7.611 2.423 0.233 1.00 0.00 H

> ATOM 74 HD12 ILE A 4 -9.219 1.799 -0.198 1.00 0.00 H

> ATOM 75 HD13 ILE A 4 -8.963 2.563 1.384 1.00 0.00 H

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> ATOM 77 CA GLN A 5 -4.097 -1.237 -2.779 1.00 0.00 C

> ATOM 78 C GLN A 5 -2.654 -1.511 -2.339 1.00 0.00 C

> ATOM 79 O GLN A 5 -2.134 -2.592 -2.614 1.00 0.00 O

> ATOM 80 CB GLN A 5 -4.124 -0.349 -4.035 1.00 0.00 C

> ATOM 81 CG GLN A 5 -5.446 -0.464 -4.826 1.00 0.00 C

> ATOM 82 CD GLN A 5 -6.302 0.803 -4.886 1.00 0.00 C

> ATOM 83 OE1 GLN A 5 -5.896 1.911 -4.564 1.00 0.00 O

> ATOM 84 NE2 GLN A 5 -7.545 0.678 -5.313 1.00 0.00 N

> ATOM 85 H GLN A 5 -5.163 0.337 -1.814 1.00 0.00 H

> ATOM 86 HA GLN A 5 -4.533 -2.207 -3.026 1.00 0.00 H

> ATOM 87 HB2 GLN A 5 -3.993 0.673 -3.735 1.00 0.00 H

> ATOM 88 HB3 GLN A 5 -3.318 -0.674 -4.696 1.00 0.00 H

> ATOM 89 HG2 GLN A 5 -5.203 -0.745 -5.833 1.00 0.00 H

> ATOM 90 HG3 GLN A 5 -6.054 -1.268 -4.411 1.00 0.00 H

> ATOM 91 HE21 GLN A 5 -7.934 -0.208 -5.587 1.00 0.00 H

> ATOM 92 HE22 GLN A 5 -8.048 1.544 -5.402 1.00 0.00 H

> ATOM 93 N TRP A 6 -2.027 -0.572 -1.618 1.00 0.00 N

> ATOM 94 CA TRP A 6 -0.693 -0.764 -1.047 1.00 0.00 C

> ATOM 95 C TRP A 6 -0.644 -1.917 -0.026 1.00 0.00 C

> ATOM 96 O TRP A 6 0.231 -2.778 -0.111 1.00 0.00 O

> ATOM 97 CB TRP A 6 -0.213 0.557 -0.443 1.00 0.00 C

> ATOM 98 CG TRP A 6 1.169 0.505 0.124 1.00 0.00 C

> ATOM 99 CD1 TRP A 6 2.314 0.542 -0.597 1.00 0.00 C

> ATOM 100 CD2 TRP A 6 1.577 0.373 1.518 1.00 0.00 C

> ATOM 101 NE1 TRP A 6 3.396 0.430 0.252 1.00 0.00 N

> ATOM 102 CE2 TRP A 6 3.001 0.346 1.569 1.00 0.00 C

> ATOM 103 CE3 TRP A 6 0.887 0.268 2.747 1.00 0.00 C

> ATOM 104 CZ2 TRP A 6 3.712 0.258 2.772 1.00 0.00 C

> ATOM 105 CZ3 TRP A 6 1.592 0.150 3.960 1.00 0.00 C

> ATOM 106 CH2 TRP A 6 2.998 0.165 3.978 1.00 0.00 C

> ATOM 107 H TRP A 6 -2.505 0.316 -1.478 1.00 0.00 H

> ATOM 108 HA TRP A 6 -0.010 -1.033 -1.856 1.00 0.00 H

> ATOM 109 HB2 TRP A 6 -0.234 1.306 -1.211 1.00 0.00 H

> ATOM 110 HB3 TRP A 6 -0.898 0.860 0.348 1.00 0.00 H

> ATOM 111 HD1 TRP A 6 2.368 0.630 -1.674 1.00 0.00 H

> ATOM 112 HE1 TRP A 6 4.370 0.409 -0.063 1.00 0.00 H

> ATOM 113 HE3 TRP A 6 -0.194 0.280 2.749 1.00 0.00 H

> ATOM 114 HZ2 TRP A 6 4.792 0.247 2.758 1.00 0.00 H

> ATOM 115 HZ3 TRP A 6 1.046 0.055 4.888 1.00 0.00 H

> ATOM 116 HH2 TRP A 6 3.527 0.092 4.916 1.00 0.00 H

> ATOM 117 N LEU A 7 -1.605 -2.000 0.907 1.00 0.00 N

> ATOM 118 CA LEU A 7 -1.710 -3.134 1.832 1.00 0.00 C

> ATOM 119 C LEU A 7 -1.929 -4.466 1.106 1.00 0.00 C

> ATOM 120 O LEU A 7 -1.324 -5.461 1.502 1.00 0.00 O

> ATOM 121 CB LEU A 7 -2.824 -2.903 2.868 1.00 0.00 C

> ATOM 122 CG LEU A 7 -2.460 -1.924 4.000 1.00 0.00 C

> ATOM 123 CD1 LEU A 7 -3.711 -1.690 4.853 1.00 0.00 C

> ATOM 124 CD2 LEU A 7 -1.353 -2.460 4.918 1.00 0.00 C

> ATOM 125 H LEU A 7 -2.291 -1.251 0.973 1.00 0.00 H

> ATOM 126 HA LEU A 7 -0.757 -3.234 2.349 1.00 0.00 H

> ATOM 127 HB2 LEU A 7 -3.682 -2.515 2.354 1.00 0.00 H

> ATOM 128 HB3 LEU A 7 -3.076 -3.862 3.324 1.00 0.00 H

> ATOM 129 HG LEU A 7 -2.134 -0.976 3.579 1.00 0.00 H

> ATOM 130 HD11 LEU A 7 -4.496 -1.248 4.240 1.00 0.00 H

> ATOM 131 HD12 LEU A 7 -4.067 -2.637 5.262 1.00 0.00 H

> ATOM 132 HD13 LEU A 7 -3.483 -1.016 5.677 1.00 0.00 H

> ATOM 133 HD21 LEU A 7 -1.664 -3.401 5.371 1.00 0.00 H

> ATOM 134 HD22 LEU A 7 -0.433 -2.614 4.360 1.00 0.00 H

> ATOM 135 HD23 LEU A 7 -1.147 -1.735 5.706 1.00 0.00 H

> ATOM 136 N LYS A 8 -2.718 -4.492 0.018 1.00 0.00 N

> ATOM 137 CA LYS A 8 -2.894 -5.686 -0.829 1.00 0.00 C

> ATOM 138 C LYS A 8 -1.564 -6.220 -1.379 1.00 0.00 C

> ATOM 139 O LYS A 8 -1.459 -7.409 -1.665 1.00 0.00 O

> ATOM 140 CB LYS A 8 -3.864 -5.370 -1.980 1.00 0.00 C

> ATOM 141 CG LYS A 8 -4.388 -6.622 -2.718 1.00 0.00 C

> ATOM 142 CD LYS A 8 -4.505 -6.437 -4.242 1.00 0.00 C

> ATOM 143 CE LYS A 8 -3.209 -6.745 -5.018 1.00 0.00 C

> ATOM 144 NZ LYS A 8 -2.118 -5.779 -4.739 1.00 0.00 N

> ATOM 145 H LYS A 8 -3.231 -3.643 -0.211 1.00 0.00 H

> ATOM 146 HA LYS A 8 -3.325 -6.477 -0.214 1.00 0.00 H

> ATOM 147 HB2 LYS A 8 -4.705 -4.839 -1.577 1.00 0.00 H

> ATOM 148 HB3 LYS A 8 -3.360 -4.716 -2.685 1.00 0.00 H

> ATOM 149 HG2 LYS A 8 -3.715 -7.435 -2.526 1.00 0.00 H

> ATOM 150 HG3 LYS A 8 -5.377 -6.849 -2.317 1.00 0.00 H

> ATOM 151 HD2 LYS A 8 -5.276 -7.091 -4.602 1.00 0.00 H

> ATOM 152 HD3 LYS A 8 -4.855 -5.430 -4.471 1.00 0.00 H

> ATOM 153 HE2 LYS A 8 -2.873 -7.727 -4.745 1.00 0.00 H

> ATOM 154 HE3 LYS A 8 -3.446 -6.733 -6.086 1.00 0.00 H

> ATOM 155 HZ1 LYS A 8 -2.396 -4.819 -4.880 1.00 0.00 H

> ATOM 156 HZ2 LYS A 8 -1.774 -5.854 -3.793 1.00 0.00 H

> ATOM 157 HZ3 LYS A 8 -1.282 -5.906 -5.304 1.00 0.00 H

> ATOM 158 N ASP A 9 -0.551 -5.368 -1.570 1.00 0.00 N

> ATOM 159 CA ASP A 9 0.787 -5.808 -1.980 1.00 0.00 C

> ATOM 160 C ASP A 9 1.595 -6.452 -0.830 1.00 0.00 C

> ATOM 161 O ASP A 9 2.685 -6.970 -1.090 1.00 0.00 O

> ATOM 162 CB ASP A 9 1.594 -4.630 -2.566 1.00 0.00 C

> ATOM 163 CG ASP A 9 0.973 -3.926 -3.776 1.00 0.00 C

> ATOM 164 OD1 ASP A 9 0.255 -4.603 -4.551 1.00 0.00 O

> ATOM 165 OD2 ASP A 9 1.306 -2.727 -3.970 1.00 0.00 O

> ATOM 166 H ASP A 9 -0.687 -4.388 -1.343 1.00 0.00 H

> ATOM 167 HA ASP A 9 0.689 -6.562 -2.762 1.00 0.00 H

> ATOM 168 HB2 ASP A 9 1.719 -3.900 -1.790 1.00 0.00 H

> ATOM 169 HB3 ASP A 9 2.559 -5.017 -2.894 1.00 0.00 H

> ATOM 170 N GLY A 10 1.155 -6.367 0.440 1.00 0.00 N

> ATOM 171 CA GLY A 10 1.920 -6.800 1.627 1.00 0.00 C

> ATOM 172 C GLY A 10 2.495 -5.666 2.504 1.00 0.00 C

> ATOM 173 O GLY A 10 3.323 -5.931 3.387 1.00 0.00 O

> ATOM 174 H GLY A 10 0.231 -5.972 0.604 1.00 0.00 H

> ATOM 175 HA2 GLY A 10 1.260 -7.399 2.254 1.00 0.00 H

> ATOM 176 HA3 GLY A 10 2.750 -7.439 1.326 1.00 0.00 H

> ATOM 177 N GLY A 11 2.078 -4.413 2.271 1.00 0.00 N

> ATOM 178 CA GLY A 11 2.452 -3.248 3.072 1.00 0.00 C

> ATOM 179 C GLY A 11 3.971 -2.986 3.103 1.00 0.00 C

> ATOM 180 O GLY A 11 4.593 -2.901 2.043 1.00 0.00 O

> ATOM 181 H GLY A 11 1.509 -4.255 1.448 1.00 0.00 H

> ATOM 182 HA2 GLY A 11 1.968 -2.368 2.650 1.00 0.00 H

> ATOM 183 HA3 GLY A 11 2.064 -3.396 4.078 1.00 0.00 H

> ATOM 184 N PRO A 12 4.608 -2.840 4.289 1.00 0.00 N

> ATOM 185 CA PRO A 12 6.049 -2.569 4.388 1.00 0.00 C

> ATOM 186 C PRO A 12 6.947 -3.622 3.719 1.00 0.00 C

> ATOM 187 O PRO A 12 8.100 -3.334 3.404 1.00 0.00 O

> ATOM 188 CB PRO A 12 6.365 -2.497 5.887 1.00 0.00 C

> ATOM 189 CG PRO A 12 5.019 -2.212 6.546 1.00 0.00 C

> ATOM 190 CD PRO A 12 4.017 -2.897 5.618 1.00 0.00 C

> ATOM 191 HA PRO A 12 6.252 -1.600 3.932 1.00 0.00 H

> ATOM 192 HB2 PRO A 12 6.768 -3.428 6.235 1.00 0.00 H

> ATOM 193 HB3 PRO A 12 7.091 -1.712 6.104 1.00 0.00 H

> ATOM 194 HG2 PRO A 12 4.978 -2.632 7.532 1.00 0.00 H

> ATOM 195 HG3 PRO A 12 4.836 -1.136 6.553 1.00 0.00 H

> ATOM 196 HD2 PRO A 12 3.866 -3.916 5.917 1.00 0.00 H

> ATOM 197 HD3 PRO A 12 3.061 -2.377 5.665 1.00 0.00 H

> ATOM 198 N SER A 13 6.430 -4.838 3.502 1.00 0.00 N

> ATOM 199 CA SER A 13 7.167 -5.968 2.930 1.00 0.00 C

> ATOM 200 C SER A 13 7.113 -6.043 1.392 1.00 0.00 C

> ATOM 201 O SER A 13 7.652 -6.980 0.805 1.00 0.00 O

> ATOM 202 CB SER A 13 6.723 -7.269 3.614 1.00 0.00 C

> ATOM 203 OG SER A 13 5.376 -7.634 3.349 1.00 0.00 O

> ATOM 204 H SER A 13 5.454 -4.968 3.734 1.00 0.00 H

> ATOM 205 HA SER A 13 8.222 -5.839 3.177 1.00 0.00 H

> ATOM 206 HB2 SER A 13 7.360 -8.063 3.274 1.00 0.00 H

> ATOM 207 HB3 SER A 13 6.865 -7.162 4.691 1.00 0.00 H

> ATOM 208 HG SER A 13 4.737 -6.918 3.537 1.00 0.00 H

> ATOM 209 N SER A 14 6.508 -5.047 0.733 1.00 0.00 N

> ATOM 210 CA SER A 14 6.226 -5.028 -0.713 1.00 0.00 C

> ATOM 211 C SER A 14 7.223 -4.235 -1.564 1.00 0.00 C

> ATOM 212 O SER A 14 7.035 -4.116 -2.774 1.00 0.00 O

> ATOM 213 CB SER A 14 4.854 -4.397 -0.935 1.00 0.00 C

> ATOM 214 OG SER A 14 3.928 -5.006 -0.081 1.00 0.00 O

> ATOM 215 H SER A 14 6.017 -4.350 1.287 1.00 0.00 H

> ATOM 216 HA SER A 14 6.196 -6.052 -1.088 1.00 0.00 H

> ATOM 217 HB2 SER A 14 4.903 -3.346 -0.722 1.00 0.00 H

> ATOM 218 HB3 SER A 14 4.546 -4.527 -1.971 1.00 0.00 H

> ATOM 219 HG SER A 14 3.589 -5.837 -0.501 1.00 0.00 H

> ATOM 220 N GLY A 15 8.236 -3.613 -0.954 1.00 0.00 N

> ATOM 221 CA GLY A 15 9.241 -2.785 -1.634 1.00 0.00 C

> ATOM 222 C GLY A 15 8.755 -1.388 -2.056 1.00 0.00 C

> ATOM 223 O GLY A 15 9.534 -0.439 -2.013 1.00 0.00 O

> ATOM 224 H GLY A 15 8.306 -3.739 0.046 1.00 0.00 H

> ATOM 225 HA2 GLY A 15 10.102 -2.664 -0.978 1.00 0.00 H

> ATOM 226 HA3 GLY A 15 9.576 -3.308 -2.531 1.00 0.00 H

> ATOM 227 N ARG A 16 7.484 -1.243 -2.458 1.00 0.00 N

> ATOM 228 CA ARG A 16 6.866 0.043 -2.822 1.00 0.00 C

> ATOM 229 C ARG A 16 6.607 0.907 -1.567 1.00 0.00 C

> ATOM 230 O ARG A 16 6.048 0.385 -0.598 1.00 0.00 O

> ATOM 231 CB ARG A 16 5.566 -0.231 -3.600 1.00 0.00 C

> ATOM 232 CG ARG A 16 5.057 1.011 -4.351 1.00 0.00 C

> ATOM 233 CD ARG A 16 3.793 0.732 -5.180 1.00 0.00 C

> ATOM 234 NE ARG A 16 4.079 -0.101 -6.363 1.00 0.00 N

> ATOM 235 CZ ARG A 16 3.877 -1.406 -6.533 1.00 0.00 C

> ATOM 236 NH1 ARG A 16 3.266 -2.191 -5.676 1.00 0.00 N

> ATOM 237 NH2 ARG A 16 4.308 -1.979 -7.632 1.00 0.00 N

> ATOM 238 H ARG A 16 6.937 -2.095 -2.518 1.00 0.00 H

> ATOM 239 HA ARG A 16 7.569 0.558 -3.476 1.00 0.00 H

> ATOM 240 HB2 ARG A 16 5.749 -1.013 -4.312 1.00 0.00 H

> ATOM 241 HB3 ARG A 16 4.793 -0.580 -2.914 1.00 0.00 H

> ATOM 242 HG2 ARG A 16 4.834 1.777 -3.634 1.00 0.00 H

> ATOM 243 HG3 ARG A 16 5.843 1.374 -5.018 1.00 0.00 H

> ATOM 244 HD2 ARG A 16 3.079 0.222 -4.562 1.00 0.00 H

> ATOM 245 HD3 ARG A 16 3.407 1.693 -5.529 1.00 0.00 H

> ATOM 246 HE ARG A 16 4.530 0.371 -7.128 1.00 0.00 H

> ATOM 247 HH11 ARG A 16 2.673 -1.883 -4.893 1.00 0.00 H

> ATOM 248 HH12 ARG A 16 3.162 -3.167 -5.861 1.00 0.00 H

> ATOM 249 HH21 ARG A 16 4.765 -1.448 -8.350 1.00 0.00 H

> ATOM 250 HH22 ARG A 16 4.157 -2.963 -7.759 1.00 0.00 H

> ATOM 251 N PRO A 17 6.947 2.213 -1.560 1.00 0.00 N

> ATOM 252 CA PRO A 17 6.730 3.085 -0.400 1.00 0.00 C

> ATOM 253 C PRO A 17 5.232 3.312 -0.095 1.00 0.00 C

> ATOM 254 O PRO A 17 4.400 3.172 -0.996 1.00 0.00 O

> ATOM 255 CB PRO A 17 7.438 4.403 -0.744 1.00 0.00 C

> ATOM 256 CG PRO A 17 7.414 4.433 -2.270 1.00 0.00 C

> ATOM 257 CD PRO A 17 7.583 2.961 -2.635 1.00 0.00 C

> ATOM 258 HA PRO A 17 7.208 2.638 0.471 1.00 0.00 H

> ATOM 259 HB2 PRO A 17 6.907 5.241 -0.336 1.00 0.00 H

> ATOM 260 HB3 PRO A 17 8.472 4.360 -0.399 1.00 0.00 H

> ATOM 261 HG2 PRO A 17 6.481 4.818 -2.635 1.00 0.00 H

> ATOM 262 HG3 PRO A 17 8.216 5.048 -2.679 1.00 0.00 H

> ATOM 263 HD2 PRO A 17 7.104 2.750 -3.572 1.00 0.00 H

> ATOM 264 HD3 PRO A 17 8.643 2.709 -2.673 1.00 0.00 H

> ATOM 265 N PRO A 18 4.878 3.687 1.151 1.00 0.00 N

> ATOM 266 CA PRO A 18 3.495 3.929 1.554 1.00 0.00 C

> ATOM 267 C PRO A 18 2.938 5.209 0.903 1.00 0.00 C

> ATOM 268 O PRO A 18 3.617 6.239 0.913 1.00 0.00 O

> ATOM 269 CB PRO A 18 3.524 4.048 3.081 1.00 0.00 C

> ATOM 270 CG PRO A 18 4.937 4.549 3.376 1.00 0.00 C

> ATOM 271 CD PRO A 18 5.775 3.886 2.283 1.00 0.00 C

> ATOM 272 HA PRO A 18 2.889 3.069 1.280 1.00 0.00 H

> ATOM 273 HB2 PRO A 18 2.789 4.750 3.425 1.00 0.00 H

> ATOM 274 HB3 PRO A 18 3.390 3.061 3.527 1.00 0.00 H

> ATOM 275 HG2 PRO A 18 4.989 5.618 3.306 1.00 0.00 H

> ATOM 276 HG3 PRO A 18 5.272 4.261 4.373 1.00 0.00 H

> ATOM 277 HD2 PRO A 18 6.593 4.522 2.003 1.00 0.00 H

> ATOM 278 HD3 PRO A 18 6.135 2.918 2.635 1.00 0.00 H

> ATOM 279 N PRO A 19 1.706 5.185 0.359 1.00 0.00 N

> ATOM 280 CA PRO A 19 1.071 6.373 -0.198 1.00 0.00 C

> ATOM 281 C PRO A 19 0.534 7.279 0.922 1.00 0.00 C

> ATOM 282 O PRO A 19 0.005 6.793 1.925 1.00 0.00 O

> ATOM 283 CB PRO A 19 -0.043 5.831 -1.093 1.00 0.00 C

> ATOM 284 CG PRO A 19 -0.475 4.546 -0.383 1.00 0.00 C

> ATOM 285 CD PRO A 19 0.817 4.036 0.254 1.00 0.00 C

> ATOM 286 HA PRO A 19 1.785 6.932 -0.806 1.00 0.00 H

> ATOM 287 HB2 PRO A 19 -0.857 6.527 -1.157 1.00 0.00 H

> ATOM 288 HB3 PRO A 19 0.371 5.580 -2.071 1.00 0.00 H

> ATOM 289 HG2 PRO A 19 -1.216 4.752 0.365 1.00 0.00 H

> ATOM 290 HG3 PRO A 19 -0.885 3.819 -1.084 1.00 0.00 H

> ATOM 291 HD2 PRO A 19 0.616 3.632 1.228 1.00 0.00 H

> ATOM 292 HD3 PRO A 19 1.276 3.286 -0.389 1.00 0.00 H

> ATOM 293 N SER A 20 0.660 8.597 0.722 1.00 0.00 N

> ATOM 294 CA SER A 20 0.150 9.654 1.607 1.00 0.00 C

> ATOM 295 C SER A 20 -1.110 10.284 1.016 1.00 0.00 C

> ATOM 296 O SER A 20 -2.094 10.380 1.786 1.00 0.00 O

> ATOM 297 CB SER A 20 1.248 10.701 1.823 1.00 0.00 C

> ATOM 298 OG SER A 20 0.910 11.534 2.908 1.00 0.00 O

> ATOM 299 OXT SER A 20 -1.067 10.639 -0.179 1.00 0.00 O

> ATOM 300 H SER A 20 1.051 8.910 -0.152 1.00 0.00 H

> ATOM 301 HA SER A 20 -0.125 9.214 2.563 1.00 0.00 H

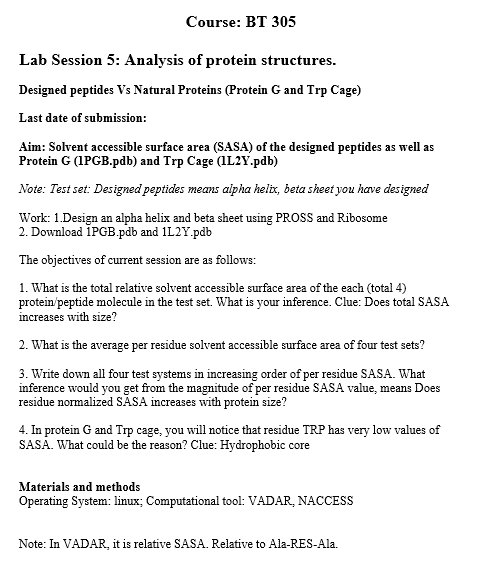
> ATOM 302 HB2 SER A 20 2.177 10.205 2.031 1.00 0.00 H

> ATOM 303 HB3 SER A 20 1.371 11.300 0.918 1.00 0.00 H

> ATOM 304 HG SER A 20 0.272 11.069 3.455 1.00 0.00 H

> TER 305 SER A 20

# LAB05



*1L2Y Files*

PDB File



COMPND 1L2Y\_JASH\_TRPCAGE\_200106037\_MODEL-13

SEQRES 1 20 ASN LEU TYR ILE GLN TRP LEU LYS ASP GLY GLY PRO SER

SEQRES 2 20 SER GLY ARG PRO PRO PRO SER

ATOM 1 N ASN 1 0.000 0.000 0.000

ATOM 2 CA ASN 1 1.458 0.000 0.000

ATOM 3 C ASN 1 2.009 1.422 0.000

ATOM 4 O ASN 1 2.941 1.737 0.741

ATOM 5 CB ASN 1 1.994 -0.770 -1.209

ATOM 6 CG ASN 1 1.934 -2.272 -1.015

ATOM 7 OD1 ASN 1 0.939 -2.913 -1.355

ATOM 8 ND2 ASN 1 3.002 -2.840 -0.467

ATOM 9 H ASN 1 -0.491 0.869 0.143

ATOM 10 1HD2 ASN 1 3.021 -3.838 -0.314

ATOM 11 2HD2 ASN 1 3.796 -2.274 -0.204

ATOM 12 N LEU 2 1.429 2.276 -0.836

ATOM 13 CA LEU 2 1.861 3.666 -0.934

ATOM 14 C LEU 2 3.273 3.765 -1.501

ATOM 15 O LEU 2 3.600 4.713 -2.215

ATOM 16 CB LEU 2 1.796 4.344 0.436

ATOM 17 CG LEU 2 0.420 4.398 1.102

ATOM 18 CD1 LEU 2 0.502 5.097 2.451

ATOM 19 CD2 LEU 2 -0.124 2.996 1.325

ATOM 20 H LEU 2 0.670 1.956 -1.417

ATOM 21 N TYR 3 4.106 2.781 -1.178

ATOM 22 CA TYR 3 5.483 2.756 -1.654

ATOM 23 C TYR 3 5.542 2.829 -3.176

ATOM 24 O TYR 3 6.468 3.409 -3.744

ATOM 25 CB TYR 3 6.194 1.490 -1.172

ATOM 26 CG TYR 3 7.694 1.622 -0.864

ATOM 27 CD1 TYR 3 8.106 1.973 0.426

ATOM 28 CD2 TYR 3 8.650 1.397 -1.857

ATOM 29 CE1 TYR 3 9.460 2.097 0.720

ATOM 30 CE2 TYR 3 10.005 1.521 -1.563

ATOM 31 CZ TYR 3 10.411 1.870 -0.277

ATOM 32 OH TYR 3 11.741 1.991 0.008

ATOM 33 H TYR 3 3.698 2.081 -0.592

ATOM 34 HH TYR 3 11.838 2.245 0.970

ATOM 35 N ILE 4 4.549 2.237 -3.831

ATOM 36 CA ILE 4 4.486 2.234 -5.288

ATOM 37 C ILE 4 4.336 3.648 -5.836

ATOM 38 O ILE 4 5.084 4.064 -6.721

ATOM 39 CB ILE 4 3.327 1.358 -5.800

ATOM 40 CG1 ILE 4 3.396 -0.037 -5.175

ATOM 41 CG2 ILE 4 3.361 1.265 -7.318

ATOM 42 CD1 ILE 4 2.289 -0.964 -5.628

ATOM 43 H ILE 4 3.820 1.778 -3.307

ATOM 44 N GLN 5 3.365 4.384 -5.305

ATOM 45 CA GLN 5 3.115 5.753 -5.740

ATOM 46 C GLN 5 4.330 6.640 -5.494

ATOM 47 O GLN 5 4.693 7.460 -6.337

ATOM 48 CB GLN 5 1.892 6.328 -5.023

ATOM 49 CG GLN 5 0.562 5.840 -5.575

ATOM 50 CD GLN 5 -0.625 6.430 -4.841

ATOM 51 OE1 GLN 5 -1.136 7.487 -5.214

ATOM 52 NE2 GLN 5 -1.070 5.748 -3.791

ATOM 53 H GLN 5 2.786 3.985 -4.582

ATOM 54 1HE1 GLN 5 -1.858 6.092 -3.262

ATOM 55 1HE2 GLN 5 -0.619 4.885 -3.522

ATOM 56 N TRP 6 4.955 6.471 -4.333

ATOM 57 CA TRP 6 6.130 7.256 -3.974

ATOM 58 C TRP 6 7.278 7.007 -4.946

ATOM 59 O TRP 6 7.924 7.945 -5.412

ATOM 60 CB TRP 6 6.581 6.923 -2.550

ATOM 61 CG TRP 6 7.777 7.739 -2.048

ATOM 62 CD1 TRP 6 7.704 8.972 -1.367

ATOM 63 CD2 TRP 6 9.120 7.443 -2.158

ATOM 64 NE1 TRP 6 8.984 9.462 -1.043

ATOM 65 CE2 TRP 6 9.844 8.499 -1.542

ATOM 66 CE3 TRP 6 9.795 6.341 -2.742

ATOM 67 CZ2 TRP 6 11.256 8.456 -1.508

ATOM 68 CZ3 TRP 6 11.189 6.318 -2.698

ATOM 69 CH2 TRP 6 11.911 7.357 -2.091

ATOM 70 H TRP 6 4.610 5.787 -3.690

ATOM 71 HE1 TRP 6 9.218 10.308 -0.563

ATOM 72 N LEU 7 7.525 5.737 -5.249

ATOM 73 CA LEU 7 8.595 5.362 -6.167

ATOM 74 C LEU 7 8.369 5.961 -7.551

ATOM 75 O LEU 7 9.315 6.378 -8.219

ATOM 76 CB LEU 7 8.708 3.840 -6.266

ATOM 77 CG LEU 7 9.385 3.132 -5.091

ATOM 78 CD1 LEU 7 9.428 1.629 -5.321

ATOM 79 CD2 LEU 7 8.629 3.393 -3.797

ATOM 80 H LEU 7 6.959 5.013 -4.834

ATOM 81 N LYS 8 7.110 5.999 -7.975

ATOM 82 CA LYS 8 6.758 6.546 -9.280

ATOM 83 C LYS 8 7.245 7.983 -9.425

ATOM 84 O LYS 8 7.524 8.445 -10.532

ATOM 85 CB LYS 8 5.244 6.492 -9.492

ATOM 86 CG LYS 8 4.820 6.723 -10.964

ATOM 87 CD LYS 8 3.309 6.677 -11.214

ATOM 88 CE LYS 8 3.036 6.920 -12.704

ATOM 89 NZ LYS 8 1.583 6.876 -12.948

ATOM 90 H LYS 8 6.451 5.623 -7.323

ATOM 91 1HZ LYS 8 1.394 7.034 -13.917

ATOM 92 2HZ LYS 8 1.219 5.981 -12.688

ATOM 93 3HZ LYS 8 1.124 7.582 -12.409

ATOM 94 N ASP 9 7.346 8.685 -8.301

ATOM 95 CA ASP 9 7.799 10.071 -8.302

ATOM 96 C ASP 9 9.310 10.157 -8.495

ATOM 97 O ASP 9 9.855 11.236 -8.724

ATOM 98 CB ASP 9 7.409 10.763 -6.994

ATOM 99 CG ASP 9 5.913 10.740 -6.747

ATOM 100 OD1 ASP 9 5.430 9.777 -6.115

ATOM 101 OD2 ASP 9 5.224 11.685 -7.186

ATOM 102 H ASP 9 7.102 8.248 -7.426

ATOM 103 N GLY 10 9.979 9.012 -8.402

ATOM 104 CA GLY 10 11.427 8.956 -8.567

ATOM 105 C GLY 10 12.126 8.733 -7.230

ATOM 106 O GLY 10 13.346 8.860 -7.128

ATOM 107 H GLY 10 9.473 8.161 -8.213

ATOM 108 N GLY 11 11.344 8.401 -6.208

ATOM 109 CA GLY 11 11.887 8.160 -4.876

ATOM 110 C GLY 11 12.601 9.396 -4.340

ATOM 111 O GLY 11 12.041 10.492 -4.326

ATOM 112 H GLY 11 10.351 8.313 -6.357

ATOM 113 N PRO 12 13.857 9.246 -3.887

ATOM 114 CA PRO 12 14.652 10.339 -3.350

ATOM 115 C PRO 12 14.817 11.474 -4.364

ATOM 116 O PRO 12 15.114 12.607 -3.990

ATOM 117 CB PRO 12 16.005 9.709 -3.006

ATOM 118 CG PRO 12 15.689 8.217 -2.890

ATOM 119 CD PRO 12 14.269 8.208 -2.323

ATOM 120 N SER 13 14.622 11.154 -5.640

ATOM 121 CA SER 13 14.748 12.142 -6.705

ATOM 122 C SER 13 13.422 12.851 -6.959

ATOM 123 O SER 13 13.304 13.655 -7.884

ATOM 124 CB SER 13 15.232 11.478 -7.996

ATOM 125 OG SER 13 14.258 10.586 -8.507

ATOM 126 H SER 13 14.386 10.193 -5.785

ATOM 127 HG SER 13 14.655 10.228 -9.305

ATOM 128 N SER 14 12.426 12.547 -6.133

ATOM 129 CA SER 14 11.107 13.154 -6.267

ATOM 130 C SER 14 10.929 14.307 -5.285

ATOM 131 O SER 14 9.885 14.960 -5.262

ATOM 132 CB SER 14 10.011 12.111 -6.040

ATOM 133 OG SER 14 10.247 10.947 -6.813

ATOM 134 H SER 14 12.671 11.878 -5.431

ATOM 135 HG SER 14 9.514 10.365 -6.601

ATOM 136 N GLY 15 11.953 14.552 -4.475

ATOM 137 CA GLY 15 11.912 15.626 -3.489

ATOM 138 C GLY 15 11.048 15.243 -2.292

ATOM 139 O GLY 15 11.341 15.619 -1.157

ATOM 140 H GLY 15 12.781 13.980 -4.543

ATOM 141 N ARG 16 9.982 14.493 -2.554

ATOM 142 CA ARG 16 9.074 14.058 -1.499

ATOM 143 C ARG 16 9.710 12.971 -0.638

ATOM 144 O ARG 16 10.296 12.020 -1.154

ATOM 145 CB ARG 16 7.766 13.539 -2.099

ATOM 146 CG ARG 16 6.628 13.420 -1.098

ATOM 147 CD ARG 16 5.362 12.900 -1.760

ATOM 148 NE ARG 16 4.259 12.780 -0.812

ATOM 149 CZ ARG 16 4.000 11.687 -0.101

ATOM 150 NH1 ARG 16 2.974 11.670 0.738

ATOM 151 NH2 ARG 16 4.769 10.614 -0.231

ATOM 152 H ARG 16 9.797 14.218 -3.506

ATOM 153 HE ARG 16 3.655 13.577 -0.688

ATOM 154 1HH1 ARG 16 2.390 12.485 0.837

ATOM 155 2HH1 ARG 16 2.778 10.841 1.277

ATOM 156 1HH2 ARG 16 5.549 10.628 -0.869

ATOM 157 2HH2 ARG 16 4.572 9.785 0.308

ATOM 158 N PRO 17 9.607 13.090 0.696

ATOM 159 CA PRO 17 10.166 12.128 1.632

ATOM 160 C PRO 17 9.466 10.769 1.537

ATOM 161 O PRO 17 8.330 10.683 1.073

ATOM 162 CB PRO 17 9.959 12.757 3.014

ATOM 163 CG PRO 17 8.742 13.661 2.818

ATOM 164 CD PRO 17 8.897 14.145 1.376

ATOM 165 N PRO 18 10.133 9.689 1.975

ATOM 166 CA PRO 18 9.587 8.342 1.944

ATOM 167 C PRO 18 8.454 8.163 2.958

ATOM 168 O PRO 18 8.571 8.588 4.106

ATOM 169 CB PRO 18 10.772 7.429 2.277

ATOM 170 CG PRO 18 11.683 8.318 3.124

ATOM 171 CD PRO 18 11.470 9.707 2.522

ATOM 172 N PRO 19 7.341 7.532 2.549

ATOM 173 CA PRO 19 6.192 7.295 3.407

ATOM 174 C PRO 19 6.435 6.135 4.376

ATOM 175 O PRO 19 7.057 5.138 4.012

ATOM 176 CB PRO 19 5.042 6.977 2.446

ATOM 177 CG PRO 19 5.734 6.278 1.276

ATOM 178 CD PRO 19 7.092 6.977 1.209

ATOM 179 N SER 20 5.939 6.279 5.600

ATOM 180 CA SER 20 6.100 5.248 6.618

ATOM 181 C SER 20 4.809 4.460 6.815

ATOM 182 O SER 20 4.815 3.230 6.818

ATOM 183 CB SER 20 6.531 5.870 7.948

ATOM 184 OG SER 20 7.006 4.881 8.844

ATOM 185 H SER 20 5.458 7.144 5.743

ATOM 186 HG SER 20 7.247 5.369 9.635

TER

LOG File



ACCALL - Accessibility calculations

MAX RESIDUES 5000

MAX ATOMS/RES 100

PDB FILE INPUT 1l2y-model13.pdb

PROBE SIZE 1.40

Z-SLICE WIDTH 0.050

VDW RADII FILE vdw.radii

EXCL HETATOMS

EXCL HYDROGENS

EXCL WATERS

READVDW 32 residues input

ADDED VDW RADII

CHAINS 1

RESIDUES 20

ATOMS 153

SOLVA: PROGRAM ENDS CORRECTLY

CALCULATED ATOMIC ACCESSIBILITES

RELATIVE (STANDARD) ACCESSIBILITIES READFOR 20 AMINO ACIDS

SUMMED ACCESSIBILITIES OVER RESIDUES

RSA File



REM Relative accessibilites read from external file "standard.data"

REM File of summed (Sum) and % (per.) accessibilities for

REM RES \_ NUM All-atoms Total-Side Main-Chain Non-polar All polar

REM ABS REL ABS REL ABS REL ABS REL ABS REL

RES ASN 1 152.47 105.9 105.13 99.0 47.34 125.6 16.37 35.4 136.09 139.3

RES LEU 2 114.08 63.9 106.81 75.7 7.27 19.4 106.81 75.1 7.27 20.0

RES TYR 3 122.45 57.6 122.45 69.0 0.00 0.0 81.81 59.9 40.64 53.3

RES ILE 4 127.05 72.5 125.54 91.0 1.50 4.0 125.54 90.2 1.50 4.2

RES GLN 5 135.95 76.2 133.34 94.6 2.61 6.9 51.73 99.1 84.22 66.7

RES TRP 6 16.10 6.5 15.34 7.3 0.76 2.0 15.34 8.1 0.76 1.3

RES LEU 7 83.49 46.7 71.43 50.6 12.06 32.1 72.61 51.0 10.87 29.9

RES LYS 8 184.00 91.6 159.58 97.7 24.42 65.1 112.35 96.4 71.65 85.1

RES ASP 9 80.83 57.6 62.77 61.1 18.06 47.9 18.50 37.6 62.33 68.4

RES GLY 10 38.76 48.4 24.15 74.7 14.61 30.6 28.37 75.5 10.39 24.4

RES GLY 11 6.08 7.6 5.92 18.3 0.16 0.3 5.92 15.8 0.16 0.4

RES PRO 12 123.03 90.4 100.00 83.4 23.03 141.9 101.20 83.7 21.83 143.7

RES SER 13 95.97 82.4 66.50 85.1 29.47 76.8 56.43 116.2 39.54 58.2

RES SER 14 33.83 29.0 7.64 9.8 26.19 68.2 11.66 24.0 22.17 32.6

RES GLY 15 73.12 91.3 38.76 119.9 34.36 71.9 45.10 120.1 28.03 65.9

RES ARG 16 137.23 57.5 133.57 66.4 3.66 9.7 50.77 65.3 86.46 53.7

RES PRO 17 94.34 69.3 93.17 77.7 1.17 7.2 93.18 77.0 1.16 7.6

RES PRO 18 93.00 68.3 75.68 63.1 17.32 106.7 76.02 62.9 16.98 111.8

RES PRO 19 38.45 28.2 23.96 20.0 14.49 89.3 24.82 20.5 13.62 89.7

RES SER 20 167.52 143.8 89.78 114.9 77.73 202.4 80.53 165.9 86.99 128.0

END Absolute sums over single chains surface

CHAIN 1 \_ 1917.7 1561.5 356.2 1175.1 742.6

END Absolute sums over all chains

TOTAL 1917.7 1561.5 356.2 1175.1 742.6

*1PGB Files*

PDB File



HEADER IMMUNOGLOBULIN BINDING PROTEIN 23-NOV-93 1PGB

TITLE TWO CRYSTAL STRUCTURES OF THE B1 IMMUNOGLOBULIN-BINDING DOMAIN OF

TITLE 2 STREPTOCCOCAL PROTEIN G AND COMPARISON WITH NMR

COMPND MOL\_ID: 1;

COMPND 2 MOLECULE: PROTEIN G;

COMPND 3 CHAIN: A;

COMPND 4 ENGINEERED: YES

SOURCE MOL\_ID: 1;

SOURCE 2 ORGANISM\_SCIENTIFIC: STREPTOCOCCUS SP. GX7805;

SOURCE 3 ORGANISM\_TAXID: 1325

KEYWDS IMMUNOGLOBULIN BINDING PROTEIN

EXPDTA X-RAY DIFFRACTION

AUTHOR T.GALLAGHER,P.ALEXANDER,P.BRYAN,G.L.GILLILAND

REVDAT 3 29-NOV-17 1PGB 1 HELIX

REVDAT 2 24-FEB-09 1PGB 1 VERSN

REVDAT 1 30-APR-94 1PGB 0

JRNL AUTH T.GALLAGHER,P.ALEXANDER,P.BRYAN,G.L.GILLILAND

JRNL TITL TWO CRYSTAL STRUCTURES OF THE B1 IMMUNOGLOBULIN-BINDING

JRNL TITL 2 DOMAIN OF STREPTOCOCCAL PROTEIN G AND COMPARISON WITH NMR.

JRNL REF BIOCHEMISTRY V. 33 4721 1994

JRNL REFN ISSN 0006-2960

JRNL PMID 8161530

JRNL DOI 10.1021/BI00181A032

REMARK 1

REMARK 1 REFERENCE 1

REMARK 1 AUTH A.ACHARI,S.P.HALE,A.J.HOWARD,G.M.CLORE,A.M.GRONENBORN,

REMARK 1 AUTH 2 K.D.HARDMAN,M.WHITLOW

REMARK 1 TITL 1.67 ANGSTROMS X-RAY STRUCTURE OF THE B2

REMARK 1 TITL 2 IMMUNOGLOBULIN-BINDING DOMAIN OF STREPTOCCOCAL PROTEIN G AND

REMARK 1 TITL 3 COMPARISON TO THE NMR STRUCTURE OF THE B1 DOMAIN

REMARK 1 REF BIOCHEMISTRY V. 31 10449 1992

REMARK 1 REFN ISSN 0006-2960

REMARK 1 REFERENCE 2

REMARK 1 AUTH A.M.GRONENBORN,D.R.FILPULA,N.Z.ESSIG,A.ACHARI,M.WHITLOW,

REMARK 1 AUTH 2 P.T.WINGFIELD,G.M.CLORE

REMARK 1 TITL A NOVEL, HIGHLY STABLE FOLD OF THE IMMUNOGLOBULIN BINDING

REMARK 1 TITL 2 DOMAIN OF STREPTOCOCCAL PROTEIN G

REMARK 1 REF SCIENCE V. 253 657 1991

REMARK 1 REFN ISSN 0036-8075

REMARK 2

REMARK 2 RESOLUTION. 1.92 ANGSTROMS.

REMARK 3

REMARK 3 REFINEMENT.

REMARK 3 PROGRAM : PROLSQ

REMARK 3 AUTHORS : KONNERT,HENDRICKSON

REMARK 3

REMARK 3 DATA USED IN REFINEMENT.

REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 1.92

REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : 6.00

REMARK 3 DATA CUTOFF (SIGMA(F)) : NULL

REMARK 3 COMPLETENESS FOR RANGE (%) : NULL

REMARK 3 NUMBER OF REFLECTIONS : 4493

REMARK 3

REMARK 3 FIT TO DATA USED IN REFINEMENT.

REMARK 3 CROSS-VALIDATION METHOD : NULL

REMARK 3 FREE R VALUE TEST SET SELECTION : NULL

REMARK 3 R VALUE (WORKING + TEST SET) : 0.198

REMARK 3 R VALUE (WORKING SET) : NULL

REMARK 3 FREE R VALUE : NULL

REMARK 3 FREE R VALUE TEST SET SIZE (%) : NULL

REMARK 3 FREE R VALUE TEST SET COUNT : NULL

REMARK 3

REMARK 3 FIT/AGREEMENT OF MODEL WITH ALL DATA.

REMARK 3 R VALUE (WORKING + TEST SET, NO CUTOFF) : NULL

REMARK 3 R VALUE (WORKING SET, NO CUTOFF) : NULL

REMARK 3 FREE R VALUE (NO CUTOFF) : NULL

REMARK 3 FREE R VALUE TEST SET SIZE (%, NO CUTOFF) : NULL

REMARK 3 FREE R VALUE TEST SET COUNT (NO CUTOFF) : NULL

REMARK 3 TOTAL NUMBER OF REFLECTIONS (NO CUTOFF) : NULL

REMARK 3

REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.

REMARK 3 PROTEIN ATOMS : 436

REMARK 3 NUCLEIC ACID ATOMS : 0

REMARK 3 HETEROGEN ATOMS : 0

REMARK 3 SOLVENT ATOMS : 24

REMARK 3

REMARK 3 B VALUES.

REMARK 3 FROM WILSON PLOT (A\*\*2) : NULL

REMARK 3 MEAN B VALUE (OVERALL, A\*\*2) : NULL

REMARK 3 OVERALL ANISOTROPIC B VALUE.

REMARK 3 B11 (A\*\*2) : NULL

REMARK 3 B22 (A\*\*2) : NULL

REMARK 3 B33 (A\*\*2) : NULL

REMARK 3 B12 (A\*\*2) : NULL

REMARK 3 B13 (A\*\*2) : NULL

REMARK 3 B23 (A\*\*2) : NULL

REMARK 3

REMARK 3 ESTIMATED COORDINATE ERROR.

REMARK 3 ESD FROM LUZZATI PLOT (A) : NULL

REMARK 3 ESD FROM SIGMAA (A) : NULL

REMARK 3 LOW RESOLUTION CUTOFF (A) : NULL

REMARK 3

REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES.

REMARK 3 DISTANCE RESTRAINTS. RMS SIGMA

REMARK 3 BOND LENGTH (A) : 0.020 ; NULL

REMARK 3 ANGLE DISTANCE (A) : 2.045 ; NULL

REMARK 3 INTRAPLANAR 1-4 DISTANCE (A) : NULL ; NULL

REMARK 3 H-BOND OR METAL COORDINATION (A) : NULL ; NULL

REMARK 3

REMARK 3 PLANE RESTRAINT (A) : NULL ; NULL

REMARK 3 CHIRAL-CENTER RESTRAINT (A\*\*3) : NULL ; NULL

REMARK 3

REMARK 3 NON-BONDED CONTACT RESTRAINTS.

REMARK 3 SINGLE TORSION (A) : NULL ; NULL

REMARK 3 MULTIPLE TORSION (A) : NULL ; NULL

REMARK 3 H-BOND (X...Y) (A) : NULL ; NULL

REMARK 3 H-BOND (X-H...Y) (A) : NULL ; NULL

REMARK 3

REMARK 3 CONFORMATIONAL TORSION ANGLE RESTRAINTS.

REMARK 3 SPECIFIED (DEGREES) : NULL ; NULL

REMARK 3 PLANAR (DEGREES) : NULL ; NULL

REMARK 3 STAGGERED (DEGREES) : NULL ; NULL

REMARK 3 TRANSVERSE (DEGREES) : NULL ; NULL

REMARK 3

REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. RMS SIGMA

REMARK 3 MAIN-CHAIN BOND (A\*\*2) : NULL ; NULL

REMARK 3 MAIN-CHAIN ANGLE (A\*\*2) : NULL ; NULL

REMARK 3 SIDE-CHAIN BOND (A\*\*2) : NULL ; NULL

REMARK 3 SIDE-CHAIN ANGLE (A\*\*2) : NULL ; NULL

REMARK 3

REMARK 3 OTHER REFINEMENT REMARKS: NULL

REMARK 4

REMARK 4 1PGB COMPLIES WITH FORMAT V. 3.30, 13-JUL-11

REMARK 100

REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY BNL.

REMARK 100 THE DEPOSITION ID IS D\_1000175654.

REMARK 200

REMARK 200 EXPERIMENTAL DETAILS

REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION

REMARK 200 DATE OF DATA COLLECTION : NULL

REMARK 200 TEMPERATURE (KELVIN) : NULL

REMARK 200 PH : NULL

REMARK 200 NUMBER OF CRYSTALS USED : NULL

REMARK 200

REMARK 200 SYNCHROTRON (Y/N) : NULL

REMARK 200 RADIATION SOURCE : NULL

REMARK 200 BEAMLINE : NULL

REMARK 200 X-RAY GENERATOR MODEL : NULL

REMARK 200 MONOCHROMATIC OR LAUE (M/L) : NULL

REMARK 200 WAVELENGTH OR RANGE (A) : NULL

REMARK 200 MONOCHROMATOR : NULL

REMARK 200 OPTICS : NULL

REMARK 200

REMARK 200 DETECTOR TYPE : NULL

REMARK 200 DETECTOR MANUFACTURER : NULL

REMARK 200 INTENSITY-INTEGRATION SOFTWARE : NULL

REMARK 200 DATA SCALING SOFTWARE : NULL

REMARK 200

REMARK 200 NUMBER OF UNIQUE REFLECTIONS : NULL

REMARK 200 RESOLUTION RANGE HIGH (A) : NULL

REMARK 200 RESOLUTION RANGE LOW (A) : NULL

REMARK 200 REJECTION CRITERIA (SIGMA(I)) : NULL

REMARK 200

REMARK 200 OVERALL.

REMARK 200 COMPLETENESS FOR RANGE (%) : NULL

REMARK 200 DATA REDUNDANCY : NULL

REMARK 200 R MERGE (I) : NULL

REMARK 200 R SYM (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : NULL

REMARK 200

REMARK 200 IN THE HIGHEST RESOLUTION SHELL.

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : NULL

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : NULL

REMARK 200 COMPLETENESS FOR SHELL (%) : NULL

REMARK 200 DATA REDUNDANCY IN SHELL : NULL

REMARK 200 R MERGE FOR SHELL (I) : NULL

REMARK 200 R SYM FOR SHELL (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR SHELL : NULL

REMARK 200

REMARK 200 DIFFRACTION PROTOCOL: NULL

REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: NULL

REMARK 200 SOFTWARE USED: X-PLOR

REMARK 200 STARTING MODEL: NULL

REMARK 200

REMARK 200 REMARK: NULL

REMARK 280

REMARK 280 CRYSTAL

REMARK 280 SOLVENT CONTENT, VS (%): 50.31

REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS\*\*3/DA): 2.48

REMARK 280

REMARK 280 CRYSTALLIZATION CONDITIONS: NULL

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY

REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 31 2 1

REMARK 290

REMARK 290 SYMOP SYMMETRY

REMARK 290 NNNMMM OPERATOR

REMARK 290 1555 X,Y,Z

REMARK 290 2555 -Y,X-Y,Z+1/3

REMARK 290 3555 -X+Y,-X,Z+2/3

REMARK 290 4555 Y,X,-Z

REMARK 290 5555 X-Y,-Y,-Z+2/3

REMARK 290 6555 -X,-X+Y,-Z+1/3

REMARK 290

REMARK 290 WHERE NNN -> OPERATOR NUMBER

REMARK 290 MMM -> TRANSLATION VECTOR

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS

REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM

REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY

REMARK 290 RELATED MOLECULES.

REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.00000

REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.00000

REMARK 290 SMTRY1 2 -0.500000 -0.866025 0.000000 0.00000

REMARK 290 SMTRY2 2 0.866025 -0.500000 0.000000 0.00000

REMARK 290 SMTRY3 2 0.000000 0.000000 1.000000 26.41800

REMARK 290 SMTRY1 3 -0.500000 0.866025 0.000000 0.00000

REMARK 290 SMTRY2 3 -0.866025 -0.500000 0.000000 0.00000

REMARK 290 SMTRY3 3 0.000000 0.000000 1.000000 52.83600

REMARK 290 SMTRY1 4 -0.500000 0.866025 0.000000 0.00000

REMARK 290 SMTRY2 4 0.866025 0.500000 0.000000 0.00000

REMARK 290 SMTRY3 4 0.000000 0.000000 -1.000000 0.00000

REMARK 290 SMTRY1 5 1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 5 0.000000 -1.000000 0.000000 0.00000

REMARK 290 SMTRY3 5 0.000000 0.000000 -1.000000 52.83600

REMARK 290 SMTRY1 6 -0.500000 -0.866025 0.000000 0.00000

REMARK 290 SMTRY2 6 -0.866025 0.500000 0.000000 0.00000

REMARK 290 SMTRY3 6 0.000000 0.000000 -1.000000 26.41800

REMARK 290

REMARK 290 REMARK: NULL

REMARK 300

REMARK 300 BIOMOLECULE: 1

REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM

REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN

REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON

REMARK 300 BURIED SURFACE AREA.

REMARK 350

REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN

REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE

REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS

REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND

REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.

REMARK 350

REMARK 350 BIOMOLECULE: 1

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC

REMARK 350 APPLY THE FOLLOWING TO CHAINS: A

REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000

REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000

REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000

DBREF 1PGB A 2 56 UNP P06654 SPG1\_STRSG 228 282

SEQRES 1 A 56 MET THR TYR LYS LEU ILE LEU ASN GLY LYS THR LEU LYS

SEQRES 2 A 56 GLY GLU THR THR THR GLU ALA VAL ASP ALA ALA THR ALA

SEQRES 3 A 56 GLU LYS VAL PHE LYS GLN TYR ALA ASN ASP ASN GLY VAL

SEQRES 4 A 56 ASP GLY GLU TRP THR TYR ASP ASP ALA THR LYS THR PHE

SEQRES 5 A 56 THR VAL THR GLU

FORMUL 2 HOH \*24(H2 O)

HELIX 1 1 ALA A 23 ASP A 36 1 14

SHEET 1 S1 4 LEU A 12 ALA A 20 0

SHEET 2 S1 4 MET A 1 GLY A 9 -1

SHEET 3 S1 4 LYS A 50 GLU A 56 1

SHEET 4 S1 4 GLU A 42 ASP A 46 -1

CRYST1 36.633 36.633 79.254 90.00 90.00 120.00 P 31 2 1 6

ORIGX1 1.000000 0.000000 0.000000 0.00000

ORIGX2 0.000000 1.000000 0.000000 0.00000

ORIGX3 0.000000 0.000000 1.000000 0.00000

SCALE1 0.027298 0.015760 0.000000 0.00000

SCALE2 0.000000 0.031521 0.000000 0.00000

SCALE3 0.000000 0.000000 0.012618 0.00000

ATOM 1 N MET A 1 12.969 18.506 30.954 1.00 15.93 N

ATOM 2 CA MET A 1 13.935 18.529 29.843 1.00 17.40 C

ATOM 3 C MET A 1 13.138 18.692 28.517 1.00 14.65 C

ATOM 4 O MET A 1 12.007 18.222 28.397 1.00 13.04 O

ATOM 5 CB MET A 1 14.733 17.216 29.882 1.00 20.72 C

ATOM 6 CG MET A 1 15.742 16.983 28.738 1.00 23.81 C

ATOM 7 SD MET A 1 17.378 17.025 29.359 1.00 28.11 S

ATOM 8 CE MET A 1 17.166 16.055 30.819 1.00 27.51 C

ATOM 9 N THR A 2 13.719 19.413 27.573 1.00 12.63 N

ATOM 10 CA THR A 2 13.088 19.661 26.283 1.00 12.68 C

ATOM 11 C THR A 2 13.561 18.631 25.300 1.00 12.02 C

ATOM 12 O THR A 2 14.763 18.432 25.121 1.00 13.07 O

ATOM 13 CB THR A 2 13.527 20.980 25.667 1.00 14.62 C

ATOM 14 OG1 THR A 2 13.307 22.020 26.627 1.00 15.31 O

ATOM 15 CG2 THR A 2 12.704 21.284 24.409 1.00 14.47 C

ATOM 16 N TYR A 3 12.574 18.048 24.642 1.00 11.17 N

ATOM 17 CA TYR A 3 12.726 17.033 23.612 1.00 10.11 C

ATOM 18 C TYR A 3 12.109 17.637 22.316 1.00 10.52 C

ATOM 19 O TYR A 3 11.165 18.449 22.364 1.00 9.38 O

ATOM 20 CB TYR A 3 11.907 15.809 24.042 1.00 10.96 C

ATOM 21 CG TYR A 3 12.497 15.093 25.196 1.00 10.60 C

ATOM 22 CD1 TYR A 3 13.560 14.276 25.012 1.00 12.20 C

ATOM 23 CD2 TYR A 3 12.045 15.324 26.492 1.00 11.77 C

ATOM 24 CE1 TYR A 3 14.205 13.693 26.058 1.00 13.25 C

ATOM 25 CE2 TYR A 3 12.663 14.737 27.567 1.00 12.45 C

ATOM 26 CZ TYR A 3 13.772 13.910 27.323 1.00 11.39 C

ATOM 27 OH TYR A 3 14.476 13.300 28.344 1.00 14.48 O

ATOM 28 N LYS A 4 12.633 17.222 21.175 1.00 9.63 N

ATOM 29 CA LYS A 4 12.179 17.659 19.887 1.00 9.41 C

ATOM 30 C LYS A 4 11.677 16.470 19.087 1.00 9.49 C

ATOM 31 O LYS A 4 12.151 15.336 19.237 1.00 8.55 O

ATOM 32 CB LYS A 4 13.376 18.247 19.100 1.00 12.36 C

ATOM 33 CG LYS A 4 12.954 19.035 17.857 1.00 17.46 C

ATOM 34 CD LYS A 4 14.119 19.494 16.982 1.00 20.77 C

ATOM 35 CE LYS A 4 14.184 21.056 16.755 1.00 24.12 C

ATOM 36 NZ LYS A 4 12.929 21.820 16.303 1.00 25.14 N

ATOM 37 N LEU A 5 10.771 16.761 18.157 1.00 8.76 N

ATOM 38 CA LEU A 5 10.253 15.790 17.221 1.00 7.91 C

ATOM 39 C LEU A 5 10.360 16.415 15.781 1.00 9.03 C

ATOM 40 O LEU A 5 9.916 17.539 15.553 1.00 6.35 O

ATOM 41 CB LEU A 5 8.765 15.468 17.506 1.00 8.63 C

ATOM 42 CG LEU A 5 8.058 14.607 16.411 1.00 8.98 C

ATOM 43 CD1 LEU A 5 8.626 13.160 16.373 1.00 8.38 C

ATOM 44 CD2 LEU A 5 6.577 14.522 16.660 1.00 9.13 C

ATOM 45 N ILE A 6 10.995 15.689 14.856 1.00 7.05 N

ATOM 46 CA ILE A 6 11.082 16.103 13.475 1.00 9.67 C

ATOM 47 C ILE A 6 10.046 15.228 12.753 1.00 8.83 C

ATOM 48 O ILE A 6 10.068 14.016 12.892 1.00 7.29 O

ATOM 49 CB ILE A 6 12.484 15.880 12.922 1.00 9.90 C

ATOM 50 CG1 ILE A 6 13.453 16.788 13.678 1.00 13.88 C

ATOM 51 CG2 ILE A 6 12.520 16.275 11.428 1.00 9.38 C

ATOM 52 CD1 ILE A 6 14.844 16.502 13.276 1.00 15.90 C

ATOM 53 N LEU A 7 9.085 15.850 12.087 1.00 9.18 N

ATOM 54 CA LEU A 7 8.009 15.163 11.389 1.00 7.98 C

ATOM 55 C LEU A 7 8.312 15.181 9.902 1.00 9.81 C

ATOM 56 O LEU A 7 8.580 16.234 9.291 1.00 7.52 O

ATOM 57 CB LEU A 7 6.690 15.903 11.602 1.00 11.14 C

ATOM 58 CG LEU A 7 6.147 16.007 13.030 1.00 13.03 C

ATOM 59 CD1 LEU A 7 5.647 17.410 13.283 1.00 14.31 C

ATOM 60 CD2 LEU A 7 5.037 14.952 13.247 1.00 12.67 C

ATOM 61 N ASN A 8 8.383 14.018 9.323 1.00 10.71 N

ATOM 62 CA ASN A 8 8.628 13.975 7.913 1.00 13.03 C

ATOM 63 C ASN A 8 7.575 13.039 7.320 1.00 12.38 C

ATOM 64 O ASN A 8 7.885 11.921 6.936 1.00 11.56 O

ATOM 65 CB ASN A 8 10.025 13.485 7.676 1.00 15.38 C

ATOM 66 CG ASN A 8 10.270 13.214 6.226 1.00 19.45 C

ATOM 67 OD1 ASN A 8 10.134 14.101 5.386 1.00 19.46 O

ATOM 68 ND2 ASN A 8 10.497 11.955 5.900 1.00 22.31 N

ATOM 69 N GLY A 9 6.309 13.415 7.484 1.00 10.44 N

ATOM 70 CA GLY A 9 5.213 12.642 6.966 1.00 12.52 C

ATOM 71 C GLY A 9 4.914 12.990 5.506 1.00 12.67 C

ATOM 72 O GLY A 9 5.571 13.842 4.929 1.00 14.71 O

ATOM 73 N LYS A 10 3.922 12.342 4.909 1.00 14.25 N

ATOM 74 CA LYS A 10 3.589 12.601 3.497 1.00 15.77 C

ATOM 75 C LYS A 10 2.910 13.955 3.387 1.00 16.15 C

ATOM 76 O LYS A 10 3.170 14.710 2.434 1.00 15.37 O

ATOM 77 CB LYS A 10 2.611 11.571 2.910 1.00 18.26 C

ATOM 78 CG LYS A 10 2.910 10.139 3.208 1.00 21.67 C

ATOM 79 CD LYS A 10 1.958 9.176 2.456 1.00 23.96 C

ATOM 80 CE LYS A 10 0.438 9.229 2.864 1.00 25.86 C

ATOM 81 NZ LYS A 10 -0.453 10.379 2.316 1.00 27.03 N

ATOM 82 N THR A 11 2.097 14.250 4.410 1.00 14.06 N

ATOM 83 CA THR A 11 1.291 15.471 4.538 1.00 17.77 C

ATOM 84 C THR A 11 1.723 16.512 5.586 1.00 16.78 C

ATOM 85 O THR A 11 1.571 17.680 5.335 1.00 15.84 O

ATOM 86 CB THR A 11 -0.184 15.081 4.825 1.00 18.41 C

ATOM 87 OG1 THR A 11 -0.812 14.768 3.583 1.00 22.26 O

ATOM 88 CG2 THR A 11 -0.936 16.215 5.481 1.00 22.81 C

ATOM 89 N LEU A 12 2.202 16.086 6.760 1.00 15.99 N

ATOM 90 CA LEU A 12 2.624 17.021 7.787 1.00 13.96 C

ATOM 91 C LEU A 12 4.149 16.952 7.892 1.00 13.07 C

ATOM 92 O LEU A 12 4.723 15.876 8.026 1.00 11.55 O

ATOM 93 CB LEU A 12 2.051 16.588 9.114 1.00 16.48 C

ATOM 94 CG LEU A 12 1.664 17.531 10.256 1.00 18.00 C

ATOM 95 CD1 LEU A 12 1.514 16.689 11.541 1.00 19.80 C

ATOM 96 CD2 LEU A 12 2.635 18.673 10.367 1.00 19.00 C

ATOM 97 N LYS A 13 4.789 18.112 7.806 1.00 12.54 N

ATOM 98 CA LYS A 13 6.240 18.276 7.903 1.00 12.83 C

ATOM 99 C LYS A 13 6.603 19.425 8.876 1.00 11.77 C

ATOM 100 O LYS A 13 5.907 20.419 8.910 1.00 11.59 O

ATOM 101 CB LYS A 13 6.814 18.597 6.516 1.00 14.47 C

ATOM 102 CG LYS A 13 6.736 17.387 5.533 1.00 16.10 C

ATOM 103 CD LYS A 13 7.843 17.514 4.511 1.00 19.87 C

ATOM 104 CE LYS A 13 8.047 16.220 3.665 1.00 18.59 C

ATOM 105 NZ LYS A 13 6.799 15.840 3.092 1.00 19.82 N

ATOM 106 N GLY A 14 7.713 19.307 9.596 1.00 11.38 N

ATOM 107 CA GLY A 14 8.146 20.352 10.511 1.00 10.32 C

ATOM 108 C GLY A 14 8.790 19.827 11.800 1.00 10.18 C

ATOM 109 O GLY A 14 9.296 18.709 11.800 1.00 8.21 O

ATOM 110 N GLU A 15 8.811 20.636 12.874 1.00 10.59 N

ATOM 111 CA GLU A 15 9.429 20.303 14.170 1.00 13.74 C

ATOM 112 C GLU A 15 8.601 20.865 15.250 1.00 13.79 C

ATOM 113 O GLU A 15 8.079 21.962 15.075 1.00 13.45 O

ATOM 114 CB GLU A 15 10.723 21.056 14.402 1.00 16.48 C

ATOM 115 CG GLU A 15 11.688 20.927 13.340 1.00 22.84 C

ATOM 116 CD GLU A 15 12.923 21.752 13.633 1.00 26.38 C

ATOM 117 OE1 GLU A 15 12.774 22.953 14.009 1.00 28.66 O

ATOM 118 OE2 GLU A 15 14.042 21.169 13.563 1.00 28.91 O

ATOM 119 N THR A 16 8.498 20.128 16.364 1.00 14.41 N

ATOM 120 CA THR A 16 7.799 20.583 17.589 1.00 14.61 C

ATOM 121 C THR A 16 8.600 20.132 18.786 1.00 13.99 C

ATOM 122 O THR A 16 9.452 19.232 18.698 1.00 11.78 O

ATOM 123 CB THR A 16 6.418 20.025 17.891 1.00 16.41 C

ATOM 124 OG1 THR A 16 6.248 18.718 17.338 1.00 18.88 O

ATOM 125 CG2 THR A 16 5.408 20.931 17.470 1.00 17.82 C

ATOM 126 N THR A 17 8.316 20.728 19.929 1.00 13.62 N

ATOM 127 CA THR A 17 9.057 20.314 21.095 1.00 14.15 C

ATOM 128 C THR A 17 8.072 20.069 22.204 1.00 15.20 C

ATOM 129 O THR A 17 6.871 20.259 22.043 1.00 15.18 O

ATOM 130 CB THR A 17 10.076 21.387 21.511 1.00 14.95 C

ATOM 131 OG1 THR A 17 9.372 22.542 21.931 1.00 14.25 O

ATOM 132 CG2 THR A 17 10.976 21.781 20.361 1.00 15.92 C

ATOM 133 N THR A 18 8.563 19.529 23.294 1.00 12.55 N

ATOM 134 CA THR A 18 7.744 19.307 24.468 1.00 13.94 C

ATOM 135 C THR A 18 8.690 19.191 25.671 1.00 14.46 C

ATOM 136 O THR A 18 9.884 19.024 25.507 1.00 12.38 O

ATOM 137 CB THR A 18 6.807 18.023 24.371 1.00 14.16 C

ATOM 138 OG1 THR A 18 5.837 18.121 25.413 1.00 14.09 O

ATOM 139 CG2 THR A 18 7.595 16.670 24.590 1.00 13.14 C

ATOM 140 N GLU A 19 8.165 19.473 26.847 1.00 15.51 N

ATOM 141 CA GLU A 19 8.907 19.331 28.095 1.00 17.06 C

ATOM 142 C GLU A 19 8.424 18.020 28.654 1.00 16.26 C

ATOM 143 O GLU A 19 7.221 17.765 28.689 1.00 14.96 O

ATOM 144 CB GLU A 19 8.483 20.362 29.126 1.00 20.36 C

ATOM 145 CG GLU A 19 8.493 21.750 28.658 1.00 26.21 C

ATOM 146 CD GLU A 19 9.861 22.241 28.311 1.00 30.24 C

ATOM 147 OE1 GLU A 19 10.750 22.041 29.159 1.00 33.22 O

ATOM 148 OE2 GLU A 19 10.050 22.860 27.207 1.00 32.89 O

ATOM 149 N ALA A 20 9.346 17.206 29.144 1.00 16.69 N

ATOM 150 CA ALA A 20 8.985 15.930 29.750 1.00 18.60 C

ATOM 151 C ALA A 20 10.067 15.607 30.760 1.00 19.02 C

ATOM 152 O ALA A 20 11.193 16.119 30.686 1.00 18.77 O

ATOM 153 CB ALA A 20 8.856 14.815 28.714 1.00 16.05 C

ATOM 154 N VAL A 21 9.702 14.800 31.744 1.00 21.30 N

ATOM 155 CA VAL A 21 10.637 14.408 32.787 1.00 24.03 C

ATOM 156 C VAL A 21 11.689 13.488 32.187 1.00 23.35 C

ATOM 157 O VAL A 21 12.870 13.634 32.493 1.00 24.58 O

ATOM 158 CB VAL A 21 9.875 13.684 33.929 1.00 25.67 C

ATOM 159 CG1 VAL A 21 8.547 14.516 34.315 1.00 27.15 C

ATOM 160 CG2 VAL A 21 9.492 12.250 33.489 1.00 27.26 C

ATOM 161 N ASP A 22 11.278 12.585 31.281 1.00 22.19 N

ATOM 162 CA ASP A 22 12.217 11.676 30.658 1.00 20.87 C

ATOM 163 C ASP A 22 11.860 11.326 29.219 1.00 19.88 C

ATOM 164 O ASP A 22 10.819 11.704 28.730 1.00 16.55 O

ATOM 165 CB ASP A 22 12.374 10.400 31.502 1.00 24.38 C

ATOM 166 CG ASP A 22 11.139 9.513 31.523 1.00 26.45 C

ATOM 167 OD1 ASP A 22 10.031 9.929 31.188 1.00 27.17 O

ATOM 168 OD2 ASP A 22 11.277 8.347 31.890 1.00 29.36 O

ATOM 169 N ALA A 23 12.672 10.488 28.602 1.00 18.23 N

ATOM 170 CA ALA A 23 12.452 10.118 27.226 1.00 18.86 C

ATOM 171 C ALA A 23 11.257 9.263 26.935 1.00 18.61 C

ATOM 172 O ALA A 23 10.658 9.456 25.918 1.00 18.16 O

ATOM 173 CB ALA A 23 13.706 9.528 26.602 1.00 18.07 C

ATOM 174 N ALA A 24 10.849 8.383 27.837 1.00 18.48 N

ATOM 175 CA ALA A 24 9.683 7.537 27.584 1.00 18.32 C

ATOM 176 C ALA A 24 8.402 8.350 27.688 1.00 18.46 C

ATOM 177 O ALA A 24 7.362 8.035 27.078 1.00 18.48 O

ATOM 178 CB ALA A 24 9.639 6.386 28.597 1.00 19.43 C

ATOM 179 N THR A 25 8.444 9.398 28.484 1.00 17.95 N

ATOM 180 CA THR A 25 7.249 10.206 28.617 1.00 16.86 C

ATOM 181 C THR A 25 7.090 11.062 27.380 1.00 15.33 C

ATOM 182 O THR A 25 5.959 11.259 26.902 1.00 14.94 O

ATOM 183 CB THR A 25 7.322 11.087 29.871 1.00 18.46 C

ATOM 184 OG1 THR A 25 7.509 10.240 31.014 1.00 20.25 O

ATOM 185 CG2 THR A 25 6.034 11.794 30.093 1.00 19.72 C

ATOM 186 N ALA A 26 8.203 11.601 26.881 1.00 14.97 N

ATOM 187 CA ALA A 26 8.146 12.442 25.683 1.00 13.53 C

ATOM 188 C ALA A 26 7.714 11.629 24.416 1.00 14.75 C

ATOM 189 O ALA A 26 6.938 12.111 23.579 1.00 13.31 O

ATOM 190 CB ALA A 26 9.461 13.156 25.466 1.00 14.89 C

ATOM 191 N GLU A 27 8.154 10.378 24.341 1.00 15.13 N

ATOM 192 CA GLU A 27 7.820 9.450 23.250 1.00 17.82 C

ATOM 193 C GLU A 27 6.311 9.168 23.271 1.00 16.72 C

ATOM 194 O GLU A 27 5.674 9.075 22.251 1.00 16.01 O

ATOM 195 CB GLU A 27 8.568 8.142 23.436 1.00 20.13 C

ATOM 196 CG GLU A 27 8.520 7.306 22.200 1.00 24.41 C

ATOM 197 CD GLU A 27 8.632 5.841 22.496 1.00 27.22 C

ATOM 198 OE1 GLU A 27 9.616 5.404 23.084 1.00 28.16 O

ATOM 199 OE2 GLU A 27 7.736 5.086 22.132 1.00 29.79 O

ATOM 200 N LYS A 28 5.737 9.141 24.464 1.00 17.07 N

ATOM 201 CA LYS A 28 4.309 8.916 24.682 1.00 16.77 C

ATOM 202 C LYS A 28 3.512 10.055 24.083 1.00 16.33 C

ATOM 203 O LYS A 28 2.562 9.839 23.323 1.00 15.88 O

ATOM 204 CB LYS A 28 4.030 8.930 26.195 1.00 19.04 C

ATOM 205 CG LYS A 28 3.240 7.794 26.717 1.00 22.58 C

ATOM 206 CD LYS A 28 3.372 7.848 28.264 1.00 24.65 C

ATOM 207 CE LYS A 28 4.842 7.593 28.786 1.00 24.97 C

ATOM 208 NZ LYS A 28 4.999 7.896 30.267 1.00 26.72 N

ATOM 209 N VAL A 29 3.810 11.267 24.514 1.00 14.87 N

ATOM 210 CA VAL A 29 3.067 12.375 23.977 1.00 15.81 C

ATOM 211 C VAL A 29 3.321 12.571 22.458 1.00 14.71 C

ATOM 212 O VAL A 29 2.396 12.980 21.753 1.00 14.07 O

ATOM 213 CB VAL A 29 3.280 13.702 24.765 1.00 16.97 C

ATOM 214 CG1 VAL A 29 2.657 14.908 24.038 1.00 14.55 C

ATOM 215 CG2 VAL A 29 2.728 13.594 26.066 1.00 17.42 C

ATOM 216 N PHE A 30 4.545 12.325 21.972 1.00 11.59 N

ATOM 217 CA PHE A 30 4.843 12.494 20.533 1.00 11.44 C

ATOM 218 C PHE A 30 4.080 11.466 19.686 1.00 10.70 C

ATOM 219 O PHE A 30 3.477 11.802 18.675 1.00 11.11 O

ATOM 220 CB PHE A 30 6.350 12.498 20.265 1.00 10.85 C

ATOM 221 CG PHE A 30 7.043 13.804 20.666 1.00 10.38 C

ATOM 222 CD1 PHE A 30 6.396 15.038 20.577 1.00 9.64 C

ATOM 223 CD2 PHE A 30 8.380 13.821 21.061 1.00 8.62 C

ATOM 224 CE1 PHE A 30 7.108 16.238 20.873 1.00 9.89 C

ATOM 225 CE2 PHE A 30 9.031 15.017 21.334 1.00 9.58 C

ATOM 226 CZ PHE A 30 8.419 16.197 21.243 1.00 6.81 C

ATOM 227 N LYS A 31 4.013 10.237 20.160 1.00 9.82 N

ATOM 228 CA LYS A 31 3.247 9.234 19.455 1.00 13.16 C

ATOM 229 C LYS A 31 1.754 9.611 19.369 1.00 13.88 C

ATOM 230 O LYS A 31 1.176 9.467 18.300 1.00 14.26 O

ATOM 231 CB LYS A 31 3.450 7.873 20.069 1.00 12.57 C

ATOM 232 CG LYS A 31 4.873 7.473 19.980 1.00 15.92 C

ATOM 233 CD LYS A 31 5.091 6.406 18.939 1.00 18.70 C

ATOM 234 CE LYS A 31 6.186 5.396 19.360 1.00 20.43 C

ATOM 235 NZ LYS A 31 5.824 4.564 20.562 1.00 24.60 N

ATOM 236 N GLN A 32 1.136 10.077 20.464 1.00 13.74 N

ATOM 237 CA GLN A 32 -0.277 10.493 20.449 1.00 13.99 C

ATOM 238 C GLN A 32 -0.468 11.627 19.522 1.00 11.86 C

ATOM 239 O GLN A 32 -1.398 11.636 18.773 1.00 13.29 O

ATOM 240 CB GLN A 32 -0.745 10.941 21.825 1.00 15.80 C

ATOM 241 CG GLN A 32 -0.878 9.779 22.752 1.00 19.09 C

ATOM 242 CD GLN A 32 -1.803 10.072 23.881 1.00 21.96 C

ATOM 243 OE1 GLN A 32 -1.549 10.966 24.699 1.00 24.24 O

ATOM 244 NE2 GLN A 32 -2.933 9.331 23.927 1.00 24.71 N

ATOM 245 N TYR A 33 0.439 12.578 19.532 1.00 12.15 N

ATOM 246 CA TYR A 33 0.341 13.738 18.651 1.00 14.44 C

ATOM 247 C TYR A 33 0.431 13.356 17.167 1.00 14.12 C

ATOM 248 O TYR A 33 -0.270 13.931 16.319 1.00 14.26 O

ATOM 249 CB TYR A 33 1.430 14.744 19.003 1.00 16.54 C

ATOM 250 CG TYR A 33 1.578 15.837 17.985 1.00 18.28 C

ATOM 251 CD1 TYR A 33 0.655 16.894 17.893 1.00 20.06 C

ATOM 252 CD2 TYR A 33 2.682 15.860 17.158 1.00 18.78 C

ATOM 253 CE1 TYR A 33 0.863 17.980 16.970 1.00 20.25 C

ATOM 254 CE2 TYR A 33 2.906 16.919 16.254 1.00 22.19 C

ATOM 255 CZ TYR A 33 2.009 17.972 16.173 1.00 21.54 C

ATOM 256 OH TYR A 33 2.364 19.024 15.348 1.00 24.66 O

ATOM 257 N ALA A 34 1.318 12.412 16.862 1.00 13.26 N

ATOM 258 CA ALA A 34 1.530 11.949 15.490 1.00 12.72 C

ATOM 259 C ALA A 34 0.290 11.209 15.042 1.00 14.22 C

ATOM 260 O ALA A 34 -0.280 11.464 13.994 1.00 14.58 O

ATOM 261 CB ALA A 34 2.761 11.037 15.438 1.00 12.78 C

ATOM 262 N ASN A 35 -0.207 10.370 15.913 1.00 15.68 N

ATOM 263 CA ASN A 35 -1.401 9.620 15.646 1.00 17.99 C

ATOM 264 C ASN A 35 -2.658 10.505 15.540 1.00 16.30 C

ATOM 265 O ASN A 35 -3.548 10.216 14.784 1.00 15.40 O

ATOM 266 CB ASN A 35 -1.547 8.570 16.733 1.00 22.00 C

ATOM 267 CG ASN A 35 -2.660 7.613 16.462 1.00 26.46 C

ATOM 268 OD1 ASN A 35 -2.571 6.779 15.559 1.00 28.18 O

ATOM 269 ND2 ASN A 35 -3.741 7.727 17.220 1.00 29.23 N

ATOM 270 N ASP A 36 -2.731 11.607 16.247 1.00 13.81 N

ATOM 271 CA ASP A 36 -3.917 12.441 16.160 1.00 14.79 C

ATOM 272 C ASP A 36 -3.918 13.163 14.807 1.00 14.60 C

ATOM 273 O ASP A 36 -4.940 13.684 14.353 1.00 14.67 O

ATOM 274 CB ASP A 36 -3.871 13.533 17.217 1.00 14.90 C

ATOM 275 CG ASP A 36 -4.284 13.066 18.618 1.00 15.74 C

ATOM 276 OD1 ASP A 36 -4.863 11.993 18.830 1.00 16.40 O

ATOM 277 OD2 ASP A 36 -4.010 13.837 19.538 1.00 15.76 O

ATOM 278 N ASN A 37 -2.722 13.373 14.279 1.00 12.23 N

ATOM 279 CA ASN A 37 -2.542 14.061 13.009 1.00 14.17 C

ATOM 280 C ASN A 37 -2.335 13.087 11.834 1.00 14.44 C

ATOM 281 O ASN A 37 -1.861 13.499 10.792 1.00 14.03 O

ATOM 282 CB ASN A 37 -1.420 15.083 13.110 1.00 16.26 C

ATOM 283 CG ASN A 37 -1.810 16.281 13.980 1.00 18.08 C

ATOM 284 OD1 ASN A 37 -2.355 17.311 13.513 1.00 19.06 O

ATOM 285 ND2 ASN A 37 -1.531 16.156 15.266 1.00 19.17 N

ATOM 286 N GLY A 38 -2.758 11.834 12.030 1.00 12.59 N

ATOM 287 CA GLY A 38 -2.684 10.787 11.031 1.00 16.05 C

ATOM 288 C GLY A 38 -1.318 10.340 10.493 1.00 16.11 C

ATOM 289 O GLY A 38 -1.293 9.679 9.480 1.00 16.10 O

ATOM 290 N VAL A 39 -0.221 10.684 11.157 1.00 16.15 N

ATOM 291 CA VAL A 39 1.109 10.312 10.729 1.00 16.42 C

ATOM 292 C VAL A 39 1.381 8.924 11.245 1.00 19.59 C

ATOM 293 O VAL A 39 1.127 8.624 12.413 1.00 19.24 O

ATOM 294 CB VAL A 39 2.097 11.331 11.236 1.00 17.50 C

ATOM 295 CG1 VAL A 39 3.521 10.931 10.966 1.00 17.24 C

ATOM 296 CG2 VAL A 39 1.855 12.586 10.549 1.00 19.15 C

ATOM 297 N ASP A 40 1.906 8.064 10.383 1.00 19.47 N

ATOM 298 CA ASP A 40 2.165 6.704 10.736 1.00 21.18 C

ATOM 299 C ASP A 40 3.469 6.303 10.069 1.00 20.22 C

ATOM 300 O ASP A 40 3.470 5.951 8.898 1.00 19.37 O

ATOM 301 CB ASP A 40 0.965 5.956 10.193 1.00 25.44 C

ATOM 302 CG ASP A 40 1.063 4.460 10.336 1.00 28.94 C

ATOM 303 OD1 ASP A 40 1.675 3.915 11.322 1.00 30.77 O

ATOM 304 OD2 ASP A 40 0.482 3.807 9.433 1.00 31.15 O

ATOM 305 N GLY A 41 4.597 6.409 10.742 1.00 18.77 N

ATOM 306 CA GLY A 41 5.826 6.025 10.072 1.00 18.43 C

ATOM 307 C GLY A 41 6.848 5.280 10.922 1.00 17.67 C

ATOM 308 O GLY A 41 6.434 4.621 11.880 1.00 19.29 O

ATOM 309 N GLU A 42 8.139 5.298 10.543 1.00 14.75 N

ATOM 310 CA GLU A 42 9.219 4.653 11.307 1.00 14.14 C

ATOM 311 C GLU A 42 9.740 5.726 12.207 1.00 9.89 C

ATOM 312 O GLU A 42 9.873 6.857 11.803 1.00 9.62 O

ATOM 313 CB GLU A 42 10.367 4.275 10.423 1.00 19.23 C

ATOM 314 CG GLU A 42 10.011 3.533 9.215 1.00 26.98 C

ATOM 315 CD GLU A 42 9.424 2.117 9.480 1.00 31.15 C

ATOM 316 OE1 GLU A 42 8.924 1.827 10.642 1.00 34.13 O

ATOM 317 OE2 GLU A 42 9.407 1.308 8.469 1.00 33.25 O

ATOM 318 N TRP A 43 10.164 5.339 13.393 1.00 9.87 N

ATOM 319 CA TRP A 43 10.629 6.260 14.430 1.00 8.25 C

ATOM 320 C TRP A 43 12.040 6.054 14.844 1.00 8.60 C

ATOM 321 O TRP A 43 12.488 4.912 14.892 1.00 7.77 O

ATOM 322 CB TRP A 43 9.777 5.988 15.671 1.00 8.68 C

ATOM 323 CG TRP A 43 8.350 6.470 15.591 1.00 7.48 C

ATOM 324 CD1 TRP A 43 7.284 5.877 14.941 1.00 8.56 C

ATOM 325 CD2 TRP A 43 7.851 7.685 16.147 1.00 7.32 C

ATOM 326 NE1 TRP A 43 6.163 6.665 15.067 1.00 7.51 N

ATOM 327 CE2 TRP A 43 6.486 7.778 15.791 1.00 8.24 C

ATOM 328 CE3 TRP A 43 8.440 8.713 16.910 1.00 7.27 C

ATOM 329 CZ2 TRP A 43 5.700 8.847 16.148 1.00 8.58 C

ATOM 330 CZ3 TRP A 43 7.661 9.784 17.274 1.00 8.41 C

ATOM 331 CH2 TRP A 43 6.282 9.843 16.883 1.00 9.15 C

ATOM 332 N THR A 44 12.768 7.128 15.129 1.00 7.53 N

ATOM 333 CA THR A 44 14.117 6.981 15.677 1.00 8.33 C

ATOM 334 C THR A 44 14.237 7.954 16.840 1.00 9.34 C

ATOM 335 O THR A 44 13.436 8.903 16.921 1.00 8.31 O

ATOM 336 CB THR A 44 15.244 7.317 14.746 1.00 10.23 C

ATOM 337 OG1 THR A 44 15.255 8.718 14.527 1.00 11.54 O

ATOM 338 CG2 THR A 44 15.108 6.598 13.425 1.00 10.15 C

ATOM 339 N TYR A 45 15.144 7.649 17.794 1.00 8.15 N

ATOM 340 CA TYR A 45 15.402 8.494 18.951 1.00 10.42 C

ATOM 341 C TYR A 45 16.901 8.531 19.193 1.00 10.23 C

ATOM 342 O TYR A 45 17.581 7.514 19.054 1.00 8.07 O

ATOM 343 CB TYR A 45 14.682 8.034 20.192 1.00 11.98 C

ATOM 344 CG TYR A 45 15.069 8.873 21.422 1.00 12.00 C

ATOM 345 CD1 TYR A 45 14.754 10.244 21.497 1.00 12.14 C

ATOM 346 CD2 TYR A 45 15.810 8.311 22.474 1.00 13.51 C

ATOM 347 CE1 TYR A 45 15.156 11.013 22.538 1.00 12.88 C

ATOM 348 CE2 TYR A 45 16.221 9.101 23.544 1.00 15.33 C

ATOM 349 CZ TYR A 45 15.887 10.451 23.560 1.00 14.30 C

ATOM 350 OH TYR A 45 16.280 11.228 24.643 1.00 15.66 O

ATOM 351 N ASP A 46 17.402 9.760 19.291 1.00 9.88 N

ATOM 352 CA ASP A 46 18.798 10.067 19.525 1.00 14.19 C

ATOM 353 C ASP A 46 18.889 10.831 20.860 1.00 16.48 C

ATOM 354 O ASP A 46 18.584 12.016 20.953 1.00 16.58 O

ATOM 355 CB ASP A 46 19.330 10.949 18.410 1.00 14.31 C

ATOM 356 CG ASP A 46 20.809 11.204 18.527 1.00 18.91 C

ATOM 357 OD1 ASP A 46 21.375 10.992 19.614 1.00 19.79 O

ATOM 358 OD2 ASP A 46 21.440 11.623 17.521 1.00 21.36 O

ATOM 359 N ASP A 47 19.450 10.157 21.844 1.00 18.26 N

ATOM 360 CA ASP A 47 19.598 10.679 23.190 1.00 21.03 C

ATOM 361 C ASP A 47 20.680 11.714 23.371 1.00 21.68 C

ATOM 362 O ASP A 47 20.736 12.352 24.425 1.00 23.61 O

ATOM 363 CB ASP A 47 19.811 9.531 24.141 1.00 22.88 C

ATOM 364 CG ASP A 47 19.655 9.944 25.566 1.00 24.59 C

ATOM 365 OD1 ASP A 47 18.716 10.723 25.890 1.00 24.47 O

ATOM 366 OD2 ASP A 47 20.477 9.453 26.365 1.00 26.18 O

ATOM 367 N ALA A 48 21.529 11.871 22.356 1.00 22.45 N

ATOM 368 CA ALA A 48 22.584 12.858 22.345 1.00 22.79 C

ATOM 369 C ALA A 48 22.060 14.258 21.934 1.00 23.33 C

ATOM 370 O ALA A 48 22.758 15.267 22.083 1.00 24.83 O

ATOM 371 CB ALA A 48 23.675 12.428 21.380 1.00 23.59 C

ATOM 372 N THR A 49 20.883 14.320 21.332 1.00 20.97 N

ATOM 373 CA THR A 49 20.338 15.595 20.936 1.00 19.69 C

ATOM 374 C THR A 49 18.906 15.666 21.390 1.00 17.02 C

ATOM 375 O THR A 49 18.229 16.623 21.103 1.00 17.68 O

ATOM 376 CB THR A 49 20.397 15.773 19.443 1.00 19.96 C

ATOM 377 OG1 THR A 49 19.683 14.708 18.800 1.00 19.38 O

ATOM 378 CG2 THR A 49 21.822 15.728 18.971 1.00 23.83 C

ATOM 379 N LYS A 50 18.424 14.598 22.017 1.00 15.41 N

ATOM 380 CA LYS A 50 17.089 14.516 22.580 1.00 14.25 C

ATOM 381 C LYS A 50 16.051 14.764 21.515 1.00 13.29 C

ATOM 382 O LYS A 50 15.033 15.433 21.746 1.00 11.76 O

ATOM 383 CB LYS A 50 16.939 15.531 23.742 1.00 17.93 C

ATOM 384 CG LYS A 50 17.308 14.982 25.200 1.00 18.57 C

ATOM 385 CD LYS A 50 18.772 14.874 25.402 1.00 22.33 C

ATOM 386 CE LYS A 50 19.145 13.947 26.529 1.00 22.51 C

ATOM 387 NZ LYS A 50 20.636 13.874 26.457 1.00 24.90 N

ATOM 388 N THR A 51 16.292 14.165 20.358 1.00 12.83 N

ATOM 389 CA THR A 51 15.427 14.336 19.205 1.00 10.92 C

ATOM 390 C THR A 51 14.834 13.031 18.692 1.00 10.27 C

ATOM 391 O THR A 51 15.512 12.004 18.635 1.00 10.13 O

ATOM 392 CB THR A 51 16.234 14.967 18.113 1.00 11.83 C

ATOM 393 OG1 THR A 51 16.672 16.247 18.566 1.00 12.26 O

ATOM 394 CG2 THR A 51 15.417 15.121 16.872 1.00 11.68 C

ATOM 395 N PHE A 52 13.520 13.059 18.491 1.00 8.07 N

ATOM 396 CA PHE A 52 12.767 11.942 17.920 1.00 7.91 C

ATOM 397 C PHE A 52 12.512 12.276 16.459 1.00 8.15 C

ATOM 398 O PHE A 52 12.488 13.473 16.053 1.00 7.99 O

ATOM 399 CB PHE A 52 11.391 11.794 18.550 1.00 8.29 C

ATOM 400 CG PHE A 52 11.413 11.327 19.934 1.00 9.03 C

ATOM 401 CD1 PHE A 52 11.586 12.222 20.988 1.00 8.99 C

ATOM 402 CD2 PHE A 52 11.234 9.983 20.229 1.00 11.01 C

ATOM 403 CE1 PHE A 52 11.582 11.768 22.321 1.00 9.06 C

ATOM 404 CE2 PHE A 52 11.230 9.538 21.610 1.00 9.75 C

ATOM 405 CZ PHE A 52 11.405 10.437 22.603 1.00 8.96 C

ATOM 406 N THR A 53 12.393 11.251 15.635 1.00 9.12 N

ATOM 407 CA THR A 53 11.971 11.553 14.286 1.00 9.11 C

ATOM 408 C THR A 53 10.952 10.507 13.815 1.00 9.18 C

ATOM 409 O THR A 53 11.057 9.342 14.166 1.00 8.31 O

ATOM 410 CB THR A 53 13.118 11.617 13.264 1.00 11.31 C

ATOM 411 OG1 THR A 53 13.534 10.273 12.933 1.00 16.07 O

ATOM 412 CG2 THR A 53 14.273 12.420 13.777 1.00 11.54 C

ATOM 413 N VAL A 54 9.949 10.944 13.038 1.00 8.70 N

ATOM 414 CA VAL A 54 8.973 10.040 12.475 1.00 9.53 C

ATOM 415 C VAL A 54 8.949 10.268 10.943 1.00 10.67 C

ATOM 416 O VAL A 54 8.839 11.405 10.480 1.00 10.71 O

ATOM 417 CB VAL A 54 7.541 10.151 13.123 1.00 9.89 C

ATOM 418 CG1 VAL A 54 6.961 11.600 13.021 1.00 8.64 C

ATOM 419 CG2 VAL A 54 6.593 9.142 12.422 1.00 11.46 C

ATOM 420 N THR A 55 9.115 9.207 10.180 1.00 11.61 N

ATOM 421 CA THR A 55 9.147 9.339 8.722 1.00 14.89 C

ATOM 422 C THR A 55 8.104 8.482 8.023 1.00 15.39 C

ATOM 423 O THR A 55 8.028 7.304 8.318 1.00 15.56 O

ATOM 424 CB THR A 55 10.517 8.929 8.220 1.00 15.41 C

ATOM 425 OG1 THR A 55 11.467 9.845 8.732 1.00 15.65 O

ATOM 426 CG2 THR A 55 10.599 8.945 6.679 1.00 15.48 C

ATOM 427 N GLU A 56 7.248 9.043 7.175 1.00 16.36 N

ATOM 428 CA GLU A 56 6.283 8.177 6.480 1.00 19.22 C

ATOM 429 C GLU A 56 6.780 7.744 5.081 1.00 22.26 C

ATOM 430 O GLU A 56 7.521 8.520 4.401 1.00 23.58 O

ATOM 431 CB GLU A 56 4.960 8.864 6.307 1.00 19.26 C

ATOM 432 CG GLU A 56 4.093 8.873 7.512 1.00 19.10 C

ATOM 433 CD GLU A 56 2.702 9.417 7.201 1.00 18.54 C

ATOM 434 OE1 GLU A 56 2.544 10.440 6.499 1.00 18.16 O

ATOM 435 OE2 GLU A 56 1.737 8.791 7.641 1.00 20.42 O

ATOM 436 OXT GLU A 56 6.410 6.617 4.667 1.00 24.74 O

TER 437 GLU A 56

HETATM 438 O HOH A 57 12.132 8.422 11.247 1.00 8.87 O

HETATM 439 O HOH A 58 16.403 10.924 15.909 1.00 14.15 O

HETATM 440 O HOH A 59 13.379 6.625 10.085 0.99 16.66 O

HETATM 441 O HOH A 60 1.843 13.134 7.087 0.90 16.58 O

HETATM 442 O HOH A 61 9.182 2.588 14.107 0.90 18.10 O

HETATM 443 O HOH A 62 21.080 12.978 31.317 1.00 26.97 O

HETATM 444 O HOH A 63 -3.779 9.991 20.119 1.00 27.95 O

HETATM 445 O HOH A 64 12.172 20.818 30.681 1.00 30.92 O

HETATM 446 O HOH A 65 3.754 18.461 3.832 1.00 35.17 O

HETATM 447 O HOH A 66 23.369 10.975 25.390 0.83 26.26 O

HETATM 448 O HOH A 67 11.074 18.660 7.190 1.00 39.44 O

HETATM 449 O HOH A 68 12.458 4.176 19.950 1.00 40.01 O

HETATM 450 O HOH A 69 15.171 14.848 33.817 0.94 35.75 O

HETATM 451 O HOH A 70 5.113 16.473 27.232 0.90 34.50 O

HETATM 452 O HOH A 71 -5.125 17.194 14.947 0.81 28.12 O

HETATM 453 O HOH A 72 7.503 5.514 25.883 0.78 27.73 O

HETATM 454 O HOH A 73 21.679 11.921 28.383 0.69 22.59 O

HETATM 455 O HOH A 74 23.828 9.848 18.410 0.74 26.66 O

HETATM 456 O HOH A 75 -0.908 10.080 7.075 0.91 40.47 O

HETATM 457 O HOH A 76 -5.952 14.208 10.739 0.84 35.43 O

HETATM 458 O HOH A 77 3.622 6.858 13.648 0.63 20.50 O

HETATM 459 O HOH A 78 15.528 9.319 8.736 0.86 40.26 O

HETATM 460 O HOH A 79 14.424 22.340 4.447 0.64 26.95 O

HETATM 461 O HOH A 80 12.095 14.835 35.393 0.81 48.91 O

MASTER 217 0 0 1 4 0 0 6 460 1 0 5

END

LOG File



ACCALL - Accessibility calculations

MAX RESIDUES 5000

MAX ATOMS/RES 100

PDB FILE INPUT 1pgb.pdb

PROBE SIZE 1.40

Z-SLICE WIDTH 0.050

VDW RADII FILE vdw.radii

EXCL HETATOMS

EXCL HYDROGENS

EXCL WATERS

READVDW 32 residues input

ADDED VDW RADII

CHAINS 1

RESIDUES 56

ATOMS 436

SOLVA: PROGRAM ENDS CORRECTLY

CALCULATED ATOMIC ACCESSIBILITES

RELATIVE (STANDARD) ACCESSIBILITIES READFOR 20 AMINO ACIDS

SUMMED ACCESSIBILITIES OVER RESIDUES

RSA File



REM Relative accessibilites read from external file "standard.data"

REM File of summed (Sum) and % (per.) accessibilities for

REM RES \_ NUM All-atoms Total-Side Main-Chain Non-polar All polar

REM ABS REL ABS REL ABS REL ABS REL ABS REL

RES MET A 1 130.71 67.3 102.13 65.2 28.58 76.2 102.13 64.7 28.58 78.7

RES THR A 2 72.55 52.1 57.14 56.2 15.41 41.0 36.69 48.4 35.86 56.4

RES TYR A 3 8.45 4.0 7.97 4.5 0.48 1.4 0.71 0.5 7.74 10.1

RES LYS A 4 59.34 29.5 58.93 36.1 0.40 1.1 50.24 43.1 9.10 10.8

RES LEU A 5 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0

RES ILE A 6 67.22 38.4 67.22 48.7 0.00 0.0 67.22 48.3 0.00 0.0

RES LEU A 7 6.99 3.9 3.38 2.4 3.61 9.6 3.38 2.4 3.61 9.9

RES ASN A 8 57.37 39.9 57.37 54.0 0.00 0.0 19.36 41.9 38.01 38.9

RES GLY A 9 2.98 3.7 0.00 0.0 2.98 6.2 1.14 3.0 1.84 4.3

RES LYS A 10 164.30 81.8 138.37 84.7 25.93 69.1 102.53 88.0 61.77 73.3

RES THR A 11 126.26 90.7 100.61 98.9 25.65 68.3 73.23 96.7 53.03 83.4

RES LEU A 12 47.31 26.5 46.98 33.3 0.33 0.9 46.98 33.0 0.33 0.9

RES LYS A 13 129.90 64.7 103.86 63.6 26.03 69.4 85.04 73.0 44.85 53.2

RES GLY A 14 35.07 43.8 30.96 95.8 4.11 8.6 31.35 83.5 3.72 8.8

RES GLU A 15 104.39 60.6 74.79 55.5 29.60 78.9 24.30 40.3 80.09 71.5

RES THR A 16 51.78 37.2 51.78 50.9 0.00 0.0 51.58 68.1 0.20 0.3

RES THR A 17 76.09 54.6 53.85 52.9 22.24 59.2 27.05 35.7 49.04 77.2

RES THR A 18 32.47 23.3 32.47 31.9 0.00 0.0 13.38 17.7 19.09 30.0

RES GLU A 19 128.29 74.5 107.36 79.7 20.93 55.8 66.13 109.7 62.16 55.5

RES ALA A 20 13.30 12.3 10.00 14.4 3.30 8.6 13.07 18.3 0.22 0.6

RES VAL A 21 127.77 84.4 107.70 94.2 20.07 54.0 107.99 93.5 19.78 55.0

RES ASP A 22 61.56 43.8 61.56 59.9 0.00 0.0 30.48 61.9 31.08 34.1

RES ALA A 23 30.82 28.6 26.17 37.7 4.65 12.1 27.44 38.4 3.39 9.3

RES ALA A 24 63.52 58.8 57.10 82.3 6.43 16.7 57.10 80.0 6.43 17.6

RES THR A 25 42.35 30.4 42.24 41.5 0.11 0.3 32.95 43.5 9.40 14.8

RES ALA A 26 0.34 0.3 0.34 0.5 0.00 0.0 0.34 0.5 0.00 0.0

RES GLU A 27 63.65 37.0 63.61 47.2 0.04 0.1 14.30 23.7 49.36 44.1

RES LYS A 28 119.10 59.3 117.68 72.1 1.42 3.8 88.56 76.0 30.54 36.3

RES VAL A 29 76.02 50.2 75.93 66.4 0.09 0.2 75.93 65.8 0.09 0.2

RES PHE A 30 5.31 2.7 5.31 3.2 0.00 0.0 5.31 3.2 0.00 0.0

RES LYS A 31 83.17 41.4 79.63 48.8 3.54 9.4 50.60 43.4 32.57 38.7

RES GLN A 32 123.91 69.4 123.78 87.8 0.14 0.4 35.02 67.1 88.89 70.4

RES TYR A 33 74.53 35.0 74.19 41.8 0.34 1.0 56.90 41.7 17.63 23.1

RES ALA A 34 1.83 1.7 1.83 2.6 0.00 0.0 1.83 2.6 0.00 0.0

RES ASN A 35 112.54 78.2 100.85 94.9 11.69 31.0 18.62 40.3 93.92 96.1

RES ASP A 36 117.29 83.5 86.17 83.9 31.12 82.6 28.65 58.2 88.64 97.2

RES ASN A 37 73.96 51.4 53.55 50.4 20.41 54.1 13.06 28.3 60.90 62.3

RES GLY A 38 61.25 76.5 34.71 107.4 26.54 55.5 38.43 102.3 22.82 53.6

RES VAL A 39 11.81 7.8 3.69 3.2 8.12 21.8 3.69 3.2 8.12 22.6

RES ASP A 40 119.98 85.5 107.30 104.5 12.68 33.6 32.95 66.9 87.03 95.5

RES GLY A 41 23.10 28.8 7.25 22.4 15.85 33.2 8.83 23.5 14.26 33.5

RES GLU A 42 135.20 78.5 133.55 99.1 1.65 4.4 62.59 103.8 72.61 64.9

RES TRP A 43 71.70 28.8 43.54 20.6 28.16 73.9 33.13 17.5 38.57 64.6

RES THR A 44 83.94 60.3 82.25 80.9 1.69 4.5 74.16 97.9 9.78 15.4

RES TYR A 45 79.99 37.6 45.30 25.5 34.69 98.1 46.40 34.0 33.59 44.0

RES ASP A 46 68.89 49.1 68.63 66.8 0.26 0.7 30.17 61.3 38.72 42.5

RES ASP A 47 84.33 60.1 76.87 74.9 7.45 19.8 31.88 64.7 52.45 57.5

RES ALA A 48 90.46 83.8 62.48 90.0 27.98 72.6 62.48 87.5 27.98 76.5

RES THR A 49 87.51 62.8 71.16 70.0 16.35 43.5 68.52 90.5 18.99 29.9

RES LYS A 50 59.94 29.8 59.56 36.5 0.38 1.0 30.01 25.7 29.92 35.5

RES THR A 51 19.23 13.8 18.22 17.9 1.01 2.7 11.38 15.0 7.85 12.4

RES PHE A 52 5.57 2.8 5.57 3.4 0.00 0.0 5.57 3.4 0.00 0.0

RES THR A 53 37.38 26.8 37.38 36.8 0.00 0.0 29.13 38.5 8.25 13.0

RES VAL A 54 0.28 0.2 0.15 0.1 0.13 0.4 0.15 0.1 0.13 0.4

RES THR A 55 58.93 42.3 57.20 56.2 1.73 4.6 41.04 54.2 17.89 28.1

RES GLU A 56 85.36 49.6 18.09 13.4 67.28 179.4 8.92 14.8 76.44 68.3

END Absolute sums over single chains surface

CHAIN 1 A 3677.3 3115.7 561.6 2080.0 1597.3

END Absolute sums over all chains

TOTAL 3677.3 3115.7 561.6 2080.0 1597.3

*Alpha Helix Files*

PDB File



COMPND ALPHA\_HELIX\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 14 ALA ALA THR ALA GLU LYS VAL PHE LYS GLN TYR ALA ASN

SEQRES 2 14 ASP

ATOM 1 N ALA 1 0.000 0.000 0.000

ATOM 2 CA ALA 1 1.458 0.000 0.000

ATOM 3 C ALA 1 2.009 1.422 0.000

ATOM 4 O ALA 1 3.071 1.686 0.564

ATOM 5 CB ALA 1 1.988 -0.755 -1.209

ATOM 6 H ALA 1 -0.491 0.467 0.747

ATOM 7 N ALA 2 1.281 2.334 -0.636

ATOM 8 CA ALA 2 1.696 3.729 -0.711

ATOM 9 C ALA 2 1.506 4.433 0.628

ATOM 10 O ALA 2 2.214 5.390 0.944

ATOM 11 CB ALA 2 0.910 4.459 -1.790

ATOM 12 H ALA 2 0.420 2.053 -1.079

ATOM 13 N THR 3 0.545 3.954 1.412

ATOM 14 CA THR 3 0.260 4.536 2.718

ATOM 15 C THR 3 1.310 4.125 3.746

ATOM 16 O THR 3 1.735 4.934 4.571

ATOM 17 CB THR 3 -1.133 4.124 3.228

ATOM 18 OG1 THR 3 -2.129 4.518 2.276

ATOM 19 CG2 THR 3 -1.387 4.776 4.579

ATOM 20 H THR 3 0.055 3.175 1.021

ATOM 21 HG1 THR 3 -1.872 4.038 1.428

ATOM 22 N ALA 4 1.723 2.864 3.690

ATOM 23 CA ALA 4 2.722 2.343 4.615

ATOM 24 C ALA 4 4.076 3.011 4.398

ATOM 25 O ALA 4 4.820 3.253 5.348

ATOM 26 CB ALA 4 2.862 0.837 4.453

ATOM 27 H ALA 4 1.335 2.250 2.990

ATOM 28 N GLU 5 4.389 3.306 3.140

ATOM 29 CA GLU 5 5.653 3.946 2.795

ATOM 30 C GLU 5 5.743 5.346 3.393

ATOM 31 O GLU 5 6.822 5.801 3.772

ATOM 32 CB GLU 5 5.823 4.012 1.276

ATOM 33 CG GLU 5 7.233 4.356 0.824

ATOM 34 CD GLU 5 7.260 5.048 -0.525

ATOM 35 OE1 GLU 5 7.193 6.294 -0.554

ATOM 36 OE2 GLU 5 7.349 4.343 -1.552

ATOM 37 H GLU 5 3.736 3.081 2.406

ATOM 38 N LYS 6 4.603 6.024 3.473

ATOM 39 CA LYS 6 4.551 7.373 4.024

ATOM 40 C LYS 6 4.927 7.380 5.502

ATOM 41 O LYS 6 5.852 8.079 5.914

ATOM 42 CB LYS 6 3.154 7.971 3.845

ATOM 43 CG LYS 6 3.168 9.391 3.225

ATOM 44 CD LYS 6 1.803 9.897 2.747

ATOM 45 CE LYS 6 1.964 11.305 2.159

ATOM 46 NZ LYS 6 0.653 11.795 1.698

ATOM 47 H LYS 6 3.809 5.525 3.126

ATOM 48 1HZ LYS 6 0.747 12.713 1.313

ATOM 49 2HZ LYS 6 0.287 11.185 0.996

ATOM 50 3HZ LYS 6 0.012 11.829 2.465

ATOM 51 N VAL 7 4.202 6.598 6.295

ATOM 52 CA VAL 7 4.458 6.512 7.728

ATOM 53 C VAL 7 5.827 5.901 8.009

ATOM 54 O VAL 7 6.507 6.289 8.958

ATOM 55 CB VAL 7 3.371 5.691 8.447

ATOM 56 CG1 VAL 7 3.777 5.424 9.898

ATOM 57 CG2 VAL 7 3.120 4.382 7.714

ATOM 58 H VAL 7 3.457 6.049 5.896

ATOM 59 N PHE 8 6.223 4.944 7.177

ATOM 60 CA PHE 8 7.511 4.277 7.334

ATOM 61 C PHE 8 8.665 5.241 7.079

ATOM 62 O PHE 8 9.670 5.223 7.789

ATOM 63 CB PHE 8 7.616 3.085 6.381

ATOM 64 CG PHE 8 6.822 1.827 6.768

ATOM 65 CD1 PHE 8 6.641 1.513 8.119

ATOM 66 CD2 PHE 8 6.279 0.995 5.787

ATOM 67 CE1 PHE 8 5.925 0.378 8.485

ATOM 68 CE2 PHE 8 5.561 -0.140 6.153

ATOM 69 CZ PHE 8 5.384 -0.449 7.500

ATOM 70 H PHE 8 5.564 4.736 6.454

ATOM 71 N LYS 9 8.514 6.082 6.060

ATOM 72 CA LYS 9 9.542 7.053 5.710

ATOM 73 C LYS 9 9.790 8.031 6.854

ATOM 74 O LYS 9 10.935 8.330 7.191

ATOM 75 CB LYS 9 9.144 7.825 4.451

ATOM 76 CG LYS 9 8.978 6.923 3.203

ATOM 77 CD LYS 9 10.102 7.043 2.168

ATOM 78 CE LYS 9 9.809 6.100 0.994

ATOM 79 NZ LYS 9 10.889 6.213 -0.004

ATOM 80 H LYS 9 7.645 5.979 5.576

ATOM 81 1HZ LYS 9 10.708 5.601 -0.774

ATOM 82 2HZ LYS 9 10.946 7.152 -0.341

ATOM 83 3HZ LYS 9 11.764 5.963 0.410

ATOM 84 N GLN 10 8.708 8.527 7.446

ATOM 85 CA GLN 10 8.806 9.471 8.553

ATOM 86 C GLN 10 9.514 8.847 9.750

ATOM 87 O GLN 10 10.343 9.487 10.396

ATOM 88 CB GLN 10 7.415 9.962 8.963

ATOM 89 CG GLN 10 6.769 10.904 7.961

ATOM 90 CD GLN 10 5.698 11.775 8.587

ATOM 91 OE1 GLN 10 5.979 12.872 9.070

ATOM 92 NE2 GLN 10 4.462 11.287 8.581

ATOM 93 H GLN 10 7.797 8.242 7.122

ATOM 94 1HE1 GLN 10 3.706 11.822 8.984

ATOM 95 1HE2 GLN 10 4.279 10.382 8.173

ATOM 96 N TYR 11 9.181 7.594 10.041

ATOM 97 CA TYR 11 9.783 6.881 11.161

ATOM 98 C TYR 11 11.282 6.692 10.952

ATOM 99 O TYR 11 12.070 6.819 11.889

ATOM 100 CB TYR 11 9.115 5.518 11.350

ATOM 101 CG TYR 11 9.812 4.541 12.311

ATOM 102 CD1 TYR 11 9.715 4.743 13.692

ATOM 103 CD2 TYR 11 10.542 3.456 11.821

ATOM 104 CE1 TYR 11 10.340 3.868 14.574

ATOM 105 CE2 TYR 11 11.168 2.580 12.704

ATOM 106 CZ TYR 11 11.068 2.785 14.078

ATOM 107 OH TYR 11 11.684 1.923 14.941

ATOM 108 H TYR 11 8.493 7.205 9.428

ATOM 109 HH TYR 11 11.503 2.227 15.877

ATOM 110 N ALA 12 11.669 6.388 9.717

ATOM 111 CA ALA 12 13.073 6.182 9.383

ATOM 112 C ALA 12 13.861 7.483 9.484

ATOM 113 O ALA 12 14.962 7.512 10.034

ATOM 114 CB ALA 12 13.205 5.610 7.980

ATOM 115 H ALA 12 10.973 6.298 8.993

ATOM 116 N ASN 13 13.290 8.558 8.950

ATOM 117 CA ASN 13 13.938 9.864 8.979

ATOM 118 C ASN 13 14.047 10.394 10.405

ATOM 119 O ASN 13 14.986 11.116 10.739

ATOM 120 CB ASN 13 13.173 10.861 8.106

ATOM 121 CG ASN 13 13.901 12.182 7.957

ATOM 122 OD1 ASN 13 14.930 12.263 7.286

ATOM 123 ND2 ASN 13 13.367 13.225 8.583

ATOM 124 H ASN 13 12.386 8.468 8.513

ATOM 125 1HD2 ASN 13 13.807 14.131 8.520

ATOM 126 2HD2 ASN 13 12.521 13.111 9.122

ATOM 127 N ASP 14 13.080 10.030 11.241

ATOM 128 CA ASP 14 13.065 10.468 12.632

ATOM 129 C ASP 14 14.132 9.746 13.449

ATOM 130 O ASP 14 14.627 10.273 14.445

ATOM 131 CB ASP 14 11.689 10.227 13.255

ATOM 132 CG ASP 14 10.684 11.298 12.879

ATOM 133 OD1 ASP 14 11.106 12.357 12.369

ATOM 134 OD2 ASP 14 9.473 11.078 13.095

ATOM 135 H ASP 14 12.338 9.437 10.906

TER

LOG File



ACCALL - Accessibility calculations

MAX RESIDUES 5000

MAX ATOMS/RES 100

PDB FILE INPUT alpha-helix.pdb

PROBE SIZE 1.40

Z-SLICE WIDTH 0.050

VDW RADII FILE vdw.radii

EXCL HETATOMS

EXCL HYDROGENS

EXCL WATERS

READVDW 32 residues input

ADDED VDW RADII

CHAINS 1

RESIDUES 14

ATOMS 109

SOLVA: PROGRAM ENDS CORRECTLY

CALCULATED ATOMIC ACCESSIBILITES

RELATIVE (STANDARD) ACCESSIBILITIES READFOR 20 AMINO ACIDS

SUMMED ACCESSIBILITIES OVER RESIDUES

RSA File



REM Relative accessibilites read from external file "standard.data"

REM File of summed (Sum) and % (per.) accessibilities for

REM RES \_ NUM All-atoms Total-Side Main-Chain Non-polar All polar

REM ABS REL ABS REL ABS REL ABS REL ABS REL

RES ALA 1 128.29 118.8 77.63 111.8 50.66 131.4 78.66 110.2 49.63 135.7

RES ALA 2 86.67 80.3 74.31 107.1 12.36 32.1 75.45 105.7 11.23 30.7

RES THR 3 109.49 78.6 108.52 106.7 0.97 2.6 74.04 97.8 35.45 55.8

RES ALA 4 37.43 34.7 36.12 52.0 1.31 3.4 36.12 50.6 1.31 3.6

RES GLU 5 94.70 55.0 94.29 70.0 0.41 1.1 26.72 44.3 67.98 60.7

RES LYS 6 152.46 75.9 151.44 92.7 1.02 2.7 103.88 89.1 48.58 57.7

RES VAL 7 85.68 56.6 84.46 73.9 1.22 3.3 84.46 73.1 1.22 3.4

RES PHE 8 131.26 65.8 127.84 77.9 3.42 9.7 129.06 78.1 2.20 6.4

RES LYS 9 118.85 59.2 114.91 70.4 3.95 10.5 70.73 60.7 48.12 57.1

RES GLN 10 125.75 70.4 125.66 89.1 0.09 0.2 41.37 79.2 84.39 66.8

RES TYR 11 177.93 83.6 171.01 96.4 6.92 19.6 127.77 93.6 50.16 65.8

RES ALA 12 83.42 77.3 56.88 82.0 26.54 68.9 58.11 81.4 25.31 69.2

RES ASN 13 133.50 92.7 110.55 104.1 22.95 60.9 27.68 59.9 105.82 108.3

RES ASP 14 149.66 106.6 89.53 87.2 60.13 159.5 52.34 106.3 97.32 106.8

END Absolute sums over single chains surface

CHAIN 1 \_ 1615.1 1423.2 191.9 986.4 628.7

END Absolute sums over all chains

TOTAL 1615.1 1423.2 191.9 986.4 628.7

*Beta Sheet Files*

PDB File



COMPND BETA\_SHEET01\_200106037\_JASH\_LAB\_03\_RECONSTRUCTED

SEQRES 1 20 MET THR TYR LYS LEU ILE LEU ASN GLY LYS THR LEU LYS

SEQRES 2 20 GLY GLU THR THR THR GLU ALA

ATOM 1 N MET 1 0.000 0.000 0.000

ATOM 2 CA MET 1 1.458 0.000 0.000

ATOM 3 C MET 1 2.009 1.422 0.000

ATOM 4 O MET 1 1.430 2.323 -0.606

ATOM 5 CB MET 1 1.994 -0.759 -1.215

ATOM 6 CG MET 1 3.528 -0.750 -1.392

ATOM 7 SD MET 1 4.181 -2.409 -1.132

ATOM 8 CE MET 1 5.922 -2.054 -1.402

ATOM 9 H MET 1 -0.565 0.681 0.465

ATOM 10 N THR 2 3.132 1.616 0.684

ATOM 11 CA THR 2 3.764 2.927 0.764

ATOM 12 C THR 2 4.835 3.090 -0.309

ATOM 13 O THR 2 5.701 2.230 -0.471

ATOM 14 CB THR 2 4.396 3.166 2.148

ATOM 15 OG1 THR 2 3.418 2.938 3.169

ATOM 16 CG2 THR 2 4.931 4.588 2.218

ATOM 17 H THR 2 3.486 0.790 1.124

ATOM 18 HG1 THR 2 3.132 1.981 3.037

ATOM 19 N TYR 3 4.771 4.199 -1.039

ATOM 20 CA TYR 3 5.734 4.476 -2.097

ATOM 21 C TYR 3 6.512 5.757 -1.814

ATOM 22 O TYR 3 6.001 6.675 -1.172

ATOM 23 CB TYR 3 5.027 4.593 -3.449

ATOM 24 CG TYR 3 4.465 3.291 -4.042

ATOM 25 CD1 TYR 3 5.332 2.381 -4.658

ATOM 26 CD2 TYR 3 3.100 3.005 -3.973

ATOM 27 CE1 TYR 3 4.838 1.199 -5.199

ATOM 28 CE2 TYR 3 2.606 1.821 -4.515

ATOM 29 CZ TYR 3 3.473 0.919 -5.127

ATOM 30 OH TYR 3 2.984 -0.241 -5.657

ATOM 31 H TYR 3 4.013 4.803 -0.792

ATOM 32 HH TYR 3 3.746 -0.756 -6.049

ATOM 33 N LYS 4 7.749 5.811 -2.296

ATOM 34 CA LYS 4 8.599 6.979 -2.095

ATOM 35 C LYS 4 8.997 7.607 -3.426

ATOM 36 O LYS 4 9.038 6.932 -4.454

ATOM 37 CB LYS 4 9.856 6.598 -1.310

ATOM 38 CG LYS 4 10.639 7.821 -0.772

ATOM 39 CD LYS 4 11.982 7.487 -0.114

ATOM 40 CE LYS 4 12.644 8.783 0.370

ATOM 41 NZ LYS 4 13.936 8.465 1.004

ATOM 42 H LYS 4 8.026 4.991 -2.795

ATOM 43 1HZ LYS 4 14.376 9.304 1.323

ATOM 44 2HZ LYS 4 13.794 7.856 1.784

ATOM 45 3HZ LYS 4 14.538 8.013 0.345

ATOM 46 N LEU 5 9.289 8.903 -3.399

ATOM 47 CA LEU 5 9.683 9.625 -4.603

ATOM 48 C LEU 5 10.956 10.432 -4.370

ATOM 49 O LEU 5 11.037 11.225 -3.432

ATOM 50 CB LEU 5 8.555 10.548 -5.068

ATOM 51 CG LEU 5 8.903 11.532 -6.187

ATOM 52 CD1 LEU 5 9.159 10.794 -7.492

ATOM 53 CD2 LEU 5 10.152 12.326 -5.837

ATOM 54 H LEU 5 9.236 9.401 -2.524

ATOM 55 N ILE 6 11.949 10.223 -5.229

ATOM 56 CA ILE 6 13.219 10.930 -5.119

ATOM 57 C ILE 6 13.316 12.054 -6.145

ATOM 58 O ILE 6 13.210 11.818 -7.349

ATOM 59 CB ILE 6 14.414 9.974 -5.289

ATOM 60 CG1 ILE 6 14.449 8.956 -4.147

ATOM 61 CG2 ILE 6 15.717 10.755 -5.349

ATOM 62 CD1 ILE 6 15.508 7.888 -4.315

ATOM 63 H ILE 6 11.819 9.559 -5.977

ATOM 64 N LEU 7 13.518 13.275 -5.661

ATOM 65 CA LEU 7 13.630 14.436 -6.535

ATOM 66 C LEU 7 15.083 14.870 -6.694

ATOM 67 O LEU 7 15.763 15.167 -5.711

ATOM 68 CB LEU 7 12.793 15.597 -5.994

ATOM 69 CG LEU 7 11.282 15.365 -5.915

ATOM 70 CD1 LEU 7 10.728 15.878 -4.595

ATOM 71 CD2 LEU 7 10.960 13.882 -6.021

ATOM 72 H LEU 7 13.596 13.401 -4.664

ATOM 73 N ASN 8 15.554 14.903 -7.936

ATOM 74 CA ASN 8 16.927 15.300 -8.225

ATOM 75 C ASN 8 16.976 16.352 -9.328

ATOM 76 O ASN 8 17.564 16.128 -10.386

ATOM 77 CB ASN 8 17.764 14.083 -8.623

ATOM 78 CG ASN 8 19.137 14.464 -9.141

ATOM 79 OD1 ASN 8 19.917 15.110 -8.442

ATOM 80 ND2 ASN 8 19.436 14.064 -10.371

ATOM 81 H ASN 8 14.946 14.648 -8.698

ATOM 82 1HD2 ASN 8 20.336 14.288 -10.770

ATOM 83 2HD2 ASN 8 18.763 13.535 -10.908

ATOM 84 N GLY 9 16.356 17.499 -9.073

ATOM 85 CA GLY 9 16.328 18.587 -10.044

ATOM 86 C GLY 9 17.574 19.459 -9.931

ATOM 87 O GLY 9 18.445 19.208 -9.098

ATOM 88 H GLY 9 15.893 17.620 -8.186

ATOM 89 N LYS 10 17.652 20.483 -10.774

ATOM 90 CA LYS 10 18.791 21.393 -10.770

ATOM 91 C LYS 10 18.757 22.314 -9.555

ATOM 92 O LYS 10 19.797 22.643 -8.984

ATOM 93 CB LYS 10 18.811 22.232 -12.050

ATOM 94 CG LYS 10 18.564 21.401 -13.334

ATOM 95 CD LYS 10 18.717 22.180 -14.644

ATOM 96 CE LYS 10 18.447 21.240 -15.825

ATOM 97 NZ LYS 10 18.593 21.986 -17.088

ATOM 98 H LYS 10 16.870 20.560 -11.392

ATOM 99 1HZ LYS 10 18.419 21.381 -17.865

ATOM 100 2HZ LYS 10 17.942 22.744 -17.114

ATOM 101 3HZ LYS 10 19.521 22.352 -17.163

ATOM 102 N THR 11 17.556 22.727 -9.164

ATOM 103 CA THR 11 17.384 23.609 -8.017

ATOM 104 C THR 11 16.771 22.865 -6.835

ATOM 105 O THR 11 17.137 23.100 -5.684

ATOM 106 CB THR 11 16.499 24.821 -8.364

ATOM 107 OG1 THR 11 17.291 25.826 -9.008

ATOM 108 CG2 THR 11 15.868 25.363 -7.091

ATOM 109 H THR 11 16.805 22.377 -9.725

ATOM 110 HG1 THR 11 17.659 25.371 -9.828

ATOM 111 N LEU 12 15.836 21.968 -7.129

ATOM 112 CA LEU 12 15.171 21.188 -6.092

ATOM 113 C LEU 12 15.604 19.726 -6.138

ATOM 114 O LEU 12 15.543 19.083 -7.186

ATOM 115 CB LEU 12 13.651 21.289 -6.238

ATOM 116 CG LEU 12 12.838 21.197 -4.945

ATOM 117 CD1 LEU 12 11.374 20.916 -5.249

ATOM 118 CD2 LEU 12 12.920 22.500 -4.165

ATOM 119 H LEU 12 15.581 21.822 -8.093

ATOM 120 N LYS 13 16.040 19.208 -4.995

ATOM 121 CA LYS 13 16.484 17.822 -4.902

ATOM 122 C LYS 13 15.863 17.123 -3.697

ATOM 123 O LYS 13 15.633 17.743 -2.659

ATOM 124 CB LYS 13 18.010 17.753 -4.806

ATOM 125 CG LYS 13 18.727 18.166 -6.115

ATOM 126 CD LYS 13 20.108 17.533 -6.320

ATOM 127 CE LYS 13 20.698 18.026 -7.647

ATOM 128 NZ LYS 13 22.026 17.419 -7.847

ATOM 129 H LYS 13 16.032 19.851 -4.229

ATOM 130 1HZ LYS 13 22.420 17.735 -8.710

ATOM 131 2HZ LYS 13 22.637 17.678 -7.098

ATOM 132 3HZ LYS 13 21.947 16.423 -7.871

ATOM 133 N GLY 14 15.594 15.830 -3.843

ATOM 134 CA GLY 14 15.000 15.045 -2.768

ATOM 135 C GLY 14 14.015 14.017 -3.315

ATOM 136 O GLY 14 14.084 13.638 -4.484

ATOM 137 H GLY 14 15.807 15.380 -4.720

ATOM 138 N GLU 15 13.099 13.570 -2.462

ATOM 139 CA GLU 15 12.099 12.586 -2.858

ATOM 140 C GLU 15 10.756 12.865 -2.192

ATOM 141 O GLU 15 10.701 13.289 -1.037

ATOM 142 CB GLU 15 12.572 11.172 -2.513

ATOM 143 CG GLU 15 13.948 10.827 -3.059

ATOM 144 CD GLU 15 14.404 9.440 -2.653

ATOM 145 OE1 GLU 15 14.120 8.479 -3.398

ATOM 146 OE2 GLU 15 15.047 9.313 -1.589

ATOM 147 H GLU 15 13.096 13.920 -1.517

ATOM 148 N THR 16 9.675 12.625 -2.927

ATOM 149 CA THR 16 8.331 12.850 -2.408

ATOM 150 C THR 16 7.376 11.748 -2.855

ATOM 151 O THR 16 7.670 10.998 -3.786

ATOM 152 CB THR 16 7.773 14.213 -2.859

ATOM 153 OG1 THR 16 8.365 14.584 -4.110

ATOM 154 CG2 THR 16 8.067 15.255 -1.791

ATOM 155 H THR 16 9.877 12.284 -3.845

ATOM 156 HG1 THR 16 8.114 13.838 -4.740

ATOM 157 N THR 17 6.233 11.655 -2.184

ATOM 158 CA THR 17 5.233 10.644 -2.509

ATOM 159 C THR 17 3.842 11.260 -2.618

ATOM 160 O THR 17 3.645 12.432 -2.299

ATOM 161 CB THR 17 5.205 9.519 -1.459

ATOM 162 OG1 THR 17 4.762 10.045 -0.202

ATOM 163 CG2 THR 17 6.595 8.915 -1.332

ATOM 164 H THR 17 6.135 12.331 -1.454

ATOM 165 HG1 THR 17 3.844 10.416 -0.393

ATOM 166 N THR 18 2.881 10.461 -3.071

ATOM 167 CA THR 18 1.507 10.926 -3.223

ATOM 168 C THR 18 0.528 9.757 -3.240

ATOM 169 O THR 18 0.899 8.630 -3.569

ATOM 170 CB THR 18 1.329 11.751 -4.511

ATOM 171 OG1 THR 18 0.087 12.462 -4.459

ATOM 172 CG2 THR 18 1.369 10.820 -5.713

ATOM 173 H THR 18 3.192 9.537 -3.289

ATOM 174 HG1 THR 18 0.163 13.042 -3.638

ATOM 175 N GLU 19 -0.722 10.033 -2.883

ATOM 176 CA GLU 19 -1.756 9.005 -2.857

ATOM 177 C GLU 19 -2.631 9.071 -4.104

ATOM 178 O GLU 19 -3.038 10.151 -4.533

ATOM 179 CB GLU 19 -2.620 9.146 -1.603

ATOM 180 CG GLU 19 -1.827 9.216 -0.307

ATOM 181 CD GLU 19 -1.070 7.935 -0.018

ATOM 182 OE1 GLU 19 0.094 7.820 -0.457

ATOM 183 OE2 GLU 19 -1.641 7.045 0.647

ATOM 184 H GLU 19 -0.961 10.977 -2.625

ATOM 185 N ALA 20 -2.916 7.909 -4.683

ATOM 186 CA ALA 20 -3.743 7.833 -5.882

ATOM 187 C ALA 20 -4.469 6.494 -5.966

ATOM 188 O ALA 20 -4.024 5.498 -5.396

ATOM 189 CB ALA 20 -2.892 8.034 -7.126

ATOM 190 H ALA 20 -2.552 7.059 -4.283

TER

LOG File



ACCALL - Accessibility calculations

MAX RESIDUES 5000

MAX ATOMS/RES 100

PDB FILE INPUT beta-sheet-1.pdb

PROBE SIZE 1.40

Z-SLICE WIDTH 0.050

VDW RADII FILE vdw.radii

EXCL HETATOMS

EXCL HYDROGENS

EXCL WATERS

READVDW 32 residues input

ADDED VDW RADII

CHAINS 1

RESIDUES 20

ATOMS 153

SOLVA: PROGRAM ENDS CORRECTLY

CALCULATED ATOMIC ACCESSIBILITES

RELATIVE (STANDARD) ACCESSIBILITIES READFOR 20 AMINO ACIDS

SUMMED ACCESSIBILITIES OVER RESIDUES

RSA File



REM Relative accessibilites read from external file "standard.data"

REM File of summed (Sum) and % (per.) accessibilities for

REM RES \_ NUM All-atoms Total-Side Main-Chain Non-polar All polar

REM ABS REL ABS REL ABS REL ABS REL ABS REL

RES MET 1 208.44 107.4 136.49 87.1 71.95 191.8 139.51 88.4 68.94 189.8

RES THR 2 126.49 90.8 107.69 105.9 18.79 50.0 73.57 97.2 52.92 83.3

RES TYR 3 160.13 75.3 154.17 86.9 5.97 16.9 117.12 85.8 43.01 56.4

RES LYS 4 155.73 77.5 121.36 74.3 34.37 91.6 84.86 72.8 70.87 84.1

RES LEU 5 73.38 41.1 73.38 52.0 0.00 0.0 73.38 51.6 0.00 0.0

RES ILE 6 120.81 69.0 98.44 71.4 22.37 60.2 98.44 70.7 22.37 62.2

RES LEU 7 47.57 26.6 46.07 32.6 1.50 4.0 46.07 32.4 1.50 4.1

RES ASN 8 113.08 78.6 88.26 83.1 24.82 65.8 30.70 66.4 82.38 84.3

RES GLY 9 33.04 41.2 28.82 89.1 4.22 8.8 31.08 82.8 1.96 4.6

RES LYS 10 211.25 105.2 178.88 109.5 32.36 86.3 131.20 112.6 80.04 95.0

RES THR 11 131.12 94.1 103.86 102.1 27.26 72.6 69.72 92.1 61.40 96.6

RES LEU 12 128.35 71.9 125.89 89.2 2.45 6.5 125.89 88.5 2.45 6.8

RES LYS 13 142.66 71.0 109.32 66.9 33.34 88.9 69.19 59.4 73.47 87.2

RES GLY 14 32.26 40.3 30.49 94.3 1.77 3.7 30.49 81.2 1.77 4.2

RES GLU 15 51.17 29.7 23.62 17.5 27.54 73.4 4.36 7.2 46.81 41.8

RES THR 16 76.48 54.9 75.97 74.7 0.50 1.3 67.87 89.6 8.61 13.6

RES THR 17 77.82 55.9 48.42 47.6 29.39 78.2 21.17 28.0 56.65 89.1

RES THR 18 112.75 81.0 95.71 94.1 17.03 45.3 68.34 90.2 44.41 69.9

RES GLU 19 165.03 95.8 138.97 103.1 26.05 69.5 77.44 128.4 87.59 78.2

RES ALA 20 150.82 139.7 69.56 100.2 81.26 210.8 107.51 150.6 43.30 118.4

END Absolute sums over single chains surface

CHAIN 1 \_ 2318.4 1855.4 463.0 1467.9 850.4

END Absolute sums over all chains

TOTAL 2318.4 1855.4 463.0 1467.9 850.4

*Report –*

Ans01: Total SASA increases with size.

|  |  |  |
| --- | --- | --- |
| Structure | Residue | SASA |
| 1L27-MODEL13 | 20 | 1917.7 |
| 1PGB | 56 | 3677.3 |
| ALPHA-HELIX | 14 | 1615.1 |
| BETA-SHEET-1 | 20 | 2318.4 |
|  |  |  |

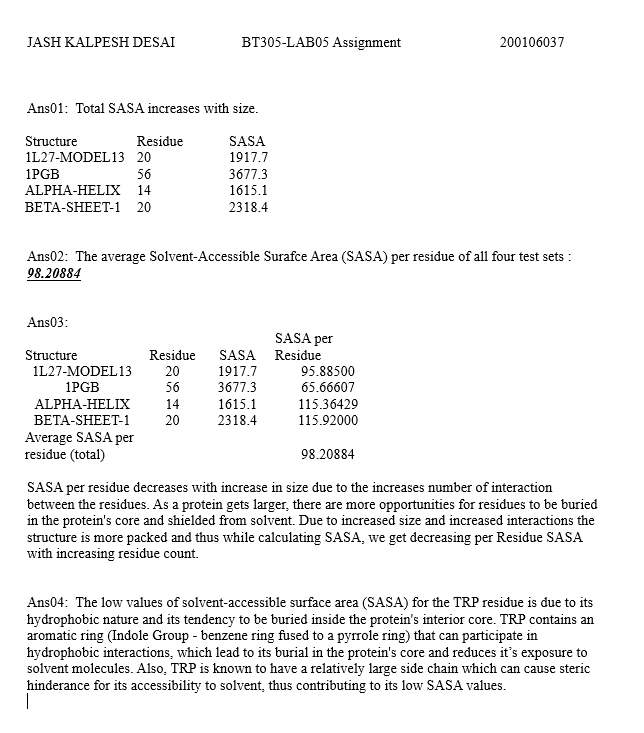
Ans02: The average Solvent-Accessible Surafce Area (SASA) per residue of all four test sets : ***98.20884***

Ans03:

|  |  |  |  |
| --- | --- | --- | --- |
| Structure | Residue | SASA | SASA per Residue |
| 1L27-MODEL13 | 20 | 1917.7 | 95.88500 |
| 1PGB | 56 | 3677.3 | 65.66607 |
| ALPHA-HELIX | 14 | 1615.1 | 115.36429 |
| BETA-SHEET-1 | 20 | 2318.4 | 115.92000 |
| Average SASA per residue (total) |  |  | 98.20884 |

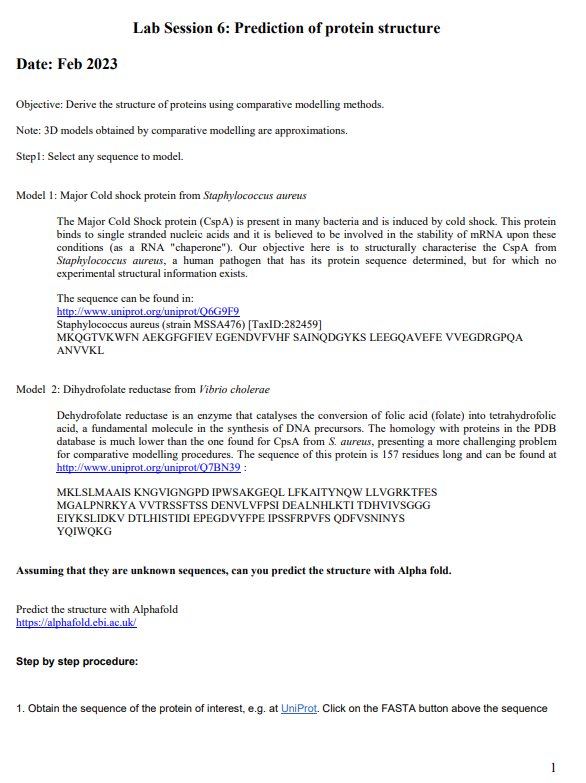
SASA per residue decreases with increase in size due to the increases number of interaction between the residues. As a protein gets larger, there are more opportunities for residues to be buried in the protein's core and shielded from solvent. Due to increased size and increased interactions the structure is more packed and thus while calculating SASA, we get decreasing per Residue SASA with increasing residue count.

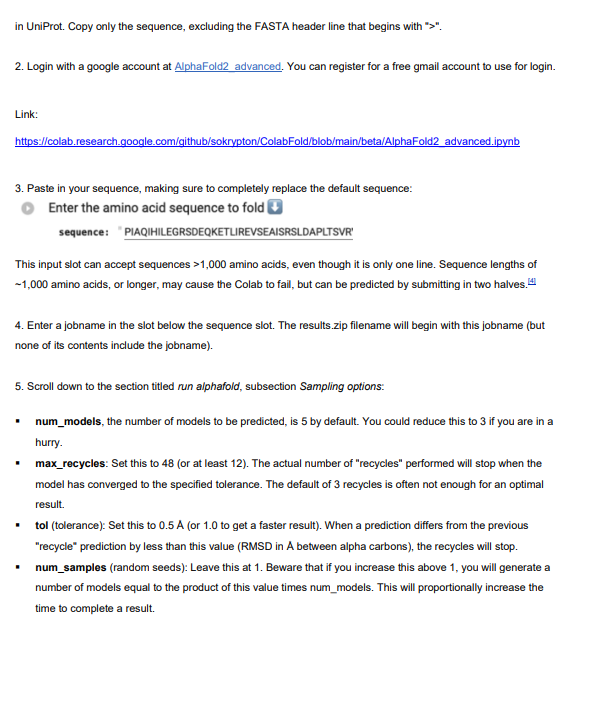
Ans04: The low values of solvent-accessible surface area (SASA) for the TRP residue is due to its hydrophobic nature and its tendency to be buried inside the protein's interior core. TRP contains an aromatic ring (Indole Group - benzene ring fused to a pyrrole ring) that can participate in hydrophobic interactions, which lead to its burial in the protein's core and reduces it’s exposure to solvent molecules. Also, TRP is known to have a relatively large side chain which can cause steric hinderance for its accessibility to solvent, thus contributing to its low SASA values.

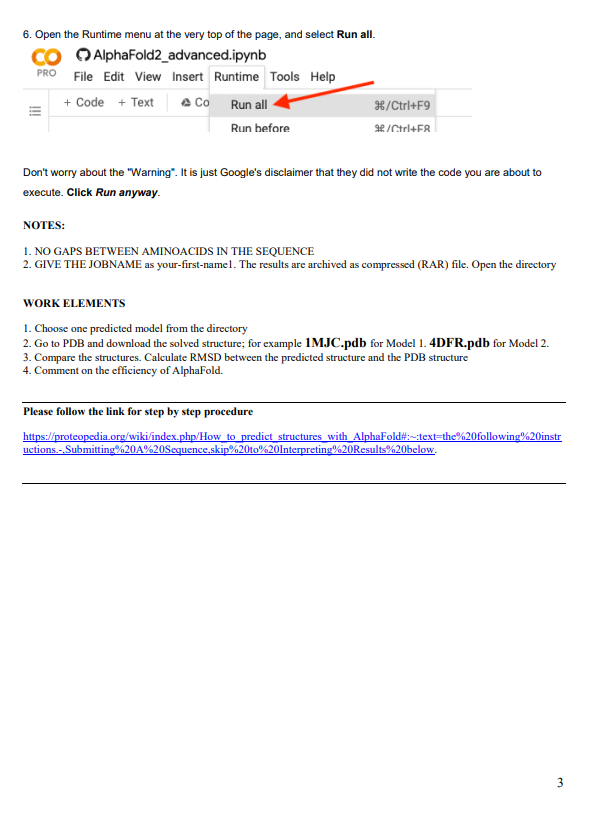
**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Structure | Residue | SASA | SASA per Residue |
|  | 1L27-MODEL13 | 20 | 1917.7 | 95.88500 |
|  | 1PGB | 56 | 3677.3 | 65.66607 |
|  | ALPHA-HELIX | 14 | 1615.1 | 115.36429 |
|  | BETA-SHEET-1 | 20 | 2318.4 | 115.92000 |
|  | Average SASA per residue (total) | | | 98.20884 |

# LAB06







MODEL 1 – 1MJC.PDB



HEADER TRANSCRIPTION REGULATION 18-MAR-94 1MJC

TITLE CRYSTAL STRUCTURE OF CSPA, THE MAJOR COLD SHOCK PROTEIN OF ESCHERICHIA

TITLE 2 COLI

COMPND MOL\_ID: 1;

COMPND 2 MOLECULE: MAJOR COLD-SHOCK PROTEIN 7.4;

COMPND 3 CHAIN: A;

COMPND 4 ENGINEERED: YES

SOURCE MOL\_ID: 1;

SOURCE 2 ORGANISM\_SCIENTIFIC: ESCHERICHIA COLI;

SOURCE 3 ORGANISM\_TAXID: 562;

SOURCE 4 CELL\_LINE: S2

KEYWDS TRANSCRIPTION REGULATION

EXPDTA X-RAY DIFFRACTION

AUTHOR H.SCHINDELIN,U.HEINEMANN

REVDAT 5 14-AUG-19 1MJC 1 REMARK

REVDAT 4 17-JUL-19 1MJC 1 REMARK

REVDAT 3 29-NOV-17 1MJC 1 HELIX

REVDAT 2 24-FEB-09 1MJC 1 VERSN

REVDAT 1 22-JUN-94 1MJC 0

JRNL AUTH H.SCHINDELIN,W.JIANG,M.INOUYE,U.HEINEMANN

JRNL TITL CRYSTAL STRUCTURE OF CSPA, THE MAJOR COLD SHOCK PROTEIN OF

JRNL TITL 2 ESCHERICHIA COLI.

JRNL REF PROC.NATL.ACAD.SCI.USA V. 91 5119 1994

JRNL REFN ISSN 0027-8424

JRNL PMID 8197194

JRNL DOI 10.1073/PNAS.91.11.5119

REMARK 1

REMARK 1 REFERENCE 1

REMARK 1 AUTH H.SCHINDELIN,M.MARAHIEL,U.HEINEMANN

REMARK 1 TITL UNIVERSAL NUCLEIC ACID-BINDING DOMAIN REVEALED BY CRYSTAL

REMARK 1 TITL 2 STRUCTURE OF THE B. SUBTILIS MAJOR COLD SHOCK PROTEIN

REMARK 1 REF NATURE V. 364 164 1993

REMARK 1 REFN ISSN 0028-0836

REMARK 1 REFERENCE 2

REMARK 1 AUTH J.GOLDSTEIN,N.S.POLLITT,M.INOUYE

REMARK 1 TITL MAJOR COLD SHOCK PROTEIN OF ESCHERICHIA COLI

REMARK 1 REF PROC.NATL.ACAD.SCI.USA V. 87 283 1990

REMARK 1 REFN ISSN 0027-8424

REMARK 2

REMARK 2 RESOLUTION. 2.00 ANGSTROMS.

REMARK 3

REMARK 3 REFINEMENT.

REMARK 3 PROGRAM : PROLSQ

REMARK 3 AUTHORS : KONNERT,HENDRICKSON

REMARK 3

REMARK 3 DATA USED IN REFINEMENT.

REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.00

REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : 10.00

REMARK 3 DATA CUTOFF (SIGMA(F)) : 1.000

REMARK 3 COMPLETENESS FOR RANGE (%) : NULL

REMARK 3 NUMBER OF REFLECTIONS : 3774

REMARK 3

REMARK 3 FIT TO DATA USED IN REFINEMENT.

REMARK 3 CROSS-VALIDATION METHOD : NULL

REMARK 3 FREE R VALUE TEST SET SELECTION : NULL

REMARK 3 R VALUE (WORKING + TEST SET) : 0.187

REMARK 3 R VALUE (WORKING SET) : 0.187

REMARK 3 FREE R VALUE : NULL

REMARK 3 FREE R VALUE TEST SET SIZE (%) : NULL

REMARK 3 FREE R VALUE TEST SET COUNT : NULL

REMARK 3

REMARK 3 FIT/AGREEMENT OF MODEL WITH ALL DATA.

REMARK 3 R VALUE (WORKING + TEST SET, NO CUTOFF) : NULL

REMARK 3 R VALUE (WORKING SET, NO CUTOFF) : NULL

REMARK 3 FREE R VALUE (NO CUTOFF) : NULL

REMARK 3 FREE R VALUE TEST SET SIZE (%, NO CUTOFF) : NULL

REMARK 3 FREE R VALUE TEST SET COUNT (NO CUTOFF) : NULL

REMARK 3 TOTAL NUMBER OF REFLECTIONS (NO CUTOFF) : NULL

REMARK 3

REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.

REMARK 3 PROTEIN ATOMS : 514

REMARK 3 NUCLEIC ACID ATOMS : 0

REMARK 3 HETEROGEN ATOMS : 0

REMARK 3 SOLVENT ATOMS : 36

REMARK 3

REMARK 3 B VALUES.

REMARK 3 FROM WILSON PLOT (A\*\*2) : NULL

REMARK 3 MEAN B VALUE (OVERALL, A\*\*2) : NULL

REMARK 3 OVERALL ANISOTROPIC B VALUE.

REMARK 3 B11 (A\*\*2) : NULL

REMARK 3 B22 (A\*\*2) : NULL

REMARK 3 B33 (A\*\*2) : NULL

REMARK 3 B12 (A\*\*2) : NULL

REMARK 3 B13 (A\*\*2) : NULL

REMARK 3 B23 (A\*\*2) : NULL

REMARK 3

REMARK 3 ESTIMATED COORDINATE ERROR.

REMARK 3 ESD FROM LUZZATI PLOT (A) : NULL

REMARK 3 ESD FROM SIGMAA (A) : NULL

REMARK 3 LOW RESOLUTION CUTOFF (A) : NULL

REMARK 3

REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES.

REMARK 3 DISTANCE RESTRAINTS. RMS SIGMA

REMARK 3 BOND LENGTH (A) : NULL ; NULL

REMARK 3 ANGLE DISTANCE (A) : NULL ; NULL

REMARK 3 INTRAPLANAR 1-4 DISTANCE (A) : NULL ; NULL

REMARK 3 H-BOND OR METAL COORDINATION (A) : NULL ; NULL

REMARK 3

REMARK 3 PLANE RESTRAINT (A) : NULL ; NULL

REMARK 3 CHIRAL-CENTER RESTRAINT (A\*\*3) : NULL ; NULL

REMARK 3

REMARK 3 NON-BONDED CONTACT RESTRAINTS.

REMARK 3 SINGLE TORSION (A) : NULL ; NULL

REMARK 3 MULTIPLE TORSION (A) : NULL ; NULL

REMARK 3 H-BOND (X...Y) (A) : NULL ; NULL

REMARK 3 H-BOND (X-H...Y) (A) : NULL ; NULL

REMARK 3

REMARK 3 CONFORMATIONAL TORSION ANGLE RESTRAINTS.

REMARK 3 SPECIFIED (DEGREES) : NULL ; NULL

REMARK 3 PLANAR (DEGREES) : NULL ; NULL

REMARK 3 STAGGERED (DEGREES) : NULL ; NULL

REMARK 3 TRANSVERSE (DEGREES) : NULL ; NULL

REMARK 3

REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. RMS SIGMA

REMARK 3 MAIN-CHAIN BOND (A\*\*2) : 2.310 ; 2.000

REMARK 3 MAIN-CHAIN ANGLE (A\*\*2) : 4.130 ; 3.000

REMARK 3 SIDE-CHAIN BOND (A\*\*2) : 3.430 ; 4.500

REMARK 3 SIDE-CHAIN ANGLE (A\*\*2) : 5.290 ; 4.500

REMARK 3

REMARK 3 OTHER REFINEMENT REMARKS: NULL

REMARK 4

REMARK 4 1MJC COMPLIES WITH FORMAT V. 3.30, 13-JUL-11

REMARK 100

REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY BNL.

REMARK 100 THE DEPOSITION ID IS D\_1000175024.

REMARK 200

REMARK 200 EXPERIMENTAL DETAILS

REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION

REMARK 200 DATE OF DATA COLLECTION : NULL

REMARK 200 TEMPERATURE (KELVIN) : NULL

REMARK 200 PH : NULL

REMARK 200 NUMBER OF CRYSTALS USED : NULL

REMARK 200

REMARK 200 SYNCHROTRON (Y/N) : NULL

REMARK 200 RADIATION SOURCE : NULL

REMARK 200 BEAMLINE : NULL

REMARK 200 X-RAY GENERATOR MODEL : NULL

REMARK 200 MONOCHROMATIC OR LAUE (M/L) : NULL

REMARK 200 WAVELENGTH OR RANGE (A) : NULL

REMARK 200 MONOCHROMATOR : NULL

REMARK 200 OPTICS : NULL

REMARK 200

REMARK 200 DETECTOR TYPE : NULL

REMARK 200 DETECTOR MANUFACTURER : NULL

REMARK 200 INTENSITY-INTEGRATION SOFTWARE : NULL

REMARK 200 DATA SCALING SOFTWARE : NULL

REMARK 200

REMARK 200 NUMBER OF UNIQUE REFLECTIONS : NULL

REMARK 200 RESOLUTION RANGE HIGH (A) : NULL

REMARK 200 RESOLUTION RANGE LOW (A) : NULL

REMARK 200 REJECTION CRITERIA (SIGMA(I)) : NULL

REMARK 200

REMARK 200 OVERALL.

REMARK 200 COMPLETENESS FOR RANGE (%) : NULL

REMARK 200 DATA REDUNDANCY : NULL

REMARK 200 R MERGE (I) : NULL

REMARK 200 R SYM (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : NULL

REMARK 200

REMARK 200 IN THE HIGHEST RESOLUTION SHELL.

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : NULL

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : NULL

REMARK 200 COMPLETENESS FOR SHELL (%) : NULL

REMARK 200 DATA REDUNDANCY IN SHELL : NULL

REMARK 200 R MERGE FOR SHELL (I) : NULL

REMARK 200 R SYM FOR SHELL (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR SHELL : NULL

REMARK 200

REMARK 200 DIFFRACTION PROTOCOL: NULL

REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: NULL

REMARK 200 SOFTWARE USED: X-PLOR

REMARK 200 STARTING MODEL: NULL

REMARK 200

REMARK 200 REMARK: NULL

REMARK 280

REMARK 280 CRYSTAL

REMARK 280 SOLVENT CONTENT, VS (%): 38.40

REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS\*\*3/DA): 2.00

REMARK 280

REMARK 280 CRYSTALLIZATION CONDITIONS: NULL

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY

REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 21 21 21

REMARK 290

REMARK 290 SYMOP SYMMETRY

REMARK 290 NNNMMM OPERATOR

REMARK 290 1555 X,Y,Z

REMARK 290 2555 -X+1/2,-Y,Z+1/2

REMARK 290 3555 -X,Y+1/2,-Z+1/2

REMARK 290 4555 X+1/2,-Y+1/2,-Z

REMARK 290

REMARK 290 WHERE NNN -> OPERATOR NUMBER

REMARK 290 MMM -> TRANSLATION VECTOR

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS

REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM

REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY

REMARK 290 RELATED MOLECULES.

REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.00000

REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.00000

REMARK 290 SMTRY1 2 -1.000000 0.000000 0.000000 23.56000

REMARK 290 SMTRY2 2 0.000000 -1.000000 0.000000 0.00000

REMARK 290 SMTRY3 2 0.000000 0.000000 1.000000 15.46000

REMARK 290 SMTRY1 3 -1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 3 0.000000 1.000000 0.000000 19.96000

REMARK 290 SMTRY3 3 0.000000 0.000000 -1.000000 15.46000

REMARK 290 SMTRY1 4 1.000000 0.000000 0.000000 23.56000

REMARK 290 SMTRY2 4 0.000000 -1.000000 0.000000 19.96000

REMARK 290 SMTRY3 4 0.000000 0.000000 -1.000000 0.00000

REMARK 290

REMARK 290 REMARK: NULL

REMARK 300

REMARK 300 BIOMOLECULE: 1

REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM

REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN

REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON

REMARK 300 BURIED SURFACE AREA.

REMARK 350

REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN

REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE

REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS

REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND

REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.

REMARK 350

REMARK 350 BIOMOLECULE: 1

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC

REMARK 350 APPLY THE FOLLOWING TO CHAINS: A

REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000

REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000

REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: COVALENT BOND ANGLES

REMARK 500

REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES

REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE

REMARK 500 THAN 6\*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)

REMARK 500

REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999

REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996

REMARK 500

REMARK 500 M RES CSSEQI ATM1 ATM2 ATM3

REMARK 500 ASP A 24 CB - CG - OD1 ANGL. DEV. = 5.9 DEGREES

REMARK 500 ASP A 29 CB - CG - OD1 ANGL. DEV. = 8.5 DEGREES

REMARK 500 GLN A 38 CB - CG - CD ANGL. DEV. = 16.5 DEGREES

REMARK 500 TYR A 42 CB - CG - CD1 ANGL. DEV. = 3.7 DEGREES

REMARK 500 PHE A 53 CB - CG - CD1 ANGL. DEV. = 4.6 DEGREES

REMARK 500 GLU A 56 CG - CD - OE1 ANGL. DEV. = 14.1 DEGREES

REMARK 500 GLU A 56 CG - CD - OE2 ANGL. DEV. = -14.0 DEGREES

REMARK 500 THR A 68 CA - CB - CG2 ANGL. DEV. = 9.8 DEGREES

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: TORSION ANGLES

REMARK 500

REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:

REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT:(10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)

REMARK 500

REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-

REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400

REMARK 500

REMARK 500 M RES CSSEQI PSI PHI

REMARK 500 ASN A 39 -82.10 -38.72

REMARK 500 ASP A 40 35.59 39.01

REMARK 500 TYR A 42 -86.89 -146.32

REMARK 500

REMARK 500 REMARK: NULL

DBREF 1MJC A 2 70 UNP P0A9X9 CSPA\_ECOLI 1 69

SEQRES 1 A 69 SER GLY LYS MET THR GLY ILE VAL LYS TRP PHE ASN ALA

SEQRES 2 A 69 ASP LYS GLY PHE GLY PHE ILE THR PRO ASP ASP GLY SER

SEQRES 3 A 69 LYS ASP VAL PHE VAL HIS PHE SER ALA ILE GLN ASN ASP

SEQRES 4 A 69 GLY TYR LYS SER LEU ASP GLU GLY GLN LYS VAL SER PHE

SEQRES 5 A 69 THR ILE GLU SER GLY ALA LYS GLY PRO ALA ALA GLY ASN

SEQRES 6 A 69 VAL THR SER LEU

FORMUL 2 HOH \*36(H2 O)

HELIX 1 1 SER A 35 ILE A 37 5 3

SHEET 1 S1 3 MET A 5 ASN A 13 0

SHEET 2 S1 3 PHE A 18 PRO A 23 -1 O THR A 22 N ILE A 8

SHEET 3 S1 3 VAL A 30 PHE A 34 -1 O VAL A 30 N ILE A 21

SHEET 1 S2 3 MET A 5 ASN A 13 0

SHEET 2 S2 3 LYS A 50 GLU A 56 -1 O PHE A 53 N MET A 5

SHEET 3 S2 3 ALA A 63 SER A 69 -1 O THR A 68 N SER A 52

CRYST1 47.120 39.920 30.920 90.00 90.00 90.00 P 21 21 21 4

ORIGX1 1.000000 0.000000 0.000000 0.00000

ORIGX2 0.000000 1.000000 0.000000 0.00000

ORIGX3 0.000000 0.000000 1.000000 0.00000

SCALE1 0.021222 0.000000 0.000000 0.00000

SCALE2 0.000000 0.025050 0.000000 0.00000

SCALE3 0.000000 0.000000 0.032342 0.00000

ATOM 1 N SER A 2 14.210 24.950 39.381 1.00 47.88 N

ATOM 2 CA SER A 2 13.987 25.698 38.130 1.00 48.37 C

ATOM 3 C SER A 2 13.858 24.804 36.906 1.00 47.44 C

ATOM 4 O SER A 2 13.798 23.564 36.982 1.00 48.92 O

ATOM 5 CB SER A 2 15.144 26.675 37.965 1.00 52.40 C

ATOM 6 OG SER A 2 15.052 27.480 36.789 1.00 56.63 O

ATOM 7 N GLY A 3 13.802 25.416 35.730 1.00 45.38 N

ATOM 8 CA GLY A 3 13.710 24.742 34.442 1.00 41.73 C

ATOM 9 C GLY A 3 15.151 24.671 33.917 1.00 38.86 C

ATOM 10 O GLY A 3 15.458 24.974 32.766 1.00 39.47 O

ATOM 11 N LYS A 4 16.035 24.280 34.811 1.00 35.97 N

ATOM 12 CA LYS A 4 17.460 24.128 34.531 1.00 32.22 C

ATOM 13 C LYS A 4 17.760 22.638 34.351 1.00 29.91 C

ATOM 14 O LYS A 4 17.328 21.796 35.142 1.00 29.50 O

ATOM 15 CB LYS A 4 18.404 24.671 35.603 1.00 29.93 C

ATOM 16 CG LYS A 4 18.524 26.180 35.589 1.00 31.59 C

ATOM 17 CD LYS A 4 19.418 26.762 36.654 1.00 31.69 C

ATOM 18 CE LYS A 4 20.806 27.105 36.146 1.00 33.39 C

ATOM 19 NZ LYS A 4 20.698 28.049 35.017 1.00 32.41 N

ATOM 20 N MET A 5 18.507 22.381 33.304 1.00 28.27 N

ATOM 21 CA MET A 5 18.958 21.022 32.935 1.00 25.86 C

ATOM 22 C MET A 5 20.341 20.854 33.573 1.00 22.98 C

ATOM 23 O MET A 5 21.041 21.819 33.892 1.00 20.63 O

ATOM 24 CB MET A 5 18.871 20.939 31.427 1.00 29.85 C

ATOM 25 CG MET A 5 19.368 19.734 30.709 1.00 37.31 C

ATOM 26 SD MET A 5 19.003 18.164 31.578 1.00 44.57 S

ATOM 27 CE MET A 5 17.241 18.020 31.209 1.00 44.05 C

ATOM 28 N THR A 6 20.750 19.643 33.798 1.00 21.95 N

ATOM 29 CA THR A 6 22.092 19.382 34.362 1.00 21.25 C

ATOM 30 C THR A 6 22.806 18.608 33.249 1.00 17.91 C

ATOM 31 O THR A 6 22.191 18.029 32.331 1.00 17.20 O

ATOM 32 CB THR A 6 22.115 18.723 35.780 1.00 25.41 C

ATOM 33 OG1 THR A 6 21.430 17.436 35.685 1.00 27.06 O

ATOM 34 CG2 THR A 6 21.489 19.583 36.881 1.00 27.87 C

ATOM 35 N GLY A 7 24.111 18.605 33.293 1.00 17.74 N

ATOM 36 CA GLY A 7 24.906 17.886 32.277 1.00 17.28 C

ATOM 37 C GLY A 7 26.382 17.874 32.687 1.00 15.77 C

ATOM 38 O GLY A 7 26.694 18.286 33.791 1.00 15.06 O

ATOM 39 N ILE A 8 27.223 17.419 31.803 1.00 14.54 N

ATOM 40 CA ILE A 8 28.671 17.339 32.005 1.00 15.36 C

ATOM 41 C ILE A 8 29.383 18.068 30.910 1.00 14.29 C

ATOM 42 O ILE A 8 28.882 17.912 29.796 1.00 13.91 O

ATOM 43 CB ILE A 8 29.046 15.805 31.980 1.00 21.82 C

ATOM 44 CG1 ILE A 8 28.555 15.228 33.352 1.00 29.23 C

ATOM 45 CG2 ILE A 8 30.506 15.377 31.726 1.00 22.83 C

ATOM 46 CD1 ILE A 8 27.885 13.825 33.272 1.00 35.01 C

ATOM 47 N VAL A 9 30.466 18.746 31.125 1.00 14.66 N

ATOM 48 CA VAL A 9 31.222 19.420 30.035 1.00 14.08 C

ATOM 49 C VAL A 9 31.909 18.302 29.227 1.00 13.62 C

ATOM 50 O VAL A 9 32.708 17.494 29.758 1.00 14.45 O

ATOM 51 CB VAL A 9 32.203 20.448 30.635 1.00 12.31 C

ATOM 52 CG1 VAL A 9 33.110 21.140 29.618 1.00 13.90 C

ATOM 53 CG2 VAL A 9 31.488 21.436 31.542 1.00 10.19 C

ATOM 54 N LYS A 10 31.610 18.237 27.940 1.00 12.30 N

ATOM 55 CA LYS A 10 32.125 17.280 26.971 1.00 10.12 C

ATOM 56 C LYS A 10 33.528 17.775 26.696 1.00 11.31 C

ATOM 57 O LYS A 10 34.481 17.013 26.862 1.00 14.07 O

ATOM 58 CB LYS A 10 31.302 17.227 25.718 1.00 10.27 C

ATOM 59 CG LYS A 10 31.627 16.055 24.803 1.00 11.00 C

ATOM 60 CD LYS A 10 30.919 16.394 23.467 1.00 10.68 C

ATOM 61 CE LYS A 10 31.183 15.218 22.530 1.00 12.10 C

ATOM 62 NZ LYS A 10 30.583 15.530 21.208 1.00 11.64 N

ATOM 63 N TRP A 11 33.652 19.030 26.332 1.00 11.22 N

ATOM 64 CA TRP A 11 34.998 19.635 26.091 1.00 11.19 C

ATOM 65 C TRP A 11 34.851 21.138 26.196 1.00 11.21 C

ATOM 66 O TRP A 11 33.699 21.618 26.122 1.00 10.85 O

ATOM 67 CB TRP A 11 35.616 19.166 24.780 1.00 11.89 C

ATOM 68 CG TRP A 11 34.878 19.435 23.502 1.00 12.63 C

ATOM 69 CD1 TRP A 11 34.026 18.549 22.873 1.00 12.00 C

ATOM 70 CD2 TRP A 11 34.897 20.635 22.708 1.00 11.16 C

ATOM 71 NE1 TRP A 11 33.538 19.139 21.738 1.00 13.67 N

ATOM 72 CE2 TRP A 11 34.042 20.409 21.602 1.00 13.89 C

ATOM 73 CE3 TRP A 11 35.556 21.853 22.808 1.00 9.05 C

ATOM 74 CZ2 TRP A 11 33.827 21.361 20.597 1.00 12.99 C

ATOM 75 CZ3 TRP A 11 35.346 22.799 21.818 1.00 13.47 C

ATOM 76 CH2 TRP A 11 34.497 22.560 20.727 1.00 13.58 C

ATOM 77 N PHE A 12 35.953 21.862 26.374 1.00 11.34 N

ATOM 78 CA PHE A 12 35.817 23.332 26.442 1.00 12.65 C

ATOM 79 C PHE A 12 37.114 23.913 25.858 1.00 14.59 C

ATOM 80 O PHE A 12 38.102 23.524 26.494 1.00 15.82 O

ATOM 81 CB PHE A 12 35.439 23.881 27.823 1.00 15.26 C

ATOM 82 CG PHE A 12 35.111 25.365 27.769 1.00 14.60 C

ATOM 83 CD1 PHE A 12 33.793 25.758 27.499 1.00 14.42 C

ATOM 84 CD2 PHE A 12 36.109 26.333 27.978 1.00 9.38 C

ATOM 85 CE1 PHE A 12 33.522 27.148 27.428 1.00 13.92 C

ATOM 86 CE2 PHE A 12 35.835 27.676 27.908 1.00 8.37 C

ATOM 87 CZ PHE A 12 34.559 28.087 27.640 1.00 12.24 C

ATOM 88 N ASN A 13 37.082 24.714 24.805 1.00 13.08 N

ATOM 89 CA ASN A 13 38.312 25.273 24.243 1.00 14.71 C

ATOM 90 C ASN A 13 38.498 26.657 24.848 1.00 16.62 C

ATOM 91 O ASN A 13 37.877 27.568 24.307 1.00 15.63 O

ATOM 92 CB ASN A 13 38.249 25.257 22.719 1.00 14.20 C

ATOM 93 CG ASN A 13 39.517 25.733 22.066 1.00 14.75 C

ATOM 94 OD1 ASN A 13 40.375 26.448 22.608 1.00 18.88 O

ATOM 95 ND2 ASN A 13 39.726 25.355 20.829 1.00 13.04 N

ATOM 96 N ALA A 14 39.313 26.786 25.882 1.00 21.54 N

ATOM 97 CA ALA A 14 39.553 28.090 26.558 1.00 24.38 C

ATOM 98 C ALA A 14 40.179 29.144 25.659 1.00 27.81 C

ATOM 99 O ALA A 14 40.026 30.343 26.000 1.00 31.52 O

ATOM 100 CB ALA A 14 40.366 27.866 27.821 1.00 27.91 C

ATOM 101 N ASP A 15 40.803 28.807 24.559 1.00 28.02 N

ATOM 102 CA ASP A 15 41.411 29.708 23.596 1.00 28.52 C

ATOM 103 C ASP A 15 40.396 30.344 22.659 1.00 27.90 C

ATOM 104 O ASP A 15 40.644 31.433 22.149 1.00 30.13 O

ATOM 105 CB ASP A 15 42.421 28.979 22.687 1.00 31.04 C

ATOM 106 CG ASP A 15 43.588 28.340 23.386 1.00 33.18 C

ATOM 107 OD1 ASP A 15 44.144 29.075 24.214 1.00 34.37 O

ATOM 108 OD2 ASP A 15 43.969 27.172 23.156 1.00 37.15 O

ATOM 109 N LYS A 16 39.313 29.652 22.378 1.00 26.47 N

ATOM 110 CA LYS A 16 38.248 30.130 21.482 1.00 23.61 C

ATOM 111 C LYS A 16 37.066 30.624 22.312 1.00 22.16 C

ATOM 112 O LYS A 16 36.254 31.444 21.850 1.00 24.74 O

ATOM 113 CB LYS A 16 37.831 29.051 20.508 1.00 26.06 C

ATOM 114 CG LYS A 16 38.824 28.610 19.435 1.00 31.86 C

ATOM 115 CD LYS A 16 38.682 29.481 18.195 1.00 37.46 C

ATOM 116 CE LYS A 16 39.309 28.982 16.922 1.00 41.85 C

ATOM 117 NZ LYS A 16 38.391 28.180 16.052 1.00 45.01 N

ATOM 118 N GLY A 17 36.953 30.171 23.534 1.00 19.44 N

ATOM 119 CA GLY A 17 35.956 30.452 24.537 1.00 18.81 C

ATOM 120 C GLY A 17 34.614 29.750 24.328 1.00 18.67 C

ATOM 121 O GLY A 17 33.558 30.367 24.536 1.00 17.22 O

ATOM 122 N PHE A 18 34.621 28.489 23.907 1.00 18.72 N

ATOM 123 CA PHE A 18 33.334 27.763 23.692 1.00 18.63 C

ATOM 124 C PHE A 18 33.592 26.253 23.840 1.00 18.05 C

ATOM 125 O PHE A 18 34.770 25.850 23.787 1.00 16.79 O

ATOM 126 CB PHE A 18 32.623 28.066 22.384 1.00 18.13 C

ATOM 127 CG PHE A 18 33.343 27.704 21.115 1.00 23.36 C

ATOM 128 CD1 PHE A 18 33.454 26.384 20.627 1.00 25.76 C

ATOM 129 CD2 PHE A 18 33.906 28.736 20.376 1.00 21.32 C

ATOM 130 CE1 PHE A 18 34.114 26.059 19.477 1.00 29.27 C

ATOM 131 CE2 PHE A 18 34.585 28.449 19.186 1.00 28.05 C

ATOM 132 CZ PHE A 18 34.694 27.110 18.737 1.00 31.03 C

ATOM 133 N GLY A 19 32.473 25.535 23.917 1.00 15.20 N

ATOM 134 CA GLY A 19 32.600 24.059 24.031 1.00 12.66 C

ATOM 135 C GLY A 19 31.184 23.480 23.985 1.00 11.38 C

ATOM 136 O GLY A 19 30.287 24.180 23.527 1.00 8.40 O

ATOM 137 N PHE A 20 31.087 22.251 24.462 1.00 11.94 N

ATOM 138 CA PHE A 20 29.816 21.523 24.494 1.00 12.63 C

ATOM 139 C PHE A 20 29.617 20.873 25.845 1.00 13.79 C

ATOM 140 O PHE A 20 30.577 20.528 26.519 1.00 14.53 O

ATOM 141 CB PHE A 20 29.711 20.385 23.428 1.00 8.29 C

ATOM 142 CG PHE A 20 29.390 21.002 22.113 1.00 10.77 C

ATOM 143 CD1 PHE A 20 30.395 21.461 21.289 1.00 14.81 C

ATOM 144 CD2 PHE A 20 28.081 21.167 21.745 1.00 12.88 C

ATOM 145 CE1 PHE A 20 30.128 22.079 20.065 1.00 16.87 C

ATOM 146 CE2 PHE A 20 27.746 21.791 20.555 1.00 16.15 C

ATOM 147 CZ PHE A 20 28.769 22.243 19.726 1.00 18.79 C

ATOM 148 N ILE A 21 28.363 20.712 26.148 1.00 14.42 N

ATOM 149 CA ILE A 21 27.756 20.102 27.301 1.00 14.78 C

ATOM 150 C ILE A 21 26.904 18.920 26.791 1.00 13.79 C

ATOM 151 O ILE A 21 26.203 19.085 25.813 1.00 12.95 O

ATOM 152 CB ILE A 21 26.809 21.042 28.158 1.00 15.11 C

ATOM 153 CG1 ILE A 21 27.598 22.325 28.545 1.00 14.91 C

ATOM 154 CG2 ILE A 21 26.181 20.304 29.356 1.00 13.72 C

ATOM 155 CD1 ILE A 21 26.700 23.491 29.052 1.00 14.81 C

ATOM 156 N THR A 22 27.000 17.821 27.476 1.00 15.82 N

ATOM 157 CA THR A 22 26.232 16.583 27.242 1.00 16.44 C

ATOM 158 C THR A 22 25.137 16.621 28.340 1.00 15.19 C

ATOM 159 O THR A 22 25.425 16.464 29.533 1.00 14.92 O

ATOM 160 CB THR A 22 27.128 15.303 27.263 1.00 17.92 C

ATOM 161 OG1 THR A 22 28.146 15.449 26.227 1.00 18.69 O

ATOM 162 CG2 THR A 22 26.283 14.037 27.040 1.00 20.25 C

ATOM 163 N PRO A 23 23.901 16.865 27.929 1.00 16.53 N

ATOM 164 CA PRO A 23 22.773 16.965 28.854 1.00 16.75 C

ATOM 165 C PRO A 23 22.483 15.639 29.489 1.00 16.57 C

ATOM 166 O PRO A 23 22.665 14.648 28.804 1.00 18.06 O

ATOM 167 CB PRO A 23 21.583 17.495 28.049 1.00 15.23 C

ATOM 168 CG PRO A 23 22.028 17.472 26.644 1.00 15.68 C

ATOM 169 CD PRO A 23 23.477 17.058 26.523 1.00 15.01 C

ATOM 170 N ASP A 24 22.049 15.600 30.694 1.00 18.59 N

ATOM 171 CA ASP A 24 21.734 14.350 31.387 1.00 19.86 C

ATOM 172 C ASP A 24 20.505 13.680 30.800 1.00 21.90 C

ATOM 173 O ASP A 24 20.331 12.497 31.183 1.00 24.16 O

ATOM 174 CB ASP A 24 21.602 14.658 32.863 1.00 20.88 C

ATOM 175 CG ASP A 24 22.904 14.770 33.613 1.00 23.35 C

ATOM 176 OD1 ASP A 24 23.973 14.273 33.230 1.00 24.86 O

ATOM 177 OD2 ASP A 24 22.855 15.392 34.711 1.00 28.33 O

ATOM 178 N ASP A 25 19.723 14.290 29.962 1.00 20.85 N

ATOM 179 CA ASP A 25 18.531 13.605 29.403 1.00 23.46 C

ATOM 180 C ASP A 25 18.819 12.839 28.121 1.00 23.98 C

ATOM 181 O ASP A 25 17.868 12.367 27.465 1.00 25.53 O

ATOM 182 CB ASP A 25 17.412 14.626 29.197 1.00 24.39 C

ATOM 183 CG ASP A 25 17.646 15.715 28.197 1.00 27.54 C

ATOM 184 OD1 ASP A 25 18.768 15.899 27.683 1.00 26.21 O

ATOM 185 OD2 ASP A 25 16.731 16.486 27.847 1.00 32.97 O

ATOM 186 N GLY A 26 20.047 12.700 27.691 1.00 22.66 N

ATOM 187 CA GLY A 26 20.456 11.995 26.478 1.00 19.84 C

ATOM 188 C GLY A 26 20.201 12.771 25.219 1.00 19.67 C

ATOM 189 O GLY A 26 20.389 12.250 24.104 1.00 20.64 O

ATOM 190 N SER A 27 19.770 14.015 25.294 1.00 20.89 N

ATOM 191 CA SER A 27 19.488 14.870 24.124 1.00 20.55 C

ATOM 192 C SER A 27 20.818 15.396 23.568 1.00 21.70 C

ATOM 193 O SER A 27 21.856 15.303 24.236 1.00 22.91 O

ATOM 194 CB SER A 27 18.497 15.974 24.445 1.00 20.06 C

ATOM 195 OG SER A 27 18.946 16.952 25.358 1.00 23.22 O

ATOM 196 N LYS A 28 20.788 15.929 22.368 1.00 21.29 N

ATOM 197 CA LYS A 28 21.891 16.506 21.604 1.00 22.80 C

ATOM 198 C LYS A 28 22.786 17.424 22.454 1.00 21.10 C

ATOM 199 O LYS A 28 22.277 18.163 23.290 1.00 20.38 O

ATOM 200 CB LYS A 28 21.311 17.252 20.419 1.00 24.74 C

ATOM 201 CG LYS A 28 22.049 18.342 19.705 1.00 31.55 C

ATOM 202 CD LYS A 28 21.312 18.968 18.538 1.00 38.16 C

ATOM 203 CE LYS A 28 22.250 19.069 17.337 1.00 42.09 C

ATOM 204 NZ LYS A 28 22.715 17.701 16.943 1.00 45.53 N

ATOM 205 N ASP A 29 24.084 17.376 22.189 1.00 20.81 N

ATOM 206 CA ASP A 29 25.093 18.193 22.897 1.00 19.61 C

ATOM 207 C ASP A 29 24.691 19.668 22.709 1.00 18.01 C

ATOM 208 O ASP A 29 24.223 20.045 21.631 1.00 19.01 O

ATOM 209 CB ASP A 29 26.537 17.977 22.463 1.00 19.73 C

ATOM 210 CG ASP A 29 27.062 16.603 22.729 1.00 20.85 C

ATOM 211 OD1 ASP A 29 26.738 15.855 23.654 1.00 23.30 O

ATOM 212 OD2 ASP A 29 27.898 16.195 21.921 1.00 26.28 O

ATOM 213 N VAL A 30 24.915 20.420 23.776 1.00 15.77 N

ATOM 214 CA VAL A 30 24.567 21.836 23.795 1.00 14.39 C

ATOM 215 C VAL A 30 25.804 22.711 23.757 1.00 14.05 C

ATOM 216 O VAL A 30 26.664 22.525 24.624 1.00 12.43 O

ATOM 217 CB VAL A 30 23.789 22.084 25.101 1.00 17.79 C

ATOM 218 CG1 VAL A 30 23.500 23.513 25.501 1.00 16.67 C

ATOM 219 CG2 VAL A 30 22.430 21.340 25.074 1.00 20.54 C

ATOM 220 N PHE A 31 25.809 23.632 22.844 1.00 14.04 N

ATOM 221 CA PHE A 31 26.907 24.614 22.694 1.00 14.02 C

ATOM 222 C PHE A 31 26.990 25.506 23.922 1.00 14.42 C

ATOM 223 O PHE A 31 25.909 25.973 24.330 1.00 14.42 O

ATOM 224 CB PHE A 31 26.693 25.515 21.473 1.00 14.39 C

ATOM 225 CG PHE A 31 27.685 26.596 21.198 1.00 15.86 C

ATOM 226 CD1 PHE A 31 28.904 26.301 20.581 1.00 19.12 C

ATOM 227 CD2 PHE A 31 27.407 27.907 21.578 1.00 18.84 C

ATOM 228 CE1 PHE A 31 29.834 27.310 20.326 1.00 19.17 C

ATOM 229 CE2 PHE A 31 28.344 28.929 21.335 1.00 20.10 C

ATOM 230 CZ PHE A 31 29.551 28.621 20.697 1.00 16.94 C

ATOM 231 N VAL A 32 28.165 25.787 24.475 1.00 13.07 N

ATOM 232 CA VAL A 32 28.225 26.715 25.607 1.00 11.07 C

ATOM 233 C VAL A 32 29.269 27.777 25.143 1.00 13.75 C

ATOM 234 O VAL A 32 30.362 27.429 24.654 1.00 12.83 O

ATOM 235 CB VAL A 32 28.509 26.054 26.936 1.00 12.55 C

ATOM 236 CG1 VAL A 32 29.741 25.116 26.971 1.00 9.01 C

ATOM 237 CG2 VAL A 32 28.704 27.074 28.074 1.00 8.96 C

ATOM 238 N HIS A 33 28.947 29.042 25.317 1.00 13.35 N

ATOM 239 CA HIS A 33 29.825 30.169 24.991 1.00 11.40 C

ATOM 240 C HIS A 33 30.420 30.672 26.309 1.00 10.59 C

ATOM 241 O HIS A 33 29.661 30.586 27.287 1.00 10.43 O

ATOM 242 CB HIS A 33 29.111 31.286 24.263 1.00 13.53 C

ATOM 243 CG HIS A 33 30.067 32.301 23.676 1.00 14.74 C

ATOM 244 ND1 HIS A 33 30.356 33.483 24.314 1.00 14.98 N

ATOM 245 CD2 HIS A 33 30.760 32.285 22.523 1.00 15.25 C

ATOM 246 CE1 HIS A 33 31.183 34.155 23.515 1.00 12.45 C

ATOM 247 NE2 HIS A 33 31.435 33.476 22.445 1.00 17.57 N

ATOM 248 N PHE A 34 31.651 31.164 26.400 1.00 10.13 N

ATOM 249 CA PHE A 34 32.164 31.599 27.704 1.00 11.64 C

ATOM 250 C PHE A 34 31.233 32.636 28.344 1.00 14.64 C

ATOM 251 O PHE A 34 31.117 32.684 29.583 1.00 15.65 O

ATOM 252 CB PHE A 34 33.649 32.092 27.611 1.00 16.18 C

ATOM 253 CG PHE A 34 33.806 33.473 27.071 1.00 14.06 C

ATOM 254 CD1 PHE A 34 33.732 34.599 27.898 1.00 18.02 C

ATOM 255 CD2 PHE A 34 33.973 33.652 25.713 1.00 16.74 C

ATOM 256 CE1 PHE A 34 33.780 35.885 27.430 1.00 22.24 C

ATOM 257 CE2 PHE A 34 34.065 34.971 25.228 1.00 21.21 C

ATOM 258 CZ PHE A 34 33.967 36.088 26.066 1.00 19.57 C

ATOM 259 N SER A 35 30.630 33.496 27.517 1.00 17.30 N

ATOM 260 CA SER A 35 29.762 34.573 28.019 1.00 19.08 C

ATOM 261 C SER A 35 28.526 34.032 28.713 1.00 22.10 C

ATOM 262 O SER A 35 27.958 34.911 29.413 1.00 25.77 O

ATOM 263 CB SER A 35 29.409 35.593 26.960 1.00 14.78 C

ATOM 264 OG SER A 35 28.712 34.925 25.938 1.00 19.12 O

ATOM 265 N ALA A 36 28.117 32.792 28.624 1.00 20.34 N

ATOM 266 CA ALA A 36 26.985 32.194 29.281 1.00 19.09 C

ATOM 267 C ALA A 36 27.341 31.719 30.683 1.00 21.50 C

ATOM 268 O ALA A 36 26.383 31.366 31.379 1.00 23.03 O

ATOM 269 CB ALA A 36 26.521 30.953 28.501 1.00 16.55 C

ATOM 270 N ILE A 37 28.585 31.662 31.120 1.00 22.69 N

ATOM 271 CA ILE A 37 29.024 31.197 32.410 1.00 26.95 C

ATOM 272 C ILE A 37 28.979 32.293 33.492 1.00 33.67 C

ATOM 273 O ILE A 37 29.397 33.440 33.266 1.00 30.79 O

ATOM 274 CB ILE A 37 30.498 30.631 32.408 1.00 24.41 C

ATOM 275 CG1 ILE A 37 30.616 29.493 31.361 1.00 23.80 C

ATOM 276 CG2 ILE A 37 31.093 30.135 33.756 1.00 19.82 C

ATOM 277 CD1 ILE A 37 32.045 29.415 30.720 1.00 29.30 C

ATOM 278 N GLN A 38 28.489 31.783 34.617 1.00 41.36 N

ATOM 279 CA GLN A 38 28.372 32.598 35.851 1.00 52.10 C

ATOM 280 C GLN A 38 29.844 32.801 36.298 1.00 58.65 C

ATOM 281 O GLN A 38 30.573 32.083 36.993 1.00 59.06 O

ATOM 282 CB GLN A 38 27.453 31.981 36.868 1.00 54.00 C

ATOM 283 CG GLN A 38 26.093 32.543 37.064 1.00 58.67 C

ATOM 284 CD GLN A 38 24.955 32.561 36.097 1.00 60.44 C

ATOM 285 OE1 GLN A 38 23.878 32.013 36.407 1.00 60.06 O

ATOM 286 NE2 GLN A 38 25.118 33.211 34.935 1.00 59.95 N

ATOM 287 N ASN A 39 30.320 33.917 35.791 1.00 64.76 N

ATOM 288 CA ASN A 39 31.596 34.614 35.817 1.00 70.39 C

ATOM 289 C ASN A 39 32.349 34.589 37.131 1.00 73.47 C

ATOM 290 O ASN A 39 33.280 33.739 37.169 1.00 74.38 O

ATOM 291 CB ASN A 39 31.330 35.989 35.171 1.00 74.32 C

ATOM 292 CG ASN A 39 32.003 37.248 35.643 1.00 77.40 C

ATOM 293 OD1 ASN A 39 31.610 37.753 36.728 1.00 78.82 O

ATOM 294 ND2 ASN A 39 32.987 37.794 34.946 1.00 78.98 N

ATOM 295 N ASP A 40 32.133 35.381 38.151 1.00 75.92 N

ATOM 296 CA ASP A 40 32.829 35.446 39.443 1.00 77.50 C

ATOM 297 C ASP A 40 34.339 35.243 39.294 1.00 77.79 C

ATOM 298 O ASP A 40 35.011 34.639 40.164 1.00 78.45 O

ATOM 299 CB ASP A 40 32.166 34.463 40.418 1.00 81.46 C

ATOM 300 CG ASP A 40 32.323 32.984 40.136 1.00 84.61 C

ATOM 301 OD1 ASP A 40 33.325 32.412 40.636 1.00 86.68 O

ATOM 302 OD2 ASP A 40 31.521 32.338 39.439 1.00 85.88 O

ATOM 303 N GLY A 41 34.901 35.751 38.196 1.00 77.17 N

ATOM 304 CA GLY A 41 36.336 35.584 37.930 1.00 75.94 C

ATOM 305 C GLY A 41 36.630 34.078 37.733 1.00 74.88 C

ATOM 306 O GLY A 41 37.445 33.437 38.437 1.00 75.19 O

ATOM 307 N TYR A 42 35.928 33.524 36.755 1.00 72.50 N

ATOM 308 CA TYR A 42 36.050 32.118 36.354 1.00 69.10 C

ATOM 309 C TYR A 42 35.819 32.079 34.840 1.00 64.74 C

ATOM 310 O TYR A 42 36.811 32.165 34.085 1.00 65.07 O

ATOM 311 CB TYR A 42 35.218 31.099 37.116 1.00 77.06 C

ATOM 312 CG TYR A 42 35.421 29.644 36.731 1.00 83.82 C

ATOM 313 CD1 TYR A 42 36.668 29.050 36.483 1.00 86.14 C

ATOM 314 CD2 TYR A 42 34.286 28.822 36.636 1.00 86.11 C

ATOM 315 CE1 TYR A 42 36.786 27.716 36.136 1.00 89.06 C

ATOM 316 CE2 TYR A 42 34.384 27.473 36.324 1.00 88.00 C

ATOM 317 CZ TYR A 42 35.647 26.914 36.090 1.00 89.58 C

ATOM 318 OH TYR A 42 35.693 25.592 35.713 1.00 88.97 O

ATOM 319 N LYS A 43 34.603 31.978 34.391 1.00 59.85 N

ATOM 320 CA LYS A 43 34.329 31.964 32.937 1.00 56.32 C

ATOM 321 C LYS A 43 35.140 30.963 32.111 1.00 51.33 C

ATOM 322 O LYS A 43 35.475 31.172 30.919 1.00 51.54 O

ATOM 323 CB LYS A 43 34.482 33.383 32.372 1.00 60.14 C

ATOM 324 CG LYS A 43 33.867 34.588 33.045 1.00 63.76 C

ATOM 325 CD LYS A 43 34.648 35.183 34.183 1.00 70.17 C

ATOM 326 CE LYS A 43 36.105 35.525 34.191 1.00 72.72 C

ATOM 327 NZ LYS A 43 36.427 36.791 33.480 1.00 75.29 N

ATOM 328 N SER A 44 35.480 29.818 32.671 1.00 45.70 N

ATOM 329 CA SER A 44 36.233 28.723 32.017 1.00 38.92 C

ATOM 330 C SER A 44 35.584 27.400 32.422 1.00 34.86 C

ATOM 331 O SER A 44 34.748 27.466 33.308 1.00 34.91 O

ATOM 332 CB SER A 44 37.697 28.720 32.361 1.00 38.15 C

ATOM 333 OG SER A 44 38.450 28.177 31.303 1.00 37.82 O

ATOM 334 N LEU A 45 35.785 26.223 31.907 1.00 28.49 N

ATOM 335 CA LEU A 45 35.124 25.008 32.321 1.00 22.18 C

ATOM 336 C LEU A 45 36.094 23.882 31.970 1.00 17.15 C

ATOM 337 O LEU A 45 36.796 24.068 30.980 1.00 15.28 O

ATOM 338 CB LEU A 45 33.794 24.760 31.581 1.00 19.75 C

ATOM 339 CG LEU A 45 32.619 25.691 31.762 1.00 20.47 C

ATOM 340 CD1 LEU A 45 31.496 25.403 30.766 1.00 20.31 C

ATOM 341 CD2 LEU A 45 32.112 25.558 33.214 1.00 19.67 C

ATOM 342 N ASP A 46 35.997 22.874 32.777 1.00 14.96 N

ATOM 343 CA ASP A 46 36.840 21.706 32.562 1.00 17.07 C

ATOM 344 C ASP A 46 35.995 20.524 32.087 1.00 17.18 C

ATOM 345 O ASP A 46 34.855 20.335 32.547 1.00 14.99 O

ATOM 346 CB ASP A 46 37.601 21.222 33.818 1.00 19.78 C

ATOM 347 CG ASP A 46 38.538 22.229 34.453 1.00 21.78 C

ATOM 348 OD1 ASP A 46 39.055 23.063 33.684 1.00 21.97 O

ATOM 349 OD2 ASP A 46 38.784 22.237 35.658 1.00 21.46 O

ATOM 350 N GLU A 47 36.679 19.772 31.237 1.00 15.45 N

ATOM 351 CA GLU A 47 36.073 18.562 30.711 1.00 15.92 C

ATOM 352 C GLU A 47 35.681 17.653 31.887 1.00 16.49 C

ATOM 353 O GLU A 47 36.506 17.334 32.785 1.00 17.85 O

ATOM 354 CB GLU A 47 37.059 17.893 29.737 1.00 16.01 C

ATOM 355 CG GLU A 47 36.619 16.536 29.227 1.00 25.82 C

ATOM 356 CD GLU A 47 37.403 16.017 28.057 1.00 36.03 C

ATOM 357 OE1 GLU A 47 37.742 16.698 27.092 1.00 42.41 O

ATOM 358 OE2 GLU A 47 37.612 14.800 28.256 1.00 37.46 O

ATOM 359 N GLY A 48 34.430 17.211 31.900 1.00 14.71 N

ATOM 360 CA GLY A 48 33.980 16.339 32.959 1.00 14.67 C

ATOM 361 C GLY A 48 33.272 16.992 34.119 1.00 16.01 C

ATOM 362 O GLY A 48 32.749 16.224 34.952 1.00 16.98 O

ATOM 363 N GLN A 49 33.246 18.296 34.169 1.00 16.60 N

ATOM 364 CA GLN A 49 32.578 19.093 35.208 1.00 17.55 C

ATOM 365 C GLN A 49 31.048 18.990 35.147 1.00 17.68 C

ATOM 366 O GLN A 49 30.530 19.046 34.031 1.00 17.89 O

ATOM 367 CB GLN A 49 32.818 20.599 35.034 1.00 15.58 C

ATOM 368 CG GLN A 49 33.541 21.206 36.149 1.00 21.24 C

ATOM 369 CD GLN A 49 33.908 22.661 35.978 1.00 21.34 C

ATOM 370 OE1 GLN A 49 34.494 23.091 35.002 1.00 19.10 O

ATOM 371 NE2 GLN A 49 33.512 23.344 37.039 1.00 21.66 N

ATOM 372 N LYS A 50 30.390 18.859 36.270 1.00 17.80 N

ATOM 373 CA LYS A 50 28.906 18.778 36.294 1.00 19.05 C

ATOM 374 C LYS A 50 28.455 20.220 36.209 1.00 17.28 C

ATOM 375 O LYS A 50 29.053 21.084 36.868 1.00 18.07 O

ATOM 376 CB LYS A 50 28.455 18.017 37.501 1.00 25.91 C

ATOM 377 CG LYS A 50 27.108 17.348 37.582 1.00 34.38 C

ATOM 378 CD LYS A 50 27.114 16.006 38.304 1.00 39.86 C

ATOM 379 CE LYS A 50 27.427 16.029 39.782 1.00 43.38 C

ATOM 380 NZ LYS A 50 27.230 14.743 40.507 1.00 44.63 N

ATOM 381 N VAL A 51 27.489 20.603 35.428 1.00 16.28 N

ATOM 382 CA VAL A 51 27.016 21.971 35.287 1.00 16.30 C

ATOM 383 C VAL A 51 25.493 21.924 35.225 1.00 18.83 C

ATOM 384 O VAL A 51 24.883 20.858 35.015 1.00 21.03 O

ATOM 385 CB VAL A 51 27.613 22.647 34.034 1.00 17.74 C

ATOM 386 CG1 VAL A 51 29.115 22.977 34.136 1.00 16.04 C

ATOM 387 CG2 VAL A 51 27.370 21.883 32.736 1.00 11.02 C

ATOM 388 N SER A 52 24.924 23.086 35.402 1.00 19.63 N

ATOM 389 CA SER A 52 23.460 23.309 35.352 1.00 21.54 C

ATOM 390 C SER A 52 23.412 24.550 34.468 1.00 20.15 C

ATOM 391 O SER A 52 24.244 25.463 34.459 1.00 20.29 O

ATOM 392 CB SER A 52 22.738 23.274 36.660 1.00 27.13 C

ATOM 393 OG SER A 52 22.837 24.339 37.545 1.00 32.13 O

ATOM 394 N PHE A 53 22.378 24.539 33.658 1.00 20.93 N

ATOM 395 CA PHE A 53 22.139 25.556 32.635 1.00 20.88 C

ATOM 396 C PHE A 53 20.726 25.567 32.137 1.00 22.37 C

ATOM 397 O PHE A 53 20.037 24.592 32.462 1.00 24.66 O

ATOM 398 CB PHE A 53 23.032 25.142 31.425 1.00 20.15 C

ATOM 399 CG PHE A 53 22.890 23.736 30.888 1.00 19.41 C

ATOM 400 CD1 PHE A 53 23.422 22.580 31.483 1.00 19.58 C

ATOM 401 CD2 PHE A 53 22.170 23.543 29.690 1.00 21.37 C

ATOM 402 CE1 PHE A 53 23.235 21.313 30.943 1.00 16.81 C

ATOM 403 CE2 PHE A 53 21.964 22.308 29.117 1.00 17.22 C

ATOM 404 CZ PHE A 53 22.512 21.195 29.748 1.00 19.12 C

ATOM 405 N THR A 54 20.358 26.546 31.376 1.00 22.64 N

ATOM 406 CA THR A 54 19.003 26.574 30.796 1.00 23.45 C

ATOM 407 C THR A 54 19.253 26.357 29.321 1.00 25.36 C

ATOM 408 O THR A 54 20.368 26.690 28.851 1.00 25.74 O

ATOM 409 CB THR A 54 18.236 27.902 31.082 1.00 24.43 C

ATOM 410 OG1 THR A 54 19.084 28.996 30.605 1.00 23.71 O

ATOM 411 CG2 THR A 54 17.912 28.017 32.562 1.00 25.02 C

ATOM 412 N ILE A 55 18.313 25.827 28.589 1.00 28.01 N

ATOM 413 CA ILE A 55 18.475 25.605 27.134 1.00 32.03 C

ATOM 414 C ILE A 55 17.816 26.861 26.528 1.00 35.59 C

ATOM 415 O ILE A 55 16.681 27.263 26.829 1.00 35.20 O

ATOM 416 CB ILE A 55 17.934 24.273 26.556 1.00 35.69 C

ATOM 417 CG1 ILE A 55 18.844 23.106 27.067 1.00 38.69 C

ATOM 418 CG2 ILE A 55 17.800 24.229 25.005 1.00 35.48 C

ATOM 419 CD1 ILE A 55 18.006 21.831 27.454 1.00 41.05 C

ATOM 420 N GLU A 56 18.621 27.420 25.649 1.00 36.95 N

ATOM 421 CA GLU A 56 18.208 28.643 24.993 1.00 40.09 C

ATOM 422 C GLU A 56 18.323 28.537 23.496 1.00 42.21 C

ATOM 423 O GLU A 56 18.881 27.626 22.893 1.00 40.80 O

ATOM 424 CB GLU A 56 19.079 29.795 25.514 1.00 45.92 C

ATOM 425 CG GLU A 56 19.448 29.794 26.997 1.00 50.38 C

ATOM 426 CD GLU A 56 18.486 30.487 27.904 1.00 54.62 C

ATOM 427 OE1 GLU A 56 17.338 30.246 28.217 1.00 53.87 O

ATOM 428 OE2 GLU A 56 19.136 31.471 28.354 1.00 61.29 O

ATOM 429 N SER A 57 17.717 29.564 22.960 1.00 46.35 N

ATOM 430 CA SER A 57 17.573 29.929 21.564 1.00 51.14 C

ATOM 431 C SER A 57 19.010 30.222 21.117 1.00 53.00 C

ATOM 432 O SER A 57 19.632 31.218 21.552 1.00 52.63 O

ATOM 433 CB SER A 57 16.697 31.170 21.402 1.00 55.39 C

ATOM 434 OG SER A 57 15.834 31.424 22.511 1.00 58.15 O

ATOM 435 N GLY A 58 19.507 29.328 20.282 1.00 54.99 N

ATOM 436 CA GLY A 58 20.894 29.531 19.808 1.00 56.82 C

ATOM 437 C GLY A 58 20.908 29.782 18.300 1.00 57.46 C

ATOM 438 O GLY A 58 20.056 29.343 17.522 1.00 57.46 O

ATOM 439 N ALA A 59 21.951 30.514 17.953 1.00 57.82 N

ATOM 440 CA ALA A 59 22.268 30.933 16.596 1.00 57.35 C

ATOM 441 C ALA A 59 22.423 29.778 15.611 1.00 56.85 C

ATOM 442 O ALA A 59 22.143 30.015 14.420 1.00 57.40 O

ATOM 443 CB ALA A 59 23.559 31.726 16.697 1.00 58.82 C

ATOM 444 N LYS A 60 22.845 28.617 16.072 1.00 55.77 N

ATOM 445 CA LYS A 60 23.018 27.452 15.198 1.00 54.92 C

ATOM 446 C LYS A 60 22.470 26.143 15.767 1.00 52.61 C

ATOM 447 O LYS A 60 22.468 25.123 15.049 1.00 54.01 O

ATOM 448 CB LYS A 60 24.487 27.238 14.850 1.00 62.49 C

ATOM 449 CG LYS A 60 25.162 28.277 13.962 1.00 68.75 C

ATOM 450 CD LYS A 60 26.477 27.786 13.370 1.00 72.44 C

ATOM 451 CE LYS A 60 26.437 27.502 11.878 1.00 74.72 C

ATOM 452 NZ LYS A 60 27.715 26.903 11.395 1.00 74.10 N

ATOM 453 N GLY A 61 22.014 26.084 16.995 1.00 48.55 N

ATOM 454 CA GLY A 61 21.461 24.869 17.629 1.00 42.31 C

ATOM 455 C GLY A 61 21.153 25.255 19.083 1.00 38.49 C

ATOM 456 O GLY A 61 21.164 26.437 19.461 1.00 38.80 O

ATOM 457 N PRO A 62 20.883 24.251 19.897 1.00 35.39 N

ATOM 458 CA PRO A 62 20.576 24.479 21.311 1.00 32.08 C

ATOM 459 C PRO A 62 21.812 25.046 21.988 1.00 30.16 C

ATOM 460 O PRO A 62 22.901 24.492 21.742 1.00 28.86 O

ATOM 461 CB PRO A 62 20.183 23.103 21.834 1.00 33.53 C

ATOM 462 CG PRO A 62 20.814 22.129 20.889 1.00 34.61 C

ATOM 463 CD PRO A 62 20.846 22.824 19.524 1.00 34.73 C

ATOM 464 N ALA A 63 21.655 26.065 22.795 1.00 27.56 N

ATOM 465 CA ALA A 63 22.688 26.755 23.544 1.00 24.22 C

ATOM 466 C ALA A 63 22.384 26.772 25.034 1.00 23.55 C

ATOM 467 O ALA A 63 21.209 26.778 25.445 1.00 25.12 O

ATOM 468 CB ALA A 63 22.780 28.203 23.121 1.00 23.82 C

ATOM 469 N ALA A 64 23.430 26.784 25.819 1.00 20.41 N

ATOM 470 CA ALA A 64 23.318 26.799 27.272 1.00 20.39 C

ATOM 471 C ALA A 64 23.326 28.246 27.725 1.00 20.39 C

ATOM 472 O ALA A 64 24.141 29.008 27.185 1.00 21.12 O

ATOM 473 CB ALA A 64 24.457 26.052 27.959 1.00 18.37 C

ATOM 474 N GLY A 65 22.468 28.571 28.657 1.00 20.62 N

ATOM 475 CA GLY A 65 22.383 29.927 29.234 1.00 17.98 C

ATOM 476 C GLY A 65 22.486 29.658 30.741 1.00 18.90 C

ATOM 477 O GLY A 65 22.227 28.533 31.205 1.00 17.47 O

ATOM 478 N ASN A 66 22.867 30.669 31.511 1.00 21.01 N

ATOM 479 CA ASN A 66 22.992 30.645 32.981 1.00 21.83 C

ATOM 480 C ASN A 66 23.698 29.424 33.504 1.00 21.94 C

ATOM 481 O ASN A 66 23.194 28.710 34.396 1.00 25.44 O

ATOM 482 CB ASN A 66 21.567 30.823 33.623 1.00 26.78 C

ATOM 483 CG ASN A 66 20.735 31.938 33.007 1.00 26.26 C

ATOM 484 OD1 ASN A 66 21.066 33.118 33.161 1.00 30.17 O

ATOM 485 ND2 ASN A 66 19.689 31.597 32.258 1.00 27.84 N

ATOM 486 N VAL A 67 24.872 29.177 32.973 1.00 21.95 N

ATOM 487 CA VAL A 67 25.709 28.020 33.327 1.00 20.15 C

ATOM 488 C VAL A 67 26.342 28.224 34.690 1.00 21.27 C

ATOM 489 O VAL A 67 27.095 29.174 34.927 1.00 23.33 O

ATOM 490 CB VAL A 67 26.775 27.706 32.251 1.00 18.04 C

ATOM 491 CG1 VAL A 67 27.615 26.478 32.610 1.00 14.37 C

ATOM 492 CG2 VAL A 67 26.161 27.603 30.876 1.00 11.46 C

ATOM 493 N THR A 68 26.014 27.250 35.495 1.00 22.27 N

ATOM 494 CA THR A 68 26.437 27.134 36.881 1.00 24.54 C

ATOM 495 C THR A 68 27.213 25.889 37.167 1.00 26.25 C

ATOM 496 O THR A 68 26.857 24.918 36.525 1.00 27.63 O

ATOM 497 CB THR A 68 25.079 27.153 37.701 1.00 25.06 C

ATOM 498 OG1 THR A 68 25.035 28.607 37.939 1.00 34.58 O

ATOM 499 CG2 THR A 68 24.899 26.369 38.987 1.00 29.27 C

ATOM 500 N SER A 69 28.152 25.873 38.066 1.00 30.09 N

ATOM 501 CA SER A 69 28.896 24.653 38.406 1.00 32.16 C

ATOM 502 C SER A 69 28.086 23.914 39.464 1.00 33.61 C

ATOM 503 O SER A 69 27.388 24.541 40.255 1.00 35.44 O

ATOM 504 CB SER A 69 30.265 24.901 38.996 1.00 34.08 C

ATOM 505 OG SER A 69 31.036 25.292 37.869 1.00 40.46 O

ATOM 506 N LEU A 70 28.211 22.639 39.455 1.00 35.01 N

ATOM 507 CA LEU A 70 27.546 21.745 40.395 1.00 39.19 C

ATOM 508 C LEU A 70 28.666 21.003 41.138 1.00 41.56 C

ATOM 509 O LEU A 70 28.294 20.209 42.010 1.00 43.94 O

ATOM 510 CB LEU A 70 26.570 20.838 39.667 1.00 39.41 C

ATOM 511 CG LEU A 70 25.298 21.296 39.012 1.00 38.51 C

ATOM 512 CD1 LEU A 70 24.588 20.118 38.338 1.00 39.54 C

ATOM 513 CD2 LEU A 70 24.310 21.840 40.030 1.00 40.97 C

ATOM 514 OXT LEU A 70 29.864 21.233 40.813 1.00 46.94 O

TER 515 LEU A 70

HETATM 516 O HOH A 101 39.142 21.366 23.502 1.00 19.41 O

HETATM 517 O HOH A 102 32.494 19.640 11.640 1.00 20.84 O

HETATM 518 O HOH A 103 26.319 29.620 25.502 1.00 16.35 O

HETATM 519 O HOH A 104 14.306 34.689 16.798 1.00 31.90 O

HETATM 520 O HOH A 105 19.881 19.436 23.646 1.00 18.10 O

HETATM 521 O HOH A 106 23.862 22.555 20.139 1.00 30.92 O

HETATM 522 O HOH A 107 16.842 33.436 18.972 1.00 37.85 O

HETATM 523 O HOH A 108 18.182 18.789 21.804 1.00 64.78 O

HETATM 524 O HOH A 109 25.727 19.912 18.607 1.00 47.57 O

HETATM 525 O HOH A 110 36.271 15.302 24.685 1.00 50.93 O

HETATM 526 O HOH A 111 30.203 17.791 10.495 1.00 32.80 O

HETATM 527 O HOH A 112 22.324 35.295 26.218 1.00 32.44 O

HETATM 528 O HOH A 113 31.471 8.403 17.392 1.00 66.55 O

HETATM 529 O HOH A 114 15.593 25.252 29.854 1.00 56.10 O

HETATM 530 O HOH A 115 19.660 28.413 15.031 1.00 66.78 O

HETATM 531 O HOH A 116 25.718 13.858 30.924 1.00 31.94 O

HETATM 532 O HOH A 117 7.714 6.627 11.764 1.00 38.36 O

HETATM 533 O HOH A 118 31.660 23.687 17.296 1.00 34.81 O

HETATM 534 O HOH A 119 31.713 21.570 7.943 1.00 33.73 O

HETATM 535 O HOH A 120 13.911 28.634 33.962 1.00 36.56 O

HETATM 536 O HOH A 121 17.089 9.309 8.817 1.00 60.14 O

HETATM 537 O HOH A 122 30.792 14.678 16.863 1.00 65.39 O

HETATM 538 O HOH A 123 28.121 13.164 23.166 1.00 44.83 O

HETATM 539 O HOH A 124 21.909 10.168 23.728 1.00 37.32 O

HETATM 540 O HOH A 125 29.363 14.994 42.136 1.00 35.41 O

HETATM 541 O HOH A 126 28.271 14.220 17.568 1.00 65.13 O

HETATM 542 O HOH A 127 26.268 31.678 9.294 1.00 51.81 O

HETATM 543 O HOH A 128 31.656 16.421 14.052 1.00 39.91 O

HETATM 544 O HOH A 129 24.296 14.086 24.095 1.00 39.17 O

HETATM 545 O HOH A 130 28.669 18.414 19.423 1.00 43.37 O

HETATM 546 O HOH A 131 23.371 32.209 20.023 1.00 53.64 O

HETATM 547 O HOH A 132 24.089 13.218 16.531 1.00 31.44 O

HETATM 548 O HOH A 133 22.948 12.787 20.552 1.00 58.34 O

HETATM 549 O HOH A 134 33.997 14.201 27.260 1.00 60.45 O

HETATM 550 O HOH A 135 31.579 19.583 14.375 1.00 46.64 O

HETATM 551 O HOH A 136 41.177 22.365 32.082 1.00 56.92 O

MASTER 251 0 0 1 6 0 0 6 550 1 0 6

END

**MODEL 1 – RANK1 :**



MODEL 1

ATOM 1 N MET A 1 -13.465 -5.010 0.584 1.00 87.69 N

ATOM 2 CA MET A 1 -12.423 -4.123 0.075 1.00 87.69 C

ATOM 3 C MET A 1 -12.289 -2.882 0.951 1.00 87.69 C

ATOM 4 CB MET A 1 -12.722 -3.715 -1.369 1.00 87.69 C

ATOM 5 O MET A 1 -13.289 -2.343 1.428 1.00 87.69 O

ATOM 6 CG MET A 1 -12.679 -4.871 -2.354 1.00 87.69 C

ATOM 7 SD MET A 1 -11.184 -4.832 -3.419 1.00 87.69 S

ATOM 8 CE MET A 1 -11.800 -3.826 -4.797 1.00 87.69 C

ATOM 9 N LYS A 2 -10.920 -2.636 1.414 1.00 94.80 N

ATOM 10 CA LYS A 2 -10.589 -1.496 2.264 1.00 94.80 C

ATOM 11 C LYS A 2 -9.862 -0.412 1.473 1.00 94.80 C

ATOM 12 CB LYS A 2 -9.733 -1.942 3.450 1.00 94.80 C

ATOM 13 O LYS A 2 -9.300 -0.684 0.410 1.00 94.80 O

ATOM 14 CG LYS A 2 -10.503 -2.707 4.516 1.00 94.80 C

ATOM 15 CD LYS A 2 -9.674 -2.891 5.781 1.00 94.80 C

ATOM 16 CE LYS A 2 -10.456 -3.627 6.861 1.00 94.80 C

ATOM 17 NZ LYS A 2 -10.093 -3.151 8.229 1.00 94.80 N

ATOM 18 N GLN A 3 -9.992 0.865 2.007 1.00 97.12 N

ATOM 19 CA GLN A 3 -9.246 1.980 1.434 1.00 97.12 C

ATOM 20 C GLN A 3 -8.230 2.532 2.431 1.00 97.12 C

ATOM 21 CB GLN A 3 -10.198 3.090 0.986 1.00 97.12 C

ATOM 22 O GLN A 3 -8.471 2.522 3.640 1.00 97.12 O

ATOM 23 CG GLN A 3 -11.104 2.693 -0.171 1.00 97.12 C

ATOM 24 CD GLN A 3 -11.987 3.833 -0.643 1.00 97.12 C

ATOM 25 NE2 GLN A 3 -12.832 3.559 -1.631 1.00 97.12 N

ATOM 26 OE1 GLN A 3 -11.911 4.951 -0.123 1.00 97.12 O

ATOM 27 N GLY A 4 -7.124 2.872 1.829 1.00 97.60 N

ATOM 28 CA GLY A 4 -6.070 3.466 2.636 1.00 97.60 C

ATOM 29 C GLY A 4 -5.139 4.360 1.838 1.00 97.60 C

ATOM 30 O GLY A 4 -5.385 4.626 0.660 1.00 97.60 O

ATOM 31 N THR A 5 -4.224 4.911 2.595 1.00 98.37 N

ATOM 32 CA THR A 5 -3.208 5.783 2.016 1.00 98.37 C

ATOM 33 C THR A 5 -1.815 5.190 2.206 1.00 98.37 C

ATOM 34 CB THR A 5 -3.260 7.191 2.638 1.00 98.37 C

ATOM 35 O THR A 5 -1.479 4.716 3.293 1.00 98.37 O

ATOM 36 CG2 THR A 5 -2.270 8.129 1.956 1.00 98.37 C

ATOM 37 OG1 THR A 5 -4.582 7.723 2.493 1.00 98.37 O

ATOM 38 N VAL A 6 -1.118 5.197 1.079 1.00 98.44 N

ATOM 39 CA VAL A 6 0.238 4.664 1.159 1.00 98.44 C

ATOM 40 C VAL A 6 1.072 5.514 2.116 1.00 98.44 C

ATOM 41 CB VAL A 6 0.911 4.611 -0.231 1.00 98.44 C

ATOM 42 O VAL A 6 1.304 6.698 1.863 1.00 98.44 O

ATOM 43 CG1 VAL A 6 2.334 4.067 -0.122 1.00 98.44 C

ATOM 44 CG2 VAL A 6 0.083 3.761 -1.192 1.00 98.44 C

ATOM 45 N LYS A 7 1.481 4.909 3.154 1.00 98.42 N

ATOM 46 CA LYS A 7 2.331 5.596 4.122 1.00 98.42 C

ATOM 47 C LYS A 7 3.755 5.747 3.594 1.00 98.42 C

ATOM 48 CB LYS A 7 2.344 4.845 5.455 1.00 98.42 C

ATOM 49 O LYS A 7 4.337 6.832 3.663 1.00 98.42 O

ATOM 50 CG LYS A 7 3.126 5.548 6.554 1.00 98.42 C

ATOM 51 CD LYS A 7 3.007 4.812 7.883 1.00 98.42 C

ATOM 52 CE LYS A 7 3.793 5.513 8.983 1.00 98.42 C

ATOM 53 NZ LYS A 7 3.617 4.839 10.304 1.00 98.42 N

ATOM 54 N TRP A 8 4.315 4.642 3.105 1.00 98.50 N

ATOM 55 CA TRP A 8 5.584 4.634 2.384 1.00 98.50 C

ATOM 56 C TRP A 8 5.727 3.366 1.549 1.00 98.50 C

ATOM 57 CB TRP A 8 6.758 4.752 3.360 1.00 98.50 C

ATOM 58 O TRP A 8 5.103 2.345 1.846 1.00 98.50 O

ATOM 59 CG TRP A 8 6.905 3.578 4.281 1.00 98.50 C

ATOM 60 CD1 TRP A 8 6.407 3.459 5.549 1.00 98.50 C

ATOM 61 CD2 TRP A 8 7.601 2.359 4.007 1.00 98.50 C

ATOM 62 CE2 TRP A 8 7.484 1.544 5.154 1.00 98.50 C

ATOM 63 CE3 TRP A 8 8.313 1.876 2.901 1.00 98.50 C

ATOM 64 NE1 TRP A 8 6.752 2.237 6.079 1.00 98.50 N

ATOM 65 CH2 TRP A 8 8.745 -0.178 4.130 1.00 98.50 C

ATOM 66 CZ2 TRP A 8 8.054 0.270 5.226 1.00 98.50 C

ATOM 67 CZ3 TRP A 8 8.879 0.609 2.974 1.00 98.50 C

ATOM 68 N PHE A 9 6.520 3.472 0.536 1.00 98.46 N

ATOM 69 CA PHE A 9 6.815 2.341 -0.336 1.00 98.46 C

ATOM 70 C PHE A 9 8.222 2.453 -0.911 1.00 98.46 C

ATOM 71 CB PHE A 9 5.789 2.254 -1.471 1.00 98.46 C

ATOM 72 O PHE A 9 8.606 3.505 -1.426 1.00 98.46 O

ATOM 73 CG PHE A 9 5.871 0.979 -2.266 1.00 98.46 C

ATOM 74 CD1 PHE A 9 6.651 0.907 -3.414 1.00 98.46 C

ATOM 75 CD2 PHE A 9 5.167 -0.149 -1.866 1.00 98.46 C

ATOM 76 CE1 PHE A 9 6.728 -0.271 -4.152 1.00 98.46 C

ATOM 77 CE2 PHE A 9 5.239 -1.331 -2.598 1.00 98.46 C

ATOM 78 CZ PHE A 9 6.019 -1.390 -3.741 1.00 98.46 C

ATOM 79 N ASN A 10 8.973 1.427 -0.708 1.00 98.22 N

ATOM 80 CA ASN A 10 10.290 1.314 -1.325 1.00 98.22 C

ATOM 81 C ASN A 10 10.232 0.522 -2.629 1.00 98.22 C

ATOM 82 CB ASN A 10 11.284 0.670 -0.357 1.00 98.22 C

ATOM 83 O ASN A 10 10.140 -0.706 -2.610 1.00 98.22 O

ATOM 84 CG ASN A 10 12.711 0.720 -0.865 1.00 98.22 C

ATOM 85 ND2 ASN A 10 13.650 1.005 0.030 1.00 98.22 N

ATOM 86 OD1 ASN A 10 12.968 0.506 -2.052 1.00 98.22 O

ATOM 87 N ALA A 11 10.343 1.140 -3.750 1.00 96.55 N

ATOM 88 CA ALA A 11 10.174 0.499 -5.051 1.00 96.55 C

ATOM 89 C ALA A 11 11.340 -0.437 -5.356 1.00 96.55 C

ATOM 90 CB ALA A 11 10.039 1.551 -6.149 1.00 96.55 C

ATOM 91 O ALA A 11 11.166 -1.456 -6.030 1.00 96.55 O

ATOM 92 N GLU A 12 12.490 -0.076 -4.753 1.00 96.56 N

ATOM 93 CA GLU A 12 13.674 -0.904 -4.967 1.00 96.56 C

ATOM 94 C GLU A 12 13.553 -2.238 -4.237 1.00 96.56 C

ATOM 95 CB GLU A 12 14.935 -0.166 -4.511 1.00 96.56 C

ATOM 96 O GLU A 12 13.852 -3.291 -4.804 1.00 96.56 O

ATOM 97 CG GLU A 12 15.302 1.024 -5.385 1.00 96.56 C

ATOM 98 CD GLU A 12 16.584 1.716 -4.950 1.00 96.56 C

ATOM 99 OE1 GLU A 12 17.160 2.487 -5.751 1.00 96.56 O

ATOM 100 OE2 GLU A 12 17.016 1.485 -3.799 1.00 96.56 O

ATOM 101 N LYS A 13 12.991 -2.132 -3.019 1.00 97.48 N

ATOM 102 CA LYS A 13 12.855 -3.348 -2.223 1.00 97.48 C

ATOM 103 C LYS A 13 11.523 -4.040 -2.499 1.00 97.48 C

ATOM 104 CB LYS A 13 12.981 -3.031 -0.732 1.00 97.48 C

ATOM 105 O LYS A 13 11.382 -5.242 -2.265 1.00 97.48 O

ATOM 106 CG LYS A 13 14.374 -2.590 -0.308 1.00 97.48 C

ATOM 107 CD LYS A 13 14.476 -2.437 1.204 1.00 97.48 C

ATOM 108 CE LYS A 13 15.897 -2.101 1.638 1.00 97.48 C

ATOM 109 NZ LYS A 13 15.995 -1.918 3.117 1.00 97.48 N

ATOM 110 N GLY A 14 10.509 -3.315 -2.944 1.00 97.48 N

ATOM 111 CA GLY A 14 9.251 -3.869 -3.416 1.00 97.48 C

ATOM 112 C GLY A 14 8.213 -4.013 -2.319 1.00 97.48 C

ATOM 113 O GLY A 14 7.316 -4.853 -2.412 1.00 97.48 O

ATOM 114 N PHE A 15 8.333 -3.242 -1.273 1.00 97.90 N

ATOM 115 CA PHE A 15 7.336 -3.339 -0.213 1.00 97.90 C

ATOM 116 C PHE A 15 7.160 -1.998 0.489 1.00 97.90 C

ATOM 117 CB PHE A 15 7.732 -4.415 0.803 1.00 97.90 C

ATOM 118 O PHE A 15 7.998 -1.104 0.350 1.00 97.90 O

ATOM 119 CG PHE A 15 8.901 -4.032 1.669 1.00 97.90 C

ATOM 120 CD1 PHE A 15 10.198 -4.360 1.295 1.00 97.90 C

ATOM 121 CD2 PHE A 15 8.702 -3.342 2.858 1.00 97.90 C

ATOM 122 CE1 PHE A 15 11.282 -4.007 2.095 1.00 97.90 C

ATOM 123 CE2 PHE A 15 9.781 -2.985 3.662 1.00 97.90 C

ATOM 124 CZ PHE A 15 11.070 -3.319 3.279 1.00 97.90 C

ATOM 125 N GLY A 16 6.104 -1.977 1.304 1.00 97.95 N

ATOM 126 CA GLY A 16 5.777 -0.787 2.074 1.00 97.95 C

ATOM 127 C GLY A 16 4.586 -0.980 2.994 1.00 97.95 C

ATOM 128 O GLY A 16 4.250 -2.111 3.353 1.00 97.95 O

ATOM 129 N PHE A 17 3.977 0.109 3.376 1.00 98.17 N

ATOM 130 CA PHE A 17 2.849 0.056 4.299 1.00 98.17 C

ATOM 131 C PHE A 17 1.768 1.050 3.890 1.00 98.17 C

ATOM 132 CB PHE A 17 3.310 0.342 5.731 1.00 98.17 C

ATOM 133 O PHE A 17 2.071 2.124 3.364 1.00 98.17 O

ATOM 134 CG PHE A 17 4.028 -0.811 6.379 1.00 98.17 C

ATOM 135 CD1 PHE A 17 3.318 -1.806 7.041 1.00 98.17 C

ATOM 136 CD2 PHE A 17 5.413 -0.899 6.327 1.00 98.17 C

ATOM 137 CE1 PHE A 17 3.980 -2.874 7.642 1.00 98.17 C

ATOM 138 CE2 PHE A 17 6.081 -1.964 6.925 1.00 98.17 C

ATOM 139 CZ PHE A 17 5.363 -2.950 7.583 1.00 98.17 C

ATOM 140 N ILE A 18 0.513 0.558 4.154 1.00 98.45 N

ATOM 141 CA ILE A 18 -0.668 1.372 3.888 1.00 98.45 C

ATOM 142 C ILE A 18 -1.337 1.758 5.205 1.00 98.45 C

ATOM 143 CB ILE A 18 -1.671 0.631 2.974 1.00 98.45 C

ATOM 144 O ILE A 18 -1.558 0.906 6.069 1.00 98.45 O

ATOM 145 CG1 ILE A 18 -1.006 0.258 1.644 1.00 98.45 C

ATOM 146 CG2 ILE A 18 -2.921 1.484 2.741 1.00 98.45 C

ATOM 147 CD1 ILE A 18 -1.790 -0.757 0.824 1.00 98.45 C

ATOM 148 N GLU A 19 -1.518 3.014 5.287 1.00 98.08 N

ATOM 149 CA GLU A 19 -2.225 3.507 6.465 1.00 98.08 C

ATOM 150 C GLU A 19 -3.737 3.427 6.276 1.00 98.08 C

ATOM 151 CB GLU A 19 -1.809 4.947 6.779 1.00 98.08 C

ATOM 152 O GLU A 19 -4.265 3.880 5.257 1.00 98.08 O

ATOM 153 CG GLU A 19 -2.421 5.499 8.058 1.00 98.08 C

ATOM 154 CD GLU A 19 -2.031 6.942 8.335 1.00 98.08 C

ATOM 155 OE1 GLU A 19 -1.555 7.237 9.455 1.00 98.08 O

ATOM 156 OE2 GLU A 19 -2.203 7.784 7.426 1.00 98.08 O

ATOM 157 N VAL A 20 -4.374 2.809 7.294 1.00 95.96 N

ATOM 158 CA VAL A 20 -5.829 2.706 7.332 1.00 95.96 C

ATOM 159 C VAL A 20 -6.364 3.402 8.582 1.00 95.96 C

ATOM 160 CB VAL A 20 -6.296 1.234 7.301 1.00 95.96 C

ATOM 161 O VAL A 20 -5.892 3.146 9.692 1.00 95.96 O

ATOM 162 CG1 VAL A 20 -7.819 1.151 7.221 1.00 95.96 C

ATOM 163 CG2 VAL A 20 -5.656 0.497 6.126 1.00 95.96 C

ATOM 164 N GLU A 21 -7.272 4.276 8.429 1.00 92.98 N

ATOM 165 CA GLU A 21 -7.808 5.036 9.554 1.00 92.98 C

ATOM 166 C GLU A 21 -8.407 4.111 10.610 1.00 92.98 C

ATOM 167 CB GLU A 21 -8.862 6.037 9.074 1.00 92.98 C

ATOM 168 O GLU A 21 -9.285 3.301 10.307 1.00 92.98 O

ATOM 169 CG GLU A 21 -9.253 7.069 10.121 1.00 92.98 C

ATOM 170 CD GLU A 21 -10.220 8.119 9.598 1.00 92.98 C

ATOM 171 OE1 GLU A 21 -10.558 9.062 10.349 1.00 92.98 O

ATOM 172 OE2 GLU A 21 -10.644 7.998 8.427 1.00 92.98 O

ATOM 173 N GLY A 22 -7.872 4.279 11.884 1.00 92.67 N

ATOM 174 CA GLY A 22 -8.474 3.573 13.004 1.00 92.67 C

ATOM 175 C GLY A 22 -7.978 2.146 13.146 1.00 92.67 C

ATOM 176 O GLY A 22 -8.492 1.384 13.968 1.00 92.67 O

ATOM 177 N GLU A 23 -7.001 1.716 12.269 1.00 91.97 N

ATOM 178 CA GLU A 23 -6.414 0.380 12.280 1.00 91.97 C

ATOM 179 C GLU A 23 -4.891 0.445 12.206 1.00 91.97 C

ATOM 180 CB GLU A 23 -6.962 -0.458 11.122 1.00 91.97 C

ATOM 181 O GLU A 23 -4.320 1.515 11.986 1.00 91.97 O

ATOM 182 CG GLU A 23 -8.473 -0.635 11.153 1.00 91.97 C

ATOM 183 CD GLU A 23 -8.999 -1.501 10.019 1.00 91.97 C

ATOM 184 OE1 GLU A 23 -10.084 -1.195 9.474 1.00 91.97 O

ATOM 185 OE2 GLU A 23 -8.320 -2.494 9.673 1.00 91.97 O

ATOM 186 N ASN A 24 -4.338 -0.731 12.363 1.00 93.71 N

ATOM 187 CA ASN A 24 -2.894 -0.826 12.177 1.00 93.71 C

ATOM 188 C ASN A 24 -2.509 -0.721 10.704 1.00 93.71 C

ATOM 189 CB ASN A 24 -2.361 -2.131 12.773 1.00 93.71 C

ATOM 190 O ASN A 24 -3.326 -0.998 9.824 1.00 93.71 O

ATOM 191 CG ASN A 24 -2.528 -2.196 14.279 1.00 93.71 C

ATOM 192 ND2 ASN A 24 -3.008 -3.332 14.773 1.00 93.71 N

ATOM 193 OD1 ASN A 24 -2.230 -1.235 14.992 1.00 93.71 O

ATOM 194 N ASP A 25 -1.264 -0.271 10.517 1.00 96.27 N

ATOM 195 CA ASP A 25 -0.739 -0.241 9.155 1.00 96.27 C

ATOM 196 C ASP A 25 -0.699 -1.642 8.550 1.00 96.27 C

ATOM 197 CB ASP A 25 0.659 0.382 9.133 1.00 96.27 C

ATOM 198 O ASP A 25 -0.439 -2.620 9.254 1.00 96.27 O

ATOM 199 CG ASP A 25 0.674 1.824 9.609 1.00 96.27 C

ATOM 200 OD1 ASP A 25 -0.406 2.448 9.697 1.00 96.27 O

ATOM 201 OD2 ASP A 25 1.775 2.341 9.897 1.00 96.27 O

ATOM 202 N VAL A 26 -0.988 -1.545 7.290 1.00 97.08 N

ATOM 203 CA VAL A 26 -1.085 -2.825 6.596 1.00 97.08 C

ATOM 204 C VAL A 26 0.103 -2.993 5.652 1.00 97.08 C

ATOM 205 CB VAL A 26 -2.411 -2.946 5.812 1.00 97.08 C

ATOM 206 O VAL A 26 0.411 -2.094 4.866 1.00 97.08 O

ATOM 207 CG1 VAL A 26 -2.472 -4.272 5.056 1.00 97.08 C

ATOM 208 CG2 VAL A 26 -3.604 -2.811 6.756 1.00 97.08 C

ATOM 209 N PHE A 27 0.722 -4.101 5.765 1.00 97.89 N

ATOM 210 CA PHE A 27 1.872 -4.423 4.927 1.00 97.89 C

ATOM 211 C PHE A 27 1.443 -4.647 3.482 1.00 97.89 C

ATOM 212 CB PHE A 27 2.594 -5.665 5.459 1.00 97.89 C

ATOM 213 O PHE A 27 0.393 -5.240 3.225 1.00 97.89 O

ATOM 214 CG PHE A 27 3.712 -6.143 4.572 1.00 97.89 C

ATOM 215 CD1 PHE A 27 3.510 -7.185 3.675 1.00 97.89 C

ATOM 216 CD2 PHE A 27 4.966 -5.550 4.635 1.00 97.89 C

ATOM 217 CE1 PHE A 27 4.543 -7.630 2.853 1.00 97.89 C

ATOM 218 CE2 PHE A 27 6.004 -5.988 3.817 1.00 97.89 C

ATOM 219 CZ PHE A 27 5.790 -7.029 2.927 1.00 97.89 C

ATOM 220 N VAL A 28 2.288 -4.159 2.525 1.00 98.06 N

ATOM 221 CA VAL A 28 1.994 -4.372 1.112 1.00 98.06 C

ATOM 222 C VAL A 28 3.272 -4.759 0.371 1.00 98.06 C

ATOM 223 CB VAL A 28 1.364 -3.117 0.468 1.00 98.06 C

ATOM 224 O VAL A 28 4.319 -4.135 0.558 1.00 98.06 O

ATOM 225 CG1 VAL A 28 2.292 -1.912 0.612 1.00 98.06 C

ATOM 226 CG2 VAL A 28 1.044 -3.377 -1.003 1.00 98.06 C

ATOM 227 N HIS A 29 3.183 -5.846 -0.434 1.00 97.86 N

ATOM 228 CA HIS A 29 4.234 -6.306 -1.336 1.00 97.86 C

ATOM 229 C HIS A 29 3.874 -6.022 -2.791 1.00 97.86 C

ATOM 230 CB HIS A 29 4.490 -7.801 -1.140 1.00 97.86 C

ATOM 231 O HIS A 29 2.694 -5.971 -3.144 1.00 97.86 O

ATOM 232 CG HIS A 29 5.723 -8.294 -1.830 1.00 97.86 C

ATOM 233 CD2 HIS A 29 7.030 -8.187 -1.497 1.00 97.86 C

ATOM 234 ND1 HIS A 29 5.682 -8.990 -3.018 1.00 97.86 N

ATOM 235 CE1 HIS A 29 6.916 -9.292 -3.387 1.00 97.86 C

ATOM 236 NE2 HIS A 29 7.753 -8.815 -2.481 1.00 97.86 N

ATOM 237 N PHE A 30 4.861 -5.723 -3.624 1.00 97.49 N

ATOM 238 CA PHE A 30 4.627 -5.343 -5.013 1.00 97.49 C

ATOM 239 C PHE A 30 3.797 -6.401 -5.730 1.00 97.49 C

ATOM 240 CB PHE A 30 5.956 -5.133 -5.745 1.00 97.49 C

ATOM 241 O PHE A 30 3.067 -6.089 -6.673 1.00 97.49 O

ATOM 242 CG PHE A 30 6.654 -6.413 -6.116 1.00 97.49 C

ATOM 243 CD1 PHE A 30 7.624 -6.959 -5.284 1.00 97.49 C

ATOM 244 CD2 PHE A 30 6.341 -7.071 -7.298 1.00 97.49 C

ATOM 245 CE1 PHE A 30 8.271 -8.144 -5.625 1.00 97.49 C

ATOM 246 CE2 PHE A 30 6.984 -8.255 -7.646 1.00 97.49 C

ATOM 247 CZ PHE A 30 7.949 -8.790 -6.808 1.00 97.49 C

ATOM 248 N SER A 31 3.903 -7.645 -5.275 1.00 96.66 N

ATOM 249 CA SER A 31 3.184 -8.737 -5.922 1.00 96.66 C

ATOM 250 C SER A 31 1.676 -8.576 -5.764 1.00 96.66 C

ATOM 251 CB SER A 31 3.623 -10.084 -5.346 1.00 96.66 C

ATOM 252 O SER A 31 0.900 -9.188 -6.501 1.00 96.66 O

ATOM 253 OG SER A 31 3.250 -10.195 -3.983 1.00 96.66 O

ATOM 254 N ALA A 32 1.268 -7.794 -4.820 1.00 97.28 N

ATOM 255 CA ALA A 32 -0.151 -7.626 -4.515 1.00 97.28 C

ATOM 256 C ALA A 32 -0.755 -6.487 -5.331 1.00 97.28 C

ATOM 257 CB ALA A 32 -0.348 -7.371 -3.023 1.00 97.28 C

ATOM 258 O ALA A 32 -1.976 -6.316 -5.360 1.00 97.28 O

ATOM 259 N ILE A 33 0.100 -5.709 -6.076 1.00 97.98 N

ATOM 260 CA ILE A 33 -0.350 -4.549 -6.837 1.00 97.98 C

ATOM 261 C ILE A 33 -0.851 -4.995 -8.209 1.00 97.98 C

ATOM 262 CB ILE A 33 0.777 -3.503 -6.992 1.00 97.98 C

ATOM 263 O ILE A 33 -0.114 -5.625 -8.971 1.00 97.98 O

ATOM 264 CG1 ILE A 33 1.303 -3.078 -5.616 1.00 97.98 C

ATOM 265 CG2 ILE A 33 0.284 -2.292 -7.788 1.00 97.98 C

ATOM 266 CD1 ILE A 33 2.592 -2.269 -5.670 1.00 97.98 C

ATOM 267 N ASN A 34 -2.106 -4.672 -8.425 1.00 95.55 N

ATOM 268 CA ASN A 34 -2.723 -5.058 -9.689 1.00 95.55 C

ATOM 269 C ASN A 34 -2.500 -4.002 -10.768 1.00 95.55 C

ATOM 270 CB ASN A 34 -4.219 -5.316 -9.499 1.00 95.55 C

ATOM 271 O ASN A 34 -3.250 -3.028 -10.853 1.00 95.55 O

ATOM 272 CG ASN A 34 -4.502 -6.642 -8.820 1.00 95.55 C

ATOM 273 ND2 ASN A 34 -5.678 -6.759 -8.215 1.00 95.55 N

ATOM 274 OD1 ASN A 34 -3.670 -7.552 -8.838 1.00 95.55 O

ATOM 275 N GLN A 35 -1.387 -4.040 -11.384 1.00 91.67 N

ATOM 276 CA GLN A 35 -0.994 -3.128 -12.453 1.00 91.67 C

ATOM 277 C GLN A 35 -0.031 -3.804 -13.425 1.00 91.67 C

ATOM 278 CB GLN A 35 -0.356 -1.865 -11.875 1.00 91.67 C

ATOM 279 O GLN A 35 0.659 -4.758 -13.062 1.00 91.67 O

ATOM 280 CG GLN A 35 0.175 -0.905 -12.931 1.00 91.67 C

ATOM 281 CD GLN A 35 0.843 0.318 -12.330 1.00 91.67 C

ATOM 282 NE2 GLN A 35 1.151 1.299 -13.172 1.00 91.67 N

ATOM 283 OE1 GLN A 35 1.080 0.381 -11.120 1.00 91.67 O

ATOM 284 N ASP A 36 -0.160 -3.389 -14.654 1.00 90.23 N

ATOM 285 CA ASP A 36 0.812 -3.880 -15.626 1.00 90.23 C

ATOM 286 C ASP A 36 2.132 -3.120 -15.515 1.00 90.23 C

ATOM 287 CB ASP A 36 0.256 -3.764 -17.047 1.00 90.23 C

ATOM 288 O ASP A 36 2.177 -2.022 -14.957 1.00 90.23 O

ATOM 289 CG ASP A 36 -0.971 -4.628 -17.276 1.00 90.23 C

ATOM 290 OD1 ASP A 36 -0.968 -5.811 -16.872 1.00 90.23 O

ATOM 291 OD2 ASP A 36 -1.949 -4.123 -17.869 1.00 90.23 O

ATOM 292 N GLY A 37 3.235 -3.792 -15.855 1.00 92.04 N

ATOM 293 CA GLY A 37 4.530 -3.130 -15.841 1.00 92.04 C

ATOM 294 C GLY A 37 5.167 -3.095 -14.465 1.00 92.04 C

ATOM 295 O GLY A 37 5.035 -4.044 -13.689 1.00 92.04 O

ATOM 296 N TYR A 38 5.900 -2.043 -14.265 1.00 92.59 N

ATOM 297 CA TYR A 38 6.581 -1.871 -12.987 1.00 92.59 C

ATOM 298 C TYR A 38 5.585 -1.558 -11.876 1.00 92.59 C

ATOM 299 CB TYR A 38 7.627 -0.755 -13.080 1.00 92.59 C

ATOM 300 O TYR A 38 4.922 -0.519 -11.903 1.00 92.59 O

ATOM 301 CG TYR A 38 8.483 -0.621 -11.844 1.00 92.59 C

ATOM 302 CD1 TYR A 38 8.353 0.479 -11.000 1.00 92.59 C

ATOM 303 CD2 TYR A 38 9.423 -1.593 -11.519 1.00 92.59 C

ATOM 304 CE1 TYR A 38 9.141 0.608 -9.861 1.00 92.59 C

ATOM 305 CE2 TYR A 38 10.216 -1.474 -10.383 1.00 92.59 C

ATOM 306 OH TYR A 38 10.851 -0.250 -8.435 1.00 92.59 O

ATOM 307 CZ TYR A 38 10.068 -0.372 -9.561 1.00 92.59 C

ATOM 308 N LYS A 39 5.526 -2.537 -10.832 1.00 95.91 N

ATOM 309 CA LYS A 39 4.553 -2.444 -9.747 1.00 95.91 C

ATOM 310 C LYS A 39 5.120 -1.661 -8.566 1.00 95.91 C

ATOM 311 CB LYS A 39 4.120 -3.838 -9.292 1.00 95.91 C

ATOM 312 O LYS A 39 5.972 -2.165 -7.832 1.00 95.91 O

ATOM 313 CG LYS A 39 3.418 -4.651 -10.369 1.00 95.91 C

ATOM 314 CD LYS A 39 3.027 -6.033 -9.861 1.00 95.91 C

ATOM 315 CE LYS A 39 2.323 -6.847 -10.938 1.00 95.91 C

ATOM 316 NZ LYS A 39 1.992 -8.224 -10.464 1.00 95.91 N

ATOM 317 N SER A 40 4.542 -0.460 -8.434 1.00 97.13 N

ATOM 318 CA SER A 40 4.998 0.410 -7.355 1.00 97.13 C

ATOM 319 C SER A 40 3.871 1.306 -6.852 1.00 97.13 C

ATOM 320 CB SER A 40 6.174 1.270 -7.820 1.00 97.13 C

ATOM 321 O SER A 40 2.852 1.468 -7.527 1.00 97.13 O

ATOM 322 OG SER A 40 5.748 2.238 -8.763 1.00 97.13 O

ATOM 323 N LEU A 41 4.102 1.826 -5.633 1.00 97.79 N

ATOM 324 CA LEU A 41 3.214 2.809 -5.023 1.00 97.79 C

ATOM 325 C LEU A 41 3.985 4.062 -4.620 1.00 97.79 C

ATOM 326 CB LEU A 41 2.513 2.212 -3.800 1.00 97.79 C

ATOM 327 O LEU A 41 5.204 4.015 -4.441 1.00 97.79 O

ATOM 328 CG LEU A 41 1.648 0.976 -4.050 1.00 97.79 C

ATOM 329 CD1 LEU A 41 1.148 0.402 -2.729 1.00 97.79 C

ATOM 330 CD2 LEU A 41 0.478 1.318 -4.967 1.00 97.79 C

ATOM 331 N GLU A 42 3.201 5.132 -4.549 1.00 97.71 N

ATOM 332 CA GLU A 42 3.796 6.388 -4.101 1.00 97.71 C

ATOM 333 C GLU A 42 3.261 6.795 -2.731 1.00 97.71 C

ATOM 334 CB GLU A 42 3.536 7.500 -5.120 1.00 97.71 C

ATOM 335 O GLU A 42 2.085 6.580 -2.430 1.00 97.71 O

ATOM 336 CG GLU A 42 4.136 7.230 -6.492 1.00 97.71 C

ATOM 337 CD GLU A 42 3.785 8.294 -7.520 1.00 97.71 C

ATOM 338 OE1 GLU A 42 4.480 8.389 -8.557 1.00 97.71 O

ATOM 339 OE2 GLU A 42 2.808 9.040 -7.286 1.00 97.71 O

ATOM 340 N GLU A 43 4.187 7.345 -1.932 1.00 98.20 N

ATOM 341 CA GLU A 43 3.744 7.879 -0.648 1.00 98.20 C

ATOM 342 C GLU A 43 2.599 8.872 -0.828 1.00 98.20 C

ATOM 343 CB GLU A 43 4.909 8.547 0.088 1.00 98.20 C

ATOM 344 O GLU A 43 2.668 9.757 -1.683 1.00 98.20 O

ATOM 345 CG GLU A 43 4.561 9.015 1.493 1.00 98.20 C

ATOM 346 CD GLU A 43 5.745 9.611 2.238 1.00 98.20 C

ATOM 347 OE1 GLU A 43 5.548 10.553 3.038 1.00 98.20 O

ATOM 348 OE2 GLU A 43 6.880 9.133 2.017 1.00 98.20 O

ATOM 349 N GLY A 44 1.521 8.664 -0.022 1.00 98.16 N

ATOM 350 CA GLY A 44 0.370 9.552 -0.062 1.00 98.16 C

ATOM 351 C GLY A 44 -0.689 9.111 -1.054 1.00 98.16 C

ATOM 352 O GLY A 44 -1.778 9.688 -1.105 1.00 98.16 O

ATOM 353 N GLN A 45 -0.398 8.092 -1.764 1.00 98.13 N

ATOM 354 CA GLN A 45 -1.313 7.607 -2.791 1.00 98.13 C

ATOM 355 C GLN A 45 -2.479 6.842 -2.172 1.00 98.13 C

ATOM 356 CB GLN A 45 -0.575 6.718 -3.793 1.00 98.13 C

ATOM 357 O GLN A 45 -2.284 6.027 -1.267 1.00 98.13 O

ATOM 358 CG GLN A 45 -1.399 6.362 -5.023 1.00 98.13 C

ATOM 359 CD GLN A 45 -0.580 5.674 -6.099 1.00 98.13 C

ATOM 360 NE2 GLN A 45 -1.168 5.510 -7.279 1.00 98.13 N

ATOM 361 OE1 GLN A 45 0.573 5.293 -5.872 1.00 98.13 O

ATOM 362 N ALA A 46 -3.629 7.136 -2.715 1.00 98.20 N

ATOM 363 CA ALA A 46 -4.818 6.415 -2.266 1.00 98.20 C

ATOM 364 C ALA A 46 -4.950 5.075 -2.984 1.00 98.20 C

ATOM 365 CB ALA A 46 -6.069 7.260 -2.490 1.00 98.20 C

ATOM 366 O ALA A 46 -4.816 5.003 -4.208 1.00 98.20 O

ATOM 367 N VAL A 47 -5.280 4.056 -2.160 1.00 98.26 N

ATOM 368 CA VAL A 47 -5.383 2.724 -2.747 1.00 98.26 C

ATOM 369 C VAL A 47 -6.582 1.988 -2.152 1.00 98.26 C

ATOM 370 CB VAL A 47 -4.092 1.905 -2.527 1.00 98.26 C

ATOM 371 O VAL A 47 -7.064 2.344 -1.075 1.00 98.26 O

ATOM 372 CG1 VAL A 47 -2.915 2.545 -3.262 1.00 98.26 C

ATOM 373 CG2 VAL A 47 -3.789 1.778 -1.036 1.00 98.26 C

ATOM 374 N GLU A 48 -7.021 1.090 -2.914 1.00 98.12 N

ATOM 375 CA GLU A 48 -8.024 0.122 -2.481 1.00 98.12 C

ATOM 376 C GLU A 48 -7.455 -1.294 -2.472 1.00 98.12 C

ATOM 377 CB GLU A 48 -9.259 0.187 -3.383 1.00 98.12 C

ATOM 378 O GLU A 48 -6.750 -1.692 -3.402 1.00 98.12 O

ATOM 379 CG GLU A 48 -10.417 -0.676 -2.904 1.00 98.12 C

ATOM 380 CD GLU A 48 -11.650 -0.571 -3.787 1.00 98.12 C

ATOM 381 OE1 GLU A 48 -12.140 -1.616 -4.273 1.00 98.12 O

ATOM 382 OE2 GLU A 48 -12.129 0.566 -3.996 1.00 98.12 O

ATOM 383 N PHE A 49 -7.772 -2.074 -1.394 1.00 98.21 N

ATOM 384 CA PHE A 49 -7.147 -3.386 -1.271 1.00 98.21 C

ATOM 385 C PHE A 49 -7.966 -4.293 -0.361 1.00 98.21 C

ATOM 386 CB PHE A 49 -5.718 -3.254 -0.734 1.00 98.21 C

ATOM 387 O PHE A 49 -8.936 -3.849 0.257 1.00 98.21 O

ATOM 388 CG PHE A 49 -5.637 -2.596 0.617 1.00 98.21 C

ATOM 389 CD1 PHE A 49 -5.629 -1.211 0.732 1.00 98.21 C

ATOM 390 CD2 PHE A 49 -5.567 -3.363 1.773 1.00 98.21 C

ATOM 391 CE1 PHE A 49 -5.554 -0.600 1.981 1.00 98.21 C

ATOM 392 CE2 PHE A 49 -5.491 -2.759 3.025 1.00 98.21 C

ATOM 393 CZ PHE A 49 -5.483 -1.377 3.126 1.00 98.21 C

ATOM 394 N GLU A 50 -7.644 -5.569 -0.348 1.00 97.69 N

ATOM 395 CA GLU A 50 -8.157 -6.551 0.602 1.00 97.69 C

ATOM 396 C GLU A 50 -7.121 -6.876 1.674 1.00 97.69 C

ATOM 397 CB GLU A 50 -8.583 -7.830 -0.124 1.00 97.69 C

ATOM 398 O GLU A 50 -5.919 -6.872 1.404 1.00 97.69 O

ATOM 399 CG GLU A 50 -9.713 -7.624 -1.122 1.00 97.69 C

ATOM 400 CD GLU A 50 -10.078 -8.887 -1.885 1.00 97.69 C

ATOM 401 OE1 GLU A 50 -10.942 -8.822 -2.789 1.00 97.69 O

ATOM 402 OE2 GLU A 50 -9.495 -9.951 -1.577 1.00 97.69 O

ATOM 403 N VAL A 51 -7.647 -7.070 2.891 1.00 96.21 N

ATOM 404 CA VAL A 51 -6.739 -7.499 3.950 1.00 96.21 C

ATOM 405 C VAL A 51 -6.831 -9.013 4.127 1.00 96.21 C

ATOM 406 CB VAL A 51 -7.048 -6.786 5.286 1.00 96.21 C

ATOM 407 O VAL A 51 -7.923 -9.559 4.301 1.00 96.21 O

ATOM 408 CG1 VAL A 51 -6.096 -7.260 6.383 1.00 96.21 C

ATOM 409 CG2 VAL A 51 -6.959 -5.271 5.114 1.00 96.21 C

ATOM 410 N VAL A 52 -5.701 -9.636 3.976 1.00 96.17 N

ATOM 411 CA VAL A 52 -5.668 -11.083 4.165 1.00 96.17 C

ATOM 412 C VAL A 52 -4.637 -11.441 5.233 1.00 96.17 C

ATOM 413 CB VAL A 52 -5.348 -11.820 2.845 1.00 96.17 C

ATOM 414 O VAL A 52 -3.739 -10.649 5.528 1.00 96.17 O

ATOM 415 CG1 VAL A 52 -6.422 -11.541 1.796 1.00 96.17 C

ATOM 416 CG2 VAL A 52 -3.970 -11.410 2.327 1.00 96.17 C

ATOM 417 N GLU A 53 -4.854 -12.591 5.882 1.00 94.38 N

ATOM 418 CA GLU A 53 -3.896 -13.081 6.868 1.00 94.38 C

ATOM 419 C GLU A 53 -2.712 -13.768 6.193 1.00 94.38 C

ATOM 420 CB GLU A 53 -4.575 -14.044 7.845 1.00 94.38 C

ATOM 421 O GLU A 53 -2.892 -14.710 5.420 1.00 94.38 O

ATOM 422 CG GLU A 53 -3.857 -14.172 9.181 1.00 94.38 C

ATOM 423 CD GLU A 53 -4.795 -14.098 10.375 1.00 94.38 C

ATOM 424 OE1 GLU A 53 -4.317 -14.189 11.529 1.00 94.38 O

ATOM 425 OE2 GLU A 53 -6.018 -13.949 10.156 1.00 94.38 O

ATOM 426 N GLY A 54 -1.465 -13.207 6.419 1.00 89.76 N

ATOM 427 CA GLY A 54 -0.257 -13.807 5.875 1.00 89.76 C

ATOM 428 C GLY A 54 0.622 -14.443 6.934 1.00 89.76 C

ATOM 429 O GLY A 54 0.237 -14.523 8.102 1.00 89.76 O

ATOM 430 N ASP A 55 1.688 -14.967 6.622 1.00 87.49 N

ATOM 431 CA ASP A 55 2.612 -15.682 7.498 1.00 87.49 C

ATOM 432 C ASP A 55 3.217 -14.744 8.540 1.00 87.49 C

ATOM 433 CB ASP A 55 3.722 -16.346 6.680 1.00 87.49 C

ATOM 434 O ASP A 55 3.565 -15.174 9.642 1.00 87.49 O

ATOM 435 CG ASP A 55 3.211 -17.456 5.779 1.00 87.49 C

ATOM 436 OD1 ASP A 55 2.213 -18.120 6.134 1.00 87.49 O

ATOM 437 OD2 ASP A 55 3.813 -17.671 4.704 1.00 87.49 O

ATOM 438 N ARG A 56 3.179 -13.439 8.272 1.00 86.52 N

ATOM 439 CA ARG A 56 3.817 -12.467 9.153 1.00 86.52 C

ATOM 440 C ARG A 56 2.815 -11.423 9.635 1.00 86.52 C

ATOM 441 CB ARG A 56 4.985 -11.781 8.440 1.00 86.52 C

ATOM 442 O ARG A 56 3.198 -10.313 10.008 1.00 86.52 O

ATOM 443 CG ARG A 56 6.118 -12.724 8.067 1.00 86.52 C

ATOM 444 CD ARG A 56 7.283 -11.982 7.428 1.00 86.52 C

ATOM 445 NE ARG A 56 8.360 -12.892 7.050 1.00 86.52 N

ATOM 446 NH1 ARG A 56 9.626 -11.280 5.983 1.00 86.52 N

ATOM 447 NH2 ARG A 56 10.367 -13.448 6.081 1.00 86.52 N

ATOM 448 CZ ARG A 56 9.449 -12.538 6.372 1.00 86.52 C

ATOM 449 N GLY A 57 1.580 -11.790 9.483 1.00 90.59 N

ATOM 450 CA GLY A 57 0.540 -10.875 9.925 1.00 90.59 C

ATOM 451 C GLY A 57 -0.316 -10.349 8.788 1.00 90.59 C

ATOM 452 O GLY A 57 -0.171 -10.783 7.643 1.00 90.59 O

ATOM 453 N PRO A 58 -1.287 -9.482 9.124 1.00 93.27 N

ATOM 454 CA PRO A 58 -2.179 -8.934 8.099 1.00 93.27 C

ATOM 455 C PRO A 58 -1.425 -8.212 6.986 1.00 93.27 C

ATOM 456 CB PRO A 58 -3.060 -7.959 8.884 1.00 93.27 C

ATOM 457 O PRO A 58 -0.482 -7.464 7.258 1.00 93.27 O

ATOM 458 CG PRO A 58 -2.938 -8.395 10.309 1.00 93.27 C

ATOM 459 CD PRO A 58 -1.614 -9.082 10.485 1.00 93.27 C

ATOM 460 N GLN A 59 -1.796 -8.525 5.669 1.00 97.20 N

ATOM 461 CA GLN A 59 -1.163 -7.882 4.522 1.00 97.20 C

ATOM 462 C GLN A 59 -2.191 -7.540 3.447 1.00 97.20 C

ATOM 463 CB GLN A 59 -0.071 -8.780 3.938 1.00 97.20 C

ATOM 464 O GLN A 59 -3.278 -8.121 3.413 1.00 97.20 O

ATOM 465 CG GLN A 59 -0.591 -10.103 3.390 1.00 97.20 C

ATOM 466 CD GLN A 59 0.520 -11.009 2.892 1.00 97.20 C

ATOM 467 NE2 GLN A 59 0.516 -12.257 3.347 1.00 97.20 N

ATOM 468 OE1 GLN A 59 1.374 -10.590 2.104 1.00 97.20 O

ATOM 469 N ALA A 60 -1.808 -6.584 2.579 1.00 97.74 N

ATOM 470 CA ALA A 60 -2.697 -6.127 1.514 1.00 97.74 C

ATOM 471 C ALA A 60 -2.683 -7.096 0.335 1.00 97.74 C

ATOM 472 CB ALA A 60 -2.301 -4.727 1.053 1.00 97.74 C

ATOM 473 O ALA A 60 -1.636 -7.649 -0.010 1.00 97.74 O

ATOM 474 N ALA A 61 -3.853 -7.363 -0.256 1.00 97.93 N

ATOM 475 CA ALA A 61 -4.013 -8.145 -1.479 1.00 97.93 C

ATOM 476 C ALA A 61 -4.874 -7.402 -2.497 1.00 97.93 C

ATOM 477 CB ALA A 61 -4.625 -9.508 -1.163 1.00 97.93 C

ATOM 478 O ALA A 61 -5.648 -6.513 -2.134 1.00 97.93 O

ATOM 479 N ASN A 62 -4.657 -7.755 -3.763 1.00 97.62 N

ATOM 480 CA ASN A 62 -5.427 -7.162 -4.852 1.00 97.62 C

ATOM 481 C ASN A 62 -5.436 -5.638 -4.767 1.00 97.62 C

ATOM 482 CB ASN A 62 -6.859 -7.702 -4.854 1.00 97.62 C

ATOM 483 O ASN A 62 -6.486 -5.010 -4.910 1.00 97.62 O

ATOM 484 CG ASN A 62 -6.915 -9.206 -5.036 1.00 97.62 C

ATOM 485 ND2 ASN A 62 -7.678 -9.878 -4.183 1.00 97.62 N

ATOM 486 OD1 ASN A 62 -6.278 -9.759 -5.937 1.00 97.62 O

ATOM 487 N VAL A 63 -4.325 -5.068 -4.648 1.00 98.11 N

ATOM 488 CA VAL A 63 -4.181 -3.627 -4.468 1.00 98.11 C

ATOM 489 C VAL A 63 -4.387 -2.916 -5.803 1.00 98.11 C

ATOM 490 CB VAL A 63 -2.801 -3.264 -3.877 1.00 98.11 C

ATOM 491 O VAL A 63 -3.796 -3.300 -6.815 1.00 98.11 O

ATOM 492 CG1 VAL A 63 -2.651 -1.750 -3.745 1.00 98.11 C

ATOM 493 CG2 VAL A 63 -2.605 -3.943 -2.523 1.00 98.11 C

ATOM 494 N VAL A 64 -5.211 -1.880 -5.751 1.00 97.62 N

ATOM 495 CA VAL A 64 -5.472 -1.037 -6.913 1.00 97.62 C

ATOM 496 C VAL A 64 -5.329 0.434 -6.528 1.00 97.62 C

ATOM 497 CB VAL A 64 -6.877 -1.300 -7.500 1.00 97.62 C

ATOM 498 O VAL A 64 -5.806 0.854 -5.471 1.00 97.62 O

ATOM 499 CG1 VAL A 64 -7.098 -0.471 -8.764 1.00 97.62 C

ATOM 500 CG2 VAL A 64 -7.062 -2.788 -7.794 1.00 97.62 C

ATOM 501 N LYS A 65 -4.660 1.156 -7.393 1.00 96.69 N

ATOM 502 CA LYS A 65 -4.537 2.598 -7.199 1.00 96.69 C

ATOM 503 C LYS A 65 -5.861 3.305 -7.472 1.00 96.69 C

ATOM 504 CB LYS A 65 -3.442 3.169 -8.101 1.00 96.69 C

ATOM 505 O LYS A 65 -6.588 2.937 -8.397 1.00 96.69 O

ATOM 506 CG LYS A 65 -2.065 2.570 -7.859 1.00 96.69 C

ATOM 507 CD LYS A 65 -1.050 3.068 -8.880 1.00 96.69 C

ATOM 508 CE LYS A 65 0.273 2.325 -8.764 1.00 96.69 C

ATOM 509 NZ LYS A 65 1.213 2.691 -9.865 1.00 96.69 N

ATOM 510 N LEU A 66 -6.303 4.223 -6.572 1.00 94.93 N

ATOM 511 CA LEU A 66 -7.523 4.989 -6.801 1.00 94.93 C

ATOM 512 C LEU A 66 -7.224 6.271 -7.571 1.00 94.93 C

ATOM 513 CB LEU A 66 -8.203 5.324 -5.471 1.00 94.93 C

ATOM 514 O LEU A 66 -6.142 6.845 -7.431 1.00 94.93 O

ATOM 515 CG LEU A 66 -8.741 4.140 -4.667 1.00 94.93 C

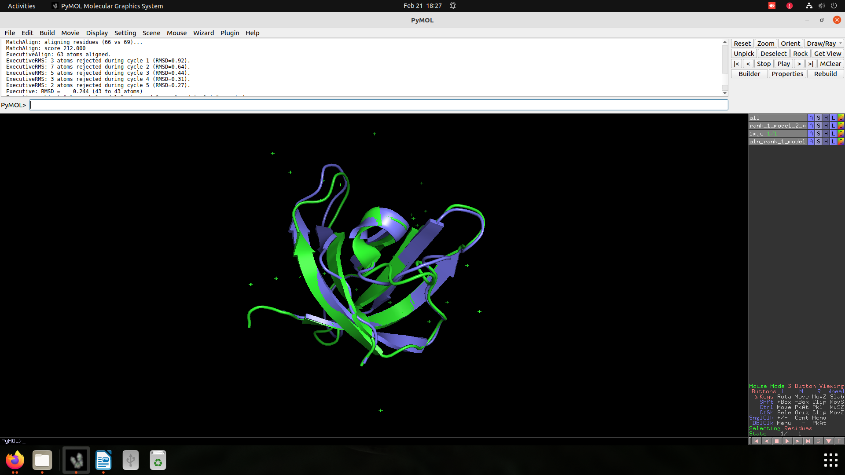
ATOM 516 CD1 LEU A 66 -9.232 4.607 -3.301 1.00 94.93 C

ATOM 517 CD2 LEU A 66 -9.858 3.437 -5.431 1.00 94.93 C

TER 518 LEU A 66

ENDMDL

END



**RMSD = 0.244**

**MODEL 1 – RANK2 :**

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MODEL 1

ATOM 1 N MET A 1 -2.110 13.086 4.867 1.00 88.92 N

ATOM 2 CA MET A 1 -1.325 11.860 4.982 1.00 88.92 C

ATOM 3 C MET A 1 -2.008 10.862 5.911 1.00 88.92 C

ATOM 4 CB MET A 1 0.084 12.169 5.491 1.00 88.92 C

ATOM 5 O MET A 1 -2.578 11.247 6.933 1.00 88.92 O

ATOM 6 CG MET A 1 0.933 12.957 4.506 1.00 88.92 C

ATOM 7 SD MET A 1 2.723 12.875 4.899 1.00 88.92 S

ATOM 8 CE MET A 1 2.986 14.549 5.547 1.00 88.92 C

ATOM 9 N LYS A 2 -2.094 9.550 5.292 1.00 95.20 N

ATOM 10 CA LYS A 2 -2.712 8.439 6.010 1.00 95.20 C

ATOM 11 C LYS A 2 -1.677 7.381 6.381 1.00 95.20 C

ATOM 12 CB LYS A 2 -3.826 7.810 5.171 1.00 95.20 C

ATOM 13 O LYS A 2 -0.570 7.370 5.838 1.00 95.20 O

ATOM 14 CG LYS A 2 -5.037 8.710 4.976 1.00 95.20 C

ATOM 15 CD LYS A 2 -6.244 7.924 4.483 1.00 95.20 C

ATOM 16 CE LYS A 2 -7.483 8.803 4.385 1.00 95.20 C

ATOM 17 NZ LYS A 2 -8.738 7.993 4.365 1.00 95.20 N

ATOM 18 N GLN A 3 -2.077 6.567 7.403 1.00 97.35 N

ATOM 19 CA GLN A 3 -1.256 5.423 7.783 1.00 97.35 C

ATOM 20 C GLN A 3 -2.011 4.112 7.581 1.00 97.35 C

ATOM 21 CB GLN A 3 -0.801 5.548 9.238 1.00 97.35 C

ATOM 22 O GLN A 3 -3.236 4.068 7.719 1.00 97.35 O

ATOM 23 CG GLN A 3 0.103 6.745 9.499 1.00 97.35 C

ATOM 24 CD GLN A 3 0.566 6.827 10.941 1.00 97.35 C

ATOM 25 NE2 GLN A 3 1.296 7.888 11.270 1.00 97.35 N

ATOM 26 OE1 GLN A 3 0.269 5.946 11.754 1.00 97.35 O

ATOM 27 N GLY A 4 -1.231 3.159 7.191 1.00 97.78 N

ATOM 28 CA GLY A 4 -1.800 1.834 7.004 1.00 97.78 C

ATOM 29 C GLY A 4 -0.775 0.722 7.119 1.00 97.78 C

ATOM 30 O GLY A 4 0.392 0.976 7.423 1.00 97.78 O

ATOM 31 N THR A 5 -1.335 -0.462 7.014 1.00 98.44 N

ATOM 32 CA THR A 5 -0.498 -1.655 7.071 1.00 98.44 C

ATOM 33 C THR A 5 -0.539 -2.408 5.744 1.00 98.44 C

ATOM 34 CB THR A 5 -0.938 -2.593 8.210 1.00 98.44 C

ATOM 35 O THR A 5 -1.608 -2.578 5.154 1.00 98.44 O

ATOM 36 CG2 THR A 5 0.026 -3.765 8.362 1.00 98.44 C

ATOM 37 OG1 THR A 5 -0.976 -1.857 9.439 1.00 98.44 O

ATOM 38 N VAL A 6 0.662 -2.766 5.338 1.00 98.44 N

ATOM 39 CA VAL A 6 0.743 -3.506 4.083 1.00 98.44 C

ATOM 40 C VAL A 6 0.047 -4.857 4.234 1.00 98.44 C

ATOM 41 CB VAL A 6 2.209 -3.710 3.638 1.00 98.44 C

ATOM 42 O VAL A 6 0.488 -5.707 5.011 1.00 98.44 O

ATOM 43 CG1 VAL A 6 2.272 -4.496 2.330 1.00 98.44 C

ATOM 44 CG2 VAL A 6 2.913 -2.362 3.490 1.00 98.44 C

ATOM 45 N LYS A 7 -1.030 -4.980 3.546 1.00 98.40 N

ATOM 46 CA LYS A 7 -1.745 -6.253 3.561 1.00 98.40 C

ATOM 47 C LYS A 7 -0.972 -7.325 2.799 1.00 98.40 C

ATOM 48 CB LYS A 7 -3.143 -6.091 2.964 1.00 98.40 C

ATOM 49 O LYS A 7 -0.812 -8.447 3.285 1.00 98.40 O

ATOM 50 CG LYS A 7 -4.007 -7.340 3.063 1.00 98.40 C

ATOM 51 CD LYS A 7 -5.420 -7.083 2.556 1.00 98.40 C

ATOM 52 CE LYS A 7 -6.293 -8.325 2.678 1.00 98.40 C

ATOM 53 NZ LYS A 7 -7.705 -8.052 2.276 1.00 98.40 N

ATOM 54 N TRP A 8 -0.545 -6.983 1.621 1.00 98.49 N

ATOM 55 CA TRP A 8 0.344 -7.810 0.813 1.00 98.49 C

ATOM 56 C TRP A 8 1.029 -6.979 -0.267 1.00 98.49 C

ATOM 57 CB TRP A 8 -0.430 -8.965 0.170 1.00 98.49 C

ATOM 58 O TRP A 8 0.515 -5.936 -0.676 1.00 98.49 O

ATOM 59 CG TRP A 8 -1.549 -8.524 -0.725 1.00 98.49 C

ATOM 60 CD1 TRP A 8 -2.865 -8.374 -0.386 1.00 98.49 C

ATOM 61 CD2 TRP A 8 -1.449 -8.180 -2.110 1.00 98.49 C

ATOM 62 CE2 TRP A 8 -2.746 -7.830 -2.548 1.00 98.49 C

ATOM 63 CE3 TRP A 8 -0.388 -8.134 -3.025 1.00 98.49 C

ATOM 64 NE1 TRP A 8 -3.590 -7.957 -1.479 1.00 98.49 N

ATOM 65 CH2 TRP A 8 -1.953 -7.401 -4.737 1.00 98.49 C

ATOM 66 CZ2 TRP A 8 -3.009 -7.438 -3.863 1.00 98.49 C

ATOM 67 CZ3 TRP A 8 -0.652 -7.743 -4.332 1.00 98.49 C

ATOM 68 N PHE A 9 2.154 -7.441 -0.700 1.00 98.35 N

ATOM 69 CA PHE A 9 2.910 -6.810 -1.776 1.00 98.35 C

ATOM 70 C PHE A 9 3.690 -7.850 -2.571 1.00 98.35 C

ATOM 71 CB PHE A 9 3.865 -5.752 -1.215 1.00 98.35 C

ATOM 72 O PHE A 9 4.384 -8.688 -1.993 1.00 98.35 O

ATOM 73 CG PHE A 9 4.496 -4.883 -2.270 1.00 98.35 C

ATOM 74 CD1 PHE A 9 5.730 -5.213 -2.816 1.00 98.35 C

ATOM 75 CD2 PHE A 9 3.853 -3.736 -2.716 1.00 98.35 C

ATOM 76 CE1 PHE A 9 6.316 -4.410 -3.792 1.00 98.35 C

ATOM 77 CE2 PHE A 9 4.432 -2.929 -3.691 1.00 98.35 C

ATOM 78 CZ PHE A 9 5.664 -3.267 -4.227 1.00 98.35 C

ATOM 79 N ASN A 10 3.456 -7.874 -3.867 1.00 97.96 N

ATOM 80 CA ASN A 10 4.212 -8.710 -4.794 1.00 97.96 C

ATOM 81 C ASN A 10 5.377 -7.946 -5.416 1.00 97.96 C

ATOM 82 CB ASN A 10 3.296 -9.264 -5.888 1.00 97.96 C

ATOM 83 O ASN A 10 5.181 -7.146 -6.333 1.00 97.96 O

ATOM 84 CG ASN A 10 3.981 -10.303 -6.753 1.00 97.96 C

ATOM 85 ND2 ASN A 10 3.233 -11.324 -7.157 1.00 97.96 N

ATOM 86 OD1 ASN A 10 5.172 -10.191 -7.054 1.00 97.96 O

ATOM 87 N ALA A 11 6.563 -8.171 -4.954 1.00 95.33 N

ATOM 88 CA ALA A 11 7.741 -7.436 -5.406 1.00 95.33 C

ATOM 89 C ALA A 11 8.064 -7.758 -6.863 1.00 95.33 C

ATOM 90 CB ALA A 11 8.940 -7.753 -4.516 1.00 95.33 C

ATOM 91 O ALA A 11 8.590 -6.913 -7.590 1.00 95.33 O

ATOM 92 N GLU A 12 7.620 -9.001 -7.247 1.00 95.32 N

ATOM 93 CA GLU A 12 7.864 -9.422 -8.623 1.00 95.32 C

ATOM 94 C GLU A 12 6.975 -8.658 -9.600 1.00 95.32 C

ATOM 95 CB GLU A 12 7.636 -10.929 -8.773 1.00 95.32 C

ATOM 96 O GLU A 12 7.440 -8.210 -10.651 1.00 95.32 O

ATOM 97 CG GLU A 12 8.666 -11.782 -8.047 1.00 95.32 C

ATOM 98 CD GLU A 12 8.483 -13.273 -8.281 1.00 95.32 C

ATOM 99 OE1 GLU A 12 9.449 -14.042 -8.076 1.00 95.32 O

ATOM 100 OE2 GLU A 12 7.365 -13.674 -8.674 1.00 95.32 O

ATOM 101 N LYS A 13 5.699 -8.475 -9.126 1.00 96.77 N

ATOM 102 CA LYS A 13 4.751 -7.777 -9.990 1.00 96.77 C

ATOM 103 C LYS A 13 4.791 -6.271 -9.748 1.00 96.77 C

ATOM 104 CB LYS A 13 3.333 -8.306 -9.770 1.00 96.77 C

ATOM 105 O LYS A 13 4.400 -5.487 -10.615 1.00 96.77 O

ATOM 106 CG LYS A 13 3.126 -9.738 -10.243 1.00 96.77 C

ATOM 107 CD LYS A 13 1.657 -10.136 -10.190 1.00 96.77 C

ATOM 108 CE LYS A 13 1.437 -11.540 -10.739 1.00 96.77 C

ATOM 109 NZ LYS A 13 -0.002 -11.936 -10.687 1.00 96.77 N

ATOM 110 N GLY A 14 5.239 -5.860 -8.594 1.00 96.40 N

ATOM 111 CA GLY A 14 5.477 -4.462 -8.271 1.00 96.40 C

ATOM 112 C GLY A 14 4.245 -3.753 -7.741 1.00 96.40 C

ATOM 113 O GLY A 14 4.107 -2.538 -7.897 1.00 96.40 O

ATOM 114 N PHE A 15 3.312 -4.558 -7.196 1.00 97.67 N

ATOM 115 CA PHE A 15 2.130 -3.923 -6.626 1.00 97.67 C

ATOM 116 C PHE A 15 1.592 -4.734 -5.453 1.00 97.67 C

ATOM 117 CB PHE A 15 1.042 -3.754 -7.691 1.00 97.67 C

ATOM 118 O PHE A 15 1.933 -5.908 -5.295 1.00 97.67 O

ATOM 119 CG PHE A 15 0.389 -5.047 -8.101 1.00 97.67 C

ATOM 120 CD1 PHE A 15 0.910 -5.806 -9.141 1.00 97.67 C

ATOM 121 CD2 PHE A 15 -0.748 -5.502 -7.445 1.00 97.67 C

ATOM 122 CE1 PHE A 15 0.307 -7.003 -9.522 1.00 97.67 C

ATOM 123 CE2 PHE A 15 -1.356 -6.696 -7.821 1.00 97.67 C

ATOM 124 CZ PHE A 15 -0.828 -7.445 -8.860 1.00 97.67 C

ATOM 125 N GLY A 16 0.623 -4.033 -4.737 1.00 97.88 N

ATOM 126 CA GLY A 16 -0.026 -4.642 -3.586 1.00 97.88 C

ATOM 127 C GLY A 16 -1.139 -3.788 -3.009 1.00 97.88 C

ATOM 128 O GLY A 16 -1.660 -2.898 -3.684 1.00 97.88 O

ATOM 129 N PHE A 17 -1.444 -4.059 -1.756 1.00 98.34 N

ATOM 130 CA PHE A 17 -2.531 -3.348 -1.093 1.00 98.34 C

ATOM 131 C PHE A 17 -2.155 -3.002 0.343 1.00 98.34 C

ATOM 132 CB PHE A 17 -3.814 -4.184 -1.113 1.00 98.34 C

ATOM 133 O PHE A 17 -1.470 -3.775 1.014 1.00 98.34 O

ATOM 134 CG PHE A 17 -4.473 -4.253 -2.464 1.00 98.34 C

ATOM 135 CD1 PHE A 17 -5.402 -3.294 -2.849 1.00 98.34 C

ATOM 136 CD2 PHE A 17 -4.163 -5.277 -3.350 1.00 98.34 C

ATOM 137 CE1 PHE A 17 -6.013 -3.355 -4.100 1.00 98.34 C

ATOM 138 CE2 PHE A 17 -4.770 -5.344 -4.601 1.00 98.34 C

ATOM 139 CZ PHE A 17 -5.695 -4.383 -4.973 1.00 98.34 C

ATOM 140 N ILE A 18 -2.646 -1.803 0.706 1.00 98.51 N

ATOM 141 CA ILE A 18 -2.465 -1.319 2.070 1.00 98.51 C

ATOM 142 C ILE A 18 -3.810 -1.301 2.794 1.00 98.51 C

ATOM 143 CB ILE A 18 -1.827 0.088 2.090 1.00 98.51 C

ATOM 144 O ILE A 18 -4.801 -0.797 2.262 1.00 98.51 O

ATOM 145 CG1 ILE A 18 -0.448 0.058 1.422 1.00 98.51 C

ATOM 146 CG2 ILE A 18 -1.730 0.616 3.524 1.00 98.51 C

ATOM 147 CD1 ILE A 18 0.104 1.435 1.080 1.00 98.51 C

ATOM 148 N GLU A 19 -3.752 -1.914 3.891 1.00 98.27 N

ATOM 149 CA GLU A 19 -4.946 -1.885 4.730 1.00 98.27 C

ATOM 150 C GLU A 19 -5.002 -0.611 5.568 1.00 98.27 C

ATOM 151 CB GLU A 19 -4.994 -3.115 5.640 1.00 98.27 C

ATOM 152 O GLU A 19 -4.031 -0.262 6.243 1.00 98.27 O

ATOM 153 CG GLU A 19 -6.267 -3.219 6.467 1.00 98.27 C

ATOM 154 CD GLU A 19 -6.312 -4.459 7.347 1.00 98.27 C

ATOM 155 OE1 GLU A 19 -5.604 -4.497 8.379 1.00 98.27 O

ATOM 156 OE2 GLU A 19 -7.060 -5.400 7.001 1.00 98.27 O

ATOM 157 N VAL A 20 -6.130 0.026 5.438 1.00 96.31 N

ATOM 158 CA VAL A 20 -6.411 1.220 6.229 1.00 96.31 C

ATOM 159 C VAL A 20 -7.611 0.967 7.138 1.00 96.31 C

ATOM 160 CB VAL A 20 -6.674 2.448 5.328 1.00 96.31 C

ATOM 161 O VAL A 20 -8.667 0.528 6.675 1.00 96.31 O

ATOM 162 CG1 VAL A 20 -6.861 3.707 6.174 1.00 96.31 C

ATOM 163 CG2 VAL A 20 -5.530 2.634 4.333 1.00 96.31 C

ATOM 164 N GLU A 21 -7.431 1.197 8.411 1.00 93.95 N

ATOM 165 CA GLU A 21 -8.492 0.943 9.381 1.00 93.95 C

ATOM 166 C GLU A 21 -9.744 1.752 9.053 1.00 93.95 C

ATOM 167 CB GLU A 21 -8.013 1.267 10.799 1.00 93.95 C

ATOM 168 O GLU A 21 -9.684 2.977 8.934 1.00 93.95 O

ATOM 169 CG GLU A 21 -8.920 0.724 11.893 1.00 93.95 C

ATOM 170 CD GLU A 21 -8.443 1.070 13.295 1.00 93.95 C

ATOM 171 OE1 GLU A 21 -9.291 1.338 14.176 1.00 93.95 O

ATOM 172 OE2 GLU A 21 -7.211 1.075 13.513 1.00 93.95 O

ATOM 173 N GLY A 22 -10.918 0.983 8.970 1.00 93.11 N

ATOM 174 CA GLY A 22 -12.216 1.611 8.780 1.00 93.11 C

ATOM 175 C GLY A 22 -12.475 2.024 7.343 1.00 93.11 C

ATOM 176 O GLY A 22 -13.502 2.635 7.043 1.00 93.11 O

ATOM 177 N GLU A 23 -11.569 1.718 6.437 1.00 92.97 N

ATOM 178 CA GLU A 23 -11.692 2.085 5.029 1.00 92.97 C

ATOM 179 C GLU A 23 -11.369 0.902 4.120 1.00 92.97 C

ATOM 180 CB GLU A 23 -10.777 3.267 4.699 1.00 92.97 C

ATOM 181 O GLU A 23 -10.947 -0.155 4.595 1.00 92.97 O

ATOM 182 CG GLU A 23 -11.085 4.525 5.498 1.00 92.97 C

ATOM 183 CD GLU A 23 -10.230 5.716 5.095 1.00 92.97 C

ATOM 184 OE1 GLU A 23 -9.871 6.530 5.975 1.00 92.97 O

ATOM 185 OE2 GLU A 23 -9.917 5.835 3.889 1.00 92.97 O

ATOM 186 N ASN A 24 -11.527 1.216 2.864 1.00 94.06 N

ATOM 187 CA ASN A 24 -11.164 0.201 1.881 1.00 94.06 C

ATOM 188 C ASN A 24 -9.652 0.112 1.699 1.00 94.06 C

ATOM 189 CB ASN A 24 -11.844 0.486 0.540 1.00 94.06 C

ATOM 190 O ASN A 24 -8.932 1.077 1.963 1.00 94.06 O

ATOM 191 CG ASN A 24 -13.356 0.407 0.624 1.00 94.06 C

ATOM 192 ND2 ASN A 24 -14.033 1.417 0.090 1.00 94.06 N

ATOM 193 OD1 ASN A 24 -13.910 -0.554 1.164 1.00 94.06 O

ATOM 194 N ASP A 25 -9.207 -1.050 1.236 1.00 96.42 N

ATOM 195 CA ASP A 25 -7.796 -1.228 0.907 1.00 96.42 C

ATOM 196 C ASP A 25 -7.368 -0.276 -0.207 1.00 96.42 C

ATOM 197 CB ASP A 25 -7.520 -2.676 0.497 1.00 96.42 C

ATOM 198 O ASP A 25 -8.150 0.020 -1.113 1.00 96.42 O

ATOM 199 CG ASP A 25 -7.783 -3.669 1.615 1.00 96.42 C

ATOM 200 OD1 ASP A 25 -7.938 -3.248 2.781 1.00 96.42 O

ATOM 201 OD2 ASP A 25 -7.833 -4.885 1.327 1.00 96.42 O

ATOM 202 N VAL A 26 -6.180 0.032 0.022 1.00 97.40 N

ATOM 203 CA VAL A 26 -5.668 1.009 -0.934 1.00 97.40 C

ATOM 204 C VAL A 26 -4.592 0.365 -1.805 1.00 97.40 C

ATOM 205 CB VAL A 26 -5.099 2.256 -0.220 1.00 97.40 C

ATOM 206 O VAL A 26 -3.682 -0.293 -1.293 1.00 97.40 O

ATOM 207 CG1 VAL A 26 -4.521 3.242 -1.234 1.00 97.40 C

ATOM 208 CG2 VAL A 26 -6.182 2.927 0.624 1.00 97.40 C

ATOM 209 N PHE A 27 -4.762 0.517 -3.079 1.00 97.99 N

ATOM 210 CA PHE A 27 -3.810 -0.009 -4.050 1.00 97.99 C

ATOM 211 C PHE A 27 -2.482 0.733 -3.961 1.00 97.99 C

ATOM 212 CB PHE A 27 -4.375 0.094 -5.470 1.00 97.99 C

ATOM 213 O PHE A 27 -2.456 1.955 -3.806 1.00 97.99 O

ATOM 214 CG PHE A 27 -3.394 -0.290 -6.543 1.00 97.99 C

ATOM 215 CD1 PHE A 27 -2.700 0.684 -7.252 1.00 97.99 C

ATOM 216 CD2 PHE A 27 -3.164 -1.626 -6.845 1.00 97.99 C

ATOM 217 CE1 PHE A 27 -1.791 0.331 -8.246 1.00 97.99 C

ATOM 218 CE2 PHE A 27 -2.257 -1.987 -7.837 1.00 97.99 C

ATOM 219 CZ PHE A 27 -1.572 -1.007 -8.537 1.00 97.99 C

ATOM 220 N VAL A 28 -1.379 -0.030 -4.031 1.00 98.07 N

ATOM 221 CA VAL A 28 -0.060 0.595 -4.025 1.00 98.07 C

ATOM 222 C VAL A 28 0.807 -0.016 -5.124 1.00 98.07 C

ATOM 223 CB VAL A 28 0.634 0.443 -2.652 1.00 98.07 C

ATOM 224 O VAL A 28 0.863 -1.239 -5.271 1.00 98.07 O

ATOM 225 CG1 VAL A 28 0.737 -1.030 -2.259 1.00 98.07 C

ATOM 226 CG2 VAL A 28 2.017 1.090 -2.680 1.00 98.07 C

ATOM 227 N HIS A 29 1.412 0.837 -5.994 1.00 97.45 N

ATOM 228 CA HIS A 29 2.383 0.472 -7.019 1.00 97.45 C

ATOM 229 C HIS A 29 3.799 0.848 -6.595 1.00 97.45 C

ATOM 230 CB HIS A 29 2.037 1.145 -8.348 1.00 97.45 C

ATOM 231 O HIS A 29 3.995 1.823 -5.867 1.00 97.45 O

ATOM 232 CG HIS A 29 2.864 0.662 -9.498 1.00 97.45 C

ATOM 233 CD2 HIS A 29 2.838 -0.506 -10.183 1.00 97.45 C

ATOM 234 ND1 HIS A 29 3.864 1.420 -10.065 1.00 97.45 N

ATOM 235 CE1 HIS A 29 4.419 0.738 -11.053 1.00 97.45 C

ATOM 236 NE2 HIS A 29 3.814 -0.434 -11.145 1.00 97.45 N

ATOM 237 N PHE A 30 4.771 0.052 -6.957 1.00 96.60 N

ATOM 238 CA PHE A 30 6.148 0.248 -6.519 1.00 96.60 C

ATOM 239 C PHE A 30 6.630 1.652 -6.861 1.00 96.60 C

ATOM 240 CB PHE A 30 7.070 -0.794 -7.160 1.00 96.60 C

ATOM 241 O PHE A 30 7.477 2.211 -6.161 1.00 96.60 O

ATOM 242 CG PHE A 30 7.400 -0.510 -8.600 1.00 96.60 C

ATOM 243 CD1 PHE A 30 6.576 -0.970 -9.620 1.00 96.60 C

ATOM 244 CD2 PHE A 30 8.534 0.219 -8.934 1.00 96.60 C

ATOM 245 CE1 PHE A 30 6.879 -0.708 -10.954 1.00 96.60 C

ATOM 246 CE2 PHE A 30 8.843 0.485 -10.265 1.00 96.60 C

ATOM 247 CZ PHE A 30 8.014 0.020 -11.274 1.00 96.60 C

ATOM 248 N SER A 31 6.079 2.224 -7.891 1.00 95.63 N

ATOM 249 CA SER A 31 6.501 3.548 -8.338 1.00 95.63 C

ATOM 250 C SER A 31 6.134 4.619 -7.316 1.00 95.63 C

ATOM 251 CB SER A 31 5.870 3.884 -9.690 1.00 95.63 C

ATOM 252 O SER A 31 6.680 5.723 -7.343 1.00 95.63 O

ATOM 253 OG SER A 31 4.464 4.021 -9.569 1.00 95.63 O

ATOM 254 N ALA A 32 5.177 4.306 -6.444 1.00 96.57 N

ATOM 255 CA ALA A 32 4.699 5.275 -5.461 1.00 96.57 C

ATOM 256 C ALA A 32 5.538 5.222 -4.187 1.00 96.57 C

ATOM 257 CB ALA A 32 3.229 5.022 -5.136 1.00 96.57 C

ATOM 258 O ALA A 32 5.370 6.053 -3.291 1.00 96.57 O

ATOM 259 N ILE A 33 6.438 4.266 -4.098 1.00 97.25 N

ATOM 260 CA ILE A 33 7.254 4.065 -2.906 1.00 97.25 C

ATOM 261 C ILE A 33 8.487 4.963 -2.967 1.00 97.25 C

ATOM 262 CB ILE A 33 7.675 2.586 -2.752 1.00 97.25 C

ATOM 263 O ILE A 33 9.264 4.897 -3.923 1.00 97.25 O

ATOM 264 CG1 ILE A 33 6.440 1.678 -2.734 1.00 97.25 C

ATOM 265 CG2 ILE A 33 8.516 2.393 -1.486 1.00 97.25 C

ATOM 266 CD1 ILE A 33 6.761 0.195 -2.862 1.00 97.25 C

ATOM 267 N ASN A 34 8.581 5.867 -1.950 1.00 92.94 N

ATOM 268 CA ASN A 34 9.714 6.783 -1.862 1.00 92.94 C

ATOM 269 C ASN A 34 10.862 6.179 -1.059 1.00 92.94 C

ATOM 270 CB ASN A 34 9.280 8.116 -1.250 1.00 92.94 C

ATOM 271 O ASN A 34 10.855 6.226 0.173 1.00 92.94 O

ATOM 272 CG ASN A 34 8.361 8.906 -2.160 1.00 92.94 C

ATOM 273 ND2 ASN A 34 7.320 9.497 -1.585 1.00 92.94 N

ATOM 274 OD1 ASN A 34 8.583 8.983 -3.371 1.00 92.94 O

ATOM 275 N GLN A 35 11.704 5.524 -1.735 1.00 88.21 N

ATOM 276 CA GLN A 35 12.895 4.941 -1.126 1.00 88.21 C

ATOM 277 C GLN A 35 14.015 4.781 -2.150 1.00 88.21 C

ATOM 278 CB GLN A 35 12.566 3.588 -0.492 1.00 88.21 C

ATOM 279 O GLN A 35 13.755 4.679 -3.350 1.00 88.21 O

ATOM 280 CG GLN A 35 13.740 2.950 0.238 1.00 88.21 C

ATOM 281 CD GLN A 35 13.382 1.620 0.876 1.00 88.21 C

ATOM 282 NE2 GLN A 35 14.275 1.106 1.715 1.00 88.21 N

ATOM 283 OE1 GLN A 35 12.312 1.061 0.617 1.00 88.21 O

ATOM 284 N ASP A 36 15.193 4.919 -1.607 1.00 85.63 N

ATOM 285 CA ASP A 36 16.336 4.671 -2.480 1.00 85.63 C

ATOM 286 C ASP A 36 16.538 3.175 -2.709 1.00 85.63 C

ATOM 287 CB ASP A 36 17.605 5.290 -1.891 1.00 85.63 C

ATOM 288 O ASP A 36 16.231 2.361 -1.835 1.00 85.63 O

ATOM 289 CG ASP A 36 17.535 6.804 -1.789 1.00 85.63 C

ATOM 290 OD1 ASP A 36 17.204 7.468 -2.795 1.00 85.63 O

ATOM 291 OD2 ASP A 36 17.816 7.337 -0.694 1.00 85.63 O

ATOM 292 N GLY A 37 16.909 2.801 -3.989 1.00 88.76 N

ATOM 293 CA GLY A 37 17.177 1.402 -4.282 1.00 88.76 C

ATOM 294 C GLY A 37 15.945 0.639 -4.732 1.00 88.76 C

ATOM 295 O GLY A 37 15.083 1.192 -5.418 1.00 88.76 O

ATOM 296 N TYR A 38 15.961 -0.632 -4.281 1.00 87.22 N

ATOM 297 CA TYR A 38 14.839 -1.500 -4.621 1.00 87.22 C

ATOM 298 C TYR A 38 13.575 -1.072 -3.885 1.00 87.22 C

ATOM 299 CB TYR A 38 15.168 -2.959 -4.290 1.00 87.22 C

ATOM 300 O TYR A 38 13.549 -1.038 -2.652 1.00 87.22 O

ATOM 301 CG TYR A 38 14.106 -3.936 -4.732 1.00 87.22 C

ATOM 302 CD1 TYR A 38 13.254 -4.536 -3.807 1.00 87.22 C

ATOM 303 CD2 TYR A 38 13.952 -4.263 -6.075 1.00 87.22 C

ATOM 304 CE1 TYR A 38 12.275 -5.438 -4.209 1.00 87.22 C

ATOM 305 CE2 TYR A 38 12.977 -5.164 -6.489 1.00 87.22 C

ATOM 306 OH TYR A 38 11.177 -6.638 -5.955 1.00 87.22 O

ATOM 307 CZ TYR A 38 12.144 -5.745 -5.551 1.00 87.22 C

ATOM 308 N LYS A 39 12.474 -0.767 -4.708 1.00 92.57 N

ATOM 309 CA LYS A 39 11.211 -0.283 -4.158 1.00 92.57 C

ATOM 310 C LYS A 39 10.259 -1.439 -3.868 1.00 92.57 C

ATOM 311 CB LYS A 39 10.553 0.710 -5.117 1.00 92.57 C

ATOM 312 O LYS A 39 9.604 -1.955 -4.776 1.00 92.57 O

ATOM 313 CG LYS A 39 11.375 1.965 -5.369 1.00 92.57 C

ATOM 314 CD LYS A 39 10.657 2.924 -6.310 1.00 92.57 C

ATOM 315 CE LYS A 39 11.464 4.195 -6.537 1.00 92.57 C

ATOM 316 NZ LYS A 39 10.768 5.135 -7.466 1.00 92.57 N

ATOM 317 N SER A 40 10.243 -1.747 -2.555 1.00 95.48 N

ATOM 318 CA SER A 40 9.366 -2.838 -2.140 1.00 95.48 C

ATOM 319 C SER A 40 8.806 -2.595 -0.743 1.00 95.48 C

ATOM 320 CB SER A 40 10.115 -4.170 -2.174 1.00 95.48 C

ATOM 321 O SER A 40 9.291 -1.725 -0.016 1.00 95.48 O

ATOM 322 OG SER A 40 9.232 -5.250 -1.922 1.00 95.48 O

ATOM 323 N LEU A 41 7.673 -3.347 -0.480 1.00 97.13 N

ATOM 324 CA LEU A 41 7.049 -3.368 0.839 1.00 97.13 C

ATOM 325 C LEU A 41 6.916 -4.797 1.354 1.00 97.13 C

ATOM 326 CB LEU A 41 5.672 -2.701 0.791 1.00 97.13 C

ATOM 327 O LEU A 41 6.945 -5.749 0.571 1.00 97.13 O

ATOM 328 CG LEU A 41 5.646 -1.229 0.376 1.00 97.13 C

ATOM 329 CD1 LEU A 41 4.208 -0.756 0.191 1.00 97.13 C

ATOM 330 CD2 LEU A 41 6.369 -0.369 1.408 1.00 97.13 C

ATOM 331 N GLU A 42 6.845 -4.898 2.671 1.00 97.16 N

ATOM 332 CA GLU A 42 6.662 -6.206 3.293 1.00 97.16 C

ATOM 333 C GLU A 42 5.291 -6.315 3.954 1.00 97.16 C

ATOM 334 CB GLU A 42 7.764 -6.473 4.320 1.00 97.16 C

ATOM 335 O GLU A 42 4.791 -5.342 4.522 1.00 97.16 O

ATOM 336 CG GLU A 42 9.167 -6.477 3.730 1.00 97.16 C

ATOM 337 CD GLU A 42 10.253 -6.724 4.766 1.00 97.16 C

ATOM 338 OE1 GLU A 42 11.209 -7.477 4.474 1.00 97.16 O

ATOM 339 OE2 GLU A 42 10.145 -6.161 5.878 1.00 97.16 O

ATOM 340 N GLU A 43 4.734 -7.493 3.808 1.00 98.23 N

ATOM 341 CA GLU A 43 3.466 -7.732 4.491 1.00 98.23 C

ATOM 342 C GLU A 43 3.571 -7.410 5.979 1.00 98.23 C

ATOM 343 CB GLU A 43 3.014 -9.181 4.297 1.00 98.23 C

ATOM 344 O GLU A 43 4.531 -7.812 6.640 1.00 98.23 O

ATOM 345 CG GLU A 43 1.633 -9.477 4.862 1.00 98.23 C

ATOM 346 CD GLU A 43 1.173 -10.903 4.608 1.00 98.23 C

ATOM 347 OE1 GLU A 43 0.880 -11.629 5.585 1.00 98.23 O

ATOM 348 OE2 GLU A 43 1.106 -11.298 3.423 1.00 98.23 O

ATOM 349 N GLY A 44 2.608 -6.659 6.498 1.00 98.04 N

ATOM 350 CA GLY A 44 2.575 -6.301 7.908 1.00 98.04 C

ATOM 351 C GLY A 44 3.322 -5.017 8.215 1.00 98.04 C

ATOM 352 O GLY A 44 3.273 -4.519 9.342 1.00 98.04 O

ATOM 353 N GLN A 45 3.978 -4.460 7.263 1.00 98.04 N

ATOM 354 CA GLN A 45 4.774 -3.248 7.425 1.00 98.04 C

ATOM 355 C GLN A 45 3.881 -2.015 7.534 1.00 98.04 C

ATOM 356 CB GLN A 45 5.751 -3.087 6.260 1.00 98.04 C

ATOM 357 O GLN A 45 2.910 -1.877 6.787 1.00 98.04 O

ATOM 358 CG GLN A 45 6.751 -1.954 6.448 1.00 98.04 C

ATOM 359 CD GLN A 45 7.823 -1.933 5.374 1.00 98.04 C

ATOM 360 NE2 GLN A 45 8.876 -1.156 5.603 1.00 98.04 N

ATOM 361 OE1 GLN A 45 7.705 -2.609 4.347 1.00 98.04 O

ATOM 362 N ALA A 46 4.204 -1.157 8.417 1.00 98.19 N

ATOM 363 CA ALA A 46 3.489 0.107 8.568 1.00 98.19 C

ATOM 364 C ALA A 46 4.021 1.158 7.597 1.00 98.19 C

ATOM 365 CB ALA A 46 3.597 0.612 10.005 1.00 98.19 C

ATOM 366 O ALA A 46 5.233 1.356 7.491 1.00 98.19 O

ATOM 367 N VAL A 47 3.069 1.800 6.920 1.00 98.14 N

ATOM 368 CA VAL A 47 3.477 2.793 5.932 1.00 98.14 C

ATOM 369 C VAL A 47 2.622 4.050 6.077 1.00 98.14 C

ATOM 370 CB VAL A 47 3.370 2.239 4.493 1.00 98.14 C

ATOM 371 O VAL A 47 1.527 4.001 6.642 1.00 98.14 O

ATOM 372 CG1 VAL A 47 4.336 1.073 4.290 1.00 98.14 C

ATOM 373 CG2 VAL A 47 1.935 1.806 4.195 1.00 98.14 C

ATOM 374 N GLU A 48 3.204 5.110 5.684 1.00 98.12 N

ATOM 375 CA GLU A 48 2.512 6.386 5.527 1.00 98.12 C

ATOM 376 C GLU A 48 2.400 6.776 4.056 1.00 98.12 C

ATOM 377 CB GLU A 48 3.230 7.488 6.310 1.00 98.12 C

ATOM 378 O GLU A 48 3.359 6.629 3.295 1.00 98.12 O

ATOM 379 CG GLU A 48 2.472 8.807 6.351 1.00 98.12 C

ATOM 380 CD GLU A 48 3.174 9.877 7.172 1.00 98.12 C

ATOM 381 OE1 GLU A 48 3.951 10.672 6.596 1.00 98.12 O

ATOM 382 OE2 GLU A 48 2.947 9.920 8.402 1.00 98.12 O

ATOM 383 N PHE A 49 1.237 7.320 3.660 1.00 98.10 N

ATOM 384 CA PHE A 49 1.032 7.599 2.244 1.00 98.10 C

ATOM 385 C PHE A 49 -0.084 8.618 2.048 1.00 98.10 C

ATOM 386 CB PHE A 49 0.706 6.310 1.482 1.00 98.10 C

ATOM 387 O PHE A 49 -0.780 8.975 3.001 1.00 98.10 O

ATOM 388 CG PHE A 49 -0.511 5.591 2.000 1.00 98.10 C

ATOM 389 CD1 PHE A 49 -0.414 4.716 3.074 1.00 98.10 C

ATOM 390 CD2 PHE A 49 -1.753 5.791 1.411 1.00 98.10 C

ATOM 391 CE1 PHE A 49 -1.539 4.049 3.555 1.00 98.10 C

ATOM 392 CE2 PHE A 49 -2.881 5.128 1.886 1.00 98.10 C

ATOM 393 CZ PHE A 49 -2.772 4.257 2.957 1.00 98.10 C

ATOM 394 N GLU A 50 -0.185 9.128 0.855 1.00 97.64 N

ATOM 395 CA GLU A 50 -1.312 9.938 0.403 1.00 97.64 C

ATOM 396 C GLU A 50 -2.263 9.124 -0.469 1.00 97.64 C

ATOM 397 CB GLU A 50 -0.818 11.168 -0.364 1.00 97.64 C

ATOM 398 O GLU A 50 -1.827 8.262 -1.235 1.00 97.64 O

ATOM 399 CG GLU A 50 0.038 12.110 0.470 1.00 97.64 C

ATOM 400 CD GLU A 50 0.592 13.281 -0.326 1.00 97.64 C

ATOM 401 OE1 GLU A 50 0.192 14.437 -0.063 1.00 97.64 O

ATOM 402 OE2 GLU A 50 1.432 13.039 -1.222 1.00 97.64 O

ATOM 403 N VAL A 51 -3.549 9.382 -0.242 1.00 96.28 N

ATOM 404 CA VAL A 51 -4.523 8.706 -1.092 1.00 96.28 C

ATOM 405 C VAL A 51 -4.927 9.623 -2.245 1.00 96.28 C

ATOM 406 CB VAL A 51 -5.773 8.274 -0.292 1.00 96.28 C

ATOM 407 O VAL A 51 -5.298 10.779 -2.027 1.00 96.28 O

ATOM 408 CG1 VAL A 51 -6.787 7.586 -1.205 1.00 96.28 C

ATOM 409 CG2 VAL A 51 -5.375 7.354 0.860 1.00 96.28 C

ATOM 410 N VAL A 52 -4.778 9.067 -3.438 1.00 95.97 N

ATOM 411 CA VAL A 52 -5.188 9.825 -4.615 1.00 95.97 C

ATOM 412 C VAL A 52 -6.122 8.977 -5.476 1.00 95.97 C

ATOM 413 CB VAL A 52 -3.969 10.286 -5.446 1.00 95.97 C

ATOM 414 O VAL A 52 -6.148 7.751 -5.352 1.00 95.97 O

ATOM 415 CG1 VAL A 52 -3.060 11.189 -4.615 1.00 95.97 C

ATOM 416 CG2 VAL A 52 -3.194 9.079 -5.971 1.00 95.97 C

ATOM 417 N GLU A 53 -6.962 9.697 -6.238 1.00 93.99 N

ATOM 418 CA GLU A 53 -7.843 8.988 -7.161 1.00 93.99 C

ATOM 419 C GLU A 53 -7.102 8.587 -8.433 1.00 93.99 C

ATOM 420 CB GLU A 53 -9.060 9.848 -7.510 1.00 93.99 C

ATOM 421 O GLU A 53 -6.526 9.436 -9.116 1.00 93.99 O

ATOM 422 CG GLU A 53 -10.311 9.043 -7.828 1.00 93.99 C

ATOM 423 CD GLU A 53 -11.596 9.835 -7.648 1.00 93.99 C

ATOM 424 OE1 GLU A 53 -12.686 9.303 -7.958 1.00 93.99 O

ATOM 425 OE2 GLU A 53 -11.513 10.998 -7.195 1.00 93.99 O

ATOM 426 N GLY A 54 -7.046 7.229 -8.653 1.00 88.84 N

ATOM 427 CA GLY A 54 -6.406 6.696 -9.846 1.00 88.84 C

ATOM 428 C GLY A 54 -7.393 6.129 -10.849 1.00 88.84 C

ATOM 429 O GLY A 54 -8.607 6.232 -10.660 1.00 88.84 O

ATOM 430 N ASP A 55 -6.989 5.669 -11.935 1.00 87.19 N

ATOM 431 CA ASP A 55 -7.805 5.160 -13.033 1.00 87.19 C

ATOM 432 C ASP A 55 -8.641 3.963 -12.587 1.00 87.19 C

ATOM 433 CB ASP A 55 -6.923 4.773 -14.222 1.00 87.19 C

ATOM 434 O ASP A 55 -9.752 3.757 -13.080 1.00 87.19 O

ATOM 435 CG ASP A 55 -6.190 5.957 -14.828 1.00 87.19 C

ATOM 436 OD1 ASP A 55 -6.728 7.085 -14.804 1.00 87.19 O

ATOM 437 OD2 ASP A 55 -5.065 5.760 -15.336 1.00 87.19 O

ATOM 438 N ARG A 56 -8.202 3.237 -11.558 1.00 86.11 N

ATOM 439 CA ARG A 56 -8.862 2.009 -11.127 1.00 86.11 C

ATOM 440 C ARG A 56 -9.307 2.109 -9.671 1.00 86.11 C

ATOM 441 CB ARG A 56 -7.933 0.807 -11.309 1.00 86.11 C

ATOM 442 O ARG A 56 -9.488 1.091 -9.001 1.00 86.11 O

ATOM 443 CG ARG A 56 -7.594 0.505 -12.760 1.00 86.11 C

ATOM 444 CD ARG A 56 -6.718 -0.733 -12.889 1.00 86.11 C

ATOM 445 NE ARG A 56 -6.312 -0.964 -14.273 1.00 86.11 N

ATOM 446 NH1 ARG A 56 -5.054 -2.845 -13.806 1.00 86.11 N

ATOM 447 NH2 ARG A 56 -5.224 -2.079 -15.960 1.00 86.11 N

ATOM 448 CZ ARG A 56 -5.531 -1.962 -14.677 1.00 86.11 C

ATOM 449 N GLY A 57 -9.444 3.318 -9.205 1.00 91.26 N

ATOM 450 CA GLY A 57 -9.848 3.526 -7.824 1.00 91.26 C

ATOM 451 C GLY A 57 -8.776 4.193 -6.983 1.00 91.26 C

ATOM 452 O GLY A 57 -7.751 4.631 -7.508 1.00 91.26 O

ATOM 453 N PRO A 58 -9.048 4.329 -5.691 1.00 94.17 N

ATOM 454 CA PRO A 58 -8.073 4.967 -4.804 1.00 94.17 C

ATOM 455 C PRO A 58 -6.726 4.248 -4.792 1.00 94.17 C

ATOM 456 CB PRO A 58 -8.744 4.891 -3.430 1.00 94.17 C

ATOM 457 O PRO A 58 -6.680 3.016 -4.731 1.00 94.17 O

ATOM 458 CG PRO A 58 -10.194 4.683 -3.724 1.00 94.17 C

ATOM 459 CD PRO A 58 -10.317 3.997 -5.055 1.00 94.17 C

ATOM 460 N GLN A 59 -5.608 5.020 -4.850 1.00 96.93 N

ATOM 461 CA GLN A 59 -4.266 4.447 -4.813 1.00 96.93 C

ATOM 462 C GLN A 59 -3.346 5.259 -3.906 1.00 96.93 C

ATOM 463 CB GLN A 59 -3.677 4.366 -6.222 1.00 96.93 C

ATOM 464 O GLN A 59 -3.598 6.439 -3.654 1.00 96.93 O

ATOM 465 CG GLN A 59 -3.512 5.721 -6.898 1.00 96.93 C

ATOM 466 CD GLN A 59 -2.980 5.609 -8.315 1.00 96.93 C

ATOM 467 NE2 GLN A 59 -3.648 6.271 -9.253 1.00 96.93 N

ATOM 468 OE1 GLN A 59 -1.976 4.934 -8.563 1.00 96.93 O

ATOM 469 N ALA A 60 -2.320 4.578 -3.454 1.00 97.76 N

ATOM 470 CA ALA A 60 -1.359 5.216 -2.558 1.00 97.76 C

ATOM 471 C ALA A 60 -0.312 6.000 -3.344 1.00 97.76 C

ATOM 472 CB ALA A 60 -0.683 4.172 -1.672 1.00 97.76 C

ATOM 473 O ALA A 60 0.128 5.564 -4.410 1.00 97.76 O

ATOM 474 N ALA A 61 0.012 7.217 -2.859 1.00 97.67 N

ATOM 475 CA ALA A 61 1.084 8.051 -3.396 1.00 97.67 C

ATOM 476 C ALA A 61 2.050 8.478 -2.295 1.00 97.67 C

ATOM 477 CB ALA A 61 0.506 9.277 -4.097 1.00 97.67 C

ATOM 478 O ALA A 61 1.683 8.516 -1.118 1.00 97.67 O

ATOM 479 N ASN A 62 3.281 8.763 -2.708 1.00 97.08 N

ATOM 480 CA ASN A 62 4.314 9.206 -1.778 1.00 97.08 C

ATOM 481 C ASN A 62 4.426 8.270 -0.578 1.00 97.08 C

ATOM 482 CB ASN A 62 4.039 10.637 -1.311 1.00 97.08 C

ATOM 483 O ASN A 62 4.486 8.724 0.566 1.00 97.08 O

ATOM 484 CG ASN A 62 4.062 11.637 -2.450 1.00 97.08 C

ATOM 485 ND2 ASN A 62 3.074 12.524 -2.481 1.00 97.08 N

ATOM 486 OD1 ASN A 62 4.960 11.613 -3.296 1.00 97.08 O

ATOM 487 N VAL A 63 4.510 7.000 -0.823 1.00 97.97 N

ATOM 488 CA VAL A 63 4.540 5.974 0.214 1.00 97.97 C

ATOM 489 C VAL A 63 5.905 5.969 0.899 1.00 97.97 C

ATOM 490 CB VAL A 63 4.228 4.574 -0.363 1.00 97.97 C

ATOM 491 O VAL A 63 6.941 5.937 0.231 1.00 97.97 O

ATOM 492 CG1 VAL A 63 4.296 3.512 0.733 1.00 97.97 C

ATOM 493 CG2 VAL A 63 2.856 4.568 -1.034 1.00 97.97 C

ATOM 494 N VAL A 64 5.856 5.992 2.235 1.00 96.78 N

ATOM 495 CA VAL A 64 7.064 5.917 3.049 1.00 96.78 C

ATOM 496 C VAL A 64 6.895 4.850 4.128 1.00 96.78 C

ATOM 497 CB VAL A 64 7.399 7.280 3.694 1.00 96.78 C

ATOM 498 O VAL A 64 5.828 4.737 4.736 1.00 96.78 O

ATOM 499 CG1 VAL A 64 7.853 8.283 2.635 1.00 96.78 C

ATOM 500 CG2 VAL A 64 6.193 7.818 4.462 1.00 96.78 C

ATOM 501 N LYS A 65 7.936 4.098 4.285 1.00 96.04 N

ATOM 502 CA LYS A 65 7.951 3.085 5.336 1.00 96.04 C

ATOM 503 C LYS A 65 8.094 3.725 6.714 1.00 96.04 C

ATOM 504 CB LYS A 65 9.085 2.085 5.103 1.00 96.04 C

ATOM 505 O LYS A 65 8.884 4.655 6.894 1.00 96.04 O

ATOM 506 CG LYS A 65 8.976 1.322 3.791 1.00 96.04 C

ATOM 507 CD LYS A 65 10.200 0.447 3.551 1.00 96.04 C

ATOM 508 CE LYS A 65 10.180 -0.174 2.161 1.00 96.04 C

ATOM 509 NZ LYS A 65 11.458 -0.882 1.852 1.00 96.04 N

ATOM 510 N LEU A 66 7.231 3.330 7.700 1.00 93.95 N

ATOM 511 CA LEU A 66 7.340 3.836 9.064 1.00 93.95 C

ATOM 512 C LEU A 66 8.257 2.950 9.901 1.00 93.95 C

ATOM 513 CB LEU A 66 5.958 3.920 9.717 1.00 93.95 C

ATOM 514 O LEU A 66 8.309 1.735 9.696 1.00 93.95 O

ATOM 515 CG LEU A 66 4.957 4.875 9.065 1.00 93.95 C

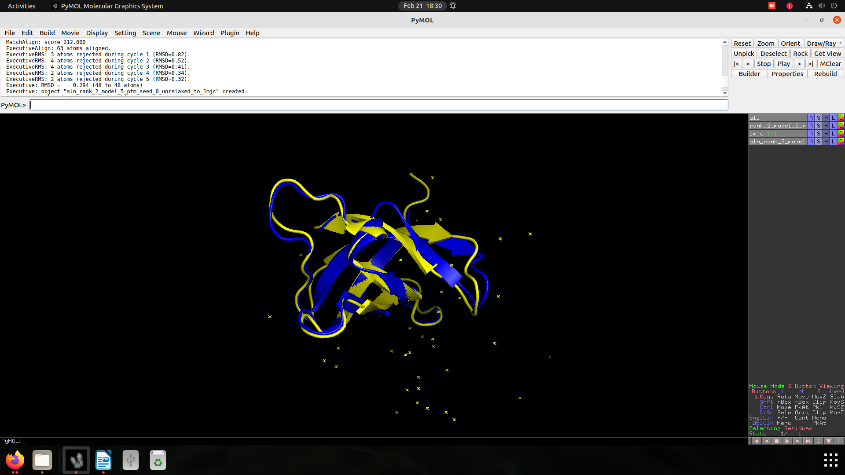
ATOM 516 CD1 LEU A 66 3.595 4.758 9.741 1.00 93.95 C

ATOM 517 CD2 LEU A 66 5.469 6.310 9.127 1.00 93.95 C

TER 518 LEU A 66

ENDMDL

END



**RMSD = 0.294**

**MODEL 1 – RANK3 :  
**

MODEL 1

ATOM 1 N MET A 1 -12.883 -7.185 -3.802 1.00 86.88 N

ATOM 2 CA MET A 1 -12.206 -5.892 -3.815 1.00 86.88 C

ATOM 3 C MET A 1 -12.733 -4.991 -2.704 1.00 86.88 C

ATOM 4 CB MET A 1 -12.380 -5.207 -5.171 1.00 86.88 C

ATOM 5 O MET A 1 -13.939 -4.938 -2.461 1.00 86.88 O

ATOM 6 CG MET A 1 -11.682 -5.924 -6.315 1.00 86.88 C

ATOM 7 SD MET A 1 -9.868 -5.650 -6.315 1.00 86.88 S

ATOM 8 CE MET A 1 -9.783 -4.073 -7.210 1.00 86.88 C

ATOM 9 N LYS A 2 -11.691 -4.567 -1.911 1.00 93.81 N

ATOM 10 CA LYS A 2 -11.975 -3.712 -0.762 1.00 93.81 C

ATOM 11 C LYS A 2 -11.559 -2.269 -1.034 1.00 93.81 C

ATOM 12 CB LYS A 2 -11.264 -4.236 0.486 1.00 93.81 C

ATOM 13 O LYS A 2 -10.753 -2.008 -1.929 1.00 93.81 O

ATOM 14 CG LYS A 2 -11.883 -5.499 1.067 1.00 93.81 C

ATOM 15 CD LYS A 2 -11.326 -5.809 2.450 1.00 93.81 C

ATOM 16 CE LYS A 2 -11.995 -7.033 3.062 1.00 93.81 C

ATOM 17 NZ LYS A 2 -11.679 -7.168 4.515 1.00 93.81 N

ATOM 18 N GLN A 3 -12.273 -1.309 -0.343 1.00 96.18 N

ATOM 19 CA GLN A 3 -11.919 0.104 -0.438 1.00 96.18 C

ATOM 20 C GLN A 3 -11.383 0.627 0.891 1.00 96.18 C

ATOM 21 CB GLN A 3 -13.127 0.931 -0.879 1.00 96.18 C

ATOM 22 O GLN A 3 -11.796 0.166 1.958 1.00 96.18 O

ATOM 23 CG GLN A 3 -13.621 0.600 -2.281 1.00 96.18 C

ATOM 24 CD GLN A 3 -14.791 1.464 -2.711 1.00 96.18 C

ATOM 25 NE2 GLN A 3 -15.340 1.177 -3.886 1.00 96.18 N

ATOM 26 OE1 GLN A 3 -15.199 2.382 -1.993 1.00 96.18 O

ATOM 27 N GLY A 4 -10.395 1.469 0.746 1.00 97.05 N

ATOM 28 CA GLY A 4 -9.800 2.099 1.914 1.00 97.05 C

ATOM 29 C GLY A 4 -9.163 3.441 1.609 1.00 97.05 C

ATOM 30 O GLY A 4 -9.233 3.925 0.478 1.00 97.05 O

ATOM 31 N THR A 5 -8.734 4.056 2.686 1.00 98.00 N

ATOM 32 CA THR A 5 -8.054 5.343 2.582 1.00 98.00 C

ATOM 33 C THR A 5 -6.591 5.217 2.995 1.00 98.00 C

ATOM 34 CB THR A 5 -8.745 6.411 3.450 1.00 98.00 C

ATOM 35 O THR A 5 -6.278 4.593 4.011 1.00 98.00 O

ATOM 36 CG2 THR A 5 -8.106 7.782 3.247 1.00 98.00 C

ATOM 37 OG1 THR A 5 -10.131 6.485 3.094 1.00 98.00 O

ATOM 38 N VAL A 6 -5.749 5.827 2.102 1.00 98.03 N

ATOM 39 CA VAL A 6 -4.321 5.780 2.400 1.00 98.03 C

ATOM 40 C VAL A 6 -4.036 6.551 3.687 1.00 98.03 C

ATOM 41 CB VAL A 6 -3.479 6.353 1.238 1.00 98.03 C

ATOM 42 O VAL A 6 -4.238 7.766 3.748 1.00 98.03 O

ATOM 43 CG1 VAL A 6 -1.990 6.309 1.577 1.00 98.03 C

ATOM 44 CG2 VAL A 6 -3.760 5.584 -0.052 1.00 98.03 C

ATOM 45 N LYS A 7 -3.648 5.828 4.647 1.00 97.83 N

ATOM 46 CA LYS A 7 -3.272 6.467 5.905 1.00 97.83 C

ATOM 47 C LYS A 7 -1.959 7.231 5.762 1.00 97.83 C

ATOM 48 CB LYS A 7 -3.155 5.428 7.021 1.00 97.83 C

ATOM 49 O LYS A 7 -1.864 8.393 6.165 1.00 97.83 O

ATOM 50 CG LYS A 7 -2.922 6.025 8.401 1.00 97.83 C

ATOM 51 CD LYS A 7 -2.934 4.953 9.483 1.00 97.83 C

ATOM 52 CE LYS A 7 -2.695 5.549 10.864 1.00 97.83 C

ATOM 53 NZ LYS A 7 -2.776 4.512 11.936 1.00 97.83 N

ATOM 54 N TRP A 8 -0.970 6.553 5.256 1.00 98.06 N

ATOM 55 CA TRP A 8 0.305 7.173 4.911 1.00 98.06 C

ATOM 56 C TRP A 8 1.067 6.323 3.900 1.00 98.06 C

ATOM 57 CB TRP A 8 1.158 7.384 6.165 1.00 98.06 C

ATOM 58 O TRP A 8 0.823 5.120 3.781 1.00 98.06 O

ATOM 59 CG TRP A 8 1.420 6.129 6.942 1.00 98.06 C

ATOM 60 CD1 TRP A 8 0.729 5.675 8.031 1.00 98.06 C

ATOM 61 CD2 TRP A 8 2.450 5.168 6.691 1.00 98.06 C

ATOM 62 CE2 TRP A 8 2.324 4.156 7.668 1.00 98.06 C

ATOM 63 CE3 TRP A 8 3.467 5.065 5.733 1.00 98.06 C

ATOM 64 NE1 TRP A 8 1.268 4.489 8.473 1.00 98.06 N

ATOM 65 CH2 TRP A 8 4.166 2.976 6.765 1.00 98.06 C

ATOM 66 CZ2 TRP A 8 3.180 3.053 7.714 1.00 98.06 C

ATOM 67 CZ3 TRP A 8 4.317 3.966 5.780 1.00 98.06 C

ATOM 68 N PHE A 9 1.894 6.957 3.173 1.00 97.73 N

ATOM 69 CA PHE A 9 2.748 6.299 2.191 1.00 97.73 C

ATOM 70 C PHE A 9 4.083 7.023 2.062 1.00 97.73 C

ATOM 71 CB PHE A 9 2.052 6.235 0.828 1.00 97.73 C

ATOM 72 O PHE A 9 4.120 8.245 1.905 1.00 97.73 O

ATOM 73 CG PHE A 9 2.764 5.371 -0.178 1.00 97.73 C

ATOM 74 CD1 PHE A 9 3.700 5.919 -1.046 1.00 97.73 C

ATOM 75 CD2 PHE A 9 2.497 4.010 -0.254 1.00 97.73 C

ATOM 76 CE1 PHE A 9 4.361 5.121 -1.978 1.00 97.73 C

ATOM 77 CE2 PHE A 9 3.153 3.207 -1.183 1.00 97.73 C

ATOM 78 CZ PHE A 9 4.084 3.765 -2.044 1.00 97.73 C

ATOM 79 N ASN A 10 5.108 6.310 2.247 1.00 97.52 N

ATOM 80 CA ASN A 10 6.462 6.810 2.035 1.00 97.52 C

ATOM 81 C ASN A 10 6.983 6.448 0.648 1.00 97.52 C

ATOM 82 CB ASN A 10 7.407 6.275 3.114 1.00 97.52 C

ATOM 83 O ASN A 10 7.366 5.302 0.403 1.00 97.52 O

ATOM 84 CG ASN A 10 8.765 6.947 3.086 1.00 97.52 C

ATOM 85 ND2 ASN A 10 9.317 7.219 4.263 1.00 97.52 N

ATOM 86 OD1 ASN A 10 9.314 7.222 2.015 1.00 97.52 O

ATOM 87 N ALA A 11 7.016 7.368 -0.282 1.00 94.87 N

ATOM 88 CA ALA A 11 7.379 7.117 -1.674 1.00 94.87 C

ATOM 89 C ALA A 11 8.859 6.768 -1.801 1.00 94.87 C

ATOM 90 CB ALA A 11 7.047 8.332 -2.538 1.00 94.87 C

ATOM 91 O ALA A 11 9.250 6.006 -2.688 1.00 94.87 O

ATOM 92 N GLU A 12 9.598 7.302 -0.802 1.00 95.13 N

ATOM 93 CA GLU A 12 11.031 7.028 -0.808 1.00 95.13 C

ATOM 94 C GLU A 12 11.318 5.579 -0.423 1.00 95.13 C

ATOM 95 CB GLU A 12 11.765 7.979 0.141 1.00 95.13 C

ATOM 96 O GLU A 12 12.139 4.913 -1.058 1.00 95.13 O

ATOM 97 CG GLU A 12 11.787 9.425 -0.333 1.00 95.13 C

ATOM 98 CD GLU A 12 12.549 10.351 0.601 1.00 95.13 C

ATOM 99 OE1 GLU A 12 12.645 11.564 0.307 1.00 95.13 O

ATOM 100 OE2 GLU A 12 13.055 9.860 1.634 1.00 95.13 O

ATOM 101 N LYS A 13 10.549 5.098 0.582 1.00 96.38 N

ATOM 102 CA LYS A 13 10.747 3.724 1.034 1.00 96.38 C

ATOM 103 C LYS A 13 9.908 2.749 0.214 1.00 96.38 C

ATOM 104 CB LYS A 13 10.403 3.593 2.518 1.00 96.38 C

ATOM 105 O LYS A 13 10.230 1.562 0.131 1.00 96.38 O

ATOM 106 CG LYS A 13 11.364 4.325 3.444 1.00 96.38 C

ATOM 107 CD LYS A 13 11.080 4.010 4.907 1.00 96.38 C

ATOM 108 CE LYS A 13 12.099 4.665 5.829 1.00 96.38 C

ATOM 109 NZ LYS A 13 11.801 4.393 7.267 1.00 96.38 N

ATOM 110 N GLY A 14 8.830 3.184 -0.370 1.00 96.06 N

ATOM 111 CA GLY A 14 8.014 2.410 -1.291 1.00 96.06 C

ATOM 112 C GLY A 14 6.932 1.603 -0.596 1.00 96.06 C

ATOM 113 O GLY A 14 6.509 0.560 -1.099 1.00 96.06 O

ATOM 114 N PHE A 15 6.574 2.013 0.641 1.00 96.87 N

ATOM 115 CA PHE A 15 5.506 1.300 1.332 1.00 96.87 C

ATOM 116 C PHE A 15 4.713 2.245 2.226 1.00 96.87 C

ATOM 117 CB PHE A 15 6.077 0.147 2.163 1.00 96.87 C

ATOM 118 O PHE A 15 5.165 3.353 2.522 1.00 96.87 O

ATOM 119 CG PHE A 15 6.928 0.596 3.320 1.00 96.87 C

ATOM 120 CD1 PHE A 15 8.307 0.703 3.186 1.00 96.87 C

ATOM 121 CD2 PHE A 15 6.349 0.911 4.542 1.00 96.87 C

ATOM 122 CE1 PHE A 15 9.097 1.119 4.255 1.00 96.87 C

ATOM 123 CE2 PHE A 15 7.132 1.327 5.615 1.00 96.87 C

ATOM 124 CZ PHE A 15 8.506 1.429 5.470 1.00 96.87 C

ATOM 125 N GLY A 16 3.542 1.710 2.700 1.00 97.38 N

ATOM 126 CA GLY A 16 2.648 2.463 3.565 1.00 97.38 C

ATOM 127 C GLY A 16 1.507 1.628 4.115 1.00 97.38 C

ATOM 128 O GLY A 16 1.567 0.397 4.098 1.00 97.38 O

ATOM 129 N PHE A 17 0.481 2.272 4.584 1.00 97.85 N

ATOM 130 CA PHE A 17 -0.667 1.596 5.176 1.00 97.85 C

ATOM 131 C PHE A 17 -1.971 2.237 4.716 1.00 97.85 C

ATOM 132 CB PHE A 17 -0.579 1.624 6.705 1.00 97.85 C

ATOM 133 O PHE A 17 -2.037 3.453 4.523 1.00 97.85 O

ATOM 134 CG PHE A 17 0.419 0.653 7.274 1.00 97.85 C

ATOM 135 CD1 PHE A 17 0.065 -0.669 7.514 1.00 97.85 C

ATOM 136 CD2 PHE A 17 1.713 1.062 7.570 1.00 97.85 C

ATOM 137 CE1 PHE A 17 0.987 -1.571 8.041 1.00 97.85 C

ATOM 138 CE2 PHE A 17 2.640 0.167 8.096 1.00 97.85 C

ATOM 139 CZ PHE A 17 2.274 -1.149 8.332 1.00 97.85 C

ATOM 140 N ILE A 18 -2.955 1.340 4.513 1.00 98.07 N

ATOM 141 CA ILE A 18 -4.298 1.753 4.121 1.00 98.07 C

ATOM 142 C ILE A 18 -5.277 1.470 5.258 1.00 98.07 C

ATOM 143 CB ILE A 18 -4.755 1.038 2.830 1.00 98.07 C

ATOM 144 O ILE A 18 -5.272 0.379 5.833 1.00 98.07 O

ATOM 145 CG1 ILE A 18 -3.798 1.358 1.675 1.00 98.07 C

ATOM 146 CG2 ILE A 18 -6.192 1.431 2.474 1.00 98.07 C

ATOM 147 CD1 ILE A 18 -3.960 0.446 0.467 1.00 98.07 C

ATOM 148 N GLU A 19 -5.984 2.490 5.496 1.00 97.69 N

ATOM 149 CA GLU A 19 -7.015 2.334 6.517 1.00 97.69 C

ATOM 150 C GLU A 19 -8.315 1.809 5.913 1.00 97.69 C

ATOM 151 CB GLU A 19 -7.268 3.662 7.236 1.00 97.69 C

ATOM 152 O GLU A 19 -8.814 2.358 4.929 1.00 97.69 O

ATOM 153 CG GLU A 19 -8.225 3.552 8.413 1.00 97.69 C

ATOM 154 CD GLU A 19 -8.449 4.874 9.130 1.00 97.69 C

ATOM 155 OE1 GLU A 19 -8.478 4.889 10.381 1.00 97.69 O

ATOM 156 OE2 GLU A 19 -8.599 5.903 8.434 1.00 97.69 O

ATOM 157 N VAL A 20 -8.741 0.757 6.537 1.00 95.12 N

ATOM 158 CA VAL A 20 -10.006 0.154 6.131 1.00 95.12 C

ATOM 159 C VAL A 20 -11.006 0.225 7.282 1.00 95.12 C

ATOM 160 CB VAL A 20 -9.817 -1.312 5.679 1.00 95.12 C

ATOM 161 O VAL A 20 -10.679 -0.123 8.419 1.00 95.12 O

ATOM 162 CG1 VAL A 20 -11.126 -1.883 5.137 1.00 95.12 C

ATOM 163 CG2 VAL A 20 -8.713 -1.407 4.627 1.00 95.12 C

ATOM 164 N GLU A 21 -12.181 0.734 7.048 1.00 92.74 N

ATOM 165 CA GLU A 21 -13.187 0.884 8.095 1.00 92.74 C

ATOM 166 C GLU A 21 -13.552 -0.465 8.708 1.00 92.74 C

ATOM 167 CB GLU A 21 -14.441 1.567 7.542 1.00 92.74 C

ATOM 168 O GLU A 21 -13.943 -1.392 7.995 1.00 92.74 O

ATOM 169 CG GLU A 21 -15.424 2.011 8.616 1.00 92.74 C

ATOM 170 CD GLU A 21 -16.659 2.696 8.053 1.00 92.74 C

ATOM 171 OE1 GLU A 21 -17.540 3.105 8.844 1.00 92.74 O

ATOM 172 OE2 GLU A 21 -16.746 2.825 6.812 1.00 92.74 O

ATOM 173 N GLY A 22 -13.412 -0.519 10.122 1.00 91.90 N

ATOM 174 CA GLY A 22 -13.840 -1.703 10.848 1.00 91.90 C

ATOM 175 C GLY A 22 -12.792 -2.800 10.873 1.00 91.90 C

ATOM 176 O GLY A 22 -13.045 -3.896 11.377 1.00 91.90 O

ATOM 177 N GLU A 23 -11.622 -2.533 10.279 1.00 91.26 N

ATOM 178 CA GLU A 23 -10.553 -3.525 10.210 1.00 91.26 C

ATOM 179 C GLU A 23 -9.203 -2.906 10.560 1.00 91.26 C

ATOM 180 CB GLU A 23 -10.496 -4.158 8.818 1.00 91.26 C

ATOM 181 O GLU A 23 -9.095 -1.688 10.720 1.00 91.26 O

ATOM 182 CG GLU A 23 -11.762 -4.909 8.431 1.00 91.26 C

ATOM 183 CD GLU A 23 -11.683 -5.550 7.055 1.00 91.26 C

ATOM 184 OE1 GLU A 23 -12.738 -5.720 6.403 1.00 91.26 O

ATOM 185 OE2 GLU A 23 -10.556 -5.887 6.626 1.00 91.26 O

ATOM 186 N ASN A 24 -8.247 -3.836 10.641 1.00 93.11 N

ATOM 187 CA ASN A 24 -6.884 -3.362 10.856 1.00 93.11 C

ATOM 188 C ASN A 24 -6.303 -2.734 9.592 1.00 93.11 C

ATOM 189 CB ASN A 24 -5.988 -4.504 11.342 1.00 93.11 C

ATOM 190 O ASN A 24 -6.773 -3.007 8.486 1.00 93.11 O

ATOM 191 CG ASN A 24 -6.397 -5.026 12.705 1.00 93.11 C

ATOM 192 ND2 ASN A 24 -6.409 -6.346 12.855 1.00 93.11 N

ATOM 193 OD1 ASN A 24 -6.699 -4.251 13.616 1.00 93.11 O

ATOM 194 N ASP A 25 -5.348 -1.891 9.811 1.00 95.34 N

ATOM 195 CA ASP A 25 -4.625 -1.293 8.694 1.00 95.34 C

ATOM 196 C ASP A 25 -3.979 -2.366 7.820 1.00 95.34 C

ATOM 197 CB ASP A 25 -3.560 -0.319 9.203 1.00 95.34 C

ATOM 198 O ASP A 25 -3.537 -3.401 8.324 1.00 95.34 O

ATOM 199 CG ASP A 25 -4.148 0.868 9.945 1.00 95.34 C

ATOM 200 OD1 ASP A 25 -5.384 1.052 9.918 1.00 95.34 O

ATOM 201 OD2 ASP A 25 -3.369 1.628 10.560 1.00 95.34 O

ATOM 202 N VAL A 26 -4.039 -1.983 6.586 1.00 97.05 N

ATOM 203 CA VAL A 26 -3.518 -2.943 5.618 1.00 97.05 C

ATOM 204 C VAL A 26 -2.213 -2.420 5.023 1.00 97.05 C

ATOM 205 CB VAL A 26 -4.540 -3.228 4.495 1.00 97.05 C

ATOM 206 O VAL A 26 -2.136 -1.265 4.598 1.00 97.05 O

ATOM 207 CG1 VAL A 26 -3.954 -4.191 3.464 1.00 97.05 C

ATOM 208 CG2 VAL A 26 -5.834 -3.789 5.081 1.00 97.05 C

ATOM 209 N PHE A 27 -1.250 -3.240 5.056 1.00 97.62 N

ATOM 210 CA PHE A 27 0.053 -2.901 4.496 1.00 97.62 C

ATOM 211 C PHE A 27 -0.018 -2.808 2.976 1.00 97.62 C

ATOM 212 CB PHE A 27 1.104 -3.936 4.910 1.00 97.62 C

ATOM 213 O PHE A 27 -0.672 -3.629 2.329 1.00 97.62 O

ATOM 214 CG PHE A 27 2.439 -3.746 4.243 1.00 97.62 C

ATOM 215 CD1 PHE A 27 2.805 -4.527 3.154 1.00 97.62 C

ATOM 216 CD2 PHE A 27 3.329 -2.785 4.706 1.00 97.62 C

ATOM 217 CE1 PHE A 27 4.041 -4.353 2.534 1.00 97.62 C

ATOM 218 CE2 PHE A 27 4.566 -2.606 4.092 1.00 97.62 C

ATOM 219 CZ PHE A 27 4.920 -3.392 3.007 1.00 97.62 C

ATOM 220 N VAL A 28 0.677 -1.785 2.423 1.00 97.33 N

ATOM 221 CA VAL A 28 0.731 -1.645 0.971 1.00 97.33 C

ATOM 222 C VAL A 28 2.169 -1.382 0.531 1.00 97.33 C

ATOM 223 CB VAL A 28 -0.194 -0.510 0.476 1.00 97.33 C

ATOM 224 O VAL A 28 2.850 -0.521 1.094 1.00 97.33 O

ATOM 225 CG1 VAL A 28 0.158 0.810 1.159 1.00 97.33 C

ATOM 226 CG2 VAL A 28 -0.101 -0.371 -1.042 1.00 97.33 C

ATOM 227 N HIS A 29 2.660 -2.184 -0.415 1.00 96.97 N

ATOM 228 CA HIS A 29 3.953 -2.010 -1.066 1.00 96.97 C

ATOM 229 C HIS A 29 3.788 -1.471 -2.483 1.00 96.97 C

ATOM 230 CB HIS A 29 4.721 -3.332 -1.094 1.00 96.97 C

ATOM 231 O HIS A 29 2.756 -1.693 -3.121 1.00 96.97 O

ATOM 232 CG HIS A 29 6.154 -3.186 -1.499 1.00 96.97 C

ATOM 233 CD2 HIS A 29 7.211 -2.648 -0.848 1.00 96.97 C

ATOM 234 ND1 HIS A 29 6.631 -3.622 -2.716 1.00 96.97 N

ATOM 235 CE1 HIS A 29 7.924 -3.359 -2.795 1.00 96.97 C

ATOM 236 NE2 HIS A 29 8.301 -2.767 -1.674 1.00 96.97 N

ATOM 237 N PHE A 30 4.703 -0.658 -2.920 1.00 95.92 N

ATOM 238 CA PHE A 30 4.602 -0.010 -4.222 1.00 95.92 C

ATOM 239 C PHE A 30 4.416 -1.044 -5.327 1.00 95.92 C

ATOM 240 CB PHE A 30 5.847 0.838 -4.501 1.00 95.92 C

ATOM 241 O PHE A 30 3.846 -0.741 -6.378 1.00 95.92 O

ATOM 242 CG PHE A 30 7.064 0.029 -4.859 1.00 95.92 C

ATOM 243 CD1 PHE A 30 8.018 -0.281 -3.897 1.00 95.92 C

ATOM 244 CD2 PHE A 30 7.256 -0.421 -6.159 1.00 95.92 C

ATOM 245 CE1 PHE A 30 9.146 -1.029 -4.226 1.00 95.92 C

ATOM 246 CE2 PHE A 30 8.380 -1.169 -6.495 1.00 95.92 C

ATOM 247 CZ PHE A 30 9.325 -1.471 -5.527 1.00 95.92 C

ATOM 248 N SER A 31 4.877 -2.239 -5.072 1.00 94.93 N

ATOM 249 CA SER A 31 4.784 -3.304 -6.065 1.00 94.93 C

ATOM 250 C SER A 31 3.335 -3.721 -6.294 1.00 94.93 C

ATOM 251 CB SER A 31 5.610 -4.515 -5.632 1.00 94.93 C

ATOM 252 O SER A 31 3.012 -4.325 -7.319 1.00 94.93 O

ATOM 253 OG SER A 31 5.055 -5.113 -4.473 1.00 94.93 O

ATOM 254 N ALA A 32 2.489 -3.433 -5.373 1.00 95.41 N

ATOM 255 CA ALA A 32 1.087 -3.834 -5.455 1.00 95.41 C

ATOM 256 C ALA A 32 0.257 -2.783 -6.187 1.00 95.41 C

ATOM 257 CB ALA A 32 0.521 -4.077 -4.059 1.00 95.41 C

ATOM 258 O ALA A 32 -0.912 -3.014 -6.501 1.00 95.41 O

ATOM 259 N ILE A 33 0.834 -1.620 -6.483 1.00 95.91 N

ATOM 260 CA ILE A 33 0.130 -0.512 -7.120 1.00 95.91 C

ATOM 261 C ILE A 33 0.138 -0.699 -8.636 1.00 95.91 C

ATOM 262 CB ILE A 33 0.759 0.848 -6.744 1.00 95.91 C

ATOM 263 O ILE A 33 1.203 -0.783 -9.251 1.00 95.91 O

ATOM 264 CG1 ILE A 33 0.804 1.013 -5.221 1.00 95.91 C

ATOM 265 CG2 ILE A 33 -0.013 1.999 -7.397 1.00 95.91 C

ATOM 266 CD1 ILE A 33 1.626 2.206 -4.751 1.00 95.91 C

ATOM 267 N ASN A 34 -1.050 -0.813 -9.197 1.00 91.11 N

ATOM 268 CA ASN A 34 -1.204 -0.989 -10.637 1.00 91.11 C

ATOM 269 C ASN A 34 -1.271 0.352 -11.362 1.00 91.11 C

ATOM 270 CB ASN A 34 -2.450 -1.822 -10.946 1.00 91.11 C

ATOM 271 O ASN A 34 -2.346 0.943 -11.486 1.00 91.11 O

ATOM 272 CG ASN A 34 -2.300 -3.273 -10.532 1.00 91.11 C

ATOM 273 ND2 ASN A 34 -3.411 -3.903 -10.168 1.00 91.11 N

ATOM 274 OD1 ASN A 34 -1.196 -3.822 -10.539 1.00 91.11 O

ATOM 275 N GLN A 35 -0.142 0.893 -11.636 1.00 86.73 N

ATOM 276 CA GLN A 35 -0.021 2.158 -12.353 1.00 86.73 C

ATOM 277 C GLN A 35 1.258 2.199 -13.185 1.00 86.73 C

ATOM 278 CB GLN A 35 -0.048 3.335 -11.375 1.00 86.73 C

ATOM 279 O GLN A 35 2.238 1.526 -12.859 1.00 86.73 O

ATOM 280 CG GLN A 35 -0.007 4.698 -12.052 1.00 86.73 C

ATOM 281 CD GLN A 35 -0.141 5.846 -11.070 1.00 86.73 C

ATOM 282 NE2 GLN A 35 -0.088 7.072 -11.579 1.00 86.73 N

ATOM 283 OE1 GLN A 35 -0.290 5.633 -9.862 1.00 86.73 O

ATOM 284 N ASP A 36 1.112 2.844 -14.354 1.00 85.99 N

ATOM 285 CA ASP A 36 2.310 3.067 -15.158 1.00 85.99 C

ATOM 286 C ASP A 36 3.154 4.202 -14.582 1.00 85.99 C

ATOM 287 CB ASP A 36 1.933 3.376 -16.608 1.00 85.99 C

ATOM 288 O ASP A 36 2.624 5.119 -13.951 1.00 85.99 O

ATOM 289 CG ASP A 36 1.249 2.211 -17.304 1.00 85.99 C

ATOM 290 OD1 ASP A 36 1.746 1.068 -17.210 1.00 85.99 O

ATOM 291 OD2 ASP A 36 0.206 2.440 -17.954 1.00 85.99 O

ATOM 292 N GLY A 37 4.519 4.023 -14.562 1.00 87.92 N

ATOM 293 CA GLY A 37 5.411 5.066 -14.081 1.00 87.92 C

ATOM 294 C GLY A 37 5.732 4.942 -12.604 1.00 87.92 C

ATOM 295 O GLY A 37 5.887 3.833 -12.087 1.00 87.92 O

ATOM 296 N TYR A 38 5.829 6.142 -12.001 1.00 87.35 N

ATOM 297 CA TYR A 38 6.142 6.220 -10.579 1.00 87.35 C

ATOM 298 C TYR A 38 4.957 5.766 -9.735 1.00 87.35 C

ATOM 299 CB TYR A 38 6.542 7.647 -10.193 1.00 87.35 C

ATOM 300 O TYR A 38 3.875 6.354 -9.805 1.00 87.35 O

ATOM 301 CG TYR A 38 7.040 7.775 -8.774 1.00 87.35 C

ATOM 302 CD1 TYR A 38 6.259 8.380 -7.793 1.00 87.35 C

ATOM 303 CD2 TYR A 38 8.294 7.293 -8.413 1.00 87.35 C

ATOM 304 CE1 TYR A 38 6.715 8.503 -6.484 1.00 87.35 C

ATOM 305 CE2 TYR A 38 8.760 7.410 -7.108 1.00 87.35 C

ATOM 306 OH TYR A 38 8.421 8.133 -4.858 1.00 87.35 O

ATOM 307 CZ TYR A 38 7.965 8.015 -6.152 1.00 87.35 C

ATOM 308 N LYS A 39 5.201 4.629 -8.950 1.00 91.52 N

ATOM 309 CA LYS A 39 4.158 4.029 -8.122 1.00 91.52 C

ATOM 310 C LYS A 39 4.155 4.631 -6.720 1.00 91.52 C

ATOM 311 CB LYS A 39 4.342 2.513 -8.042 1.00 91.52 C

ATOM 312 O LYS A 39 4.987 4.272 -5.883 1.00 91.52 O

ATOM 313 CG LYS A 39 4.248 1.806 -9.387 1.00 91.52 C

ATOM 314 CD LYS A 39 4.438 0.302 -9.241 1.00 91.52 C

ATOM 315 CE LYS A 39 4.352 -0.406 -10.587 1.00 91.52 C

ATOM 316 NZ LYS A 39 4.591 -1.874 -10.457 1.00 91.52 N

ATOM 317 N SER A 40 3.164 5.530 -6.574 1.00 94.56 N

ATOM 318 CA SER A 40 3.041 6.179 -5.273 1.00 94.56 C

ATOM 319 C SER A 40 1.579 6.423 -4.913 1.00 94.56 C

ATOM 320 CB SER A 40 3.805 7.504 -5.260 1.00 94.56 C

ATOM 321 O SER A 40 0.704 6.371 -5.779 1.00 94.56 O

ATOM 322 OG SER A 40 3.158 8.466 -6.074 1.00 94.56 O

ATOM 323 N LEU A 41 1.376 6.572 -3.596 1.00 96.20 N

ATOM 324 CA LEU A 41 0.079 6.937 -3.034 1.00 96.20 C

ATOM 325 C LEU A 41 0.193 8.188 -2.171 1.00 96.20 C

ATOM 326 CB LEU A 41 -0.491 5.782 -2.207 1.00 96.20 C

ATOM 327 O LEU A 41 1.285 8.535 -1.714 1.00 96.20 O

ATOM 328 CG LEU A 41 -0.742 4.471 -2.955 1.00 96.20 C

ATOM 329 CD1 LEU A 41 -1.099 3.361 -1.972 1.00 96.20 C

ATOM 330 CD2 LEU A 41 -1.846 4.650 -3.991 1.00 96.20 C

ATOM 331 N GLU A 42 -0.958 8.882 -2.082 1.00 96.50 N

ATOM 332 CA GLU A 42 -1.003 10.077 -1.245 1.00 96.50 C

ATOM 333 C GLU A 42 -1.857 9.847 -0.001 1.00 96.50 C

ATOM 334 CB GLU A 42 -1.542 11.270 -2.039 1.00 96.50 C

ATOM 335 O GLU A 42 -2.870 9.147 -0.057 1.00 96.50 O

ATOM 336 CG GLU A 42 -0.676 11.659 -3.228 1.00 96.50 C

ATOM 337 CD GLU A 42 -1.264 12.792 -4.054 1.00 96.50 C

ATOM 338 OE1 GLU A 42 -0.664 13.164 -5.088 1.00 96.50 O

ATOM 339 OE2 GLU A 42 -2.332 13.312 -3.663 1.00 96.50 O

ATOM 340 N GLU A 43 -1.365 10.454 1.090 1.00 97.62 N

ATOM 341 CA GLU A 43 -2.163 10.379 2.310 1.00 97.62 C

ATOM 342 C GLU A 43 -3.572 10.918 2.082 1.00 97.62 C

ATOM 343 CB GLU A 43 -1.483 11.149 3.445 1.00 97.62 C

ATOM 344 O GLU A 43 -3.746 11.981 1.482 1.00 97.62 O

ATOM 345 CG GLU A 43 -2.176 10.998 4.792 1.00 97.62 C

ATOM 346 CD GLU A 43 -1.456 11.718 5.921 1.00 97.62 C

ATOM 347 OE1 GLU A 43 -2.067 11.931 6.992 1.00 97.62 O

ATOM 348 OE2 GLU A 43 -0.271 12.072 5.732 1.00 97.62 O

ATOM 349 N GLY A 44 -4.588 10.127 2.498 1.00 97.16 N

ATOM 350 CA GLY A 44 -5.976 10.536 2.359 1.00 97.16 C

ATOM 351 C GLY A 44 -6.600 10.095 1.048 1.00 97.16 C

ATOM 352 O GLY A 44 -7.798 10.283 0.831 1.00 97.16 O

ATOM 353 N GLN A 45 -5.789 9.503 0.240 1.00 97.38 N

ATOM 354 CA GLN A 45 -6.257 9.063 -1.071 1.00 97.38 C

ATOM 355 C GLN A 45 -7.116 7.808 -0.955 1.00 97.38 C

ATOM 356 CB GLN A 45 -5.073 8.805 -2.005 1.00 97.38 C

ATOM 357 O GLN A 45 -6.772 6.879 -0.222 1.00 97.38 O

ATOM 358 CG GLN A 45 -5.476 8.543 -3.450 1.00 97.38 C

ATOM 359 CD GLN A 45 -4.287 8.494 -4.391 1.00 97.38 C

ATOM 360 NE2 GLN A 45 -4.560 8.420 -5.689 1.00 97.38 N

ATOM 361 OE1 GLN A 45 -3.131 8.524 -3.955 1.00 97.38 O

ATOM 362 N ALA A 46 -8.203 7.777 -1.684 1.00 97.52 N

ATOM 363 CA ALA A 46 -9.063 6.598 -1.736 1.00 97.52 C

ATOM 364 C ALA A 46 -8.532 5.576 -2.737 1.00 97.52 C

ATOM 365 CB ALA A 46 -10.492 6.998 -2.097 1.00 97.52 C

ATOM 366 O ALA A 46 -8.186 5.926 -3.867 1.00 97.52 O

ATOM 367 N VAL A 47 -8.482 4.345 -2.271 1.00 97.34 N

ATOM 368 CA VAL A 47 -7.946 3.295 -3.130 1.00 97.34 C

ATOM 369 C VAL A 47 -8.831 2.054 -3.043 1.00 97.34 C

ATOM 370 CB VAL A 47 -6.490 2.939 -2.752 1.00 97.34 C

ATOM 371 O VAL A 47 -9.591 1.892 -2.085 1.00 97.34 O

ATOM 372 CG1 VAL A 47 -5.565 4.132 -2.987 1.00 97.34 C

ATOM 373 CG2 VAL A 47 -6.415 2.478 -1.298 1.00 97.34 C

ATOM 374 N GLU A 48 -8.777 1.316 -4.101 1.00 97.21 N

ATOM 375 CA GLU A 48 -9.364 -0.020 -4.153 1.00 97.21 C

ATOM 376 C GLU A 48 -8.285 -1.092 -4.279 1.00 97.21 C

ATOM 377 CB GLU A 48 -10.352 -0.128 -5.317 1.00 97.21 C

ATOM 378 O GLU A 48 -7.330 -0.932 -5.042 1.00 97.21 O

ATOM 379 CG GLU A 48 -11.191 -1.397 -5.295 1.00 97.21 C

ATOM 380 CD GLU A 48 -12.232 -1.448 -6.403 1.00 97.21 C

ATOM 381 OE1 GLU A 48 -13.144 -2.303 -6.341 1.00 97.21 O

ATOM 382 OE2 GLU A 48 -12.134 -0.625 -7.341 1.00 97.21 O

ATOM 383 N PHE A 49 -8.454 -2.206 -3.515 1.00 97.21 N

ATOM 384 CA PHE A 49 -7.402 -3.214 -3.489 1.00 97.21 C

ATOM 385 C PHE A 49 -7.948 -4.555 -3.014 1.00 97.21 C

ATOM 386 CB PHE A 49 -6.249 -2.767 -2.584 1.00 97.21 C

ATOM 387 O PHE A 49 -9.095 -4.642 -2.569 1.00 97.21 O

ATOM 388 CG PHE A 49 -6.669 -2.462 -1.172 1.00 97.21 C

ATOM 389 CD1 PHE A 49 -7.139 -1.199 -0.830 1.00 97.21 C

ATOM 390 CD2 PHE A 49 -6.595 -3.437 -0.186 1.00 97.21 C

ATOM 391 CE1 PHE A 49 -7.528 -0.913 0.477 1.00 97.21 C

ATOM 392 CE2 PHE A 49 -6.983 -3.159 1.121 1.00 97.21 C

ATOM 393 CZ PHE A 49 -7.448 -1.896 1.451 1.00 97.21 C

ATOM 394 N GLU A 50 -7.184 -5.581 -3.227 1.00 96.86 N

ATOM 395 CA GLU A 50 -7.441 -6.900 -2.657 1.00 96.86 C

ATOM 396 C GLU A 50 -6.599 -7.134 -1.406 1.00 96.86 C

ATOM 397 CB GLU A 50 -7.164 -7.996 -3.690 1.00 96.86 C

ATOM 398 O GLU A 50 -5.454 -6.686 -1.329 1.00 96.86 O

ATOM 399 CG GLU A 50 -8.087 -7.949 -4.898 1.00 96.86 C

ATOM 400 CD GLU A 50 -7.774 -9.016 -5.935 1.00 96.86 C

ATOM 401 OE1 GLU A 50 -8.404 -9.015 -7.017 1.00 96.86 O

ATOM 402 OE2 GLU A 50 -6.891 -9.860 -5.663 1.00 96.86 O

ATOM 403 N VAL A 51 -7.240 -7.733 -0.408 1.00 95.44 N

ATOM 404 CA VAL A 51 -6.497 -8.051 0.807 1.00 95.44 C

ATOM 405 C VAL A 51 -5.983 -9.488 0.738 1.00 95.44 C

ATOM 406 CB VAL A 51 -7.365 -7.856 2.071 1.00 95.44 C

ATOM 407 O VAL A 51 -6.754 -10.418 0.491 1.00 95.44 O

ATOM 408 CG1 VAL A 51 -6.568 -8.191 3.330 1.00 95.44 C

ATOM 409 CG2 VAL A 51 -7.897 -6.425 2.136 1.00 95.44 C

ATOM 410 N VAL A 52 -4.672 -9.607 0.892 1.00 95.37 N

ATOM 411 CA VAL A 52 -4.063 -10.933 0.919 1.00 95.37 C

ATOM 412 C VAL A 52 -3.224 -11.091 2.185 1.00 95.37 C

ATOM 413 CB VAL A 52 -3.191 -11.182 -0.332 1.00 95.37 C

ATOM 414 O VAL A 52 -2.871 -10.101 2.831 1.00 95.37 O

ATOM 415 CG1 VAL A 52 -4.041 -11.129 -1.601 1.00 95.37 C

ATOM 416 CG2 VAL A 52 -2.056 -10.163 -0.403 1.00 95.37 C

ATOM 417 N GLU A 53 -3.081 -12.339 2.605 1.00 94.00 N

ATOM 418 CA GLU A 53 -2.239 -12.618 3.764 1.00 94.00 C

ATOM 419 C GLU A 53 -0.760 -12.608 3.387 1.00 94.00 C

ATOM 420 CB GLU A 53 -2.613 -13.965 4.389 1.00 94.00 C

ATOM 421 O GLU A 53 -0.332 -13.363 2.512 1.00 94.00 O

ATOM 422 CG GLU A 53 -3.886 -13.924 5.222 1.00 94.00 C

ATOM 423 CD GLU A 53 -3.691 -13.279 6.585 1.00 94.00 C

ATOM 424 OE1 GLU A 53 -4.687 -12.816 7.186 1.00 94.00 O

ATOM 425 OE2 GLU A 53 -2.532 -13.234 7.055 1.00 94.00 O

ATOM 426 N GLY A 54 -0.003 -11.656 3.969 1.00 89.69 N

ATOM 427 CA GLY A 54 1.429 -11.567 3.734 1.00 89.69 C

ATOM 428 C GLY A 54 2.257 -12.071 4.901 1.00 89.69 C

ATOM 429 O GLY A 54 1.718 -12.644 5.850 1.00 89.69 O

ATOM 430 N ASP A 55 3.526 -11.989 4.844 1.00 88.99 N

ATOM 431 CA ASP A 55 4.455 -12.497 5.849 1.00 88.99 C

ATOM 432 C ASP A 55 4.301 -11.744 7.168 1.00 88.99 C

ATOM 433 CB ASP A 55 5.897 -12.392 5.348 1.00 88.99 C

ATOM 434 O ASP A 55 4.564 -12.297 8.238 1.00 88.99 O

ATOM 435 CG ASP A 55 6.169 -13.266 4.136 1.00 88.99 C

ATOM 436 OD1 ASP A 55 5.562 -14.352 4.019 1.00 88.99 O

ATOM 437 OD2 ASP A 55 7.001 -12.866 3.293 1.00 88.99 O

ATOM 438 N ARG A 56 3.724 -10.509 7.116 1.00 86.81 N

ATOM 439 CA ARG A 56 3.652 -9.676 8.312 1.00 86.81 C

ATOM 440 C ARG A 56 2.220 -9.229 8.583 1.00 86.81 C

ATOM 441 CB ARG A 56 4.564 -8.455 8.173 1.00 86.81 C

ATOM 442 O ARG A 56 1.995 -8.203 9.229 1.00 86.81 O

ATOM 443 CG ARG A 56 6.043 -8.797 8.082 1.00 86.81 C

ATOM 444 CD ARG A 56 6.905 -7.548 7.963 1.00 86.81 C

ATOM 445 NE ARG A 56 8.311 -7.882 7.751 1.00 86.81 N

ATOM 446 NH1 ARG A 56 9.015 -5.690 7.557 1.00 86.81 N

ATOM 447 NH2 ARG A 56 10.526 -7.405 7.379 1.00 86.81 N

ATOM 448 CZ ARG A 56 9.281 -6.991 7.563 1.00 86.81 C

ATOM 449 N GLY A 57 1.299 -9.938 8.051 1.00 91.20 N

ATOM 450 CA GLY A 57 -0.093 -9.566 8.243 1.00 91.20 C

ATOM 451 C GLY A 57 -0.802 -9.221 6.947 1.00 91.20 C

ATOM 452 O GLY A 57 -0.298 -9.511 5.860 1.00 91.20 O

ATOM 453 N PRO A 58 -2.013 -8.736 7.049 1.00 94.98 N

ATOM 454 CA PRO A 58 -2.770 -8.397 5.841 1.00 94.98 C

ATOM 455 C PRO A 58 -2.050 -7.378 4.961 1.00 94.98 C

ATOM 456 CB PRO A 58 -4.074 -7.816 6.394 1.00 94.98 C

ATOM 457 O PRO A 58 -1.515 -6.388 5.466 1.00 94.98 O

ATOM 458 CG PRO A 58 -4.118 -8.265 7.819 1.00 94.98 C

ATOM 459 CD PRO A 58 -2.714 -8.537 8.277 1.00 94.98 C

ATOM 460 N GLN A 59 -1.998 -7.665 3.640 1.00 96.76 N

ATOM 461 CA GLN A 59 -1.331 -6.798 2.674 1.00 96.76 C

ATOM 462 C GLN A 59 -2.231 -6.517 1.474 1.00 96.76 C

ATOM 463 CB GLN A 59 -0.016 -7.425 2.208 1.00 96.76 C

ATOM 464 O GLN A 59 -3.034 -7.366 1.082 1.00 96.76 O

ATOM 465 CG GLN A 59 -0.197 -8.683 1.370 1.00 96.76 C

ATOM 466 CD GLN A 59 1.118 -9.243 0.860 1.00 96.76 C

ATOM 467 NE2 GLN A 59 1.117 -10.520 0.495 1.00 96.76 N

ATOM 468 OE1 GLN A 59 2.127 -8.533 0.794 1.00 96.76 O

ATOM 469 N ALA A 60 -2.065 -5.291 0.958 1.00 97.13 N

ATOM 470 CA ALA A 60 -2.864 -4.890 -0.196 1.00 97.13 C

ATOM 471 C ALA A 60 -2.260 -5.422 -1.493 1.00 97.13 C

ATOM 472 CB ALA A 60 -2.989 -3.370 -0.256 1.00 97.13 C

ATOM 473 O ALA A 60 -1.039 -5.415 -1.665 1.00 97.13 O

ATOM 474 N ALA A 61 -3.154 -5.968 -2.381 1.00 97.03 N

ATOM 475 CA ALA A 61 -2.775 -6.417 -3.718 1.00 97.03 C

ATOM 476 C ALA A 61 -3.644 -5.757 -4.785 1.00 97.03 C

ATOM 477 CB ALA A 61 -2.876 -7.937 -3.819 1.00 97.03 C

ATOM 478 O ALA A 61 -4.774 -5.347 -4.507 1.00 97.03 O

ATOM 479 N ASN A 62 -3.058 -5.587 -6.004 1.00 96.53 N

ATOM 480 CA ASN A 62 -3.764 -4.997 -7.135 1.00 96.53 C

ATOM 481 C ASN A 62 -4.391 -3.655 -6.767 1.00 96.53 C

ATOM 482 CB ASN A 62 -4.835 -5.957 -7.660 1.00 96.53 C

ATOM 483 O ASN A 62 -5.566 -3.415 -7.050 1.00 96.53 O

ATOM 484 CG ASN A 62 -4.249 -7.251 -8.189 1.00 96.53 C

ATOM 485 ND2 ASN A 62 -4.803 -8.375 -7.751 1.00 96.53 N

ATOM 486 OD1 ASN A 62 -3.307 -7.240 -8.986 1.00 96.53 O

ATOM 487 N VAL A 63 -3.610 -2.805 -6.209 1.00 97.15 N

ATOM 488 CA VAL A 63 -4.085 -1.517 -5.715 1.00 97.15 C

ATOM 489 C VAL A 63 -4.337 -0.574 -6.889 1.00 97.15 C

ATOM 490 CB VAL A 63 -3.080 -0.882 -4.728 1.00 97.15 C

ATOM 491 O VAL A 63 -3.493 -0.440 -7.779 1.00 97.15 O

ATOM 492 CG1 VAL A 63 -3.578 0.482 -4.253 1.00 97.15 C

ATOM 493 CG2 VAL A 63 -2.843 -1.810 -3.538 1.00 97.15 C

ATOM 494 N VAL A 64 -5.513 0.063 -6.839 1.00 96.06 N

ATOM 495 CA VAL A 64 -5.903 1.054 -7.837 1.00 96.06 C

ATOM 496 C VAL A 64 -6.380 2.327 -7.143 1.00 96.06 C

ATOM 497 CB VAL A 64 -7.006 0.512 -8.774 1.00 96.06 C

ATOM 498 O VAL A 64 -7.175 2.268 -6.202 1.00 96.06 O

ATOM 499 CG1 VAL A 64 -7.389 1.558 -9.819 1.00 96.06 C

ATOM 500 CG2 VAL A 64 -6.546 -0.779 -9.449 1.00 96.06 C

ATOM 501 N LYS A 65 -5.850 3.450 -7.682 1.00 94.90 N

ATOM 502 CA LYS A 65 -6.301 4.741 -7.171 1.00 94.90 C

ATOM 503 C LYS A 65 -7.723 5.049 -7.633 1.00 94.90 C

ATOM 504 CB LYS A 65 -5.353 5.856 -7.615 1.00 94.90 C

ATOM 505 O LYS A 65 -8.067 4.819 -8.794 1.00 94.90 O

ATOM 506 CG LYS A 65 -3.916 5.668 -7.150 1.00 94.90 C

ATOM 507 CD LYS A 65 -3.002 6.751 -7.708 1.00 94.90 C

ATOM 508 CE LYS A 65 -1.542 6.480 -7.371 1.00 94.90 C

ATOM 509 NZ LYS A 65 -0.631 7.471 -8.017 1.00 94.90 N

ATOM 510 N LEU A 66 -8.595 5.433 -6.701 1.00 92.78 N

ATOM 511 CA LEU A 66 -9.945 5.836 -7.079 1.00 92.78 C

ATOM 512 C LEU A 66 -10.002 7.328 -7.387 1.00 92.78 C

ATOM 513 CB LEU A 66 -10.938 5.495 -5.964 1.00 92.78 C

ATOM 514 O LEU A 66 -9.272 8.119 -6.784 1.00 92.78 O

ATOM 515 CG LEU A 66 -11.136 4.009 -5.663 1.00 92.78 C

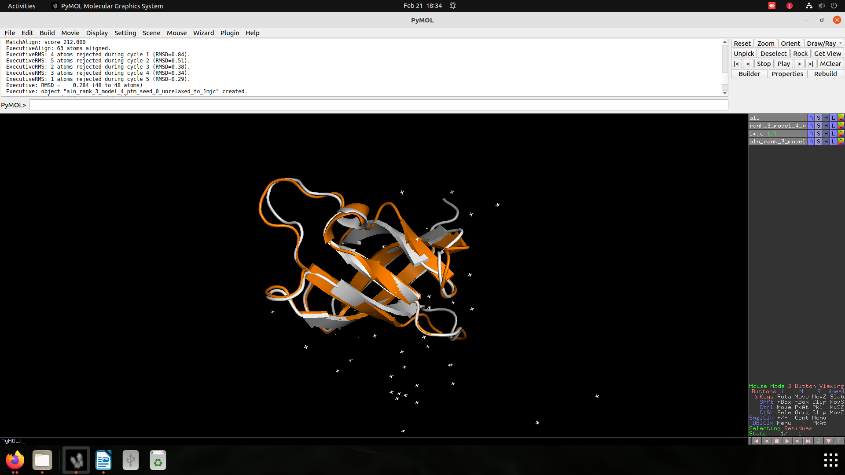
ATOM 516 CD1 LEU A 66 -12.009 3.830 -4.426 1.00 92.78 C

ATOM 517 CD2 LEU A 66 -11.749 3.297 -6.864 1.00 92.78 C

TER 518 LEU A 66

ENDMDL

END



**RMSD = 0.284**

**MODEL 1 – RANK4 :**



MODEL 1

ATOM 1 N MET A 1 -1.879 8.617 11.879 1.00 85.85 N

ATOM 2 CA MET A 1 -1.219 7.537 11.150 1.00 85.85 C

ATOM 3 C MET A 1 -1.863 6.192 11.470 1.00 85.85 C

ATOM 4 CB MET A 1 0.273 7.496 11.485 1.00 85.85 C

ATOM 5 O MET A 1 -2.215 5.925 12.620 1.00 85.85 O

ATOM 6 CG MET A 1 1.056 8.680 10.943 1.00 85.85 C

ATOM 7 SD MET A 1 2.828 8.287 10.673 1.00 85.85 S

ATOM 8 CE MET A 1 3.487 8.628 12.329 1.00 85.85 C

ATOM 9 N LYS A 2 -2.322 5.434 10.321 1.00 93.43 N

ATOM 10 CA LYS A 2 -2.981 4.135 10.421 1.00 93.43 C

ATOM 11 C LYS A 2 -2.029 3.004 10.042 1.00 93.43 C

ATOM 12 CB LYS A 2 -4.224 4.094 9.530 1.00 93.43 C

ATOM 13 O LYS A 2 -1.048 3.225 9.327 1.00 93.43 O

ATOM 14 CG LYS A 2 -5.362 4.979 10.015 1.00 93.43 C

ATOM 15 CD LYS A 2 -6.661 4.672 9.281 1.00 93.43 C

ATOM 16 CE LYS A 2 -7.834 5.443 9.871 1.00 93.43 C

ATOM 17 NZ LYS A 2 -9.129 5.053 9.236 1.00 93.43 N

ATOM 18 N GLN A 3 -2.283 1.778 10.654 1.00 95.69 N

ATOM 19 CA GLN A 3 -1.546 0.572 10.290 1.00 95.69 C

ATOM 20 C GLN A 3 -2.437 -0.409 9.534 1.00 95.69 C

ATOM 21 CB GLN A 3 -0.964 -0.099 11.535 1.00 95.69 C

ATOM 22 O GLN A 3 -3.625 -0.537 9.837 1.00 95.69 O

ATOM 23 CG GLN A 3 0.091 0.736 12.247 1.00 95.69 C

ATOM 24 CD GLN A 3 0.659 0.044 13.472 1.00 95.69 C

ATOM 25 NE2 GLN A 3 1.675 0.650 14.078 1.00 95.69 N

ATOM 26 OE1 GLN A 3 0.189 -1.026 13.871 1.00 95.69 O

ATOM 27 N GLY A 4 -1.815 -1.004 8.568 1.00 96.66 N

ATOM 28 CA GLY A 4 -2.512 -2.010 7.782 1.00 96.66 C

ATOM 29 C GLY A 4 -1.580 -3.041 7.173 1.00 96.66 C

ATOM 30 O GLY A 4 -0.369 -3.000 7.397 1.00 96.66 O

ATOM 31 N THR A 5 -2.248 -3.973 6.551 1.00 97.50 N

ATOM 32 CA THR A 5 -1.527 -5.037 5.861 1.00 97.50 C

ATOM 33 C THR A 5 -1.765 -4.965 4.356 1.00 97.50 C

ATOM 34 CB THR A 5 -1.945 -6.425 6.383 1.00 97.50 C

ATOM 35 O THR A 5 -2.892 -4.741 3.910 1.00 97.50 O

ATOM 36 CG2 THR A 5 -1.114 -7.529 5.737 1.00 97.50 C

ATOM 37 OG1 THR A 5 -1.759 -6.471 7.803 1.00 97.50 O

ATOM 38 N VAL A 6 -0.617 -5.124 3.659 1.00 97.61 N

ATOM 39 CA VAL A 6 -0.723 -5.085 2.204 1.00 97.61 C

ATOM 40 C VAL A 6 -1.535 -6.281 1.712 1.00 97.61 C

ATOM 41 CB VAL A 6 0.670 -5.075 1.534 1.00 97.61 C

ATOM 42 O VAL A 6 -1.124 -7.431 1.884 1.00 97.61 O

ATOM 43 CG1 VAL A 6 0.537 -5.072 0.012 1.00 97.61 C

ATOM 44 CG2 VAL A 6 1.479 -3.867 2.005 1.00 97.61 C

ATOM 45 N LYS A 7 -2.683 -5.969 1.191 1.00 97.32 N

ATOM 46 CA LYS A 7 -3.528 -7.012 0.615 1.00 97.32 C

ATOM 47 C LYS A 7 -2.946 -7.527 -0.698 1.00 97.32 C

ATOM 48 CB LYS A 7 -4.947 -6.490 0.390 1.00 97.32 C

ATOM 49 O LYS A 7 -2.871 -8.738 -0.917 1.00 97.32 O

ATOM 50 CG LYS A 7 -5.932 -7.554 -0.072 1.00 97.32 C

ATOM 51 CD LYS A 7 -7.352 -7.008 -0.143 1.00 97.32 C

ATOM 52 CE LYS A 7 -8.338 -8.070 -0.611 1.00 97.32 C

ATOM 53 NZ LYS A 7 -9.742 -7.562 -0.611 1.00 97.32 N

ATOM 54 N TRP A 8 -2.562 -6.601 -1.576 1.00 97.81 N

ATOM 55 CA TRP A 8 -1.833 -6.882 -2.808 1.00 97.81 C

ATOM 56 C TRP A 8 -1.194 -5.613 -3.364 1.00 97.81 C

ATOM 57 CB TRP A 8 -2.763 -7.501 -3.855 1.00 97.81 C

ATOM 58 O TRP A 8 -1.669 -4.506 -3.101 1.00 97.81 O

ATOM 59 CG TRP A 8 -3.902 -6.614 -4.258 1.00 97.81 C

ATOM 60 CD1 TRP A 8 -5.176 -6.632 -3.763 1.00 97.81 C

ATOM 61 CD2 TRP A 8 -3.871 -5.579 -5.247 1.00 97.81 C

ATOM 62 CE2 TRP A 8 -5.162 -5.010 -5.297 1.00 97.81 C

ATOM 63 CE3 TRP A 8 -2.874 -5.077 -6.094 1.00 97.81 C

ATOM 64 NE1 TRP A 8 -5.939 -5.669 -4.383 1.00 97.81 N

ATOM 65 CH2 TRP A 8 -4.490 -3.490 -6.983 1.00 97.81 C

ATOM 66 CZ2 TRP A 8 -5.483 -3.962 -6.164 1.00 97.81 C

ATOM 67 CZ3 TRP A 8 -3.195 -4.035 -6.956 1.00 97.81 C

ATOM 68 N PHE A 9 -0.193 -5.844 -4.099 1.00 97.47 N

ATOM 69 CA PHE A 9 0.520 -4.755 -4.755 1.00 97.47 C

ATOM 70 C PHE A 9 1.109 -5.216 -6.083 1.00 97.47 C

ATOM 71 CB PHE A 9 1.630 -4.214 -3.849 1.00 97.47 C

ATOM 72 O PHE A 9 1.765 -6.258 -6.149 1.00 97.47 O

ATOM 73 CG PHE A 9 2.267 -2.949 -4.357 1.00 97.47 C

ATOM 74 CD1 PHE A 9 3.427 -2.996 -5.120 1.00 97.47 C

ATOM 75 CD2 PHE A 9 1.704 -1.711 -4.073 1.00 97.47 C

ATOM 76 CE1 PHE A 9 4.019 -1.827 -5.592 1.00 97.47 C

ATOM 77 CE2 PHE A 9 2.289 -0.539 -4.541 1.00 97.47 C

ATOM 78 CZ PHE A 9 3.447 -0.598 -5.300 1.00 97.47 C

ATOM 79 N ASN A 10 0.732 -4.524 -7.121 1.00 97.01 N

ATOM 80 CA ASN A 10 1.313 -4.746 -8.441 1.00 97.01 C

ATOM 81 C ASN A 10 2.498 -3.819 -8.695 1.00 97.01 C

ATOM 82 CB ASN A 10 0.255 -4.566 -9.531 1.00 97.01 C

ATOM 83 O ASN A 10 2.315 -2.634 -8.978 1.00 97.01 O

ATOM 84 CG ASN A 10 0.744 -5.001 -10.898 1.00 97.01 C

ATOM 85 ND2 ASN A 10 -0.127 -5.653 -11.660 1.00 97.01 N

ATOM 86 OD1 ASN A 10 1.896 -4.755 -11.266 1.00 97.01 O

ATOM 87 N ALA A 11 3.692 -4.311 -8.579 1.00 94.58 N

ATOM 88 CA ALA A 11 4.904 -3.504 -8.691 1.00 94.58 C

ATOM 89 C ALA A 11 5.088 -2.985 -10.114 1.00 94.58 C

ATOM 90 CB ALA A 11 6.124 -4.314 -8.262 1.00 94.58 C

ATOM 91 O ALA A 11 5.627 -1.895 -10.319 1.00 94.58 O

ATOM 92 N GLU A 12 4.561 -3.819 -11.071 1.00 94.79 N

ATOM 93 CA GLU A 12 4.638 -3.420 -12.473 1.00 94.79 C

ATOM 94 C GLU A 12 3.749 -2.211 -12.753 1.00 94.79 C

ATOM 95 CB GLU A 12 4.245 -4.584 -13.386 1.00 94.79 C

ATOM 96 O GLU A 12 4.170 -1.266 -13.423 1.00 94.79 O

ATOM 97 CG GLU A 12 4.465 -4.306 -14.866 1.00 94.79 C

ATOM 98 CD GLU A 12 4.142 -5.496 -15.755 1.00 94.79 C

ATOM 99 OE1 GLU A 12 4.254 -5.376 -16.996 1.00 94.79 O

ATOM 100 OE2 GLU A 12 3.772 -6.558 -15.206 1.00 94.79 O

ATOM 101 N LYS A 13 2.536 -2.221 -12.147 1.00 95.77 N

ATOM 102 CA LYS A 13 1.562 -1.156 -12.371 1.00 95.77 C

ATOM 103 C LYS A 13 1.727 -0.036 -11.348 1.00 95.77 C

ATOM 104 CB LYS A 13 0.138 -1.711 -12.317 1.00 95.77 C

ATOM 105 O LYS A 13 1.299 1.096 -11.585 1.00 95.77 O

ATOM 106 CG LYS A 13 -0.211 -2.635 -13.474 1.00 95.77 C

ATOM 107 CD LYS A 13 -1.684 -3.022 -13.455 1.00 95.77 C

ATOM 108 CE LYS A 13 -2.049 -3.895 -14.648 1.00 95.77 C

ATOM 109 NZ LYS A 13 -3.485 -4.304 -14.617 1.00 95.77 N

ATOM 110 N GLY A 14 2.359 -0.292 -10.182 1.00 95.99 N

ATOM 111 CA GLY A 14 2.737 0.697 -9.185 1.00 95.99 C

ATOM 112 C GLY A 14 1.624 1.009 -8.202 1.00 95.99 C

ATOM 113 O GLY A 14 1.590 2.095 -7.620 1.00 95.99 O

ATOM 114 N PHE A 15 0.653 0.102 -8.082 1.00 96.68 N

ATOM 115 CA PHE A 15 -0.421 0.354 -7.127 1.00 96.68 C

ATOM 116 C PHE A 15 -0.905 -0.948 -6.501 1.00 96.68 C

ATOM 117 CB PHE A 15 -1.588 1.075 -7.808 1.00 96.68 C

ATOM 118 O PHE A 15 -0.634 -2.032 -7.022 1.00 96.68 O

ATOM 119 CG PHE A 15 -2.320 0.230 -8.815 1.00 96.68 C

ATOM 120 CD1 PHE A 15 -1.982 0.282 -10.162 1.00 96.68 C

ATOM 121 CD2 PHE A 15 -3.345 -0.616 -8.415 1.00 96.68 C

ATOM 122 CE1 PHE A 15 -2.658 -0.500 -11.097 1.00 96.68 C

ATOM 123 CE2 PHE A 15 -4.025 -1.400 -9.343 1.00 96.68 C

ATOM 124 CZ PHE A 15 -3.680 -1.339 -10.684 1.00 96.68 C

ATOM 125 N GLY A 16 -1.743 -0.765 -5.443 1.00 97.00 N

ATOM 126 CA GLY A 16 -2.316 -1.886 -4.714 1.00 97.00 C

ATOM 127 C GLY A 16 -3.292 -1.459 -3.634 1.00 97.00 C

ATOM 128 O GLY A 16 -3.814 -0.342 -3.668 1.00 97.00 O

ATOM 129 N PHE A 17 -3.530 -2.355 -2.698 1.00 97.41 N

ATOM 130 CA PHE A 17 -4.484 -2.088 -1.628 1.00 97.41 C

ATOM 131 C PHE A 17 -3.947 -2.581 -0.289 1.00 97.41 C

ATOM 132 CB PHE A 17 -5.832 -2.750 -1.929 1.00 97.41 C

ATOM 133 O PHE A 17 -3.290 -3.622 -0.224 1.00 97.41 O

ATOM 134 CG PHE A 17 -6.641 -2.031 -2.975 1.00 97.41 C

ATOM 135 CD1 PHE A 17 -7.492 -0.991 -2.622 1.00 97.41 C

ATOM 136 CD2 PHE A 17 -6.550 -2.396 -4.312 1.00 97.41 C

ATOM 137 CE1 PHE A 17 -8.242 -0.324 -3.587 1.00 97.41 C

ATOM 138 CE2 PHE A 17 -7.297 -1.734 -5.282 1.00 97.41 C

ATOM 139 CZ PHE A 17 -8.143 -0.699 -4.918 1.00 97.41 C

ATOM 140 N ILE A 18 -4.248 -1.721 0.744 1.00 97.57 N

ATOM 141 CA ILE A 18 -3.888 -2.029 2.123 1.00 97.57 C

ATOM 142 C ILE A 18 -5.147 -2.351 2.925 1.00 97.57 C

ATOM 143 CB ILE A 18 -3.117 -0.862 2.781 1.00 97.57 C

ATOM 144 O ILE A 18 -6.128 -1.606 2.878 1.00 97.57 O

ATOM 145 CG1 ILE A 18 -1.826 -0.572 2.007 1.00 97.57 C

ATOM 146 CG2 ILE A 18 -2.817 -1.173 4.250 1.00 97.57 C

ATOM 147 CD1 ILE A 18 -1.168 0.751 2.375 1.00 97.57 C

ATOM 148 N GLU A 19 -5.060 -3.487 3.507 1.00 96.93 N

ATOM 149 CA GLU A 19 -6.161 -3.887 4.379 1.00 96.93 C

ATOM 150 C GLU A 19 -6.017 -3.270 5.767 1.00 96.93 C

ATOM 151 CB GLU A 19 -6.235 -5.412 4.485 1.00 96.93 C

ATOM 152 O GLU A 19 -4.960 -3.374 6.392 1.00 96.93 O

ATOM 153 CG GLU A 19 -7.458 -5.917 5.238 1.00 96.93 C

ATOM 154 CD GLU A 19 -7.542 -7.434 5.297 1.00 96.93 C

ATOM 155 OE1 GLU A 19 -8.634 -7.970 5.591 1.00 96.93 O

ATOM 156 OE2 GLU A 19 -6.506 -8.091 5.048 1.00 96.93 O

ATOM 157 N VAL A 20 -7.082 -2.581 6.165 1.00 94.62 N

ATOM 158 CA VAL A 20 -7.157 -1.981 7.493 1.00 94.62 C

ATOM 159 C VAL A 20 -8.284 -2.633 8.292 1.00 94.62 C

ATOM 160 CB VAL A 20 -7.374 -0.453 7.414 1.00 94.62 C

ATOM 161 O VAL A 20 -9.416 -2.732 7.813 1.00 94.62 O

ATOM 162 CG1 VAL A 20 -7.342 0.170 8.808 1.00 94.62 C

ATOM 163 CG2 VAL A 20 -6.321 0.189 6.514 1.00 94.62 C

ATOM 164 N GLU A 21 -8.028 -3.133 9.448 1.00 91.49 N

ATOM 165 CA GLU A 21 -9.019 -3.831 10.261 1.00 91.49 C

ATOM 166 C GLU A 21 -10.224 -2.939 10.549 1.00 91.49 C

ATOM 167 CB GLU A 21 -8.395 -4.312 11.574 1.00 91.49 C

ATOM 168 O GLU A 21 -10.075 -1.839 11.085 1.00 91.49 O

ATOM 169 CG GLU A 21 -9.274 -5.279 12.354 1.00 91.49 C

ATOM 170 CD GLU A 21 -8.612 -5.807 13.617 1.00 91.49 C

ATOM 171 OE1 GLU A 21 -9.194 -6.692 14.283 1.00 91.49 O

ATOM 172 OE2 GLU A 21 -7.502 -5.329 13.943 1.00 91.49 O

ATOM 173 N GLY A 22 -11.451 -3.463 10.120 1.00 90.13 N

ATOM 174 CA GLY A 22 -12.677 -2.774 10.492 1.00 90.13 C

ATOM 175 C GLY A 22 -13.025 -1.631 9.558 1.00 90.13 C

ATOM 176 O GLY A 22 -13.976 -0.886 9.808 1.00 90.13 O

ATOM 177 N GLU A 23 -12.167 -1.421 8.466 1.00 89.92 N

ATOM 178 CA GLU A 23 -12.367 -0.387 7.456 1.00 89.92 C

ATOM 179 C GLU A 23 -12.259 -0.963 6.047 1.00 89.92 C

ATOM 180 CB GLU A 23 -11.355 0.747 7.639 1.00 89.92 C

ATOM 181 O GLU A 23 -11.859 -2.116 5.871 1.00 89.92 O

ATOM 182 CG GLU A 23 -11.452 1.446 8.988 1.00 89.92 C

ATOM 183 CD GLU A 23 -10.425 2.554 9.164 1.00 89.92 C

ATOM 184 OE1 GLU A 23 -10.102 2.902 10.322 1.00 89.92 O

ATOM 185 OE2 GLU A 23 -9.942 3.078 8.136 1.00 89.92 O

ATOM 186 N ASN A 24 -12.643 -0.115 5.082 1.00 92.07 N

ATOM 187 CA ASN A 24 -12.453 -0.481 3.682 1.00 92.07 C

ATOM 188 C ASN A 24 -10.975 -0.490 3.301 1.00 92.07 C

ATOM 189 CB ASN A 24 -13.231 0.468 2.769 1.00 92.07 C

ATOM 190 O ASN A 24 -10.162 0.183 3.936 1.00 92.07 O

ATOM 191 CG ASN A 24 -14.731 0.368 2.964 1.00 92.07 C

ATOM 192 ND2 ASN A 24 -15.403 1.513 2.998 1.00 92.07 N

ATOM 193 OD1 ASN A 24 -15.282 -0.730 3.084 1.00 92.07 O

ATOM 194 N ASP A 25 -10.682 -1.334 2.289 1.00 94.92 N

ATOM 195 CA ASP A 25 -9.330 -1.330 1.739 1.00 94.92 C

ATOM 196 C ASP A 25 -8.945 0.060 1.237 1.00 94.92 C

ATOM 197 CB ASP A 25 -9.208 -2.351 0.607 1.00 94.92 C

ATOM 198 O ASP A 25 -9.784 0.785 0.697 1.00 94.92 O

ATOM 199 CG ASP A 25 -9.460 -3.777 1.064 1.00 94.92 C

ATOM 200 OD1 ASP A 25 -9.508 -4.025 2.288 1.00 94.92 O

ATOM 201 OD2 ASP A 25 -9.608 -4.661 0.193 1.00 94.92 O

ATOM 202 N VAL A 26 -7.679 0.285 1.514 1.00 95.67 N

ATOM 203 CA VAL A 26 -7.181 1.610 1.160 1.00 95.67 C

ATOM 204 C VAL A 26 -6.243 1.507 -0.041 1.00 95.67 C

ATOM 205 CB VAL A 26 -6.454 2.279 2.348 1.00 95.67 C

ATOM 206 O VAL A 26 -5.342 0.665 -0.061 1.00 95.67 O

ATOM 207 CG1 VAL A 26 -5.915 3.652 1.948 1.00 95.67 C

ATOM 208 CG2 VAL A 26 -7.392 2.399 3.548 1.00 95.67 C

ATOM 209 N PHE A 27 -6.553 2.327 -0.998 1.00 96.94 N

ATOM 210 CA PHE A 27 -5.743 2.372 -2.210 1.00 96.94 C

ATOM 211 C PHE A 27 -4.357 2.930 -1.914 1.00 96.94 C

ATOM 212 CB PHE A 27 -6.431 3.217 -3.287 1.00 96.94 C

ATOM 213 O PHE A 27 -4.220 3.903 -1.169 1.00 96.94 O

ATOM 214 CG PHE A 27 -5.594 3.427 -4.520 1.00 96.94 C

ATOM 215 CD1 PHE A 27 -4.872 4.601 -4.695 1.00 96.94 C

ATOM 216 CD2 PHE A 27 -5.529 2.449 -5.504 1.00 96.94 C

ATOM 217 CE1 PHE A 27 -4.097 4.798 -5.836 1.00 96.94 C

ATOM 218 CE2 PHE A 27 -4.756 2.638 -6.646 1.00 96.94 C

ATOM 219 CZ PHE A 27 -4.042 3.814 -6.810 1.00 96.94 C

ATOM 220 N VAL A 28 -3.303 2.310 -2.513 1.00 96.89 N

ATOM 221 CA VAL A 28 -1.934 2.788 -2.352 1.00 96.89 C

ATOM 222 C VAL A 28 -1.245 2.851 -3.714 1.00 96.89 C

ATOM 223 CB VAL A 28 -1.128 1.889 -1.389 1.00 96.89 C

ATOM 224 O VAL A 28 -1.334 1.909 -4.506 1.00 96.89 O

ATOM 225 CG1 VAL A 28 -1.119 0.442 -1.879 1.00 96.89 C

ATOM 226 CG2 VAL A 28 0.299 2.413 -1.238 1.00 96.89 C

ATOM 227 N HIS A 29 -0.621 4.058 -4.018 1.00 96.69 N

ATOM 228 CA HIS A 29 0.205 4.290 -5.197 1.00 96.69 C

ATOM 229 C HIS A 29 1.685 4.336 -4.832 1.00 96.69 C

ATOM 230 CB HIS A 29 -0.205 5.589 -5.892 1.00 96.69 C

ATOM 231 O HIS A 29 2.042 4.731 -3.719 1.00 96.69 O

ATOM 232 CG HIS A 29 0.430 5.779 -7.233 1.00 96.69 C

ATOM 233 CD2 HIS A 29 0.228 5.143 -8.411 1.00 96.69 C

ATOM 234 ND1 HIS A 29 1.408 6.721 -7.466 1.00 96.69 N

ATOM 235 CE1 HIS A 29 1.779 6.657 -8.734 1.00 96.69 C

ATOM 236 NE2 HIS A 29 1.078 5.707 -9.329 1.00 96.69 N

ATOM 237 N PHE A 30 2.522 3.785 -5.663 1.00 95.55 N

ATOM 238 CA PHE A 30 3.951 3.716 -5.383 1.00 95.55 C

ATOM 239 C PHE A 30 4.490 5.082 -4.977 1.00 95.55 C

ATOM 240 CB PHE A 30 4.715 3.191 -6.602 1.00 95.55 C

ATOM 241 O PHE A 30 5.481 5.174 -4.250 1.00 95.55 O

ATOM 242 CG PHE A 30 4.853 4.198 -7.712 1.00 95.55 C

ATOM 243 CD1 PHE A 30 3.968 4.200 -8.782 1.00 95.55 C

ATOM 244 CD2 PHE A 30 5.869 5.145 -7.684 1.00 95.55 C

ATOM 245 CE1 PHE A 30 4.093 5.131 -9.811 1.00 95.55 C

ATOM 246 CE2 PHE A 30 6.001 6.079 -8.707 1.00 95.55 C

ATOM 247 CZ PHE A 30 5.112 6.069 -9.770 1.00 95.55 C

ATOM 248 N SER A 31 3.867 6.162 -5.432 1.00 94.87 N

ATOM 249 CA SER A 31 4.306 7.520 -5.127 1.00 94.87 C

ATOM 250 C SER A 31 4.160 7.829 -3.641 1.00 94.87 C

ATOM 251 CB SER A 31 3.510 8.537 -5.948 1.00 94.87 C

ATOM 252 O SER A 31 4.795 8.752 -3.128 1.00 94.87 O

ATOM 253 OG SER A 31 2.144 8.529 -5.571 1.00 94.87 O

ATOM 254 N ALA A 32 3.294 7.081 -2.954 1.00 95.24 N

ATOM 255 CA ALA A 32 2.993 7.310 -1.543 1.00 95.24 C

ATOM 256 C ALA A 32 3.971 6.557 -0.645 1.00 95.24 C

ATOM 257 CB ALA A 32 1.559 6.892 -1.230 1.00 95.24 C

ATOM 258 O ALA A 32 4.023 6.796 0.564 1.00 95.24 O

ATOM 259 N ILE A 33 4.812 5.621 -1.196 1.00 96.00 N

ATOM 260 CA ILE A 33 5.743 4.782 -0.448 1.00 96.00 C

ATOM 261 C ILE A 33 7.033 5.555 -0.181 1.00 96.00 C

ATOM 262 CB ILE A 33 6.051 3.469 -1.202 1.00 96.00 C

ATOM 263 O ILE A 33 7.707 5.991 -1.117 1.00 96.00 O

ATOM 264 CG1 ILE A 33 4.756 2.702 -1.490 1.00 96.00 C

ATOM 265 CG2 ILE A 33 7.033 2.606 -0.404 1.00 96.00 C

ATOM 266 CD1 ILE A 33 4.933 1.519 -2.432 1.00 96.00 C

ATOM 267 N ASN A 34 7.288 5.778 1.108 1.00 92.59 N

ATOM 268 CA ASN A 34 8.475 6.512 1.533 1.00 92.59 C

ATOM 269 C ASN A 34 9.677 5.586 1.698 1.00 92.59 C

ATOM 270 CB ASN A 34 8.201 7.265 2.837 1.00 92.59 C

ATOM 271 O ASN A 34 9.856 4.976 2.754 1.00 92.59 O

ATOM 272 CG ASN A 34 7.286 8.458 2.642 1.00 92.59 C

ATOM 273 ND2 ASN A 34 6.540 8.809 3.682 1.00 92.59 N

ATOM 274 OD1 ASN A 34 7.250 9.057 1.564 1.00 92.59 O

ATOM 275 N GLN A 35 10.325 5.222 0.620 1.00 89.68 N

ATOM 276 CA GLN A 35 11.501 4.360 0.572 1.00 89.68 C

ATOM 277 C GLN A 35 12.435 4.767 -0.564 1.00 89.68 C

ATOM 278 CB GLN A 35 11.088 2.896 0.413 1.00 89.68 C

ATOM 279 O GLN A 35 11.996 5.357 -1.554 1.00 89.68 O

ATOM 280 CG GLN A 35 12.261 1.926 0.382 1.00 89.68 C

ATOM 281 CD GLN A 35 11.822 0.476 0.294 1.00 89.68 C

ATOM 282 NE2 GLN A 35 12.774 -0.418 0.051 1.00 89.68 N

ATOM 283 OE1 GLN A 35 10.637 0.163 0.445 1.00 89.68 O

ATOM 284 N ASP A 36 13.687 4.593 -0.301 1.00 87.67 N

ATOM 285 CA ASP A 36 14.666 4.844 -1.354 1.00 87.67 C

ATOM 286 C ASP A 36 14.707 3.690 -2.352 1.00 87.67 C

ATOM 287 CB ASP A 36 16.055 5.068 -0.752 1.00 87.67 C

ATOM 288 O ASP A 36 14.393 2.549 -2.004 1.00 87.67 O

ATOM 289 CG ASP A 36 16.134 6.316 0.110 1.00 87.67 C

ATOM 290 OD1 ASP A 36 15.532 7.349 -0.256 1.00 87.67 O

ATOM 291 OD2 ASP A 36 16.806 6.267 1.163 1.00 87.67 O

ATOM 292 N GLY A 37 14.880 3.974 -3.637 1.00 88.84 N

ATOM 293 CA GLY A 37 14.990 2.923 -4.636 1.00 88.84 C

ATOM 294 C GLY A 37 13.649 2.498 -5.204 1.00 88.84 C

ATOM 295 O GLY A 37 12.733 3.315 -5.325 1.00 88.84 O

ATOM 296 N TYR A 38 13.620 1.257 -5.581 1.00 88.96 N

ATOM 297 CA TYR A 38 12.396 0.692 -6.138 1.00 88.96 C

ATOM 298 C TYR A 38 11.299 0.618 -5.083 1.00 88.96 C

ATOM 299 CB TYR A 38 12.661 -0.702 -6.714 1.00 88.96 C

ATOM 300 O TYR A 38 11.447 -0.072 -4.072 1.00 88.96 O

ATOM 301 CG TYR A 38 11.484 -1.285 -7.459 1.00 88.96 C

ATOM 302 CD1 TYR A 38 10.733 -2.323 -6.911 1.00 88.96 C

ATOM 303 CD2 TYR A 38 11.121 -0.800 -8.710 1.00 88.96 C

ATOM 304 CE1 TYR A 38 9.649 -2.864 -7.594 1.00 88.96 C

ATOM 305 CE2 TYR A 38 10.039 -1.333 -9.403 1.00 88.96 C

ATOM 306 OH TYR A 38 8.238 -2.895 -9.518 1.00 88.96 O

ATOM 307 CZ TYR A 38 9.310 -2.363 -8.837 1.00 88.96 C

ATOM 308 N LYS A 39 10.141 1.461 -5.345 1.00 92.42 N

ATOM 309 CA LYS A 39 9.021 1.582 -4.417 1.00 92.42 C

ATOM 310 C LYS A 39 7.974 0.502 -4.674 1.00 92.42 C

ATOM 311 CB LYS A 39 8.382 2.968 -4.524 1.00 92.42 C

ATOM 312 O LYS A 39 7.223 0.579 -5.649 1.00 92.42 O

ATOM 313 CG LYS A 39 9.322 4.112 -4.175 1.00 92.42 C

ATOM 314 CD LYS A 39 8.636 5.464 -4.320 1.00 92.42 C

ATOM 315 CE LYS A 39 9.579 6.610 -3.978 1.00 92.42 C

ATOM 316 NZ LYS A 39 8.917 7.939 -4.140 1.00 92.42 N

ATOM 317 N SER A 40 8.074 -0.500 -3.787 1.00 94.82 N

ATOM 318 CA SER A 40 7.143 -1.620 -3.886 1.00 94.82 C

ATOM 319 C SER A 40 6.751 -2.136 -2.505 1.00 94.82 C

ATOM 320 CB SER A 40 7.754 -2.755 -4.708 1.00 94.82 C

ATOM 321 O SER A 40 7.435 -1.861 -1.517 1.00 94.82 O

ATOM 322 OG SER A 40 8.832 -3.357 -4.012 1.00 94.82 O

ATOM 323 N LEU A 41 5.593 -2.851 -2.505 1.00 96.26 N

ATOM 324 CA LEU A 41 5.087 -3.525 -1.314 1.00 96.26 C

ATOM 325 C LEU A 41 4.868 -5.010 -1.583 1.00 96.26 C

ATOM 326 CB LEU A 41 3.778 -2.881 -0.849 1.00 96.26 C

ATOM 327 O LEU A 41 4.622 -5.410 -2.723 1.00 96.26 O

ATOM 328 CG LEU A 41 3.849 -1.401 -0.469 1.00 96.26 C

ATOM 329 CD1 LEU A 41 2.447 -0.847 -0.235 1.00 96.26 C

ATOM 330 CD2 LEU A 41 4.720 -1.207 0.767 1.00 96.26 C

ATOM 331 N GLU A 42 5.084 -5.764 -0.495 1.00 95.95 N

ATOM 332 CA GLU A 42 4.838 -7.199 -0.594 1.00 95.95 C

ATOM 333 C GLU A 42 3.513 -7.579 0.062 1.00 95.95 C

ATOM 334 CB GLU A 42 5.985 -7.987 0.044 1.00 95.95 C

ATOM 335 O GLU A 42 3.143 -7.017 1.095 1.00 95.95 O

ATOM 336 CG GLU A 42 7.330 -7.771 -0.634 1.00 95.95 C

ATOM 337 CD GLU A 42 8.473 -8.503 0.053 1.00 95.95 C

ATOM 338 OE1 GLU A 42 9.624 -8.423 -0.432 1.00 95.95 O

ATOM 339 OE2 GLU A 42 8.214 -9.162 1.085 1.00 95.95 O

ATOM 340 N GLU A 43 2.806 -8.509 -0.620 1.00 97.07 N

ATOM 341 CA GLU A 43 1.579 -9.017 -0.015 1.00 97.07 C

ATOM 342 C GLU A 43 1.830 -9.519 1.404 1.00 97.07 C

ATOM 343 CB GLU A 43 0.980 -10.136 -0.871 1.00 97.07 C

ATOM 344 O GLU A 43 2.783 -10.263 1.645 1.00 97.07 O

ATOM 345 CG GLU A 43 -0.391 -10.602 -0.403 1.00 97.07 C

ATOM 346 CD GLU A 43 -1.015 -11.644 -1.318 1.00 97.07 C

ATOM 347 OE1 GLU A 43 -2.039 -12.254 -0.934 1.00 97.07 O

ATOM 348 OE2 GLU A 43 -0.475 -11.852 -2.428 1.00 97.07 O

ATOM 349 N GLY A 44 0.975 -9.047 2.396 1.00 96.93 N

ATOM 350 CA GLY A 44 1.094 -9.478 3.780 1.00 96.93 C

ATOM 351 C GLY A 44 2.002 -8.586 4.606 1.00 96.93 C

ATOM 352 O GLY A 44 2.118 -8.764 5.820 1.00 96.93 O

ATOM 353 N GLN A 45 2.651 -7.645 3.937 1.00 96.71 N

ATOM 354 CA GLN A 45 3.572 -6.730 4.604 1.00 96.71 C

ATOM 355 C GLN A 45 2.817 -5.712 5.454 1.00 96.71 C

ATOM 356 CB GLN A 45 4.450 -6.010 3.579 1.00 96.71 C

ATOM 357 O GLN A 45 1.809 -5.155 5.015 1.00 96.71 O

ATOM 358 CG GLN A 45 5.557 -5.169 4.201 1.00 96.71 C

ATOM 359 CD GLN A 45 6.536 -4.634 3.172 1.00 96.71 C

ATOM 360 NE2 GLN A 45 7.581 -3.961 3.642 1.00 96.71 N

ATOM 361 OE1 GLN A 45 6.355 -4.825 1.965 1.00 96.71 O

ATOM 362 N ALA A 46 3.306 -5.514 6.697 1.00 97.17 N

ATOM 363 CA ALA A 46 2.731 -4.502 7.580 1.00 97.17 C

ATOM 364 C ALA A 46 3.255 -3.111 7.236 1.00 97.17 C

ATOM 365 CB ALA A 46 3.032 -4.835 9.039 1.00 97.17 C

ATOM 366 O ALA A 46 4.462 -2.918 7.078 1.00 97.17 O

ATOM 367 N VAL A 47 2.320 -2.158 7.114 1.00 97.28 N

ATOM 368 CA VAL A 47 2.704 -0.801 6.739 1.00 97.28 C

ATOM 369 C VAL A 47 1.974 0.206 7.625 1.00 97.28 C

ATOM 370 CB VAL A 47 2.404 -0.517 5.250 1.00 97.28 C

ATOM 371 O VAL A 47 0.924 -0.104 8.192 1.00 97.28 O

ATOM 372 CG1 VAL A 47 3.248 -1.417 4.349 1.00 97.28 C

ATOM 373 CG2 VAL A 47 0.917 -0.708 4.960 1.00 97.28 C

ATOM 374 N GLU A 48 2.647 1.301 7.776 1.00 97.17 N

ATOM 375 CA GLU A 48 2.045 2.476 8.399 1.00 97.17 C

ATOM 376 C GLU A 48 1.826 3.590 7.380 1.00 97.17 C

ATOM 377 CB GLU A 48 2.917 2.981 9.551 1.00 97.17 C

ATOM 378 O GLU A 48 2.704 3.870 6.560 1.00 97.17 O

ATOM 379 CG GLU A 48 2.263 4.073 10.385 1.00 97.17 C

ATOM 380 CD GLU A 48 3.129 4.542 11.544 1.00 97.17 C

ATOM 381 OE1 GLU A 48 2.645 5.340 12.379 1.00 97.17 O

ATOM 382 OE2 GLU A 48 4.300 4.110 11.617 1.00 97.17 O

ATOM 383 N PHE A 49 0.636 4.208 7.390 1.00 97.32 N

ATOM 384 CA PHE A 49 0.308 5.185 6.359 1.00 97.32 C

ATOM 385 C PHE A 49 -0.711 6.194 6.875 1.00 97.32 C

ATOM 386 CB PHE A 49 -0.231 4.488 5.107 1.00 97.32 C

ATOM 387 O PHE A 49 -1.308 5.995 7.935 1.00 97.32 O

ATOM 388 CG PHE A 49 -1.464 3.662 5.355 1.00 97.32 C

ATOM 389 CD1 PHE A 49 -1.360 2.356 5.820 1.00 97.32 C

ATOM 390 CD2 PHE A 49 -2.727 4.191 5.124 1.00 97.32 C

ATOM 391 CE1 PHE A 49 -2.500 1.589 6.050 1.00 97.32 C

ATOM 392 CE2 PHE A 49 -3.870 3.430 5.352 1.00 97.32 C

ATOM 393 CZ PHE A 49 -3.754 2.129 5.814 1.00 97.32 C

ATOM 394 N GLU A 50 -0.795 7.333 6.214 1.00 96.31 N

ATOM 395 CA GLU A 50 -1.858 8.313 6.416 1.00 96.31 C

ATOM 396 C GLU A 50 -2.969 8.144 5.384 1.00 96.31 C

ATOM 397 CB GLU A 50 -1.297 9.736 6.357 1.00 96.31 C

ATOM 398 O GLU A 50 -2.704 7.803 4.229 1.00 96.31 O

ATOM 399 CG GLU A 50 -0.306 10.053 7.467 1.00 96.31 C

ATOM 400 CD GLU A 50 0.264 11.460 7.379 1.00 96.31 C

ATOM 401 OE1 GLU A 50 1.119 11.822 8.218 1.00 96.31 O

ATOM 402 OE2 GLU A 50 -0.149 12.207 6.464 1.00 96.31 O

ATOM 403 N VAL A 51 -4.202 8.254 5.860 1.00 94.84 N

ATOM 404 CA VAL A 51 -5.319 8.195 4.924 1.00 94.84 C

ATOM 405 C VAL A 51 -5.692 9.606 4.474 1.00 94.84 C

ATOM 406 CB VAL A 51 -6.547 7.493 5.547 1.00 94.84 C

ATOM 407 O VAL A 51 -5.976 10.474 5.303 1.00 94.84 O

ATOM 408 CG1 VAL A 51 -7.713 7.467 4.560 1.00 94.84 C

ATOM 409 CG2 VAL A 51 -6.183 6.077 5.988 1.00 94.84 C

ATOM 410 N VAL A 52 -5.581 9.844 3.184 1.00 94.81 N

ATOM 411 CA VAL A 52 -5.944 11.147 2.637 1.00 94.81 C

ATOM 412 C VAL A 52 -7.040 10.979 1.587 1.00 94.81 C

ATOM 413 CB VAL A 52 -4.722 11.865 2.021 1.00 94.81 C

ATOM 414 O VAL A 52 -7.215 9.892 1.031 1.00 94.81 O

ATOM 415 CG1 VAL A 52 -3.654 12.119 3.083 1.00 94.81 C

ATOM 416 CG2 VAL A 52 -4.149 11.046 0.866 1.00 94.81 C

ATOM 417 N GLU A 53 -7.879 12.002 1.441 1.00 93.13 N

ATOM 418 CA GLU A 53 -8.909 11.994 0.406 1.00 93.13 C

ATOM 419 C GLU A 53 -8.308 12.257 -0.972 1.00 93.13 C

ATOM 420 CB GLU A 53 -9.990 13.033 0.716 1.00 93.13 C

ATOM 421 O GLU A 53 -7.687 13.298 -1.196 1.00 93.13 O

ATOM 422 CG GLU A 53 -11.205 12.946 -0.197 1.00 93.13 C

ATOM 423 CD GLU A 53 -12.038 11.695 0.031 1.00 93.13 C

ATOM 424 OE1 GLU A 53 -12.879 11.360 -0.834 1.00 93.13 O

ATOM 425 OE2 GLU A 53 -11.850 11.045 1.083 1.00 93.13 O

ATOM 426 N GLY A 54 -8.361 11.218 -1.920 1.00 90.05 N

ATOM 427 CA GLY A 54 -7.879 11.362 -3.284 1.00 90.05 C

ATOM 428 C GLY A 54 -8.996 11.510 -4.300 1.00 90.05 C

ATOM 429 O GLY A 54 -10.169 11.599 -3.932 1.00 90.05 O

ATOM 430 N ASP A 55 -8.734 11.632 -5.517 1.00 86.23 N

ATOM 431 CA ASP A 55 -9.664 11.855 -6.620 1.00 86.23 C

ATOM 432 C ASP A 55 -10.613 10.670 -6.785 1.00 86.23 C

ATOM 433 CB ASP A 55 -8.903 12.104 -7.923 1.00 86.23 C

ATOM 434 O ASP A 55 -11.743 10.833 -7.252 1.00 86.23 O

ATOM 435 CG ASP A 55 -8.137 13.416 -7.920 1.00 86.23 C

ATOM 436 OD1 ASP A 55 -8.541 14.357 -7.203 1.00 86.23 O

ATOM 437 OD2 ASP A 55 -7.122 13.510 -8.644 1.00 86.23 O

ATOM 438 N ARG A 56 -10.283 9.477 -6.271 1.00 85.42 N

ATOM 439 CA ARG A 56 -11.068 8.262 -6.463 1.00 85.42 C

ATOM 440 C ARG A 56 -11.431 7.627 -5.125 1.00 85.42 C

ATOM 441 CB ARG A 56 -10.303 7.258 -7.329 1.00 85.42 C

ATOM 442 O ARG A 56 -11.755 6.439 -5.063 1.00 85.42 O

ATOM 443 CG ARG A 56 -10.050 7.737 -8.749 1.00 85.42 C

ATOM 444 CD ARG A 56 -9.373 6.667 -9.593 1.00 85.42 C

ATOM 445 NE ARG A 56 -9.134 7.127 -10.958 1.00 85.42 N

ATOM 446 NH1 ARG A 56 -7.792 5.341 -11.546 1.00 85.42 N

ATOM 447 NH2 ARG A 56 -8.239 6.995 -13.069 1.00 85.42 N

ATOM 448 CZ ARG A 56 -8.389 6.487 -11.855 1.00 85.42 C

ATOM 449 N GLY A 57 -11.380 8.388 -4.045 1.00 89.48 N

ATOM 450 CA GLY A 57 -11.677 7.876 -2.716 1.00 89.48 C

ATOM 451 C GLY A 57 -10.473 7.876 -1.793 1.00 89.48 C

ATOM 452 O GLY A 57 -9.421 8.419 -2.137 1.00 89.48 O

ATOM 453 N PRO A 58 -10.653 7.369 -0.588 1.00 92.12 N

ATOM 454 CA PRO A 58 -9.551 7.335 0.376 1.00 92.12 C

ATOM 455 C PRO A 58 -8.328 6.586 -0.151 1.00 92.12 C

ATOM 456 CB PRO A 58 -10.158 6.609 1.580 1.00 92.12 C

ATOM 457 O PRO A 58 -8.465 5.507 -0.733 1.00 92.12 O

ATOM 458 CG PRO A 58 -11.636 6.735 1.396 1.00 92.12 C

ATOM 459 CD PRO A 58 -11.926 6.838 -0.074 1.00 92.12 C

ATOM 460 N GLN A 59 -7.091 7.203 -0.035 1.00 96.19 N

ATOM 461 CA GLN A 59 -5.843 6.579 -0.461 1.00 96.19 C

ATOM 462 C GLN A 59 -4.754 6.748 0.594 1.00 96.19 C

ATOM 463 CB GLN A 59 -5.377 7.165 -1.795 1.00 96.19 C

ATOM 464 O GLN A 59 -4.821 7.659 1.422 1.00 96.19 O

ATOM 465 CG GLN A 59 -5.093 8.660 -1.744 1.00 96.19 C

ATOM 466 CD GLN A 59 -4.792 9.247 -3.110 1.00 96.19 C

ATOM 467 NE2 GLN A 59 -5.362 10.413 -3.393 1.00 96.19 N

ATOM 468 OE1 GLN A 59 -4.052 8.658 -3.904 1.00 96.19 O

ATOM 469 N ALA A 60 -3.790 5.855 0.551 1.00 96.82 N

ATOM 470 CA ALA A 60 -2.679 5.865 1.499 1.00 96.82 C

ATOM 471 C ALA A 60 -1.639 6.913 1.114 1.00 96.82 C

ATOM 472 CB ALA A 60 -2.035 4.484 1.579 1.00 96.82 C

ATOM 473 O ALA A 60 -1.315 7.071 -0.065 1.00 96.82 O

ATOM 474 N ALA A 61 -1.157 7.696 2.107 1.00 96.69 N

ATOM 475 CA ALA A 61 -0.071 8.661 1.953 1.00 96.69 C

ATOM 476 C ALA A 61 1.039 8.404 2.968 1.00 96.69 C

ATOM 477 CB ALA A 61 -0.600 10.086 2.097 1.00 96.69 C

ATOM 478 O ALA A 61 0.801 7.807 4.020 1.00 96.69 O

ATOM 479 N ASN A 62 2.260 8.829 2.591 1.00 96.05 N

ATOM 480 CA ASN A 62 3.410 8.680 3.477 1.00 96.05 C

ATOM 481 C ASN A 62 3.535 7.251 3.997 1.00 96.05 C

ATOM 482 CB ASN A 62 3.318 9.664 4.646 1.00 96.05 C

ATOM 483 O ASN A 62 3.696 7.035 5.200 1.00 96.05 O

ATOM 484 CG ASN A 62 3.348 11.111 4.194 1.00 96.05 C

ATOM 485 ND2 ASN A 62 2.444 11.920 4.735 1.00 96.05 N

ATOM 486 OD1 ASN A 62 4.176 11.499 3.366 1.00 96.05 O

ATOM 487 N VAL A 63 3.521 6.279 3.109 1.00 96.91 N

ATOM 488 CA VAL A 63 3.545 4.860 3.450 1.00 96.91 C

ATOM 489 C VAL A 63 4.957 4.452 3.865 1.00 96.91 C

ATOM 490 CB VAL A 63 3.062 3.985 2.272 1.00 96.91 C

ATOM 491 O VAL A 63 5.923 4.718 3.147 1.00 96.91 O

ATOM 492 CG1 VAL A 63 3.133 2.503 2.636 1.00 96.91 C

ATOM 493 CG2 VAL A 63 1.640 4.372 1.869 1.00 96.91 C

ATOM 494 N VAL A 64 5.024 3.825 5.010 1.00 95.96 N

ATOM 495 CA VAL A 64 6.284 3.307 5.532 1.00 95.96 C

ATOM 496 C VAL A 64 6.131 1.830 5.884 1.00 95.96 C

ATOM 497 CB VAL A 64 6.756 4.104 6.769 1.00 95.96 C

ATOM 498 O VAL A 64 5.139 1.431 6.499 1.00 95.96 O

ATOM 499 CG1 VAL A 64 8.095 3.570 7.277 1.00 95.96 C

ATOM 500 CG2 VAL A 64 6.862 5.591 6.437 1.00 95.96 C

ATOM 501 N LYS A 65 7.116 1.071 5.422 1.00 95.07 N

ATOM 502 CA LYS A 65 7.143 -0.348 5.764 1.00 95.07 C

ATOM 503 C LYS A 65 7.505 -0.553 7.232 1.00 95.07 C

ATOM 504 CB LYS A 65 8.134 -1.096 4.871 1.00 95.07 C

ATOM 505 O LYS A 65 8.397 0.116 7.757 1.00 95.07 O

ATOM 506 CG LYS A 65 7.824 -0.998 3.384 1.00 95.07 C

ATOM 507 CD LYS A 65 8.915 -1.646 2.542 1.00 95.07 C

ATOM 508 CE LYS A 65 8.693 -1.403 1.055 1.00 95.07 C

ATOM 509 NZ LYS A 65 9.835 -1.905 0.235 1.00 95.07 N

ATOM 510 N LEU A 66 6.674 -1.367 8.036 1.00 93.35 N

ATOM 511 CA LEU A 66 6.968 -1.665 9.433 1.00 93.35 C

ATOM 512 C LEU A 66 7.894 -2.871 9.548 1.00 93.35 C

ATOM 513 CB LEU A 66 5.675 -1.924 10.210 1.00 93.35 C

ATOM 514 O LEU A 66 7.853 -3.773 8.708 1.00 93.35 O

ATOM 515 CG LEU A 66 4.722 -0.736 10.356 1.00 93.35 C

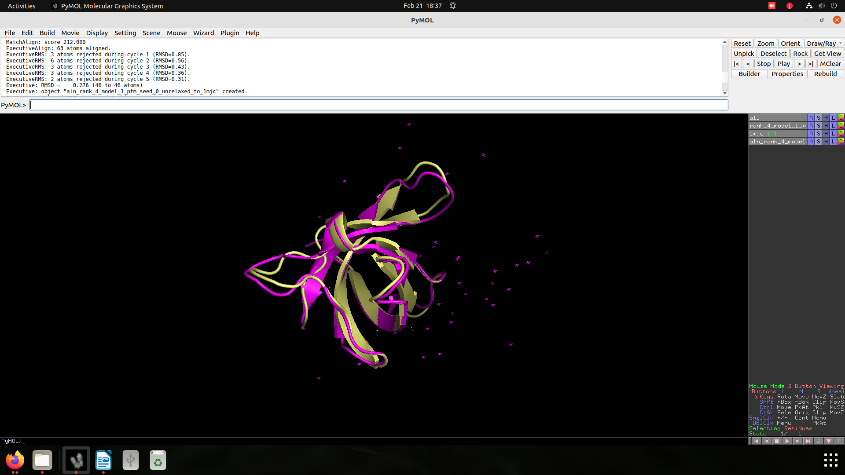
ATOM 516 CD1 LEU A 66 3.402 -1.189 10.972 1.00 93.35 C

ATOM 517 CD2 LEU A 66 5.362 0.363 11.196 1.00 93.35 C

TER 518 LEU A 66

ENDMDL

END



**RMSD = 0.276**

**MODEL 1 – RANK5 :**

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MODEL 1

ATOM 1 N MET A 1 10.904 6.747 -5.869 1.00 86.03 N

ATOM 2 CA MET A 1 9.551 6.732 -5.321 1.00 86.03 C

ATOM 3 C MET A 1 8.512 6.753 -6.437 1.00 86.03 C

ATOM 4 CB MET A 1 9.337 7.923 -4.385 1.00 86.03 C

ATOM 5 O MET A 1 8.675 7.464 -7.430 1.00 86.03 O

ATOM 6 CG MET A 1 10.234 7.908 -3.158 1.00 86.03 C

ATOM 7 SD MET A 1 9.290 8.081 -1.594 1.00 86.03 S

ATOM 8 CE MET A 1 8.876 9.846 -1.665 1.00 86.03 C

ATOM 9 N LYS A 2 7.557 5.701 -6.258 1.00 93.46 N

ATOM 10 CA LYS A 2 6.503 5.512 -7.250 1.00 93.46 C

ATOM 11 C LYS A 2 5.142 5.917 -6.690 1.00 93.46 C

ATOM 12 CB LYS A 2 6.463 4.057 -7.721 1.00 93.46 C

ATOM 13 O LYS A 2 4.963 5.991 -5.473 1.00 93.46 O

ATOM 14 CG LYS A 2 7.616 3.671 -8.636 1.00 93.46 C

ATOM 15 CD LYS A 2 7.351 2.347 -9.341 1.00 93.46 C

ATOM 16 CE LYS A 2 8.452 2.013 -10.338 1.00 93.46 C

ATOM 17 NZ LYS A 2 8.068 0.878 -11.229 1.00 93.46 N

ATOM 18 N GLN A 3 4.254 6.408 -7.626 1.00 95.39 N

ATOM 19 CA GLN A 3 2.875 6.712 -7.260 1.00 95.39 C

ATOM 20 C GLN A 3 1.911 5.682 -7.841 1.00 95.39 C

ATOM 21 CB GLN A 3 2.491 8.115 -7.731 1.00 95.39 C

ATOM 22 O GLN A 3 2.153 5.138 -8.921 1.00 95.39 O

ATOM 23 CG GLN A 3 3.277 9.229 -7.053 1.00 95.39 C

ATOM 24 CD GLN A 3 2.854 10.611 -7.514 1.00 95.39 C

ATOM 25 NE2 GLN A 3 3.668 11.615 -7.205 1.00 95.39 N

ATOM 26 OE1 GLN A 3 1.804 10.776 -8.144 1.00 95.39 O

ATOM 27 N GLY A 4 0.956 5.382 -7.056 1.00 96.15 N

ATOM 28 CA GLY A 4 -0.076 4.457 -7.496 1.00 96.15 C

ATOM 29 C GLY A 4 -1.402 4.661 -6.788 1.00 96.15 C

ATOM 30 O GLY A 4 -1.543 5.577 -5.975 1.00 96.15 O

ATOM 31 N THR A 5 -2.357 3.902 -7.270 1.00 97.31 N

ATOM 32 CA THR A 5 -3.696 3.946 -6.694 1.00 97.31 C

ATOM 33 C THR A 5 -4.032 2.627 -6.004 1.00 97.31 C

ATOM 34 CB THR A 5 -4.756 4.252 -7.768 1.00 97.31 C

ATOM 35 O THR A 5 -3.801 1.552 -6.563 1.00 97.31 O

ATOM 36 CG2 THR A 5 -6.136 4.431 -7.143 1.00 97.31 C

ATOM 37 OG1 THR A 5 -4.396 5.455 -8.457 1.00 97.31 O

ATOM 38 N VAL A 6 -4.491 2.802 -4.767 1.00 97.14 N

ATOM 39 CA VAL A 6 -4.875 1.605 -4.028 1.00 97.14 C

ATOM 40 C VAL A 6 -6.010 0.889 -4.757 1.00 97.14 C

ATOM 41 CB VAL A 6 -5.301 1.943 -2.582 1.00 97.14 C

ATOM 42 O VAL A 6 -7.102 1.440 -4.912 1.00 97.14 O

ATOM 43 CG1 VAL A 6 -5.719 0.679 -1.832 1.00 97.14 C

ATOM 44 CG2 VAL A 6 -4.168 2.655 -1.845 1.00 97.14 C

ATOM 45 N LYS A 7 -5.710 -0.230 -5.269 1.00 97.21 N

ATOM 46 CA LYS A 7 -6.723 -1.044 -5.935 1.00 97.21 C

ATOM 47 C LYS A 7 -7.710 -1.627 -4.927 1.00 97.21 C

ATOM 48 CB LYS A 7 -6.066 -2.169 -6.736 1.00 97.21 C

ATOM 49 O LYS A 7 -8.924 -1.543 -5.120 1.00 97.21 O

ATOM 50 CG LYS A 7 -7.033 -2.950 -7.613 1.00 97.21 C

ATOM 51 CD LYS A 7 -6.301 -3.947 -8.502 1.00 97.21 C

ATOM 52 CE LYS A 7 -7.267 -4.725 -9.386 1.00 97.21 C

ATOM 53 NZ LYS A 7 -6.548 -5.640 -10.322 1.00 97.21 N

ATOM 54 N TRP A 8 -7.154 -2.235 -3.928 1.00 96.85 N

ATOM 55 CA TRP A 8 -7.934 -2.721 -2.795 1.00 96.85 C

ATOM 56 C TRP A 8 -7.046 -2.930 -1.573 1.00 96.85 C

ATOM 57 CB TRP A 8 -8.646 -4.029 -3.153 1.00 96.85 C

ATOM 58 O TRP A 8 -5.835 -3.125 -1.703 1.00 96.85 O

ATOM 59 CG TRP A 8 -7.716 -5.158 -3.482 1.00 96.85 C

ATOM 60 CD1 TRP A 8 -7.289 -5.539 -4.723 1.00 96.85 C

ATOM 61 CD2 TRP A 8 -7.103 -6.057 -2.553 1.00 96.85 C

ATOM 62 CE2 TRP A 8 -6.315 -6.959 -3.302 1.00 96.85 C

ATOM 63 CE3 TRP A 8 -7.143 -6.188 -1.158 1.00 96.85 C

ATOM 64 NE1 TRP A 8 -6.446 -6.621 -4.622 1.00 96.85 N

ATOM 65 CH2 TRP A 8 -5.628 -8.084 -1.337 1.00 96.85 C

ATOM 66 CZ2 TRP A 8 -5.572 -7.978 -2.702 1.00 96.85 C

ATOM 67 CZ3 TRP A 8 -6.402 -7.203 -0.563 1.00 96.85 C

ATOM 68 N PHE A 9 -7.636 -2.760 -0.400 1.00 96.34 N

ATOM 69 CA PHE A 9 -6.958 -2.981 0.872 1.00 96.34 C

ATOM 70 C PHE A 9 -7.922 -3.543 1.910 1.00 96.34 C

ATOM 71 CB PHE A 9 -6.336 -1.678 1.385 1.00 96.34 C

ATOM 72 O PHE A 9 -9.026 -3.023 2.085 1.00 96.34 O

ATOM 73 CG PHE A 9 -5.407 -1.868 2.553 1.00 96.34 C

ATOM 74 CD1 PHE A 9 -5.874 -1.749 3.857 1.00 96.34 C

ATOM 75 CD2 PHE A 9 -4.066 -2.164 2.348 1.00 96.34 C

ATOM 76 CE1 PHE A 9 -5.016 -1.924 4.940 1.00 96.34 C

ATOM 77 CE2 PHE A 9 -3.203 -2.340 3.426 1.00 96.34 C

ATOM 78 CZ PHE A 9 -3.679 -2.219 4.721 1.00 96.34 C

ATOM 79 N ASN A 10 -7.547 -4.657 2.460 1.00 95.78 N

ATOM 80 CA ASN A 10 -8.286 -5.273 3.556 1.00 95.78 C

ATOM 81 C ASN A 10 -7.664 -4.940 4.909 1.00 95.78 C

ATOM 82 CB ASN A 10 -8.364 -6.789 3.366 1.00 95.78 C

ATOM 83 O ASN A 10 -6.619 -5.486 5.268 1.00 95.78 O

ATOM 84 CG ASN A 10 -9.319 -7.452 4.339 1.00 95.78 C

ATOM 85 ND2 ASN A 10 -10.057 -8.447 3.861 1.00 95.78 N

ATOM 86 OD1 ASN A 10 -9.394 -7.072 5.510 1.00 95.78 O

ATOM 87 N ALA A 11 -8.281 -4.036 5.636 1.00 91.64 N

ATOM 88 CA ALA A 11 -7.739 -3.573 6.911 1.00 91.64 C

ATOM 89 C ALA A 11 -7.755 -4.689 7.951 1.00 91.64 C

ATOM 90 CB ALA A 11 -8.528 -2.367 7.417 1.00 91.64 C

ATOM 91 O ALA A 11 -6.904 -4.726 8.844 1.00 91.64 O

ATOM 92 N GLU A 12 -8.749 -5.613 7.744 1.00 92.60 N

ATOM 93 CA GLU A 12 -8.858 -6.744 8.661 1.00 92.60 C

ATOM 94 C GLU A 12 -7.708 -7.728 8.464 1.00 92.60 C

ATOM 95 CB GLU A 12 -10.199 -7.459 8.476 1.00 92.60 C

ATOM 96 O GLU A 12 -7.126 -8.214 9.436 1.00 92.60 O

ATOM 97 CG GLU A 12 -11.396 -6.656 8.964 1.00 92.60 C

ATOM 98 CD GLU A 12 -12.718 -7.390 8.801 1.00 92.60 C

ATOM 99 OE1 GLU A 12 -13.776 -6.817 9.146 1.00 92.60 O

ATOM 100 OE2 GLU A 12 -12.694 -8.546 8.325 1.00 92.60 O

ATOM 101 N LYS A 13 -7.352 -7.938 7.155 1.00 94.48 N

ATOM 102 CA LYS A 13 -6.269 -8.867 6.847 1.00 94.48 C

ATOM 103 C LYS A 13 -4.916 -8.163 6.874 1.00 94.48 C

ATOM 104 CB LYS A 13 -6.492 -9.519 5.481 1.00 94.48 C

ATOM 105 O LYS A 13 -3.887 -8.792 7.131 1.00 94.48 O

ATOM 106 CG LYS A 13 -7.675 -10.475 5.437 1.00 94.48 C

ATOM 107 CD LYS A 13 -7.768 -11.189 4.095 1.00 94.48 C

ATOM 108 CE LYS A 13 -8.915 -12.190 4.071 1.00 94.48 C

ATOM 109 NZ LYS A 13 -9.009 -12.893 2.757 1.00 94.48 N

ATOM 110 N GLY A 14 -4.899 -6.815 6.681 1.00 93.66 N

ATOM 111 CA GLY A 14 -3.704 -5.995 6.801 1.00 93.66 C

ATOM 112 C GLY A 14 -2.896 -5.926 5.518 1.00 93.66 C

ATOM 113 O GLY A 14 -1.683 -5.711 5.554 1.00 93.66 O

ATOM 114 N PHE A 15 -3.510 -6.304 4.395 1.00 95.51 N

ATOM 115 CA PHE A 15 -2.778 -6.205 3.138 1.00 95.51 C

ATOM 116 C PHE A 15 -3.717 -5.846 1.992 1.00 95.51 C

ATOM 117 CB PHE A 15 -2.054 -7.520 2.830 1.00 95.51 C

ATOM 118 O PHE A 15 -4.937 -5.960 2.124 1.00 95.51 O

ATOM 119 CG PHE A 15 -2.979 -8.656 2.487 1.00 95.51 C

ATOM 120 CD1 PHE A 15 -3.438 -9.520 3.474 1.00 95.51 C

ATOM 121 CD2 PHE A 15 -3.390 -8.861 1.177 1.00 95.51 C

ATOM 122 CE1 PHE A 15 -4.294 -10.573 3.160 1.00 95.51 C

ATOM 123 CE2 PHE A 15 -4.245 -9.911 0.854 1.00 95.51 C

ATOM 124 CZ PHE A 15 -4.695 -10.766 1.847 1.00 95.51 C

ATOM 125 N GLY A 16 -3.074 -5.459 0.864 1.00 96.18 N

ATOM 126 CA GLY A 16 -3.784 -5.096 -0.352 1.00 96.18 C

ATOM 127 C GLY A 16 -2.869 -4.930 -1.551 1.00 96.18 C

ATOM 128 O GLY A 16 -1.732 -5.406 -1.541 1.00 96.18 O

ATOM 129 N PHE A 17 -3.374 -4.291 -2.567 1.00 96.90 N

ATOM 130 CA PHE A 17 -2.614 -4.073 -3.792 1.00 96.90 C

ATOM 131 C PHE A 17 -2.781 -2.641 -4.286 1.00 96.90 C

ATOM 132 CB PHE A 17 -3.053 -5.058 -4.880 1.00 96.90 C

ATOM 133 O PHE A 17 -3.851 -2.047 -4.133 1.00 96.90 O

ATOM 134 CG PHE A 17 -2.574 -6.466 -4.654 1.00 96.90 C

ATOM 135 CD1 PHE A 17 -1.346 -6.886 -5.151 1.00 96.90 C

ATOM 136 CD2 PHE A 17 -3.351 -7.371 -3.943 1.00 96.90 C

ATOM 137 CE1 PHE A 17 -0.899 -8.189 -4.942 1.00 96.90 C

ATOM 138 CE2 PHE A 17 -2.912 -8.675 -3.731 1.00 96.90 C

ATOM 139 CZ PHE A 17 -1.686 -9.082 -4.232 1.00 96.90 C

ATOM 140 N ILE A 18 -1.667 -2.180 -4.825 1.00 97.20 N

ATOM 141 CA ILE A 18 -1.625 -0.843 -5.407 1.00 97.20 C

ATOM 142 C ILE A 18 -1.436 -0.945 -6.919 1.00 97.20 C

ATOM 143 CB ILE A 18 -0.498 0.010 -4.783 1.00 97.20 C

ATOM 144 O ILE A 18 -0.576 -1.690 -7.395 1.00 97.20 O

ATOM 145 CG1 ILE A 18 -0.722 0.168 -3.275 1.00 97.20 C

ATOM 146 CG2 ILE A 18 -0.411 1.375 -5.470 1.00 97.20 C

ATOM 147 CD1 ILE A 18 0.483 0.718 -2.524 1.00 97.20 C

ATOM 148 N GLU A 19 -2.309 -0.280 -7.528 1.00 96.84 N

ATOM 149 CA GLU A 19 -2.194 -0.236 -8.982 1.00 96.84 C

ATOM 150 C GLU A 19 -1.233 0.862 -9.428 1.00 96.84 C

ATOM 151 CB GLU A 19 -3.568 -0.025 -9.624 1.00 96.84 C

ATOM 152 O GLU A 19 -1.369 2.017 -9.019 1.00 96.84 O

ATOM 153 CG GLU A 19 -3.555 -0.102 -11.144 1.00 96.84 C

ATOM 154 CD GLU A 19 -4.921 0.133 -11.768 1.00 96.84 C

ATOM 155 OE1 GLU A 19 -5.000 0.319 -13.004 1.00 96.84 O

ATOM 156 OE2 GLU A 19 -5.921 0.134 -11.015 1.00 96.84 O

ATOM 157 N VAL A 20 -0.265 0.391 -10.215 1.00 94.25 N

ATOM 158 CA VAL A 20 0.690 1.316 -10.815 1.00 94.25 C

ATOM 159 C VAL A 20 0.509 1.337 -12.331 1.00 94.25 C

ATOM 160 CB VAL A 20 2.145 0.940 -10.457 1.00 94.25 C

ATOM 161 O VAL A 20 0.538 0.288 -12.980 1.00 94.25 O

ATOM 162 CG1 VAL A 20 3.120 1.991 -10.985 1.00 94.25 C

ATOM 163 CG2 VAL A 20 2.298 0.777 -8.946 1.00 94.25 C

ATOM 164 N GLU A 21 0.251 2.473 -12.872 1.00 91.80 N

ATOM 165 CA GLU A 21 -0.015 2.587 -14.302 1.00 91.80 C

ATOM 166 C GLU A 21 1.134 2.013 -15.125 1.00 91.80 C

ATOM 167 CB GLU A 21 -0.260 4.049 -14.688 1.00 91.80 C

ATOM 168 O GLU A 21 2.287 2.415 -14.956 1.00 91.80 O

ATOM 169 CG GLU A 21 -0.825 4.228 -16.090 1.00 91.80 C

ATOM 170 CD GLU A 21 -1.113 5.679 -16.440 1.00 91.80 C

ATOM 171 OE1 GLU A 21 -1.556 5.953 -17.578 1.00 91.80 O

ATOM 172 OE2 GLU A 21 -0.892 6.550 -15.568 1.00 91.80 O

ATOM 173 N GLY A 22 0.753 1.021 -16.045 1.00 91.20 N

ATOM 174 CA GLY A 22 1.725 0.467 -16.975 1.00 91.20 C

ATOM 175 C GLY A 22 2.568 -0.640 -16.368 1.00 91.20 C

ATOM 176 O GLY A 22 3.487 -1.150 -17.011 1.00 91.20 O

ATOM 177 N GLU A 23 2.299 -0.944 -15.081 1.00 90.14 N

ATOM 178 CA GLU A 23 3.054 -1.974 -14.374 1.00 90.14 C

ATOM 179 C GLU A 23 2.123 -2.948 -13.658 1.00 90.14 C

ATOM 180 CB GLU A 23 4.022 -1.339 -13.372 1.00 90.14 C

ATOM 181 O GLU A 23 0.912 -2.726 -13.596 1.00 90.14 O

ATOM 182 CG GLU A 23 5.053 -0.420 -14.011 1.00 90.14 C

ATOM 183 CD GLU A 23 6.025 0.180 -13.007 1.00 90.14 C

ATOM 184 OE1 GLU A 23 6.520 1.306 -13.240 1.00 90.14 O

ATOM 185 OE2 GLU A 23 6.295 -0.482 -11.980 1.00 90.14 O

ATOM 186 N ASN A 24 2.750 -4.000 -13.153 1.00 91.49 N

ATOM 187 CA ASN A 24 1.978 -4.953 -12.361 1.00 91.49 C

ATOM 188 C ASN A 24 1.588 -4.370 -11.006 1.00 91.49 C

ATOM 189 CB ASN A 24 2.760 -6.254 -12.175 1.00 91.49 C

ATOM 190 O ASN A 24 2.235 -3.442 -10.516 1.00 91.49 O

ATOM 191 CG ASN A 24 2.999 -6.985 -13.482 1.00 91.49 C

ATOM 192 ND2 ASN A 24 4.213 -7.489 -13.666 1.00 91.49 N

ATOM 193 OD1 ASN A 24 2.100 -7.094 -14.319 1.00 91.49 O

ATOM 194 N ASP A 25 0.479 -4.843 -10.491 1.00 93.97 N

ATOM 195 CA ASP A 25 0.049 -4.457 -9.150 1.00 93.97 C

ATOM 196 C ASP A 25 1.127 -4.774 -8.116 1.00 93.97 C

ATOM 197 CB ASP A 25 -1.258 -5.163 -8.781 1.00 93.97 C

ATOM 198 O ASP A 25 1.804 -5.800 -8.211 1.00 93.97 O

ATOM 199 CG ASP A 25 -2.401 -4.822 -9.720 1.00 93.97 C

ATOM 200 OD1 ASP A 25 -2.289 -3.841 -10.487 1.00 93.97 O

ATOM 201 OD2 ASP A 25 -3.425 -5.538 -9.691 1.00 93.97 O

ATOM 202 N VAL A 26 1.160 -3.853 -7.264 1.00 95.61 N

ATOM 203 CA VAL A 26 2.192 -3.977 -6.239 1.00 95.61 C

ATOM 204 C VAL A 26 1.551 -4.339 -4.902 1.00 95.61 C

ATOM 205 CB VAL A 26 3.013 -2.675 -6.101 1.00 95.61 C

ATOM 206 O VAL A 26 0.562 -3.726 -4.493 1.00 95.61 O

ATOM 207 CG1 VAL A 26 4.039 -2.801 -4.976 1.00 95.61 C

ATOM 208 CG2 VAL A 26 3.702 -2.337 -7.422 1.00 95.61 C

ATOM 209 N PHE A 27 2.070 -5.368 -4.279 1.00 96.20 N

ATOM 210 CA PHE A 27 1.582 -5.814 -2.979 1.00 96.20 C

ATOM 211 C PHE A 27 1.902 -4.787 -1.899 1.00 96.20 C

ATOM 212 CB PHE A 27 2.193 -7.170 -2.611 1.00 96.20 C

ATOM 213 O PHE A 27 3.009 -4.246 -1.858 1.00 96.20 O

ATOM 214 CG PHE A 27 1.844 -7.636 -1.223 1.00 96.20 C

ATOM 215 CD1 PHE A 27 2.741 -7.474 -0.174 1.00 96.20 C

ATOM 216 CD2 PHE A 27 0.618 -8.236 -0.967 1.00 96.20 C

ATOM 217 CE1 PHE A 27 2.420 -7.905 1.111 1.00 96.20 C

ATOM 218 CE2 PHE A 27 0.290 -8.668 0.315 1.00 96.20 C

ATOM 219 CZ PHE A 27 1.193 -8.503 1.352 1.00 96.20 C

ATOM 220 N VAL A 28 0.930 -4.514 -1.044 1.00 95.98 N

ATOM 221 CA VAL A 28 1.155 -3.597 0.069 1.00 95.98 C

ATOM 222 C VAL A 28 0.694 -4.244 1.373 1.00 95.98 C

ATOM 223 CB VAL A 28 0.424 -2.253 -0.147 1.00 95.98 C

ATOM 224 O VAL A 28 -0.427 -4.751 1.459 1.00 95.98 O

ATOM 225 CG1 VAL A 28 -1.074 -2.478 -0.343 1.00 95.98 C

ATOM 226 CG2 VAL A 28 0.676 -1.314 1.031 1.00 95.98 C

ATOM 227 N HIS A 29 1.637 -4.250 2.421 1.00 95.41 N

ATOM 228 CA HIS A 29 1.351 -4.719 3.772 1.00 95.41 C

ATOM 229 C HIS A 29 1.216 -3.552 4.744 1.00 95.41 C

ATOM 230 CB HIS A 29 2.444 -5.677 4.250 1.00 95.41 C

ATOM 231 O HIS A 29 1.832 -2.502 4.548 1.00 95.41 O

ATOM 232 CG HIS A 29 2.106 -6.387 5.522 1.00 95.41 C

ATOM 233 CD2 HIS A 29 1.280 -7.433 5.763 1.00 95.41 C

ATOM 234 ND1 HIS A 29 2.644 -6.031 6.740 1.00 95.41 N

ATOM 235 CE1 HIS A 29 2.163 -6.830 7.677 1.00 95.41 C

ATOM 236 NE2 HIS A 29 1.333 -7.690 7.111 1.00 95.41 N

ATOM 237 N PHE A 30 0.320 -3.660 5.674 1.00 93.22 N

ATOM 238 CA PHE A 30 0.063 -2.586 6.627 1.00 93.22 C

ATOM 239 C PHE A 30 1.358 -2.120 7.280 1.00 93.22 C

ATOM 240 CB PHE A 30 -0.931 -3.044 7.699 1.00 93.22 C

ATOM 241 O PHE A 30 1.466 -0.968 7.703 1.00 93.22 O

ATOM 242 CG PHE A 30 -0.330 -3.956 8.734 1.00 93.22 C

ATOM 243 CD1 PHE A 30 -0.368 -5.335 8.572 1.00 93.22 C

ATOM 244 CD2 PHE A 30 0.274 -3.433 9.870 1.00 93.22 C

ATOM 245 CE1 PHE A 30 0.188 -6.182 9.528 1.00 93.22 C

ATOM 246 CE2 PHE A 30 0.832 -4.273 10.830 1.00 93.22 C

ATOM 247 CZ PHE A 30 0.787 -5.647 10.658 1.00 93.22 C

ATOM 248 N SER A 31 2.330 -3.039 7.366 1.00 92.23 N

ATOM 249 CA SER A 31 3.601 -2.718 8.005 1.00 92.23 C

ATOM 250 C SER A 31 4.379 -1.683 7.200 1.00 92.23 C

ATOM 251 CB SER A 31 4.447 -3.980 8.181 1.00 92.23 C

ATOM 252 O SER A 31 5.253 -0.999 7.738 1.00 92.23 O

ATOM 253 OG SER A 31 4.859 -4.489 6.924 1.00 92.23 O

ATOM 254 N ALA A 32 4.098 -1.571 5.899 1.00 92.57 N

ATOM 255 CA ALA A 32 4.813 -0.657 5.013 1.00 92.57 C

ATOM 256 C ALA A 32 4.205 0.741 5.059 1.00 92.57 C

ATOM 257 CB ALA A 32 4.806 -1.190 3.582 1.00 92.57 C

ATOM 258 O ALA A 32 4.774 1.691 4.517 1.00 92.57 O

ATOM 259 N ILE A 33 3.028 0.908 5.731 1.00 92.30 N

ATOM 260 CA ILE A 33 2.315 2.179 5.798 1.00 92.30 C

ATOM 261 C ILE A 33 2.882 3.030 6.933 1.00 92.30 C

ATOM 262 CB ILE A 33 0.797 1.966 5.995 1.00 92.30 C

ATOM 263 O ILE A 33 2.837 2.630 8.098 1.00 92.30 O

ATOM 264 CG1 ILE A 33 0.235 1.070 4.885 1.00 92.30 C

ATOM 265 CG2 ILE A 33 0.064 3.310 6.038 1.00 92.30 C

ATOM 266 CD1 ILE A 33 -1.199 0.617 5.121 1.00 92.30 C

ATOM 267 N ASN A 34 3.523 4.127 6.530 1.00 84.51 N

ATOM 268 CA ASN A 34 4.178 5.023 7.477 1.00 84.51 C

ATOM 269 C ASN A 34 3.215 6.083 8.004 1.00 84.51 C

ATOM 270 CB ASN A 34 5.397 5.686 6.832 1.00 84.51 C

ATOM 271 O ASN A 34 3.127 7.179 7.447 1.00 84.51 O

ATOM 272 CG ASN A 34 6.527 4.709 6.576 1.00 84.51 C

ATOM 273 ND2 ASN A 34 7.258 4.919 5.488 1.00 84.51 N

ATOM 274 OD1 ASN A 34 6.741 3.772 7.350 1.00 84.51 O

ATOM 275 N GLN A 35 2.294 5.693 8.848 1.00 79.53 N

ATOM 276 CA GLN A 35 1.362 6.621 9.481 1.00 79.53 C

ATOM 277 C GLN A 35 1.162 6.280 10.955 1.00 79.53 C

ATOM 278 CB GLN A 35 0.018 6.612 8.753 1.00 79.53 C

ATOM 279 O GLN A 35 1.365 5.135 11.366 1.00 79.53 O

ATOM 280 CG GLN A 35 -0.911 7.748 9.162 1.00 79.53 C

ATOM 281 CD GLN A 35 -2.207 7.759 8.374 1.00 79.53 C

ATOM 282 NE2 GLN A 35 -3.306 8.089 9.044 1.00 79.53 N

ATOM 283 OE1 GLN A 35 -2.221 7.475 7.172 1.00 79.53 O

ATOM 284 N ASP A 36 1.008 7.397 11.692 1.00 76.80 N

ATOM 285 CA ASP A 36 0.641 7.206 13.092 1.00 76.80 C

ATOM 286 C ASP A 36 -0.812 6.753 13.222 1.00 76.80 C

ATOM 287 CB ASP A 36 0.863 8.495 13.886 1.00 76.80 C

ATOM 288 O ASP A 36 -1.669 7.169 12.440 1.00 76.80 O

ATOM 289 CG ASP A 36 2.329 8.870 14.009 1.00 76.80 C

ATOM 290 OD1 ASP A 36 3.151 8.005 14.382 1.00 76.80 O

ATOM 291 OD2 ASP A 36 2.666 10.043 13.734 1.00 76.80 O

ATOM 292 N GLY A 37 -1.055 5.710 13.967 1.00 78.30 N

ATOM 293 CA GLY A 37 -2.405 5.217 14.192 1.00 78.30 C

ATOM 294 C GLY A 37 -2.734 3.984 13.373 1.00 78.30 C

ATOM 295 O GLY A 37 -1.886 3.108 13.191 1.00 78.30 O

ATOM 296 N TYR A 38 -4.028 3.948 12.981 1.00 77.31 N

ATOM 297 CA TYR A 38 -4.531 2.817 12.209 1.00 77.31 C

ATOM 298 C TYR A 38 -3.959 2.824 10.796 1.00 77.31 C

ATOM 299 CB TYR A 38 -6.062 2.844 12.152 1.00 77.31 C

ATOM 300 O TYR A 38 -4.179 3.769 10.035 1.00 77.31 O

ATOM 301 CG TYR A 38 -6.668 1.606 11.536 1.00 77.31 C

ATOM 302 CD1 TYR A 38 -7.206 1.635 10.251 1.00 77.31 C

ATOM 303 CD2 TYR A 38 -6.705 0.406 12.237 1.00 77.31 C

ATOM 304 CE1 TYR A 38 -7.767 0.498 9.681 1.00 77.31 C

ATOM 305 CE2 TYR A 38 -7.263 -0.738 11.676 1.00 77.31 C

ATOM 306 OH TYR A 38 -8.345 -1.811 9.839 1.00 77.31 O

ATOM 307 CZ TYR A 38 -7.791 -0.682 10.399 1.00 77.31 C

ATOM 308 N LYS A 39 -3.065 1.824 10.523 1.00 84.01 N

ATOM 309 CA LYS A 39 -2.404 1.664 9.232 1.00 84.01 C

ATOM 310 C LYS A 39 -3.335 1.012 8.214 1.00 84.01 C

ATOM 311 CB LYS A 39 -1.128 0.835 9.381 1.00 84.01 C

ATOM 312 O LYS A 39 -3.422 -0.215 8.141 1.00 84.01 O

ATOM 313 CG LYS A 39 -0.086 1.460 10.297 1.00 84.01 C

ATOM 314 CD LYS A 39 1.175 0.609 10.373 1.00 84.01 C

ATOM 315 CE LYS A 39 2.217 1.233 11.292 1.00 84.01 C

ATOM 316 NZ LYS A 39 3.453 0.399 11.375 1.00 84.01 N

ATOM 317 N SER A 40 -4.155 1.940 7.548 1.00 90.16 N

ATOM 318 CA SER A 40 -5.069 1.434 6.530 1.00 90.16 C

ATOM 319 C SER A 40 -5.028 2.296 5.273 1.00 90.16 C

ATOM 320 CB SER A 40 -6.498 1.376 7.072 1.00 90.16 C

ATOM 321 O SER A 40 -4.539 3.427 5.305 1.00 90.16 O

ATOM 322 OG SER A 40 -7.030 2.681 7.228 1.00 90.16 O

ATOM 323 N LEU A 41 -5.400 1.673 4.164 1.00 93.38 N

ATOM 324 CA LEU A 41 -5.561 2.338 2.875 1.00 93.38 C

ATOM 325 C LEU A 41 -6.987 2.182 2.357 1.00 93.38 C

ATOM 326 CB LEU A 41 -4.571 1.773 1.853 1.00 93.38 C

ATOM 327 O LEU A 41 -7.693 1.247 2.742 1.00 93.38 O

ATOM 328 CG LEU A 41 -3.087 1.950 2.178 1.00 93.38 C

ATOM 329 CD1 LEU A 41 -2.229 1.203 1.162 1.00 93.38 C

ATOM 330 CD2 LEU A 41 -2.719 3.429 2.212 1.00 93.38 C

ATOM 331 N GLU A 42 -7.410 3.188 1.667 1.00 94.83 N

ATOM 332 CA GLU A 42 -8.743 3.139 1.073 1.00 94.83 C

ATOM 333 C GLU A 42 -8.669 2.857 -0.425 1.00 94.83 C

ATOM 334 CB GLU A 42 -9.492 4.450 1.325 1.00 94.83 C

ATOM 335 O GLU A 42 -7.783 3.366 -1.115 1.00 94.83 O

ATOM 336 CG GLU A 42 -9.748 4.739 2.797 1.00 94.83 C

ATOM 337 CD GLU A 42 -10.488 6.047 3.032 1.00 94.83 C

ATOM 338 OE1 GLU A 42 -10.650 6.450 4.206 1.00 94.83 O

ATOM 339 OE2 GLU A 42 -10.910 6.672 2.034 1.00 94.83 O

ATOM 340 N GLU A 43 -9.600 1.983 -0.872 1.00 96.31 N

ATOM 341 CA GLU A 43 -9.686 1.732 -2.308 1.00 96.31 C

ATOM 342 C GLU A 43 -9.818 3.037 -3.088 1.00 96.31 C

ATOM 343 CB GLU A 43 -10.864 0.808 -2.623 1.00 96.31 C

ATOM 344 O GLU A 43 -10.633 3.894 -2.741 1.00 96.31 O

ATOM 345 CG GLU A 43 -10.941 0.385 -4.083 1.00 96.31 C

ATOM 346 CD GLU A 43 -12.100 -0.554 -4.376 1.00 96.31 C

ATOM 347 OE1 GLU A 43 -12.466 -0.715 -5.562 1.00 96.31 O

ATOM 348 OE2 GLU A 43 -12.647 -1.133 -3.411 1.00 96.31 O

ATOM 349 N GLY A 44 -8.968 3.218 -4.123 1.00 96.64 N

ATOM 350 CA GLY A 44 -9.004 4.407 -4.960 1.00 96.64 C

ATOM 351 C GLY A 44 -8.106 5.520 -4.453 1.00 96.64 C

ATOM 352 O GLY A 44 -7.961 6.555 -5.108 1.00 96.64 O

ATOM 353 N GLN A 45 -7.561 5.318 -3.318 1.00 95.43 N

ATOM 354 CA GLN A 45 -6.694 6.315 -2.697 1.00 95.43 C

ATOM 355 C GLN A 45 -5.339 6.377 -3.396 1.00 95.43 C

ATOM 356 CB GLN A 45 -6.505 6.010 -1.210 1.00 95.43 C

ATOM 357 O GLN A 45 -4.737 5.342 -3.688 1.00 95.43 O

ATOM 358 CG GLN A 45 -5.778 7.108 -0.445 1.00 95.43 C

ATOM 359 CD GLN A 45 -5.772 6.874 1.054 1.00 95.43 C

ATOM 360 NE2 GLN A 45 -4.746 7.382 1.729 1.00 95.43 N

ATOM 361 OE1 GLN A 45 -6.682 6.243 1.601 1.00 95.43 O

ATOM 362 N ALA A 46 -4.854 7.557 -3.658 1.00 96.29 N

ATOM 363 CA ALA A 46 -3.531 7.757 -4.243 1.00 96.29 C

ATOM 364 C ALA A 46 -2.443 7.680 -3.176 1.00 96.29 C

ATOM 365 CB ALA A 46 -3.467 9.099 -4.969 1.00 96.29 C

ATOM 366 O ALA A 46 -2.551 8.313 -2.123 1.00 96.29 O

ATOM 367 N VAL A 47 -1.418 6.897 -3.478 1.00 95.87 N

ATOM 368 CA VAL A 47 -0.345 6.707 -2.508 1.00 95.87 C

ATOM 369 C VAL A 47 1.009 6.808 -3.207 1.00 95.87 C

ATOM 370 CB VAL A 47 -0.470 5.349 -1.782 1.00 95.87 C

ATOM 371 O VAL A 47 1.095 6.666 -4.429 1.00 95.87 O

ATOM 372 CG1 VAL A 47 -1.748 5.298 -0.948 1.00 95.87 C

ATOM 373 CG2 VAL A 47 -0.439 4.202 -2.790 1.00 95.87 C

ATOM 374 N GLU A 48 1.954 7.187 -2.450 1.00 95.73 N

ATOM 375 CA GLU A 48 3.356 7.158 -2.855 1.00 95.73 C

ATOM 376 C GLU A 48 4.134 6.102 -2.075 1.00 95.73 C

ATOM 377 CB GLU A 48 4.000 8.534 -2.664 1.00 95.73 C

ATOM 378 O GLU A 48 3.992 5.994 -0.855 1.00 95.73 O

ATOM 379 CG GLU A 48 5.381 8.659 -3.291 1.00 95.73 C

ATOM 380 CD GLU A 48 5.971 10.055 -3.170 1.00 95.73 C

ATOM 381 OE1 GLU A 48 6.606 10.357 -2.134 1.00 95.73 O

ATOM 382 OE2 GLU A 48 5.795 10.853 -4.117 1.00 95.73 O

ATOM 383 N PHE A 49 4.969 5.327 -2.748 1.00 95.86 N

ATOM 384 CA PHE A 49 5.644 4.210 -2.097 1.00 95.86 C

ATOM 385 C PHE A 49 6.928 3.850 -2.835 1.00 95.86 C

ATOM 386 CB PHE A 49 4.720 2.991 -2.026 1.00 95.86 C

ATOM 387 O PHE A 49 7.186 4.359 -3.928 1.00 95.86 O

ATOM 388 CG PHE A 49 4.215 2.532 -3.367 1.00 95.86 C

ATOM 389 CD1 PHE A 49 3.097 3.122 -3.943 1.00 95.86 C

ATOM 390 CD2 PHE A 49 4.859 1.510 -4.052 1.00 95.86 C

ATOM 391 CE1 PHE A 49 2.627 2.699 -5.185 1.00 95.86 C

ATOM 392 CE2 PHE A 49 4.396 1.082 -5.293 1.00 95.86 C

ATOM 393 CZ PHE A 49 3.279 1.677 -5.857 1.00 95.86 C

ATOM 394 N GLU A 50 7.756 3.104 -2.179 1.00 95.60 N

ATOM 395 CA GLU A 50 8.936 2.496 -2.787 1.00 95.60 C

ATOM 396 C GLU A 50 8.673 1.043 -3.169 1.00 95.60 C

ATOM 397 CB GLU A 50 10.135 2.583 -1.840 1.00 95.60 C

ATOM 398 O GLU A 50 7.977 0.322 -2.450 1.00 95.60 O

ATOM 399 CG GLU A 50 10.590 4.006 -1.552 1.00 95.60 C

ATOM 400 CD GLU A 50 11.790 4.076 -0.621 1.00 95.60 C

ATOM 401 OE1 GLU A 50 12.193 5.196 -0.233 1.00 95.60 O

ATOM 402 OE2 GLU A 50 12.333 3.002 -0.278 1.00 95.60 O

ATOM 403 N VAL A 51 9.112 0.691 -4.386 1.00 93.79 N

ATOM 404 CA VAL A 51 8.969 -0.696 -4.814 1.00 93.79 C

ATOM 405 C VAL A 51 10.220 -1.486 -4.437 1.00 93.79 C

ATOM 406 CB VAL A 51 8.713 -0.798 -6.335 1.00 93.79 C

ATOM 407 O VAL A 51 11.335 -1.103 -4.797 1.00 93.79 O

ATOM 408 CG1 VAL A 51 8.559 -2.257 -6.761 1.00 93.79 C

ATOM 409 CG2 VAL A 51 7.475 0.009 -6.722 1.00 93.79 C

ATOM 410 N VAL A 52 9.950 -2.490 -3.631 1.00 93.80 N

ATOM 411 CA VAL A 52 11.049 -3.372 -3.250 1.00 93.80 C

ATOM 412 C VAL A 52 10.723 -4.808 -3.652 1.00 93.80 C

ATOM 413 CB VAL A 52 11.338 -3.295 -1.734 1.00 93.80 C

ATOM 414 O VAL A 52 9.552 -5.172 -3.785 1.00 93.80 O

ATOM 415 CG1 VAL A 52 11.782 -1.888 -1.338 1.00 93.80 C

ATOM 416 CG2 VAL A 52 10.105 -3.714 -0.935 1.00 93.80 C

ATOM 417 N GLU A 53 11.788 -5.513 -4.064 1.00 91.65 N

ATOM 418 CA GLU A 53 11.615 -6.919 -4.418 1.00 91.65 C

ATOM 419 C GLU A 53 11.545 -7.797 -3.172 1.00 91.65 C

ATOM 420 CB GLU A 53 12.752 -7.388 -5.329 1.00 91.65 C

ATOM 421 O GLU A 53 12.476 -7.813 -2.364 1.00 91.65 O

ATOM 422 CG GLU A 53 12.608 -6.937 -6.775 1.00 91.65 C

ATOM 423 CD GLU A 53 13.174 -7.934 -7.774 1.00 91.65 C

ATOM 424 OE1 GLU A 53 12.847 -7.838 -8.978 1.00 91.65 O

ATOM 425 OE2 GLU A 53 13.949 -8.819 -7.348 1.00 91.65 O

ATOM 426 N GLY A 54 10.326 -8.407 -2.937 1.00 86.41 N

ATOM 427 CA GLY A 54 10.135 -9.313 -1.816 1.00 86.41 C

ATOM 428 C GLY A 54 10.109 -10.774 -2.226 1.00 86.41 C

ATOM 429 O GLY A 54 10.368 -11.103 -3.385 1.00 86.41 O

ATOM 430 N ASP A 55 9.999 -11.675 -1.368 1.00 87.08 N

ATOM 431 CA ASP A 55 10.012 -13.117 -1.599 1.00 87.08 C

ATOM 432 C ASP A 55 8.884 -13.533 -2.540 1.00 87.08 C

ATOM 433 CB ASP A 55 9.898 -13.874 -0.274 1.00 87.08 C

ATOM 434 O ASP A 55 9.010 -14.518 -3.270 1.00 87.08 O

ATOM 435 CG ASP A 55 11.089 -13.650 0.641 1.00 87.08 C

ATOM 436 OD1 ASP A 55 12.237 -13.609 0.149 1.00 87.08 O

ATOM 437 OD2 ASP A 55 10.878 -13.517 1.866 1.00 87.08 O

ATOM 438 N ARG A 56 7.809 -12.691 -2.681 1.00 84.68 N

ATOM 439 CA ARG A 56 6.646 -13.069 -3.477 1.00 84.68 C

ATOM 440 C ARG A 56 6.417 -12.080 -4.615 1.00 84.68 C

ATOM 441 CB ARG A 56 5.397 -13.155 -2.598 1.00 84.68 C

ATOM 442 O ARG A 56 5.321 -12.014 -5.176 1.00 84.68 O

ATOM 443 CG ARG A 56 5.465 -14.240 -1.535 1.00 84.68 C

ATOM 444 CD ARG A 56 4.172 -14.329 -0.736 1.00 84.68 C

ATOM 445 NE ARG A 56 4.250 -15.353 0.302 1.00 84.68 N

ATOM 446 NH1 ARG A 56 2.209 -14.836 1.254 1.00 84.68 N

ATOM 447 NH2 ARG A 56 3.488 -16.529 2.121 1.00 84.68 N

ATOM 448 CZ ARG A 56 3.315 -15.570 1.223 1.00 84.68 C

ATOM 449 N GLY A 57 7.407 -11.349 -4.921 1.00 88.79 N

ATOM 450 CA GLY A 57 7.235 -10.365 -5.979 1.00 88.79 C

ATOM 451 C GLY A 57 7.348 -8.935 -5.487 1.00 88.79 C

ATOM 452 O GLY A 57 7.686 -8.697 -4.325 1.00 88.79 O

ATOM 453 N PRO A 58 7.207 -7.991 -6.386 1.00 92.61 N

ATOM 454 CA PRO A 58 7.316 -6.580 -6.010 1.00 92.61 C

ATOM 455 C PRO A 58 6.339 -6.187 -4.905 1.00 92.61 C

ATOM 456 CB PRO A 58 6.994 -5.842 -7.312 1.00 92.61 C

ATOM 457 O PRO A 58 5.167 -6.569 -4.947 1.00 92.61 O

ATOM 458 CG PRO A 58 7.182 -6.864 -8.387 1.00 92.61 C

ATOM 459 CD PRO A 58 6.980 -8.227 -7.789 1.00 92.61 C

ATOM 460 N GLN A 59 6.831 -5.502 -3.880 1.00 95.38 N

ATOM 461 CA GLN A 59 5.991 -5.052 -2.775 1.00 95.38 C

ATOM 462 C GLN A 59 6.257 -3.586 -2.444 1.00 95.38 C

ATOM 463 CB GLN A 59 6.221 -5.920 -1.537 1.00 95.38 C

ATOM 464 O GLN A 59 7.346 -3.073 -2.706 1.00 95.38 O

ATOM 465 CG GLN A 59 7.639 -5.842 -0.986 1.00 95.38 C

ATOM 466 CD GLN A 59 7.849 -6.737 0.221 1.00 95.38 C

ATOM 467 NE2 GLN A 59 8.979 -7.436 0.250 1.00 95.38 N

ATOM 468 OE1 GLN A 59 7.004 -6.800 1.119 1.00 95.38 O

ATOM 469 N ALA A 60 5.240 -2.975 -1.912 1.00 95.82 N

ATOM 470 CA ALA A 60 5.318 -1.557 -1.571 1.00 95.82 C

ATOM 471 C ALA A 60 5.967 -1.355 -0.205 1.00 95.82 C

ATOM 472 CB ALA A 60 3.927 -0.927 -1.595 1.00 95.82 C

ATOM 473 O ALA A 60 5.691 -2.103 0.736 1.00 95.82 O

ATOM 474 N ALA A 61 6.940 -0.393 -0.135 1.00 95.44 N

ATOM 475 CA ALA A 61 7.576 0.010 1.117 1.00 95.44 C

ATOM 476 C ALA A 61 7.451 1.515 1.336 1.00 95.44 C

ATOM 477 CB ALA A 61 9.045 -0.406 1.126 1.00 95.44 C

ATOM 478 O ALA A 61 7.274 2.275 0.381 1.00 95.44 O

ATOM 479 N ASN A 62 7.482 1.918 2.628 1.00 95.10 N

ATOM 480 CA ASN A 62 7.394 3.327 2.995 1.00 95.10 C

ATOM 481 C ASN A 62 6.203 4.007 2.326 1.00 95.10 C

ATOM 482 CB ASN A 62 8.692 4.056 2.639 1.00 95.10 C

ATOM 483 O ASN A 62 6.339 5.097 1.767 1.00 95.10 O

ATOM 484 CG ASN A 62 9.892 3.514 3.389 1.00 95.10 C

ATOM 485 ND2 ASN A 62 10.991 3.301 2.675 1.00 95.10 N

ATOM 486 OD1 ASN A 62 9.831 3.287 4.600 1.00 95.10 O

ATOM 487 N VAL A 63 5.053 3.378 2.447 1.00 95.49 N

ATOM 488 CA VAL A 63 3.841 3.870 1.801 1.00 95.49 C

ATOM 489 C VAL A 63 3.336 5.114 2.527 1.00 95.49 C

ATOM 490 CB VAL A 63 2.737 2.788 1.766 1.00 95.49 C

ATOM 491 O VAL A 63 3.186 5.108 3.751 1.00 95.49 O

ATOM 492 CG1 VAL A 63 1.474 3.327 1.097 1.00 95.49 C

ATOM 493 CG2 VAL A 63 3.238 1.539 1.044 1.00 95.49 C

ATOM 494 N VAL A 64 3.080 6.192 1.707 1.00 94.15 N

ATOM 495 CA VAL A 64 2.527 7.441 2.221 1.00 94.15 C

ATOM 496 C VAL A 64 1.281 7.821 1.425 1.00 94.15 C

ATOM 497 CB VAL A 64 3.564 8.586 2.166 1.00 94.15 C

ATOM 498 O VAL A 64 1.284 7.772 0.193 1.00 94.15 O

ATOM 499 CG1 VAL A 64 2.976 9.874 2.740 1.00 94.15 C

ATOM 500 CG2 VAL A 64 4.833 8.192 2.919 1.00 94.15 C

ATOM 501 N LYS A 65 0.234 8.182 2.189 1.00 92.94 N

ATOM 502 CA LYS A 65 -0.984 8.642 1.529 1.00 92.94 C

ATOM 503 C LYS A 65 -0.788 10.022 0.910 1.00 92.94 C

ATOM 504 CB LYS A 65 -2.151 8.672 2.518 1.00 92.94 C

ATOM 505 O LYS A 65 -0.170 10.899 1.519 1.00 92.94 O

ATOM 506 CG LYS A 65 -2.472 7.320 3.138 1.00 92.94 C

ATOM 507 CD LYS A 65 -3.566 7.434 4.192 1.00 92.94 C

ATOM 508 CE LYS A 65 -3.787 6.113 4.916 1.00 92.94 C

ATOM 509 NZ LYS A 65 -4.785 6.245 6.019 1.00 92.94 N

ATOM 510 N LEU A 66 -1.190 10.239 -0.408 1.00 91.04 N

ATOM 511 CA LEU A 66 -1.125 11.554 -1.037 1.00 91.04 C

ATOM 512 C LEU A 66 -2.381 12.364 -0.735 1.00 91.04 C

ATOM 513 CB LEU A 66 -0.945 11.416 -2.552 1.00 91.04 C

ATOM 514 O LEU A 66 -3.469 11.801 -0.594 1.00 91.04 O

ATOM 515 CG LEU A 66 0.362 10.778 -3.023 1.00 91.04 C

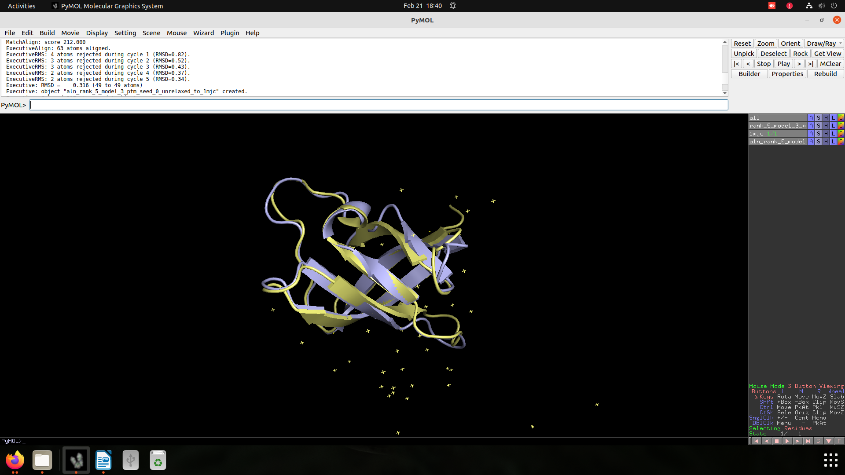
ATOM 516 CD1 LEU A 66 0.339 10.579 -4.535 1.00 91.04 C

ATOM 517 CD2 LEU A 66 1.555 11.633 -2.610 1.00 91.04 C

TER 518 LEU A 66

ENDMDL

END



**RMSD = 0.316**

**Lowest RMSD obtained is *0.244***  **: Rank 1**

MODEL 2 – 4DFR.PDB



HEADER OXIDOREDUCTASE 25-JUN-82 4DFR

TITLE CRYSTAL STRUCTURES OF ESCHERICHIA COLI AND LACTOBACILLUS CASEI

TITLE 2 DIHYDROFOLATE REDUCTASE REFINED AT 1.7 ANGSTROMS RESOLUTION. I.

TITLE 3 GENERAL FEATURES AND BINDING OF METHOTREXATE

COMPND MOL\_ID: 1;

COMPND 2 MOLECULE: DIHYDROFOLATE REDUCTASE;

COMPND 3 CHAIN: A, B;

COMPND 4 EC: 1.5.1.3;

COMPND 5 ENGINEERED: YES

SOURCE MOL\_ID: 1;

SOURCE 2 ORGANISM\_SCIENTIFIC: ESCHERICHIA COLI;

SOURCE 3 ORGANISM\_TAXID: 37762;

SOURCE 4 STRAIN: B

KEYWDS OXIDO-REDUCTASE, OXIDOREDUCTASE

EXPDTA X-RAY DIFFRACTION

AUTHOR D.J.FILMAN,D.A.MATTHEWS,J.T.BOLIN,J.KRAUT

REVDAT 14 29-NOV-17 4DFR 1 KEYWDS HELIX

REVDAT 13 13-JUL-11 4DFR 1 VERSN

REVDAT 12 26-JAN-10 4DFR 1 ATOM REMARK

REVDAT 11 24-FEB-09 4DFR 1 VERSN

REVDAT 10 01-APR-03 4DFR 1 JRNL

REVDAT 9 15-JUL-92 4DFR 1 FORMUL

REVDAT 8 15-APR-91 4DFR 1 FORMUL

REVDAT 7 16-JUL-87 4DFR 1 SOURCE REMARK

REVDAT 6 12-JUL-85 4DFR 2 CONECT

REVDAT 5 22-FEB-84 4DFR 1 REMARK

REVDAT 4 31-JAN-84 4DFR 1 REMARK

REVDAT 3 30-SEP-83 4DFR 1 REVDAT

REVDAT 2 07-MAR-83 4DFR 1 JRNL REMARK

REVDAT 1 21-OCT-82 4DFR 0

SPRSDE 21-OCT-82 4DFR 2DFR

JRNL AUTH J.T.BOLIN,D.J.FILMAN,D.A.MATTHEWS,R.C.HAMLIN,J.KRAUT

JRNL TITL CRYSTAL STRUCTURES OF ESCHERICHIA COLI AND LACTOBACILLUS

JRNL TITL 2 CASEI DIHYDROFOLATE REDUCTASE REFINED AT 1.7 A RESOLUTION.

JRNL TITL 3 I. GENERAL FEATURES AND BINDING OF METHOTREXATE.

JRNL REF J.BIOL.CHEM. V. 257 13650 1982

JRNL REFN ISSN 0021-9258

JRNL PMID 6815178

REMARK 1

REMARK 1 REFERENCE 1

REMARK 1 AUTH K.M.PERRY,J.J.ONUFFER,N.A.TOUCHETTE,C.S.HERNDON,

REMARK 1 AUTH 2 M.S.GITTELMAN,C.R.MATTHEWS,J.-T.CHEN,R.J.MAYER,K.TAIRA,

REMARK 1 AUTH 3 S.J.BENKOVIC,E.E.HOWELL,J.KRAUT

REMARK 1 TITL EFFECT OF SINGLE AMINO ACID REPLACEMENTS ON THE FOLDING AND

REMARK 1 TITL 2 STABILITY OF DIHYDROFOLATE REDUCTASE FROM ESCHERICHIA COLI

REMARK 1 REF BIOCHEMISTRY V. 26 2674 1987

REMARK 1 REFN ISSN 0006-2960

REMARK 1 REFERENCE 2

REMARK 1 AUTH D.J.FILMAN,J.T.BOLIN,D.A.MATTHEWS,J.KRAUT

REMARK 1 TITL CRYSTAL STRUCTURES OF ESCHERICHIA COLI AND LACTOBACILLUS

REMARK 1 TITL 2 CASEI DIHYDROFOLATE REDUCTASE REFINED AT 1.7 ANGSTROMS

REMARK 1 TITL 3 RESOLUTION. II. ENVIRONMENT OF BOUND NADPH AND IMPLICATIONS

REMARK 1 TITL 4 FOR CATALYSIS

REMARK 1 REF J.BIOL.CHEM. V. 257 13663 1982

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 3

REMARK 1 AUTH K.W.VOLZ,D.A.MATTHEWS,R.A.ALDEN,S.T.FREER,C.HANSCH,

REMARK 1 AUTH 2 B.T.KAUFMAN,J.KRAUT

REMARK 1 TITL CRYSTAL STRUCTURE OF AVIAN DIHYDROFOLATE REDUCTASE

REMARK 1 TITL 2 CONTAINING PHENYLTRIAZINE AND NADPH

REMARK 1 REF J.BIOL.CHEM. V. 257 2528 1982

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 4

REMARK 1 AUTH D.A.MATTHEWS

REMARK 1 TITL INTERPRETATION OF NUCLEAR MAGNETIC RESONANCE SPECTRA FOR

REMARK 1 TITL 2 LACTOBACILLUS CASEI DIHYDROFOLATE REDUCTASE BASED ON THE

REMARK 1 TITL 3 X-RAY STRUCTURE OF THE ENZYME-METHOTREXATE-NADPH COMPLEX

REMARK 1 REF BIOCHEMISTRY V. 18 1602 1979

REMARK 1 REFN ISSN 0006-2960

REMARK 1 REFERENCE 5

REMARK 1 AUTH D.A.MATTHEWS,R.A.ALDEN,S.T.FREER,N.-H.XUONG,J.KRAUT

REMARK 1 TITL DIHYDROFOLATE REDUCTASE FROM LACTOBACILLUS CASEI.

REMARK 1 TITL 2 STEREOCHEMISTRY OF NADPH BINDING

REMARK 1 REF J.BIOL.CHEM. V. 254 4144 1979

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 6

REMARK 1 AUTH M.POE,K.HOOGSTEEN,D.A.MATTHEWS

REMARK 1 TITL PROTON MAGNETIC RESONANCE STUDIES ON ESCHERICHIA COLI

REMARK 1 TITL 2 DIHYDROFOLATE REDUCTASE. ASSIGNMENT OF HISTIDINE C-2 PROTONS

REMARK 1 TITL 3 IN BINARY COMPLEXES WITH FOLATES ON THE BASIS OF THE CRYSTAL

REMARK 1 TITL 4 STRUCTURE WITH METHOTREXATE AND ON CHEMICAL MODIFICATIONS

REMARK 1 REF J.BIOL.CHEM. V. 254 8143 1979

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 7

REMARK 1 AUTH D.A.MATTHEWS,R.A.ALDEN,J.T.BOLIN,D.J.FILMAN,S.T.FREER,

REMARK 1 AUTH 2 R.HAMLIN,W.G.J.HOL,R.L.KISLIUK,E.J.PASTORE,L.T.PLANTE,

REMARK 1 AUTH 3 N.-H.XUONG,J.KRAUT

REMARK 1 TITL DIHYDROFOLATE REDUCTASE FROM LACTOBACILLUS CASEI. X-RAY

REMARK 1 TITL 2 STRUCTURE OF THE ENZYME-METHOTREXATE-NADPH COMPLEX

REMARK 1 REF J.BIOL.CHEM. V. 253 6946 1978

REMARK 1 REFN ISSN 0021-9258

REMARK 1 REFERENCE 8

REMARK 1 AUTH C.D.BENNETT,J.A.RODKEY,J.M.SONDEY,R.HIRSCHMANN

REMARK 1 TITL DIHYDROFOLATE REDUCTASE. THE AMINO ACID SEQUENCE OF THE

REMARK 1 TITL 2 ENZYME FROM A METHOTREXATE-RESISTANT MUTANT OF ESCHERICHIA

REMARK 1 TITL 3 COLI

REMARK 1 REF BIOCHEMISTRY V. 17 1328 1978

REMARK 1 REFN ISSN 0006-2960

REMARK 1 REFERENCE 9

REMARK 1 AUTH D.A.MATTHEWS,R.A.ALDEN,J.T.BOLIN,S.T.FREER,R.HAMLIN,N.XUONG,

REMARK 1 AUTH 2 J.KRAUT,M.POE,M.WILLIAMS,K.HOOGSTEEN

REMARK 1 TITL DIHYDROFOLATE REDUCTASE. X-RAY STRUCTURE OF THE BINARY

REMARK 1 TITL 2 COMPLEX WITH METHOTREXATE

REMARK 1 REF SCIENCE V. 197 452 1977

REMARK 1 REFN ISSN 0036-8075

REMARK 1 REFERENCE 10

REMARK 1 AUTH M.POE,N.J.GREENFIELD,J.M.HIRSHFIELD,M.N.WILLIAMS,K.HOOGSTEEN

REMARK 1 TITL DIHYDROFOLATE REDUCTASE. PURIFICATION AND CHARACTERIZATION

REMARK 1 TITL 2 OF THE ENZYME FROM AN AMETHOPTERIN-RESISTANT MUTANT OF

REMARK 1 TITL 3 ESCHERICHIA COLI

REMARK 1 REF BIOCHEMISTRY V. 11 1023 1972

REMARK 1 REFN ISSN 0006-2960

REMARK 2

REMARK 2 RESOLUTION. 1.70 ANGSTROMS.

REMARK 3

REMARK 3 REFINEMENT.

REMARK 3 PROGRAM : NULL

REMARK 3 AUTHORS : NULL

REMARK 3

REMARK 3 DATA USED IN REFINEMENT.

REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 1.70

REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : NULL

REMARK 3 DATA CUTOFF (SIGMA(F)) : NULL

REMARK 3 DATA CUTOFF HIGH (ABS(F)) : NULL

REMARK 3 DATA CUTOFF LOW (ABS(F)) : NULL

REMARK 3 COMPLETENESS (WORKING+TEST) (%) : NULL

REMARK 3 NUMBER OF REFLECTIONS : NULL

REMARK 3

REMARK 3 FIT TO DATA USED IN REFINEMENT.

REMARK 3 CROSS-VALIDATION METHOD : NULL

REMARK 3 FREE R VALUE TEST SET SELECTION : NULL

REMARK 3 R VALUE (WORKING SET) : 0.155

REMARK 3 FREE R VALUE : NULL

REMARK 3 FREE R VALUE TEST SET SIZE (%) : NULL

REMARK 3 FREE R VALUE TEST SET COUNT : NULL

REMARK 3 ESTIMATED ERROR OF FREE R VALUE : NULL

REMARK 3

REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.

REMARK 3 TOTAL NUMBER OF BINS USED : NULL

REMARK 3 BIN RESOLUTION RANGE HIGH (A) : NULL

REMARK 3 BIN RESOLUTION RANGE LOW (A) : NULL

REMARK 3 BIN COMPLETENESS (WORKING+TEST) (%) : NULL

REMARK 3 REFLECTIONS IN BIN (WORKING SET) : NULL

REMARK 3 BIN R VALUE (WORKING SET) : NULL

REMARK 3 BIN FREE R VALUE : NULL

REMARK 3 BIN FREE R VALUE TEST SET SIZE (%) : NULL

REMARK 3 BIN FREE R VALUE TEST SET COUNT : NULL

REMARK 3 ESTIMATED ERROR OF BIN FREE R VALUE : NULL

REMARK 3

REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.

REMARK 3 PROTEIN ATOMS : 2508

REMARK 3 NUCLEIC ACID ATOMS : 0

REMARK 3 HETEROGEN ATOMS : 69

REMARK 3 SOLVENT ATOMS : 428

REMARK 3

REMARK 3 B VALUES.

REMARK 3 FROM WILSON PLOT (A\*\*2) : NULL

REMARK 3 MEAN B VALUE (OVERALL, A\*\*2) : NULL

REMARK 3 OVERALL ANISOTROPIC B VALUE.

REMARK 3 B11 (A\*\*2) : NULL

REMARK 3 B22 (A\*\*2) : NULL

REMARK 3 B33 (A\*\*2) : NULL

REMARK 3 B12 (A\*\*2) : NULL

REMARK 3 B13 (A\*\*2) : NULL

REMARK 3 B23 (A\*\*2) : NULL

REMARK 3

REMARK 3 ESTIMATED COORDINATE ERROR.

REMARK 3 ESD FROM LUZZATI PLOT (A) : NULL

REMARK 3 ESD FROM SIGMAA (A) : NULL

REMARK 3 LOW RESOLUTION CUTOFF (A) : NULL

REMARK 3

REMARK 3 CROSS-VALIDATED ESTIMATED COORDINATE ERROR.

REMARK 3 ESD FROM C-V LUZZATI PLOT (A) : NULL

REMARK 3 ESD FROM C-V SIGMAA (A) : NULL

REMARK 3

REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES.

REMARK 3 BOND LENGTHS (A) : 0.070

REMARK 3 BOND ANGLES (DEGREES) : NULL

REMARK 3 DIHEDRAL ANGLES (DEGREES) : NULL

REMARK 3 IMPROPER ANGLES (DEGREES) : NULL

REMARK 3

REMARK 3 ISOTROPIC THERMAL MODEL : NULL

REMARK 3

REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. RMS SIGMA

REMARK 3 MAIN-CHAIN BOND (A\*\*2) : NULL ; NULL

REMARK 3 MAIN-CHAIN ANGLE (A\*\*2) : NULL ; NULL

REMARK 3 SIDE-CHAIN BOND (A\*\*2) : NULL ; NULL

REMARK 3 SIDE-CHAIN ANGLE (A\*\*2) : NULL ; NULL

REMARK 3

REMARK 3 NCS MODEL : NULL

REMARK 3

REMARK 3 NCS RESTRAINTS. RMS SIGMA/WEIGHT

REMARK 3 GROUP 1 POSITIONAL (A) : NULL ; NULL

REMARK 3 GROUP 1 B-FACTOR (A\*\*2) : NULL ; NULL

REMARK 3

REMARK 3 PARAMETER FILE 1 : NULL

REMARK 3 TOPOLOGY FILE 1 : NULL

REMARK 3

REMARK 3 OTHER REFINEMENT REMARKS:

REMARK 3 MOLECULE DESIGNATED AS CHAIN B BELOW IS PREFERRED FOR

REMARK 3 STRUCTURAL COMPARISONS BECAUSE IT IS MORE COMPLETE AND LESS

REMARK 3 PERTURBED BY INTERMOLECULAR CONTACTS.

REMARK 3

REMARK 3 ALTERNATE LOCATIONS \*A\* AND \*B\* ARE PARTIALLY OCCUPIED

REMARK 3 CONFORMATIONS FOR RESIDUES SER A 64, SER A 150,

REMARK 3 HIS B 45, SER B 64 AND ASP B 122. IN ALL CASES, \*A\* IS

REMARK 3 BELIEVED TO BE THE MAJOR CONFORMER. NEITHER THE

REMARK 3 OCCUPANCIES NOR THE THERMAL PARAMETERS SHOULD BE

REMARK 3 CONSIDERED AS RELIABLE.

REMARK 4

REMARK 4 4DFR COMPLIES WITH FORMAT V. 3.30, 13-JUL-11

REMARK 100

REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY BNL.

REMARK 100 THE DEPOSITION ID IS D\_1000179300.

REMARK 200

REMARK 200 EXPERIMENTAL DETAILS

REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION

REMARK 200 DATE OF DATA COLLECTION : NULL

REMARK 200 TEMPERATURE (KELVIN) : NULL

REMARK 200 PH : NULL

REMARK 200 NUMBER OF CRYSTALS USED : NULL

REMARK 200

REMARK 200 SYNCHROTRON (Y/N) : NULL

REMARK 200 RADIATION SOURCE : NULL

REMARK 200 BEAMLINE : NULL

REMARK 200 X-RAY GENERATOR MODEL : NULL

REMARK 200 MONOCHROMATIC OR LAUE (M/L) : NULL

REMARK 200 WAVELENGTH OR RANGE (A) : NULL

REMARK 200 MONOCHROMATOR : NULL

REMARK 200 OPTICS : NULL

REMARK 200

REMARK 200 DETECTOR TYPE : NULL

REMARK 200 DETECTOR MANUFACTURER : NULL

REMARK 200 INTENSITY-INTEGRATION SOFTWARE : NULL

REMARK 200 DATA SCALING SOFTWARE : NULL

REMARK 200

REMARK 200 NUMBER OF UNIQUE REFLECTIONS : NULL

REMARK 200 RESOLUTION RANGE HIGH (A) : NULL

REMARK 200 RESOLUTION RANGE LOW (A) : NULL

REMARK 200 REJECTION CRITERIA (SIGMA(I)) : NULL

REMARK 200

REMARK 200 OVERALL.

REMARK 200 COMPLETENESS FOR RANGE (%) : NULL

REMARK 200 DATA REDUNDANCY : NULL

REMARK 200 R MERGE (I) : NULL

REMARK 200 R SYM (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : NULL

REMARK 200

REMARK 200 IN THE HIGHEST RESOLUTION SHELL.

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : NULL

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : NULL

REMARK 200 COMPLETENESS FOR SHELL (%) : NULL

REMARK 200 DATA REDUNDANCY IN SHELL : NULL

REMARK 200 R MERGE FOR SHELL (I) : NULL

REMARK 200 R SYM FOR SHELL (I) : NULL

REMARK 200 <I/SIGMA(I)> FOR SHELL : NULL

REMARK 200

REMARK 200 DIFFRACTION PROTOCOL: NULL

REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: NULL

REMARK 200 SOFTWARE USED: NULL

REMARK 200 STARTING MODEL: NULL

REMARK 200

REMARK 200 REMARK: NULL

REMARK 280

REMARK 280 CRYSTAL

REMARK 280 SOLVENT CONTENT, VS (%): 51.93

REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS\*\*3/DA): 2.56

REMARK 280

REMARK 280 CRYSTALLIZATION CONDITIONS: NULL

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY

REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 61

REMARK 290

REMARK 290 SYMOP SYMMETRY

REMARK 290 NNNMMM OPERATOR

REMARK 290 1555 X,Y,Z

REMARK 290 2555 -Y,X-Y,Z+1/3

REMARK 290 3555 -X+Y,-X,Z+2/3

REMARK 290 4555 -X,-Y,Z+1/2

REMARK 290 5555 Y,-X+Y,Z+5/6

REMARK 290 6555 X-Y,X,Z+1/6

REMARK 290

REMARK 290 WHERE NNN -> OPERATOR NUMBER

REMARK 290 MMM -> TRANSLATION VECTOR

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS

REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM

REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY

REMARK 290 RELATED MOLECULES.

REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.00000

REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.00000

REMARK 290 SMTRY1 2 -0.500000 -0.866025 0.000000 0.00000

REMARK 290 SMTRY2 2 0.866025 -0.500000 0.000000 0.00000

REMARK 290 SMTRY3 2 0.000000 0.000000 1.000000 24.52000

REMARK 290 SMTRY1 3 -0.500000 0.866025 0.000000 0.00000

REMARK 290 SMTRY2 3 -0.866025 -0.500000 0.000000 0.00000

REMARK 290 SMTRY3 3 0.000000 0.000000 1.000000 49.04000

REMARK 290 SMTRY1 4 -1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 4 0.000000 -1.000000 0.000000 0.00000

REMARK 290 SMTRY3 4 0.000000 0.000000 1.000000 36.78000

REMARK 290 SMTRY1 5 0.500000 0.866025 0.000000 0.00000

REMARK 290 SMTRY2 5 -0.866025 0.500000 0.000000 0.00000

REMARK 290 SMTRY3 5 0.000000 0.000000 1.000000 61.30000

REMARK 290 SMTRY1 6 0.500000 -0.866025 0.000000 0.00000

REMARK 290 SMTRY2 6 0.866025 0.500000 0.000000 0.00000

REMARK 290 SMTRY3 6 0.000000 0.000000 1.000000 12.26000

REMARK 290

REMARK 290 REMARK: NULL

REMARK 300

REMARK 300 BIOMOLECULE: 1

REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM

REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN

REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON

REMARK 300 BURIED SURFACE AREA.

REMARK 300 REMARK: THE MTRIX TRANSFORMATION PRESENTED BELOW WILL SUPERIMPOSE

REMARK 300 MOLECULE B ON MOLECULE A.

REMARK 350

REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN

REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE

REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS

REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND

REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.

REMARK 350

REMARK 350 BIOMOLECULE: 1

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: DIMERIC

REMARK 350 APPLY THE FOLLOWING TO CHAINS: A, B

REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000

REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000

REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000

REMARK 470

REMARK 470 MISSING ATOM

REMARK 470 THE FOLLOWING RESIDUES HAVE MISSING ATOMS (M=MODEL NUMBER;

REMARK 470 RES=RESIDUE NAME; C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;

REMARK 470 I=INSERTION CODE):

REMARK 470 M RES CSSEQI ATOMS

REMARK 470 PRO A 66 CB CG CD

REMARK 470 THR A 68 OG1 CG2

REMARK 470 LYS A 76 CG CD CE NZ

REMARK 470 LYS A 106 CE NZ

REMARK 470 GLU A 129 CD OE1 OE2

REMARK 470 ASP A 131 CG OD1 OD2

REMARK 470 ARG A 159 CD NE CZ NH1 NH2

REMARK 470 GLU B 129 CD OE1 OE2

REMARK 470 ASP B 131 CG OD1 OD2

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: COVALENT BOND LENGTHS

REMARK 500

REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES

REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE

REMARK 500 THAN 6\*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT: (10X,I3,1X,2(A3,1X,A1,I4,A1,1X,A4,3X),1X,F6.3)

REMARK 500

REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999

REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996

REMARK 500

REMARK 500 M RES CSSEQI ATM1 RES CSSEQI ATM2 DEVIATION

REMARK 500 MET A 1 CA MET A 1 CB -0.162

REMARK 500 SER A 3 CB SER A 3 OG 0.100

REMARK 500 ALA A 6 CA ALA A 6 CB 0.158

REMARK 500 ALA A 6 C ALA A 6 O 0.127

REMARK 500 ALA A 9 C ALA A 9 O 0.140

REMARK 500 ARG A 12 CZ ARG A 12 NH1 0.084

REMARK 500 ARG A 12 CZ ARG A 12 NH2 0.085

REMARK 500 TRP A 22 CE2 TRP A 22 CD2 -0.148

REMARK 500 TRP A 22 CZ3 TRP A 22 CH2 -0.150

REMARK 500 TRP A 30 CE2 TRP A 30 CD2 -0.111

REMARK 500 TRP A 30 C PHE A 31 N -0.138

REMARK 500 ARG A 33 CZ ARG A 33 NH1 0.109

REMARK 500 ARG A 33 CZ ARG A 33 NH2 0.170

REMARK 500 GLY A 43 C GLY A 43 O 0.169

REMARK 500 ARG A 44 CG ARG A 44 CD -0.166

REMARK 500 ARG A 44 CD ARG A 44 NE 0.130

REMARK 500 ARG A 44 C HIS A 45 N -0.162

REMARK 500 TRP A 47 CD2 TRP A 47 CE3 -0.124

REMARK 500 GLU A 48 CB GLU A 48 CG -0.186

REMARK 500 GLU A 48 CD GLU A 48 OE2 0.162

REMARK 500 SER A 49 CB SER A 49 OG 0.093

REMARK 500 GLY A 51 N GLY A 51 CA -0.128

REMARK 500 ARG A 52 CZ ARG A 52 NH1 0.116

REMARK 500 PRO A 53 C PRO A 53 O -0.139

REMARK 500 GLY A 56 N GLY A 56 CA -0.109

REMARK 500 ARG A 57 CD ARG A 57 NE -0.107

REMARK 500 ARG A 57 CZ ARG A 57 NH2 0.116

REMARK 500 LYS A 58 CD LYS A 58 CE 0.243

REMARK 500 SER A 64 CB SER A 64 OG 0.156

REMARK 500 GLN A 65 C GLN A 65 O 0.143

REMARK 500 ARG A 71 NE ARG A 71 CZ -0.110

REMARK 500 TRP A 74 CB TRP A 74 CG -0.116

REMARK 500 SER A 77 CA SER A 77 CB 0.120

REMARK 500 VAL A 78 CB VAL A 78 CG2 0.172

REMARK 500 VAL A 78 C VAL A 78 O 0.158

REMARK 500 GLU A 90 CA GLU A 90 CB -0.165

REMARK 500 GLU A 90 CG GLU A 90 CD -0.106

REMARK 500 GLU A 90 CD GLU A 90 OE1 -0.066

REMARK 500 VAL A 93 C VAL A 93 O 0.139

REMARK 500 ARG A 98 CD ARG A 98 NE 0.120

REMARK 500 TYR A 100 C TYR A 100 O -0.150

REMARK 500 PHE A 103 CA PHE A 103 C -0.202

REMARK 500 PRO A 105 CD PRO A 105 N 0.101

REMARK 500 LYS A 109 CB LYS A 109 CG -0.216

REMARK 500 LYS A 109 CE LYS A 109 NZ 0.215

REMARK 500 LYS A 109 C LEU A 110 N -0.224

REMARK 500 TYR A 111 C TYR A 111 O 0.201

REMARK 500 TYR A 111 C LEU A 112 N -0.206

REMARK 500 THR A 113 CB THR A 113 OG1 -0.157

REMARK 500 ILE A 115 CA ILE A 115 CB 0.182

REMARK 500

REMARK 500 THIS ENTRY HAS 183 BOND DEVIATIONS.

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: COVALENT BOND ANGLES

REMARK 500

REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES

REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE

REMARK 500 THAN 6\*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)

REMARK 500

REMARK 500 EXPECTED VALUES PROTEIN: ENGH AND HUBER, 1999

REMARK 500 EXPECTED VALUES NUCLEIC ACID: CLOWNEY ET AL 1996

REMARK 500

REMARK 500 M RES CSSEQI ATM1 ATM2 ATM3

REMARK 500 MET A 1 CG - SD - CE ANGL. DEV. = 15.2 DEGREES

REMARK 500 LEU A 4 CB - CG - CD1 ANGL. DEV. = 16.6 DEGREES

REMARK 500 ALA A 6 O - C - N ANGL. DEV. = -15.1 DEGREES

REMARK 500 LEU A 8 CB - CG - CD2 ANGL. DEV. = 21.5 DEGREES

REMARK 500 VAL A 10 CG1 - CB - CG2 ANGL. DEV. = -16.6 DEGREES

REMARK 500 VAL A 10 CA - CB - CG1 ANGL. DEV. = 12.4 DEGREES

REMARK 500 VAL A 10 O - C - N ANGL. DEV. = -11.1 DEGREES

REMARK 500 ASP A 11 OD1 - CG - OD2 ANGL. DEV. = -11.8 DEGREES

REMARK 500 ASP A 11 CB - CG - OD1 ANGL. DEV. = 15.9 DEGREES

REMARK 500 ARG A 12 CG - CD - NE ANGL. DEV. = 16.2 DEGREES

REMARK 500 ARG A 12 CD - NE - CZ ANGL. DEV. = 11.2 DEGREES

REMARK 500 ARG A 12 NE - CZ - NH2 ANGL. DEV. = 8.4 DEGREES

REMARK 500 MET A 16 CG - SD - CE ANGL. DEV. = 30.5 DEGREES

REMARK 500 GLU A 17 O - C - N ANGL. DEV. = 9.7 DEGREES

REMARK 500 ASN A 18 OD1 - CG - ND2 ANGL. DEV. = 15.8 DEGREES

REMARK 500 PRO A 21 CA - N - CD ANGL. DEV. = -10.9 DEGREES

REMARK 500 PRO A 21 N - CD - CG ANGL. DEV. = 12.7 DEGREES

REMARK 500 TRP A 22 CD1 - CG - CD2 ANGL. DEV. = -8.9 DEGREES

REMARK 500 TRP A 22 CG - CD1 - NE1 ANGL. DEV. = 6.8 DEGREES

REMARK 500 TRP A 22 CD1 - NE1 - CE2 ANGL. DEV. = -10.5 DEGREES

REMARK 500 TRP A 22 NE1 - CE2 - CZ2 ANGL. DEV. = -16.5 DEGREES

REMARK 500 TRP A 22 CD2 - CE2 - CZ2 ANGL. DEV. = 12.3 DEGREES

REMARK 500 TRP A 22 CE2 - CD2 - CG ANGL. DEV. = 8.4 DEGREES

REMARK 500 TRP A 22 CG - CD2 - CE3 ANGL. DEV. = -8.6 DEGREES

REMARK 500 TRP A 22 CD2 - CE3 - CZ3 ANGL. DEV. = -11.0 DEGREES

REMARK 500 TRP A 22 CE3 - CZ3 - CH2 ANGL. DEV. = 9.3 DEGREES

REMARK 500 TRP A 22 CH2 - CZ2 - CE2 ANGL. DEV. = -16.5 DEGREES

REMARK 500 ASN A 23 CB - CG - OD1 ANGL. DEV. = 17.1 DEGREES

REMARK 500 PRO A 25 O - C - N ANGL. DEV. = -9.9 DEGREES

REMARK 500 ALA A 29 O - C - N ANGL. DEV. = -10.6 DEGREES

REMARK 500 TRP A 30 CG - CD1 - NE1 ANGL. DEV. = -6.5 DEGREES

REMARK 500 TRP A 30 CG - CD2 - CE3 ANGL. DEV. = -6.5 DEGREES

REMARK 500 TRP A 30 CE3 - CZ3 - CH2 ANGL. DEV. = -7.7 DEGREES

REMARK 500 TRP A 30 CZ3 - CH2 - CZ2 ANGL. DEV. = 8.7 DEGREES

REMARK 500 TRP A 30 CA - C - O ANGL. DEV. = -17.0 DEGREES

REMARK 500 TRP A 30 CA - C - N ANGL. DEV. = 17.4 DEGREES

REMARK 500 PHE A 31 CB - CG - CD2 ANGL. DEV. = -9.6 DEGREES

REMARK 500 PHE A 31 CD1 - CG - CD2 ANGL. DEV. = 8.4 DEGREES

REMARK 500 PHE A 31 CG - CD2 - CE2 ANGL. DEV. = -10.7 DEGREES

REMARK 500 LYS A 32 O - C - N ANGL. DEV. = 9.8 DEGREES

REMARK 500 ARG A 33 NE - CZ - NH2 ANGL. DEV. = 4.3 DEGREES

REMARK 500 ASN A 34 CA - C - N ANGL. DEV. = 14.8 DEGREES

REMARK 500 LEU A 36 CB - CG - CD1 ANGL. DEV. = 11.7 DEGREES

REMARK 500 ASP A 37 CB - CG - OD1 ANGL. DEV. = -5.6 DEGREES

REMARK 500 ASP A 37 CB - CG - OD2 ANGL. DEV. = 7.5 DEGREES

REMARK 500 LYS A 38 CA - CB - CG ANGL. DEV. = 16.4 DEGREES

REMARK 500 GLY A 43 CA - C - N ANGL. DEV. = 15.5 DEGREES

REMARK 500 GLY A 43 O - C - N ANGL. DEV. = -12.9 DEGREES

REMARK 500 ARG A 44 CB - CG - CD ANGL. DEV. = 27.9 DEGREES

REMARK 500 ARG A 44 CD - NE - CZ ANGL. DEV. = -12.7 DEGREES

REMARK 500

REMARK 500 THIS ENTRY HAS 461 ANGLE DEVIATIONS.

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: TORSION ANGLES

REMARK 500

REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:

REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT:(10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)

REMARK 500

REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-

REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400

REMARK 500

REMARK 500 M RES CSSEQI PSI PHI

REMARK 500 GLU A 17 -59.56 -145.93

REMARK 500 ASP A 37 11.00 82.49

REMARK 500 PRO A 126 152.49 -44.98

REMARK 500 PRO A 130 1.40 -55.48

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: NON-CIS, NON-TRANS

REMARK 500

REMARK 500 THE FOLLOWING PEPTIDE BONDS DEVIATE SIGNIFICANTLY FROM BOTH

REMARK 500 CIS AND TRANS CONFORMATION. CIS BONDS, IF ANY, ARE LISTED

REMARK 500 ON CISPEP RECORDS. TRANS IS DEFINED AS 180 +/- 30 AND

REMARK 500 CIS IS DEFINED AS 0 +/- 30 DEGREES.

REMARK 500 MODEL OMEGA

REMARK 500 GLN A 65 PRO A 66 -143.13

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: PLANAR GROUPS

REMARK 500

REMARK 500 PLANAR GROUPS IN THE FOLLOWING RESIDUES HAVE A TOTAL

REMARK 500 RMS DISTANCE OF ALL ATOMS FROM THE BEST-FIT PLANE

REMARK 500 BY MORE THAN AN EXPECTED VALUE OF 6\*RMSD, WITH AN

REMARK 500 RMSD 0.02 ANGSTROMS, OR AT LEAST ONE ATOM HAS

REMARK 500 AN RMSD GREATER THAN THIS VALUE

REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 M RES CSSEQI RMS TYPE

REMARK 500 ARG A 33 0.13 SIDE CHAIN

REMARK 500 ARG A 44 0.12 SIDE CHAIN

REMARK 500 ARG A 52 0.23 SIDE CHAIN

REMARK 500 ARG A 98 0.16 SIDE CHAIN

REMARK 500 ARG B 12 0.18 SIDE CHAIN

REMARK 500 ARG B 33 0.15 SIDE CHAIN

REMARK 500 ARG B 44 0.13 SIDE CHAIN

REMARK 500 ARG B 52 0.12 SIDE CHAIN

REMARK 500 ARG B 71 0.09 SIDE CHAIN

REMARK 500 ARG B 98 0.09 SIDE CHAIN

REMARK 500

REMARK 500 REMARK: NULL

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: MAIN CHAIN PLANARITY

REMARK 500

REMARK 500 THE FOLLOWING RESIDUES HAVE A PSEUDO PLANARITY

REMARK 500 TORSION ANGLE, C(I) - CA(I) - N(I+1) - O(I), GREATER

REMARK 500 10.0 DEGREES. (M=MODEL NUMBER; RES=RESIDUE NAME;

REMARK 500 C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;

REMARK 500 I=INSERTION CODE).

REMARK 500

REMARK 500 M RES CSSEQI ANGLE

REMARK 500 GLN A 65 26.12

REMARK 500 ALA A 117 -10.52

REMARK 500 ALA B 7 -15.62

REMARK 500 ARG B 12 -10.06

REMARK 500 ALA B 29 -10.27

REMARK 500 ILE B 41 -12.81

REMARK 500 HIS B 45 13.58

REMARK 500 PRO B 55 12.67

REMARK 500 ILE B 60 -10.02

REMARK 500 SER B 64 14.61

REMARK 500 GLU B 101 -10.25

REMARK 500

REMARK 500 REMARK: NULL

REMARK 620

REMARK 620 METAL COORDINATION

REMARK 620 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 620 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE):

REMARK 620

REMARK 620 COORDINATION ANGLES FOR: M RES CSSEQI METAL

REMARK 620 CA B 161 CA

REMARK 620 N RES CSSEQI ATOM

REMARK 620 1 HOH B 205 O

REMARK 620 2 HOH B 221 O 165.0

REMARK 620 3 SER B 135 O 83.1 108.9

REMARK 620 4 HOH B 206 O 85.3 81.7 167.2

REMARK 620 5 HOH A 250 O 86.5 85.3 86.9 86.8

REMARK 620 6 HOH B 207 O 90.4 96.9 96.3 89.5 175.4

REMARK 620 N 1 2 3 4 5

REMARK 800

REMARK 800 SITE

REMARK 800 SITE\_IDENTIFIER: APT

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE PTERIDINE OF THE

REMARK 800 METHOTREXATE INHIBITOR. INCLUDE WATER MOLECULES WHICH ARE BOUND

REMARK 800 EITHER TO INVARIANT SIDE CHAINS OR TO STRUCTURALLY INVARIANT

REMARK 800 MAIN CHAIN SEGMENTS.

REMARK 800

REMARK 800 SITE\_IDENTIFIER: ANM

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE N(10) METHYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AAB

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE P-AMINO BENZOYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AGL

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE GLUTAMATE OF THE

REMARK 800 METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BPT

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE PTERIDINE OF THE

REMARK 800 METHOTREXATE INHIBITOR. INCLUDE WATER MOLECULES WHICH ARE BOUND

REMARK 800 EITHER TO INVARIANT SIDE CHAINS OR TO STRUCTURALLY INVARIANT

REMARK 800 MAIN CHAIN SEGMENTS.

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BNM

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE N(10) METHYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BAB

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE P-AMINO BENZOYL OF

REMARK 800 THE METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: BGL

REMARK 800 EVIDENCE\_CODE: AUTHOR

REMARK 800 SITE\_DESCRIPTION: RESIDUES INTERACTING WITH THE GLUTAMATE OF THE

REMARK 800 METHOTREXATE INHIBITOR

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC1

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE CL A 160

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC2

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE CL B 160

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC3

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE CA B 161

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC4

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE MTX A 161

REMARK 800

REMARK 800 SITE\_IDENTIFIER: AC5

REMARK 800 EVIDENCE\_CODE: SOFTWARE

REMARK 800 SITE\_DESCRIPTION: BINDING SITE FOR RESIDUE MTX B 162

REMARK 999

REMARK 999 SEQUENCE

REMARK 999 RESIDUE 142 IS LISTED AS ASN IN THE SEQUENCE PAPER

REMARK 999 (SEE REFERENCE 9 ABOVE). THE X-RAY STRUCTURE SUGGESTS IT

REMARK 999 IS ASP (EVIDENCE IS INTERMOLECULAR SALT-LINKAGE TO AN ARG).

DBREF 4DFR A 1 159 UNP P0ABQ4 DYR\_ECOLI 1 159

DBREF 4DFR B 1 159 UNP P0ABQ4 DYR\_ECOLI 1 159

SEQADV 4DFR ASP A 37 UNP P0ABQ4 ASN 37 CONFLICT

SEQADV 4DFR LYS A 154 UNP P0ABQ4 GLU 154 CONFLICT

SEQADV 4DFR ASP B 37 UNP P0ABQ4 ASN 37 CONFLICT

SEQADV 4DFR LYS B 154 UNP P0ABQ4 GLU 154 CONFLICT

SEQRES 1 A 159 MET ILE SER LEU ILE ALA ALA LEU ALA VAL ASP ARG VAL

SEQRES 2 A 159 ILE GLY MET GLU ASN ALA MET PRO TRP ASN LEU PRO ALA

SEQRES 3 A 159 ASP LEU ALA TRP PHE LYS ARG ASN THR LEU ASP LYS PRO

SEQRES 4 A 159 VAL ILE MET GLY ARG HIS THR TRP GLU SER ILE GLY ARG

SEQRES 5 A 159 PRO LEU PRO GLY ARG LYS ASN ILE ILE LEU SER SER GLN

SEQRES 6 A 159 PRO GLY THR ASP ASP ARG VAL THR TRP VAL LYS SER VAL

SEQRES 7 A 159 ASP GLU ALA ILE ALA ALA CYS GLY ASP VAL PRO GLU ILE

SEQRES 8 A 159 MET VAL ILE GLY GLY GLY ARG VAL TYR GLU GLN PHE LEU

SEQRES 9 A 159 PRO LYS ALA GLN LYS LEU TYR LEU THR HIS ILE ASP ALA

SEQRES 10 A 159 GLU VAL GLU GLY ASP THR HIS PHE PRO ASP TYR GLU PRO

SEQRES 11 A 159 ASP ASP TRP GLU SER VAL PHE SER GLU PHE HIS ASP ALA

SEQRES 12 A 159 ASP ALA GLN ASN SER HIS SER TYR CYS PHE LYS ILE LEU

SEQRES 13 A 159 GLU ARG ARG

SEQRES 1 B 159 MET ILE SER LEU ILE ALA ALA LEU ALA VAL ASP ARG VAL

SEQRES 2 B 159 ILE GLY MET GLU ASN ALA MET PRO TRP ASN LEU PRO ALA

SEQRES 3 B 159 ASP LEU ALA TRP PHE LYS ARG ASN THR LEU ASP LYS PRO

SEQRES 4 B 159 VAL ILE MET GLY ARG HIS THR TRP GLU SER ILE GLY ARG

SEQRES 5 B 159 PRO LEU PRO GLY ARG LYS ASN ILE ILE LEU SER SER GLN

SEQRES 6 B 159 PRO GLY THR ASP ASP ARG VAL THR TRP VAL LYS SER VAL

SEQRES 7 B 159 ASP GLU ALA ILE ALA ALA CYS GLY ASP VAL PRO GLU ILE

SEQRES 8 B 159 MET VAL ILE GLY GLY GLY ARG VAL TYR GLU GLN PHE LEU

SEQRES 9 B 159 PRO LYS ALA GLN LYS LEU TYR LEU THR HIS ILE ASP ALA

SEQRES 10 B 159 GLU VAL GLU GLY ASP THR HIS PHE PRO ASP TYR GLU PRO

SEQRES 11 B 159 ASP ASP TRP GLU SER VAL PHE SER GLU PHE HIS ASP ALA

SEQRES 12 B 159 ASP ALA GLN ASN SER HIS SER TYR CYS PHE LYS ILE LEU

SEQRES 13 B 159 GLU ARG ARG

HET CL A 160 1

HET MTX A 161 33

HET CL B 160 1

HET CA B 161 1

HET MTX B 162 33

HETNAM CL CHLORIDE ION

HETNAM MTX METHOTREXATE

HETNAM CA CALCIUM ION

FORMUL 3 CL 2(CL 1-)

FORMUL 4 MTX 2(C20 H22 N8 O5)

FORMUL 6 CA CA 2+

FORMUL 8 HOH \*428(H2 O)

HELIX 1 HBA LEU A 24 THR A 35 1 12

HELIX 2 HCA GLY A 43 ILE A 50 1 8

HELIX 3 HEA SER A 77 GLY A 86 1 10

HELIX 4 HFA GLY A 96 LEU A 104 1 9

HELIX 5 HBB LEU B 24 THR B 35 1 12

HELIX 6 HCB GLY B 43 ILE B 50 1 8

HELIX 7 HEB SER B 77 GLY B 86 1 10

HELIX 8 HFB GLY B 96 LEU B 104 1 9

SHEET 1 S1A 8 THR A 73 VAL A 75 0

SHEET 2 S1A 8 LYS A 58 SER A 63 1 O ASN A 59 N THR A 73

SHEET 3 S1A 8 PRO A 39 GLY A 43 1 N VAL A 40 O LYS A 58

SHEET 4 S1A 8 ILE A 91 GLY A 95 1 N MET A 92 O PRO A 39

SHEET 5 S1A 8 MET A 1 LEU A 8 1 O MET A 1 N ILE A 91

SHEET 6 S1A 8 GLN A 108 ASP A 116 1 O LYS A 109 N LEU A 4

SHEET 7 S1A 8 SER A 150 ARG A 159 -1 N ARG A 158 O GLN A 108

SHEET 8 S1A 8 ASP A 132 HIS A 141 -1 N GLU A 134 O GLU A 157

SHEET 1 S1B 8 THR B 73 VAL B 75 0

SHEET 2 S1B 8 LYS B 58 SER B 63 1 O ASN B 59 N THR B 73

SHEET 3 S1B 8 PRO B 39 GLY B 43 1 N VAL B 40 O LYS B 58

SHEET 4 S1B 8 PRO B 89 GLY B 95 1 N MET B 92 O PRO B 39

SHEET 5 S1B 8 MET B 1 LEU B 8 1 O MET B 1 N ILE B 91

SHEET 6 S1B 8 GLN B 108 ASP B 116 1 O LYS B 109 N LEU B 4

SHEET 7 S1B 8 SER B 150 ARG B 159 -1 N ARG B 158 O GLN B 108

SHEET 8 S1B 8 ASP B 132 HIS B 141 -1 N GLU B 134 O GLU B 157

LINK CA CA B 161 O HOH B 205 1555 1555 2.47

LINK CA CA B 161 O HOH B 221 1555 1555 2.59

LINK CA CA B 161 O SER B 135 1555 1555 2.45

LINK CA CA B 161 O HOH B 206 1555 2665 2.43

LINK CA CA B 161 O HOH A 250 1555 2665 2.56

LINK CA CA B 161 O HOH B 207 1555 2665 2.49

CISPEP 1 GLY A 95 GLY A 96 0 1.50

CISPEP 2 GLY B 95 GLY B 96 0 -2.65

SITE 1 APT 12 ILE A 5 ALA A 6 ALA A 7 TRP A 22

SITE 2 APT 12 ASP A 27 LEU A 28 PHE A 31 ILE A 94

SITE 3 APT 12 THR A 113 HOH A 163 HOH A 165 HOH A 172

SITE 1 ANM 1 SER A 49

SITE 1 AAB 5 LEU A 28 PHE A 31 ILE A 50 ARG A 52

SITE 2 AAB 5 LEU A 54

SITE 1 AGL 5 LEU A 28 PHE A 31 LYS A 32 LEU A 54

SITE 2 AGL 5 ARG A 57

SITE 1 BPT 12 ILE B 5 ALA B 6 ALA B 7 TRP B 22

SITE 2 BPT 12 ASP B 27 LEU B 28 PHE B 31 ILE B 94

SITE 3 BPT 12 THR B 113 HOH B 170 HOH B 171 HOH B 202

SITE 1 BNM 1 SER B 49

SITE 1 BAB 5 LEU B 28 PHE B 31 ILE B 50 ARG B 52

SITE 2 BAB 5 LEU B 54

SITE 1 BGL 5 LEU B 28 PHE B 31 LYS B 32 LEU B 54

SITE 2 BGL 5 ARG B 57

SITE 1 AC1 6 GLY A 43 HIS A 45 THR A 46 GLY A 96

SITE 2 AC1 6 HOH A 230 HOH A 374

SITE 1 AC2 4 GLY B 43 THR B 46 GLY B 96 HOH B 285

SITE 1 AC3 6 HOH A 250 SER B 135 HOH B 205 HOH B 206

SITE 2 AC3 6 HOH B 207 HOH B 221

SITE 1 AC4 14 ILE A 5 ALA A 6 ASP A 27 PHE A 31

SITE 2 AC4 14 LYS A 32 ARG A 52 ARG A 57 ILE A 94

SITE 3 AC4 14 TYR A 100 THR A 113 HOH A 263 HOH A 296

SITE 4 AC4 14 HOH A 323 HOH A 328

SITE 1 AC5 17 ILE B 5 ALA B 6 ALA B 7 ASP B 27

SITE 2 AC5 17 LEU B 28 PHE B 31 LYS B 32 ILE B 50

SITE 3 AC5 17 ARG B 52 LEU B 54 ARG B 57 ILE B 94

SITE 4 AC5 17 TYR B 100 THR B 113 HOH B 202 HOH B 242

SITE 5 AC5 17 HOH B 260

CRYST1 93.220 93.220 73.560 90.00 90.00 120.00 P 61 12

ORIGX1 0.010727 0.006193 0.000000 0.00000

ORIGX2 0.000000 0.012387 0.000000 0.00000

ORIGX3 0.000000 0.000000 0.013594 0.00000

SCALE1 0.010727 0.006193 0.000000 0.00000

SCALE2 0.000000 0.012387 0.000000 0.00000

SCALE3 0.000000 0.000000 0.013594 0.00000

MTRIX1 1 -0.921160 -0.379660 0.636818 59.21707 1

MTRIX2 1 -0.346230 0.699130 -0.625580 47.40033 1

MTRIX3 1 0.177743 -0.605172 -0.775593 96.59826 1

ATOM 1 N MET A 1 24.293 59.579 4.215 1.00 39.20 N

ATOM 2 CA MET A 1 25.127 58.554 4.958 1.00 37.00 C

ATOM 3 C MET A 1 24.186 58.457 6.297 1.00 35.50 C

ATOM 4 O MET A 1 23.827 59.402 6.804 1.00 34.50 O

ATOM 5 CB MET A 1 26.311 59.103 5.385 1.00 40.80 C

ATOM 6 CG MET A 1 27.346 58.263 5.966 1.00 46.90 C

ATOM 7 SD MET A 1 28.097 59.208 7.157 1.00 52.50 S

ATOM 8 CE MET A 1 28.875 60.685 6.576 1.00 53.80 C

ATOM 9 N ILE A 2 23.920 57.222 6.665 1.00 32.60 N

ATOM 10 CA ILE A 2 23.091 56.867 7.886 1.00 30.00 C

ATOM 11 C ILE A 2 24.088 56.447 8.960 1.00 26.30 C

ATOM 12 O ILE A 2 25.020 55.656 8.827 1.00 26.90 O

ATOM 13 CB ILE A 2 22.121 55.672 7.672 1.00 31.50 C

ATOM 14 CG1 ILE A 2 21.100 56.229 6.650 1.00 29.20 C

ATOM 15 CG2 ILE A 2 21.263 55.107 8.938 1.00 26.60 C

ATOM 16 CD1 ILE A 2 20.299 55.309 5.914 1.00 35.80 C

ATOM 17 N SER A 3 23.864 57.125 10.173 1.00 27.30 N

ATOM 18 CA SER A 3 24.643 56.810 11.306 1.00 21.10 C

ATOM 19 C SER A 3 23.655 56.407 12.483 1.00 22.80 C

ATOM 20 O SER A 3 22.615 56.915 12.468 1.00 22.50 O

ATOM 21 CB SER A 3 25.584 57.908 11.917 1.00 24.20 C

ATOM 22 OG SER A 3 26.335 58.368 10.681 1.00 26.90 O

ATOM 23 N LEU A 4 24.135 55.543 13.270 1.00 22.20 N

ATOM 24 CA LEU A 4 23.491 55.091 14.491 1.00 23.90 C

ATOM 25 C LEU A 4 24.265 55.607 15.654 1.00 20.90 C

ATOM 26 O LEU A 4 25.528 55.551 15.727 1.00 24.80 O

ATOM 27 CB LEU A 4 23.286 53.589 14.763 1.00 25.10 C

ATOM 28 CG LEU A 4 22.294 52.855 13.726 1.00 28.20 C

ATOM 29 CD1 LEU A 4 21.935 53.282 12.410 1.00 28.10 C

ATOM 30 CD2 LEU A 4 22.708 51.377 13.734 1.00 30.80 C

ATOM 31 N ILE A 5 23.529 56.140 16.683 1.00 21.50 N

ATOM 32 CA ILE A 5 24.107 56.528 17.919 1.00 19.10 C

ATOM 33 C ILE A 5 23.282 55.874 19.045 1.00 14.40 C

ATOM 34 O ILE A 5 22.074 56.043 19.096 1.00 20.30 O

ATOM 35 CB ILE A 5 24.195 58.134 17.941 1.00 19.70 C

ATOM 36 CG1 ILE A 5 24.736 58.796 19.243 1.00 21.10 C

ATOM 37 CG2 ILE A 5 22.834 58.893 17.713 1.00 18.50 C

ATOM 38 CD1 ILE A 5 25.570 60.064 19.008 1.00 18.20 C

ATOM 39 N ALA A 6 24.037 55.406 19.876 1.00 19.60 N

ATOM 40 CA ALA A 6 23.547 54.606 21.016 1.00 17.60 C

ATOM 41 C ALA A 6 24.405 54.574 22.142 1.00 18.40 C

ATOM 42 O ALA A 6 25.743 54.760 22.259 1.00 18.50 O

ATOM 43 CB ALA A 6 23.463 53.024 20.464 1.00 20.40 C

ATOM 44 N ALA A 7 23.911 54.396 23.377 1.00 20.10 N

ATOM 45 CA ALA A 7 24.545 54.348 24.709 1.00 23.70 C

ATOM 46 C ALA A 7 24.135 52.927 25.172 1.00 21.50 C

ATOM 47 O ALA A 7 22.979 52.443 25.238 1.00 20.90 O

ATOM 48 CB ALA A 7 23.981 55.244 25.731 1.00 19.70 C

ATOM 49 N LEU A 8 25.174 51.999 25.334 1.00 22.10 N

ATOM 50 CA LEU A 8 25.137 50.594 25.695 1.00 19.60 C

ATOM 51 C LEU A 8 25.710 50.311 26.997 1.00 19.60 C

ATOM 52 O LEU A 8 26.740 50.723 27.438 1.00 23.10 O

ATOM 53 CB LEU A 8 26.060 49.754 24.716 1.00 20.90 C

ATOM 54 CG LEU A 8 25.948 49.916 23.311 1.00 30.10 C

ATOM 55 CD1 LEU A 8 26.749 48.818 22.355 1.00 30.00 C

ATOM 56 CD2 LEU A 8 24.824 50.279 22.443 1.00 30.80 C

ATOM 57 N ALA A 9 24.964 49.569 27.754 1.00 22.40 N

ATOM 58 CA ALA A 9 25.505 49.052 29.100 1.00 22.70 C

ATOM 59 C ALA A 9 26.325 47.744 28.850 1.00 26.90 C

ATOM 60 O ALA A 9 26.484 47.228 27.592 1.00 26.60 O

ATOM 61 CB ALA A 9 24.391 48.737 29.924 1.00 21.40 C

ATOM 62 N VAL A 10 26.889 47.155 29.770 1.00 26.90 N

ATOM 63 CA VAL A 10 27.663 45.815 29.564 1.00 30.90 C

ATOM 64 C VAL A 10 26.782 44.838 28.843 1.00 29.00 C

ATOM 65 O VAL A 10 25.486 44.725 29.093 1.00 30.50 O

ATOM 66 CB VAL A 10 28.199 45.371 30.888 1.00 32.60 C

ATOM 67 CG1 VAL A 10 28.908 46.323 31.881 1.00 31.50 C

ATOM 68 CG2 VAL A 10 27.052 45.016 31.866 1.00 39.10 C

ATOM 69 N ASP A 11 27.178 43.958 27.990 1.00 31.00 N

ATOM 70 CA ASP A 11 26.437 43.030 27.202 1.00 30.40 C

ATOM 71 C ASP A 11 25.631 43.587 26.224 1.00 27.40 C

ATOM 72 O ASP A 11 24.708 43.102 25.650 1.00 29.60 O

ATOM 73 CB ASP A 11 25.887 41.915 28.115 1.00 39.70 C

ATOM 74 CG ASP A 11 27.010 40.987 28.659 1.00 43.40 C

ATOM 75 OD1 ASP A 11 28.246 40.834 28.387 1.00 50.20 O

ATOM 76 OD2 ASP A 11 26.684 40.374 29.755 1.00 48.40 O

ATOM 77 N ARG A 12 25.897 44.951 25.915 1.00 26.30 N

ATOM 78 CA ARG A 12 25.118 45.556 24.885 1.00 28.40 C

ATOM 79 C ARG A 12 23.571 45.863 25.143 1.00 23.20 C

ATOM 80 O ARG A 12 22.788 46.089 24.319 1.00 25.60 O

ATOM 81 CB ARG A 12 25.258 44.894 23.466 1.00 36.00 C

ATOM 82 CG ARG A 12 26.563 44.184 23.046 1.00 44.80 C

ATOM 83 CD ARG A 12 26.624 43.756 21.538 1.00 53.10 C

ATOM 84 NE ARG A 12 25.594 43.118 20.751 1.00 56.70 N

ATOM 85 CZ ARG A 12 24.764 42.037 20.935 1.00 62.20 C

ATOM 86 NH1 ARG A 12 25.011 41.205 22.046 1.00 62.10 N

ATOM 87 NH2 ARG A 12 23.631 41.657 20.185 1.00 60.40 N

ATOM 88 N VAL A 13 23.258 45.774 26.393 1.00 25.00 N

ATOM 89 CA VAL A 13 21.851 46.081 26.982 1.00 24.20 C

ATOM 90 C VAL A 13 21.501 47.639 26.629 1.00 27.10 C

ATOM 91 O VAL A 13 22.396 48.495 26.864 1.00 22.90 O

ATOM 92 CB VAL A 13 21.809 45.750 28.512 1.00 22.90 C

ATOM 93 CG1 VAL A 13 20.392 46.267 28.990 1.00 25.80 C

ATOM 94 CG2 VAL A 13 22.074 44.144 28.666 1.00 23.40 C

ATOM 95 N ILE A 14 20.383 47.817 26.158 1.00 21.90 N

ATOM 96 CA ILE A 14 19.856 49.004 25.783 1.00 23.80 C

ATOM 97 C ILE A 14 18.462 49.302 26.496 1.00 25.00 C

ATOM 98 O ILE A 14 17.884 48.221 26.864 1.00 27.40 O

ATOM 99 CB ILE A 14 19.912 49.520 24.275 1.00 21.60 C

ATOM 100 CG1 ILE A 14 18.947 48.463 23.473 1.00 24.40 C

ATOM 101 CG2 ILE A 14 21.422 49.456 23.856 1.00 22.10 C

ATOM 102 CD1 ILE A 14 18.816 48.818 21.928 1.00 22.50 C

ATOM 103 N GLY A 15 18.043 50.546 26.423 1.00 25.40 N

ATOM 104 CA GLY A 15 16.742 50.699 27.048 1.00 27.60 C

ATOM 105 C GLY A 15 15.633 50.053 26.254 1.00 27.90 C

ATOM 106 O GLY A 15 15.661 50.037 25.025 1.00 27.00 O

ATOM 107 N MET A 16 14.552 49.730 27.048 1.00 25.20 N

ATOM 108 CA MET A 16 13.302 49.181 26.401 1.00 21.40 C

ATOM 109 C MET A 16 12.156 50.311 26.452 1.00 22.70 C

ATOM 110 O MET A 16 11.457 50.634 25.496 1.00 23.20 O

ATOM 111 CB MET A 16 13.055 47.914 27.173 1.00 28.90 C

ATOM 112 CG MET A 16 12.049 47.010 26.452 1.00 36.10 C

ATOM 113 SD MET A 16 11.872 45.653 27.489 1.00 42.90 S

ATOM 114 CE MET A 16 11.830 45.548 29.262 1.00 31.10 C

ATOM 115 N GLU A 17 11.867 50.699 27.592 1.00 21.60 N

ATOM 116 CA GLU A 17 10.851 51.619 27.909 1.00 19.10 C

ATOM 117 C GLU A 17 11.242 52.588 29.218 1.00 19.10 C

ATOM 118 O GLU A 17 11.070 53.775 28.939 1.00 18.40 O

ATOM 119 CB GLU A 17 9.476 51.014 28.166 1.00 17.70 C

ATOM 120 CG GLU A 17 8.371 51.700 28.828 1.00 21.40 C

ATOM 121 CD GLU A 17 6.954 51.264 28.600 1.00 20.60 C

ATOM 122 OE1 GLU A 17 6.563 50.860 27.489 1.00 21.40 O

ATOM 123 OE2 GLU A 17 6.418 51.078 29.674 1.00 25.10 O

ATOM 124 N ASN A 18 11.480 51.983 30.329 1.00 21.00 N

ATOM 125 CA ASN A 18 11.825 52.838 31.476 1.00 18.30 C

ATOM 126 C ASN A 18 13.172 53.460 31.285 1.00 18.90 C

ATOM 127 O ASN A 18 14.067 52.814 30.527 1.00 20.10 O

ATOM 128 CB ASN A 18 11.666 51.918 32.727 1.00 19.20 C

ATOM 129 CG ASN A 18 10.100 51.644 33.028 1.00 13.80 C

ATOM 130 OD1 ASN A 18 9.247 52.346 32.462 1.00 13.90 O

ATOM 131 ND2 ASN A 18 10.128 50.675 33.911 1.00 17.70 N

ATOM 132 N ALA A 19 13.405 54.526 31.932 1.00 16.60 N

ATOM 133 CA ALA A 19 14.780 55.260 31.851 1.00 15.40 C

ATOM 134 C ALA A 19 15.773 54.396 32.462 1.00 14.90 C

ATOM 135 O ALA A 19 15.600 53.533 33.367 1.00 17.00 O

ATOM 136 CB ALA A 19 14.715 56.552 32.697 1.00 12.60 C

ATOM 137 N MET A 20 16.961 54.453 31.822 1.00 18.00 N

ATOM 138 CA MET A 20 18.215 53.605 32.219 1.00 18.30 C

ATOM 139 C MET A 20 18.770 54.098 33.565 1.00 19.30 C

ATOM 140 O MET A 20 18.625 55.252 33.801 1.00 18.80 O

ATOM 141 CB MET A 20 19.180 53.678 31.101 1.00 19.10 C

ATOM 142 CG MET A 20 18.691 52.943 29.792 1.00 23.30 C

ATOM 143 SD MET A 20 18.369 51.159 30.093 1.00 29.60 S

ATOM 144 CE MET A 20 20.047 50.497 29.792 1.00 28.50 C

ATOM 145 N PRO A 21 19.208 53.210 34.367 1.00 17.90 N

ATOM 146 CA PRO A 21 19.739 53.533 35.640 1.00 20.90 C

ATOM 147 C PRO A 21 21.142 54.074 35.647 1.00 18.80 C

ATOM 148 O PRO A 21 22.070 53.436 36.192 1.00 22.30 O

ATOM 149 CB PRO A 21 19.516 52.386 36.581 1.00 19.40 C

ATOM 150 CG PRO A 21 19.902 51.167 35.581 1.00 24.10 C

ATOM 151 CD PRO A 21 19.427 51.765 34.338 1.00 22.00 C

ATOM 152 N TRP A 22 21.375 55.252 35.162 1.00 21.80 N

ATOM 153 CA TRP A 22 22.573 55.955 35.147 1.00 22.10 C

ATOM 154 C TRP A 22 22.294 57.424 35.015 1.00 21.10 C

ATOM 155 O TRP A 22 21.184 57.892 34.595 1.00 22.00 O

ATOM 156 CB TRP A 22 23.496 55.438 34.095 1.00 16.50 C

ATOM 157 CG TRP A 22 23.174 55.430 32.734 1.00 17.90 C

ATOM 158 CD1 TRP A 22 22.764 56.399 31.940 1.00 18.10 C

ATOM 159 CD2 TRP A 22 23.114 54.372 31.778 1.00 17.10 C

ATOM 160 NE1 TRP A 22 22.419 56.027 30.557 1.00 18.80 N

ATOM 161 CE2 TRP A 22 22.704 54.695 30.630 1.00 18.90 C

ATOM 162 CE3 TRP A 22 23.459 53.000 32.035 1.00 23.90 C

ATOM 163 CZ2 TRP A 22 22.485 53.977 29.387 1.00 20.20 C

ATOM 164 CZ3 TRP A 22 23.310 52.306 30.866 1.00 26.90 C

ATOM 165 CH2 TRP A 22 22.965 52.693 29.733 1.00 23.60 C

ATOM 166 N ASN A 23 23.300 58.199 35.338 1.00 18.80 N

ATOM 167 CA ASN A 23 23.328 59.652 35.257 1.00 18.90 C

ATOM 168 C ASN A 23 24.615 60.088 34.433 1.00 17.60 C

ATOM 169 O ASN A 23 25.570 60.193 35.162 1.00 19.30 O

ATOM 170 CB ASN A 23 23.049 60.330 36.611 1.00 24.10 C

ATOM 171 CG ASN A 23 22.806 61.735 36.272 1.00 28.40 C

ATOM 172 OD1 ASN A 23 22.541 62.421 35.272 1.00 34.00 O

ATOM 173 ND2 ASN A 23 23.147 62.373 37.346 1.00 37.40 N

ATOM 174 N LEU A 24 24.596 60.411 33.190 1.00 18.00 N

ATOM 175 CA LEU A 24 25.719 60.693 32.337 1.00 15.70 C

ATOM 176 C LEU A 24 25.477 61.840 31.543 1.00 16.90 C

ATOM 177 O LEU A 24 25.295 61.896 30.307 1.00 19.10 O

ATOM 178 CB LEU A 24 25.957 59.474 31.403 1.00 21.40 C

ATOM 179 CG LEU A 24 26.344 58.110 32.219 1.00 22.60 C

ATOM 180 CD1 LEU A 24 26.456 57.061 31.042 1.00 27.60 C

ATOM 181 CD2 LEU A 24 27.574 58.159 33.006 1.00 26.50 C

ATOM 182 N PRO A 25 25.575 63.010 32.285 1.00 18.70 N

ATOM 183 CA PRO A 25 25.430 64.229 31.469 1.00 18.80 C

ATOM 184 C PRO A 25 26.414 64.383 30.329 1.00 19.10 C

ATOM 185 O PRO A 25 26.255 64.948 29.328 1.00 20.40 O

ATOM 186 CB PRO A 25 25.719 65.344 32.285 1.00 19.70 C

ATOM 187 CG PRO A 25 26.041 64.738 33.558 1.00 20.40 C

ATOM 188 CD PRO A 25 25.724 63.350 33.661 1.00 19.40 C

ATOM 189 N ALA A 26 27.738 63.834 30.454 1.00 18.50 N

ATOM 190 CA ALA A 26 28.712 63.842 29.490 1.00 19.60 C

ATOM 191 C ALA A 26 28.283 63.067 28.276 1.00 15.90 C

ATOM 192 O ALA A 26 28.712 63.487 27.173 1.00 20.30 O

ATOM 193 CB ALA A 26 30.068 63.059 29.976 1.00 16.70 C

ATOM 194 N ASP A 27 27.435 62.017 28.453 1.00 17.40 N

ATOM 195 CA ASP A 27 26.964 61.331 27.239 1.00 15.40 C

ATOM 196 C ASP A 27 25.924 62.195 26.636 1.00 16.10 C

ATOM 197 O ASP A 27 25.934 62.130 25.393 1.00 18.80 O

ATOM 198 CB ASP A 27 26.470 59.975 27.659 1.00 17.60 C

ATOM 199 CG ASP A 27 25.668 59.184 26.518 1.00 16.60 C

ATOM 200 OD1 ASP A 27 26.419 58.853 25.503 1.00 20.10 O

ATOM 201 OD2 ASP A 27 24.414 59.192 26.445 1.00 19.50 O

ATOM 202 N LEU A 28 25.086 62.889 27.408 1.00 16.50 N

ATOM 203 CA LEU A 28 24.130 63.705 26.717 1.00 17.00 C

ATOM 204 C LEU A 28 24.755 64.883 25.930 1.00 18.10 C

ATOM 205 O LEU A 28 24.181 65.327 24.856 1.00 19.40 O

ATOM 206 CB LEU A 28 23.021 64.221 27.710 1.00 21.00 C

ATOM 207 CG LEU A 28 22.214 63.261 28.416 1.00 19.10 C

ATOM 208 CD1 LEU A 28 21.142 63.923 29.262 1.00 26.80 C

ATOM 209 CD2 LEU A 28 21.357 62.453 27.364 1.00 22.40 C

ATOM 210 N ALA A 29 25.841 65.392 26.430 1.00 18.90 N

ATOM 211 CA ALA A 29 26.614 66.425 25.636 1.00 23.10 C

ATOM 212 C ALA A 29 27.178 65.949 24.429 1.00 21.40 C

ATOM 213 O ALA A 29 27.108 66.490 23.348 1.00 19.00 O

ATOM 214 CB ALA A 29 27.733 66.910 26.702 1.00 19.80 C

ATOM 215 N TRP A 30 27.719 64.738 24.348 1.00 17.50 N

ATOM 216 CA TRP A 30 28.208 63.971 23.193 1.00 16.20 C

ATOM 217 C TRP A 30 27.006 63.745 22.473 1.00 18.20 C

ATOM 218 O TRP A 30 27.323 64.052 21.281 1.00 19.10 O

ATOM 219 CB TRP A 30 28.884 62.607 23.708 1.00 19.40 C

ATOM 220 CG TRP A 30 29.089 61.493 22.679 1.00 23.30 C

ATOM 221 CD1 TRP A 30 28.171 60.451 22.428 1.00 20.60 C

ATOM 222 CD2 TRP A 30 30.147 61.259 21.766 1.00 21.10 C

ATOM 223 NE1 TRP A 30 28.791 59.700 21.435 1.00 22.60 N

ATOM 224 CE2 TRP A 30 29.970 60.161 21.097 1.00 27.00 C

ATOM 225 CE3 TRP A 30 31.471 61.937 21.722 1.00 28.20 C

ATOM 226 CZ2 TRP A 30 30.907 59.636 20.178 1.00 24.70 C

ATOM 227 CZ3 TRP A 30 32.408 61.460 20.692 1.00 22.60 C

ATOM 228 CH2 TRP A 30 31.970 60.314 20.030 1.00 27.10 C

ATOM 229 N PHE A 31 25.906 63.374 22.767 1.00 19.80 N

ATOM 230 CA PHE A 31 24.741 63.196 21.958 1.00 16.50 C

ATOM 231 C PHE A 31 24.396 64.504 21.288 1.00 17.10 C

ATOM 232 O PHE A 31 24.228 64.456 20.045 1.00 19.10 O

ATOM 233 CB PHE A 31 23.645 62.704 22.899 1.00 16.50 C

ATOM 234 CG PHE A 31 22.368 62.510 22.178 1.00 18.50 C

ATOM 235 CD1 PHE A 31 22.074 61.339 21.516 1.00 18.30 C

ATOM 236 CD2 PHE A 31 21.529 63.656 22.296 1.00 18.10 C

ATOM 237 CE1 PHE A 31 20.900 61.178 20.729 1.00 17.30 C

ATOM 238 CE2 PHE A 31 20.289 63.446 21.560 1.00 18.90 C

ATOM 239 CZ PHE A 31 19.944 62.284 20.869 1.00 19.40 C

ATOM 240 N LYS A 32 24.377 65.586 22.134 1.00 20.90 N

ATOM 241 CA LYS A 32 23.911 66.829 21.369 1.00 17.50 C

ATOM 242 C LYS A 32 24.983 67.281 20.310 1.00 21.60 C

ATOM 243 O LYS A 32 24.540 67.661 19.265 1.00 23.40 O

ATOM 244 CB LYS A 32 23.822 67.838 22.502 1.00 19.70 C

ATOM 245 CG LYS A 32 23.272 69.243 21.980 1.00 23.00 C

ATOM 246 CD LYS A 32 23.342 70.155 23.201 1.00 22.00 C

ATOM 247 CE LYS A 32 22.876 71.560 22.598 1.00 27.20 C

ATOM 248 NZ LYS A 32 22.494 72.303 23.929 1.00 29.00 N

ATOM 249 N ARG A 33 26.232 67.217 20.795 1.00 21.10 N

ATOM 250 CA ARG A 33 27.299 67.677 19.729 1.00 27.10 C

ATOM 251 C ARG A 33 27.230 66.942 18.405 1.00 23.50 C

ATOM 252 O ARG A 33 27.458 67.531 17.338 1.00 19.80 O

ATOM 253 CB ARG A 33 28.605 67.515 20.288 1.00 28.30 C

ATOM 254 CG ARG A 33 29.914 67.862 19.545 1.00 41.60 C

ATOM 255 CD ARG A 33 31.210 67.233 20.060 1.00 46.90 C

ATOM 256 NE ARG A 33 31.345 67.144 21.590 1.00 51.10 N

ATOM 257 CZ ARG A 33 31.956 66.167 22.348 1.00 53.50 C

ATOM 258 NH1 ARG A 33 32.963 65.327 21.766 1.00 54.60 N

ATOM 259 NH2 ARG A 33 31.578 65.820 23.753 1.00 51.40 N

ATOM 260 N ASN A 34 26.983 65.626 18.419 1.00 21.70 N

ATOM 261 CA ASN A 34 26.913 64.843 17.294 1.00 23.70 C

ATOM 262 C ASN A 34 25.584 64.754 16.713 1.00 20.80 C

ATOM 263 O ASN A 34 25.575 64.302 15.477 1.00 22.50 O

ATOM 264 CB ASN A 34 27.304 63.358 17.676 1.00 22.50 C

ATOM 265 CG ASN A 34 28.777 63.341 17.971 1.00 23.80 C

ATOM 266 OD1 ASN A 34 29.686 63.656 17.081 1.00 25.40 O

ATOM 267 ND2 ASN A 34 29.117 62.881 19.074 1.00 27.30 N

ATOM 268 N THR A 35 24.461 65.198 17.095 1.00 19.30 N

ATOM 269 CA THR A 35 23.161 65.222 16.419 1.00 16.50 C

ATOM 270 C THR A 35 22.764 66.700 16.117 1.00 17.40 C

ATOM 271 O THR A 35 21.893 66.756 15.175 1.00 19.80 O

ATOM 272 CB THR A 35 22.019 64.633 17.323 1.00 16.70 C

ATOM 273 OG1 THR A 35 21.949 65.271 18.515 1.00 18.00 O

ATOM 274 CG2 THR A 35 22.298 63.115 17.581 1.00 17.90 C

ATOM 275 N LEU A 36 23.296 67.701 16.705 1.00 19.20 N

ATOM 276 CA LEU A 36 22.643 68.960 16.374 1.00 22.30 C

ATOM 277 C LEU A 36 22.783 69.412 14.874 1.00 22.00 C

ATOM 278 O LEU A 36 23.799 69.041 14.271 1.00 23.00 O

ATOM 279 CB LEU A 36 23.561 69.986 17.095 1.00 22.90 C

ATOM 280 CG LEU A 36 22.666 71.245 17.588 1.00 28.10 C

ATOM 281 CD1 LEU A 36 21.487 71.092 18.471 1.00 25.90 C

ATOM 282 CD2 LEU A 36 23.785 72.343 17.941 1.00 31.30 C

ATOM 283 N ASP A 37 21.688 69.969 14.344 1.00 22.60 N

ATOM 284 CA ASP A 37 21.846 70.389 12.954 1.00 23.40 C

ATOM 285 C ASP A 37 21.641 69.194 11.983 1.00 28.50 C

ATOM 286 O ASP A 37 21.935 69.348 10.799 1.00 26.40 O

ATOM 287 CB ASP A 37 22.932 71.366 12.542 1.00 24.40 C

ATOM 288 CG ASP A 37 23.165 72.545 13.373 1.00 25.80 C

ATOM 289 OD1 ASP A 37 22.070 73.279 13.542 1.00 23.60 O

ATOM 290 OD2 ASP A 37 24.172 72.787 13.984 1.00 30.20 O

ATOM 291 N LYS A 38 21.152 68.056 12.446 1.00 24.30 N

ATOM 292 CA LYS A 38 20.914 66.966 11.637 1.00 27.10 C

ATOM 293 C LYS A 38 19.548 66.490 11.917 1.00 22.50 C

ATOM 294 O LYS A 38 18.947 66.659 12.954 1.00 27.00 O

ATOM 295 CB LYS A 38 21.967 65.981 11.851 1.00 25.20 C

ATOM 296 CG LYS A 38 23.436 66.151 11.851 1.00 23.60 C

ATOM 297 CD LYS A 38 24.405 65.118 12.307 1.00 21.80 C

ATOM 298 CE LYS A 38 25.691 65.586 12.395 1.00 20.10 C

ATOM 299 NZ LYS A 38 26.791 64.617 12.858 1.00 25.10 N

ATOM 300 N PRO A 39 19.059 65.691 10.916 1.00 25.80 N

ATOM 301 CA PRO A 39 17.758 65.037 11.181 1.00 23.80 C

ATOM 302 C PRO A 39 18.047 63.777 12.130 1.00 26.50 C

ATOM 303 O PRO A 39 18.956 63.075 12.079 1.00 23.80 O

ATOM 304 CB PRO A 39 17.311 64.326 9.872 1.00 27.70 C

ATOM 305 CG PRO A 39 18.057 64.956 8.915 1.00 25.40 C

ATOM 306 CD PRO A 39 19.455 65.279 9.578 1.00 24.00 C

ATOM 307 N VAL A 40 17.129 63.559 12.947 1.00 25.00 N

ATOM 308 CA VAL A 40 17.106 62.437 13.895 1.00 22.70 C

ATOM 309 C VAL A 40 15.899 61.460 13.690 1.00 23.80 C

ATOM 310 O VAL A 40 14.841 62.034 13.719 1.00 24.00 O

ATOM 311 CB VAL A 40 17.204 62.801 15.389 1.00 26.70 C

ATOM 312 CG1 VAL A 40 18.569 63.374 15.904 1.00 23.40 C

ATOM 313 CG2 VAL A 40 16.015 63.729 15.830 1.00 21.70 C

ATOM 314 N ILE A 41 16.192 60.241 13.660 1.00 22.00 N

ATOM 315 CA ILE A 41 15.162 59.103 13.660 1.00 21.80 C

ATOM 316 C ILE A 41 15.139 58.368 14.962 1.00 20.00 C

ATOM 317 O ILE A 41 16.048 57.844 15.403 1.00 22.20 O

ATOM 318 CB ILE A 41 15.223 58.159 12.365 1.00 24.40 C

ATOM 319 CG1 ILE A 41 15.181 59.168 11.137 1.00 27.50 C

ATOM 320 CG2 ILE A 41 14.211 57.020 12.277 1.00 23.50 C

ATOM 321 CD1 ILE A 41 15.787 58.522 9.997 1.00 26.90 C

ATOM 322 N MET A 42 13.848 58.344 15.448 1.00 20.60 N

ATOM 323 CA MET A 42 13.610 57.610 16.610 1.00 21.10 C

ATOM 324 C MET A 42 12.226 56.762 16.566 1.00 25.30 C

ATOM 325 O MET A 42 11.331 57.149 15.889 1.00 25.30 O

ATOM 326 CB MET A 42 13.596 58.490 17.809 1.00 20.20 C

ATOM 327 CG MET A 42 12.459 59.394 17.956 1.00 22.50 C

ATOM 328 SD MET A 42 12.519 60.742 19.096 1.00 23.50 S

ATOM 329 CE MET A 42 13.209 61.824 17.890 1.00 26.80 C

ATOM 330 N GLY A 43 12.128 55.737 17.544 1.00 21.90 N

ATOM 331 CA GLY A 43 10.944 55.058 17.618 1.00 21.90 C

ATOM 332 C GLY A 43 9.979 55.583 18.603 1.00 19.50 C

ATOM 333 O GLY A 43 10.417 56.633 19.420 1.00 20.40 O

ATOM 334 N ARG A 44 8.861 55.180 18.993 1.00 20.40 N

ATOM 335 CA ARG A 44 8.054 55.769 19.891 1.00 22.50 C

ATOM 336 C ARG A 44 8.418 55.624 21.340 1.00 23.10 C

ATOM 337 O ARG A 44 8.040 56.665 21.980 1.00 23.80 O

ATOM 338 CB ARG A 44 6.619 55.155 19.692 1.00 26.70 C

ATOM 339 CG ARG A 44 5.575 55.801 20.523 1.00 37.30 C

ATOM 340 CD ARG A 44 4.642 56.770 20.428 1.00 44.10 C

ATOM 341 NE ARG A 44 3.594 56.084 19.449 1.00 48.40 N

ATOM 342 CZ ARG A 44 2.494 56.891 19.265 1.00 55.00 C

ATOM 343 NH1 ARG A 44 1.986 57.949 20.008 1.00 60.10 N

ATOM 344 NH2 ARG A 44 1.715 56.657 18.155 1.00 56.80 N

ATOM 345 N HIS A 45 8.991 54.760 21.891 1.00 19.30 N

ATOM 346 CA HIS A 45 9.275 54.736 23.311 1.00 16.50 C

ATOM 347 C HIS A 45 10.473 55.793 23.591 1.00 16.30 C

ATOM 348 O HIS A 45 10.487 56.415 24.613 1.00 18.30 O

ATOM 349 CB HIS A 45 9.849 53.323 23.554 1.00 20.20 C

ATOM 350 CG HIS A 45 8.781 52.297 23.657 1.00 21.60 C

ATOM 351 ND1 HIS A 45 8.492 51.426 22.583 1.00 24.90 N

ATOM 352 CD2 HIS A 45 7.816 52.015 24.591 1.00 22.40 C

ATOM 353 CE1 HIS A 45 7.360 50.707 22.752 1.00 23.30 C

ATOM 354 NE2 HIS A 45 7.085 51.070 23.995 1.00 26.00 N

ATOM 355 N THR A 46 11.322 56.003 22.605 1.00 19.70 N

ATOM 356 CA THR A 46 12.436 56.915 22.568 1.00 19.40 C

ATOM 357 C THR A 46 11.844 58.263 22.730 1.00 19.30 C

ATOM 358 O THR A 46 12.258 59.127 23.583 1.00 20.10 O

ATOM 359 CB THR A 46 13.545 56.835 21.428 1.00 24.10 C

ATOM 360 OG1 THR A 46 13.955 55.575 21.641 1.00 22.70 O

ATOM 361 CG2 THR A 46 14.724 57.908 21.818 1.00 22.90 C

ATOM 362 N TRP A 47 10.869 58.578 21.950 1.00 22.70 N

ATOM 363 CA TRP A 47 10.110 59.765 21.847 1.00 24.40 C

ATOM 364 C TRP A 47 9.672 60.266 23.201 1.00 20.60 C

ATOM 365 O TRP A 47 9.765 61.251 23.789 1.00 22.30 O

ATOM 366 CB TRP A 47 9.136 59.644 20.810 1.00 23.50 C

ATOM 367 CG TRP A 47 8.129 60.790 20.744 1.00 27.20 C

ATOM 368 CD1 TRP A 47 6.926 60.597 21.134 1.00 29.50 C

ATOM 369 CD2 TRP A 47 8.399 62.195 20.744 1.00 28.40 C

ATOM 370 NE1 TRP A 47 6.246 61.759 21.163 1.00 30.90 N

ATOM 371 CE2 TRP A 47 7.085 62.728 20.913 1.00 32.70 C

ATOM 372 CE3 TRP A 47 9.322 63.019 20.435 1.00 31.80 C

ATOM 373 CZ2 TRP A 47 6.875 64.141 20.803 1.00 35.40 C

ATOM 374 CZ3 TRP A 47 9.205 64.415 20.325 1.00 30.80 C

ATOM 375 CH2 TRP A 47 7.905 64.956 20.567 1.00 34.20 C

ATOM 376 N GLU A 48 8.930 59.160 23.753 1.00 23.40 N

ATOM 377 CA GLU A 48 8.394 59.571 25.113 1.00 27.10 C

ATOM 378 C GLU A 48 9.266 59.692 26.187 1.00 23.30 C

ATOM 379 O GLU A 48 9.131 60.266 27.225 1.00 23.30 O

ATOM 380 CB GLU A 48 7.621 58.360 25.665 1.00 31.60 C

ATOM 381 CG GLU A 48 6.800 57.553 24.996 1.00 45.30 C

ATOM 382 CD GLU A 48 5.397 57.965 24.613 1.00 50.70 C

ATOM 383 OE1 GLU A 48 4.950 59.143 24.657 1.00 55.70 O

ATOM 384 OE2 GLU A 48 4.894 56.673 24.334 1.00 55.50 O

ATOM 385 N SER A 49 10.408 58.974 26.158 1.00 24.40 N

ATOM 386 CA SER A 49 11.489 59.071 27.129 1.00 25.10 C

ATOM 387 C SER A 49 12.081 60.564 26.960 1.00 24.70 C

ATOM 388 O SER A 49 12.496 61.105 28.063 1.00 28.90 O

ATOM 389 CB SER A 49 12.589 58.054 26.901 1.00 21.00 C

ATOM 390 OG SER A 49 12.165 56.738 27.511 1.00 25.70 O

ATOM 391 N ILE A 50 12.249 61.113 25.783 1.00 25.00 N

ATOM 392 CA ILE A 50 12.794 62.494 25.628 1.00 24.90 C

ATOM 393 C ILE A 50 11.830 63.551 26.224 1.00 28.90 C

ATOM 394 O ILE A 50 12.123 64.593 26.923 1.00 28.50 O

ATOM 395 CB ILE A 50 13.251 62.655 24.135 1.00 20.80 C

ATOM 396 CG1 ILE A 50 14.239 61.622 23.554 1.00 21.00 C

ATOM 397 CG2 ILE A 50 13.671 64.205 23.900 1.00 25.50 C

ATOM 398 CD1 ILE A 50 14.603 61.864 22.046 1.00 22.10 C

ATOM 399 N GLY A 51 10.636 63.309 25.783 1.00 27.80 N

ATOM 400 CA GLY A 51 9.504 63.979 25.967 1.00 35.00 C

ATOM 401 C GLY A 51 9.229 65.360 25.371 1.00 35.30 C

ATOM 402 O GLY A 51 8.292 66.030 25.878 1.00 38.20 O

ATOM 403 N ARG A 52 9.909 65.731 24.429 1.00 32.00 N

ATOM 404 CA ARG A 52 9.779 66.942 23.672 1.00 30.40 C

ATOM 405 C ARG A 52 10.669 66.821 22.495 1.00 30.60 C

ATOM 406 O ARG A 52 11.583 66.030 22.377 1.00 29.10 O

ATOM 407 CB ARG A 52 10.301 68.218 24.525 1.00 37.60 C

ATOM 408 CG ARG A 52 11.694 68.274 25.003 1.00 41.40 C

ATOM 409 CD ARG A 52 12.752 68.750 25.842 1.00 44.80 C

ATOM 410 NE ARG A 52 14.174 68.500 25.481 1.00 43.00 N

ATOM 411 CZ ARG A 52 15.106 69.275 25.893 1.00 46.50 C

ATOM 412 NH1 ARG A 52 15.013 70.696 25.665 1.00 46.60 N

ATOM 413 NH2 ARG A 52 16.225 68.839 26.460 1.00 46.50 N

ATOM 414 N PRO A 53 10.361 67.757 21.627 1.00 25.50 N

ATOM 415 CA PRO A 53 11.214 67.733 20.383 1.00 25.90 C

ATOM 416 C PRO A 53 12.683 68.274 20.751 1.00 24.40 C

ATOM 417 O PRO A 53 12.804 69.081 21.472 1.00 26.20 O

ATOM 418 CB PRO A 53 10.646 68.670 19.346 1.00 29.30 C

ATOM 419 CG PRO A 53 9.378 68.863 19.942 1.00 23.90 C

ATOM 420 CD PRO A 53 9.294 68.783 21.399 1.00 24.70 C

ATOM 421 N LEU A 54 13.661 67.596 20.075 1.00 23.90 N

ATOM 422 CA LEU A 54 15.050 68.032 20.266 1.00 25.40 C

ATOM 423 C LEU A 54 15.186 69.332 19.390 1.00 21.30 C

ATOM 424 O LEU A 54 14.980 69.267 18.272 1.00 23.30 O

ATOM 425 CB LEU A 54 16.071 66.845 19.927 1.00 19.00 C

ATOM 426 CG LEU A 54 16.015 65.667 20.906 1.00 18.60 C

ATOM 427 CD1 LEU A 54 16.654 64.528 20.052 1.00 17.10 C

ATOM 428 CD2 LEU A 54 16.705 65.780 22.245 1.00 22.90 C

ATOM 429 N PRO A 55 15.726 70.317 20.126 1.00 24.50 N

ATOM 430 CA PRO A 55 15.805 71.519 19.412 1.00 21.10 C

ATOM 431 C PRO A 55 16.845 71.657 18.405 1.00 22.30 C

ATOM 432 O PRO A 55 17.903 70.971 18.706 1.00 23.60 O

ATOM 433 CB PRO A 55 16.192 72.577 20.531 1.00 25.70 C

ATOM 434 CG PRO A 55 15.894 72.060 21.847 1.00 29.70 C

ATOM 435 CD PRO A 55 16.118 70.446 21.605 1.00 24.50 C

ATOM 436 N GLY A 56 16.999 72.214 17.353 1.00 22.40 N

ATOM 437 CA GLY A 56 17.968 72.343 16.426 1.00 20.60 C

ATOM 438 C GLY A 56 18.192 71.067 15.565 1.00 22.70 C

ATOM 439 O GLY A 56 19.129 71.027 14.808 1.00 23.60 O

ATOM 440 N ARG A 57 17.208 70.139 15.602 1.00 21.50 N

ATOM 441 CA ARG A 57 17.185 68.936 14.881 1.00 20.50 C

ATOM 442 C ARG A 57 15.815 68.742 14.359 1.00 19.70 C

ATOM 443 O ARG A 57 14.757 69.057 14.874 1.00 23.00 O

ATOM 444 CB ARG A 57 17.525 67.782 15.764 1.00 20.80 C

ATOM 445 CG ARG A 57 18.924 67.556 16.073 1.00 23.30 C

ATOM 446 CD ARG A 57 19.315 67.249 17.507 1.00 20.10 C

ATOM 447 NE ARG A 57 19.157 68.169 18.486 1.00 21.90 N

ATOM 448 CZ ARG A 57 19.590 67.919 19.692 1.00 18.20 C

ATOM 449 NH1 ARG A 57 20.252 66.966 20.295 1.00 22.80 N

ATOM 450 NH2 ARG A 57 19.250 69.041 20.531 1.00 20.30 N

ATOM 451 N LYS A 58 15.754 68.056 13.204 1.00 21.80 N

ATOM 452 CA LYS A 58 14.566 67.661 12.571 1.00 25.80 C

ATOM 453 C LYS A 58 14.114 66.280 13.322 1.00 24.00 C

ATOM 454 O LYS A 58 14.948 65.400 13.108 1.00 27.50 O

ATOM 455 CB LYS A 58 14.808 67.402 11.041 1.00 30.30 C

ATOM 456 CG LYS A 58 13.298 67.176 10.512 1.00 33.30 C

ATOM 457 CD LYS A 58 13.307 67.112 8.960 1.00 42.00 C

ATOM 458 CE LYS A 58 11.597 66.861 8.680 1.00 41.50 C

ATOM 459 NZ LYS A 58 11.597 66.732 7.121 1.00 46.00 N

ATOM 460 N ASN A 59 13.051 66.151 14.035 1.00 23.40 N

ATOM 461 CA ASN A 59 12.571 64.996 14.771 1.00 23.90 C

ATOM 462 C ASN A 59 11.676 64.157 13.844 1.00 26.30 C

ATOM 463 O ASN A 59 10.543 64.665 13.594 1.00 29.00 O

ATOM 464 CB ASN A 59 11.895 65.570 15.985 1.00 22.70 C

ATOM 465 CG ASN A 59 12.874 66.119 16.956 1.00 27.30 C

ATOM 466 OD1 ASN A 59 13.023 65.683 18.015 1.00 28.10 O

ATOM 467 ND2 ASN A 59 13.531 67.305 16.676 1.00 28.70 N

ATOM 468 N ILE A 60 11.979 62.954 13.535 1.00 25.60 N

ATOM 469 CA ILE A 60 11.280 62.017 12.763 1.00 25.20 C

ATOM 470 C ILE A 60 10.893 60.863 13.690 1.00 23.70 C

ATOM 471 O ILE A 60 11.848 60.241 14.087 1.00 22.70 O

ATOM 472 CB ILE A 60 11.937 61.573 11.446 1.00 28.90 C

ATOM 473 CG1 ILE A 60 12.370 62.970 10.629 1.00 30.70 C

ATOM 474 CG2 ILE A 60 11.261 60.516 10.637 1.00 27.50 C

ATOM 475 CD1 ILE A 60 13.428 62.639 9.658 1.00 30.30 C

ATOM 476 N ILE A 61 9.690 60.443 13.925 1.00 25.60 N

ATOM 477 CA ILE A 61 9.196 59.394 14.705 1.00 27.80 C

ATOM 478 C ILE A 61 8.693 58.199 13.726 1.00 30.90 C

ATOM 479 O ILE A 61 7.798 58.457 12.976 1.00 28.50 O

ATOM 480 CB ILE A 61 8.189 59.814 15.698 1.00 28.30 C

ATOM 481 CG1 ILE A 61 8.325 61.081 16.639 1.00 27.60 C

ATOM 482 CG2 ILE A 61 7.956 58.570 16.764 1.00 31.80 C

ATOM 483 CD1 ILE A 61 9.420 61.832 16.875 1.00 33.70 C

ATOM 484 N LEU A 62 9.369 57.157 13.851 1.00 26.30 N

ATOM 485 CA LEU A 62 8.940 55.963 13.042 1.00 33.10 C

ATOM 486 C LEU A 62 8.129 55.091 13.976 1.00 32.90 C

ATOM 487 O LEU A 62 8.502 54.542 15.043 1.00 32.30 O

ATOM 488 CB LEU A 62 10.110 55.260 12.564 1.00 34.00 C

ATOM 489 CG LEU A 62 10.026 54.243 11.314 1.00 41.30 C

ATOM 490 CD1 LEU A 62 11.466 53.541 11.328 1.00 39.50 C

ATOM 491 CD2 LEU A 62 9.042 53.153 11.424 1.00 40.10 C

ATOM 492 N SER A 63 6.852 54.929 13.704 1.00 34.20 N

ATOM 493 CA SER A 63 5.868 54.178 14.499 1.00 40.10 C

ATOM 494 C SER A 63 4.638 53.775 13.564 1.00 40.80 C

ATOM 495 O SER A 63 4.325 54.477 12.586 1.00 39.20 O

ATOM 496 CB SER A 63 5.323 55.139 15.462 1.00 34.50 C

ATOM 497 OG SER A 63 4.200 54.711 16.235 1.00 43.10 O

ATOM 498 N ASER A 64 3.990 52.766 14.109 1.00 44.70 N

ATOM 499 N BSER A 64 3.985 52.919 14.219 0.01 36.40 N

ATOM 500 CA ASER A 64 2.759 52.265 13.425 1.00 45.50 C

ATOM 501 CA BSER A 64 2.843 51.975 13.932 0.01 36.00 C

ATOM 502 C ASER A 64 1.580 52.968 13.895 1.00 46.20 C

ATOM 503 C BSER A 64 1.557 52.766 13.947 0.05 36.30 C

ATOM 504 O ASER A 64 0.545 52.968 13.130 1.00 48.00 O

ATOM 505 O BSER A 64 0.620 52.628 13.167 0.01 36.80 O

ATOM 506 CB ASER A 64 2.652 50.756 13.638 1.00 49.90 C

ATOM 507 CB BSER A 64 3.020 50.780 14.896 0.37 35.60 C

ATOM 508 OG ASER A 64 3.323 50.416 12.255 1.00 52.10 O

ATOM 509 OG BSER A 64 1.781 50.392 15.389 0.53 33.20 O

ATOM 510 N GLN A 65 1.683 53.517 14.984 1.00 47.50 N

ATOM 511 CA GLN A 65 0.648 54.356 15.558 1.00 50.20 C

ATOM 512 C GLN A 65 1.072 55.785 14.955 1.00 55.80 C

ATOM 513 O GLN A 65 1.161 56.035 13.609 1.00 60.00 O

ATOM 514 CB GLN A 65 0.331 53.888 16.992 1.00 47.10 C

ATOM 515 CG GLN A 65 0.093 52.346 17.309 1.00 42.10 C

ATOM 516 CD GLN A 65 -1.016 51.732 16.367 1.00 40.60 C

ATOM 517 OE1 GLN A 65 -0.806 50.949 15.440 1.00 40.60 O

ATOM 518 NE2 GLN A 65 -2.186 52.257 16.492 1.00 42.40 N

ATOM 519 N PRO A 66 0.368 56.665 15.484 1.00 61.40 N

ATOM 520 CA PRO A 66 -0.210 57.892 14.933 1.00 65.70 C

ATOM 521 C PRO A 66 0.238 59.087 15.801 1.00 68.00 C

ATOM 522 O PRO A 66 0.424 59.200 17.000 1.00 67.40 O

ATOM 523 N GLY A 67 0.415 60.136 14.947 1.00 69.90 N

ATOM 524 CA GLY A 67 0.760 61.460 15.205 1.00 69.00 C

ATOM 525 C GLY A 67 0.131 62.195 16.279 1.00 69.60 C

ATOM 526 O GLY A 67 -0.634 63.196 15.948 1.00 74.80 O

ATOM 527 N THR A 68 0.433 61.929 17.551 1.00 70.40 N

ATOM 528 CA THR A 68 -0.084 62.792 18.647 1.00 72.40 C

ATOM 529 C THR A 68 0.322 64.302 18.316 1.00 72.40 C

ATOM 530 O THR A 68 -0.545 65.239 18.030 1.00 75.10 O

ATOM 531 CB THR A 68 0.433 62.090 19.972 1.00 69.80 C

ATOM 532 N ASP A 69 1.575 64.649 18.118 1.00 68.80 N

ATOM 533 CA ASP A 69 2.177 65.949 17.868 1.00 65.20 C

ATOM 534 C ASP A 69 2.633 66.482 16.573 1.00 64.20 C

ATOM 535 O ASP A 69 3.272 66.038 15.580 1.00 63.10 O

ATOM 536 CB ASP A 69 3.142 65.909 19.015 1.00 64.30 C

ATOM 537 CG ASP A 69 3.668 67.208 19.501 1.00 63.80 C

ATOM 538 OD1 ASP A 69 4.050 68.032 18.692 1.00 63.00 O

ATOM 539 OD2 ASP A 69 3.622 67.031 20.744 1.00 65.00 O

ATOM 540 N ASP A 70 2.223 67.806 16.492 1.00 64.00 N

ATOM 541 CA ASP A 70 2.419 68.613 15.271 1.00 64.80 C

ATOM 542 C ASP A 70 3.850 69.089 15.050 1.00 60.10 C

ATOM 543 O ASP A 70 4.111 69.493 13.903 1.00 62.20 O

ATOM 544 CB ASP A 70 1.482 69.913 15.234 1.00 70.70 C

ATOM 545 CG ASP A 70 1.566 70.898 16.448 1.00 73.90 C

ATOM 546 OD1 ASP A 70 1.268 70.430 17.654 1.00 76.90 O

ATOM 547 OD2 ASP A 70 1.878 72.214 16.404 1.00 77.50 O

ATOM 548 N ARG A 71 4.596 69.057 16.117 1.00 53.50 N

ATOM 549 CA ARG A 71 5.971 69.582 15.911 1.00 50.00 C

ATOM 550 C ARG A 71 6.912 68.565 15.345 1.00 48.30 C

ATOM 551 O ARG A 71 8.115 68.968 15.249 1.00 46.70 O

ATOM 552 CB ARG A 71 6.372 69.969 17.390 1.00 50.50 C

ATOM 553 CG ARG A 71 5.742 71.043 18.118 1.00 49.60 C

ATOM 554 CD ARG A 71 5.640 70.979 19.582 1.00 45.20 C

ATOM 555 NE ARG A 71 5.439 69.986 20.516 1.00 41.00 N

ATOM 556 CZ ARG A 71 5.724 69.768 21.678 1.00 41.20 C

ATOM 557 NH1 ARG A 71 6.292 70.720 22.428 1.00 47.00 N

ATOM 558 NH2 ARG A 71 5.547 68.637 22.473 1.00 45.50 N

ATOM 559 N VAL A 72 6.539 67.305 15.006 1.00 40.80 N

ATOM 560 CA VAL A 72 7.486 66.328 14.580 1.00 37.70 C

ATOM 561 C VAL A 72 6.987 65.562 13.351 1.00 37.30 C

ATOM 562 O VAL A 72 5.775 65.658 13.226 1.00 39.00 O

ATOM 563 CB VAL A 72 7.789 65.336 15.823 1.00 34.80 C

ATOM 564 CG1 VAL A 72 8.301 66.094 17.051 1.00 31.70 C

ATOM 565 CG2 VAL A 72 6.567 64.674 16.514 1.00 32.40 C

ATOM 566 N THR A 73 7.761 64.980 12.638 1.00 35.60 N

ATOM 567 CA THR A 73 7.322 64.238 11.505 1.00 36.40 C

ATOM 568 C THR A 73 7.136 62.768 12.027 1.00 36.80 C

ATOM 569 O THR A 73 8.031 62.203 12.388 1.00 35.80 O

ATOM 570 CB THR A 73 8.250 64.246 10.343 1.00 38.10 C

ATOM 571 OG1 THR A 73 8.581 65.642 10.247 1.00 39.90 O

ATOM 572 CG2 THR A 73 8.241 63.390 9.166 1.00 37.50 C

ATOM 573 N TRP A 74 5.901 62.324 11.814 1.00 34.80 N

ATOM 574 CA TRP A 74 5.369 60.952 12.042 1.00 32.60 C

ATOM 575 C TRP A 74 5.528 60.128 10.924 1.00 33.10 C

ATOM 576 O TRP A 74 4.936 60.540 9.901 1.00 37.80 O

ATOM 577 CB TRP A 74 4.013 61.008 12.571 1.00 29.50 C

ATOM 578 CG TRP A 74 3.855 61.606 13.807 1.00 31.30 C

ATOM 579 CD1 TRP A 74 3.556 62.930 13.881 1.00 30.10 C

ATOM 580 CD2 TRP A 74 4.106 61.121 15.124 1.00 31.60 C

ATOM 581 NE1 TRP A 74 3.584 63.220 15.220 1.00 31.80 N

ATOM 582 CE2 TRP A 74 3.911 62.122 16.043 1.00 31.10 C

ATOM 583 CE3 TRP A 74 4.475 59.886 15.676 1.00 32.40 C

ATOM 584 CZ2 TRP A 74 4.004 62.042 17.397 1.00 32.10 C

ATOM 585 CZ3 TRP A 74 4.540 59.692 17.036 1.00 35.30 C

ATOM 586 CH2 TRP A 74 4.311 60.798 17.816 1.00 32.90 C

ATOM 587 N VAL A 75 6.302 59.095 10.666 1.00 37.10 N

ATOM 588 CA VAL A 75 6.507 58.223 9.570 1.00 35.20 C

ATOM 589 C VAL A 75 6.078 56.786 10.063 1.00 38.00 C

ATOM 590 O VAL A 75 6.013 56.366 11.188 1.00 37.00 O

ATOM 591 CB VAL A 75 7.770 58.231 8.849 1.00 35.70 C

ATOM 592 CG1 VAL A 75 8.161 59.587 8.150 1.00 34.00 C

ATOM 593 CG2 VAL A 75 8.954 57.731 9.614 1.00 34.20 C

ATOM 594 N LYS A 76 5.696 56.011 9.048 1.00 40.20 N

ATOM 595 CA LYS A 76 5.174 54.606 9.166 1.00 39.80 C

ATOM 596 C LYS A 76 6.236 53.751 8.599 1.00 39.30 C

ATOM 597 O LYS A 76 6.092 52.548 9.063 1.00 41.10 O

ATOM 598 CB LYS A 76 3.906 54.396 8.356 1.00 41.40 C

ATOM 599 N SER A 77 7.229 53.936 7.819 1.00 38.60 N

ATOM 600 CA SER A 77 8.185 53.008 7.400 1.00 38.50 C

ATOM 601 C SER A 77 9.569 53.549 7.216 1.00 37.10 C

ATOM 602 O SER A 77 9.741 54.784 7.135 1.00 37.40 O

ATOM 603 CB SER A 77 7.747 52.540 5.885 1.00 39.20 C

ATOM 604 OG SER A 77 7.844 53.646 4.980 1.00 46.30 O

ATOM 605 N VAL A 78 10.594 52.758 7.076 1.00 37.60 N

ATOM 606 CA VAL A 78 11.937 52.951 6.790 1.00 38.50 C

ATOM 607 C VAL A 78 12.156 54.009 5.745 1.00 44.20 C

ATOM 608 O VAL A 78 12.771 55.252 5.752 1.00 41.20 O

ATOM 609 CB VAL A 78 12.841 51.805 6.723 1.00 38.20 C

ATOM 610 CG1 VAL A 78 14.333 51.789 6.385 1.00 41.00 C

ATOM 611 CG2 VAL A 78 13.004 51.280 8.327 1.00 43.20 C

ATOM 612 N ASP A 79 11.517 53.517 4.598 1.00 43.20 N

ATOM 613 CA ASP A 79 11.634 54.445 3.479 1.00 45.80 C

ATOM 614 C ASP A 79 10.991 55.801 3.671 1.00 39.10 C

ATOM 615 O ASP A 79 11.825 56.552 3.170 1.00 41.60 O

ATOM 616 CB ASP A 79 10.832 53.638 2.361 1.00 52.30 C

ATOM 617 CG ASP A 79 11.900 52.758 1.714 1.00 56.80 C

ATOM 618 OD1 ASP A 79 13.130 52.564 1.920 1.00 61.40 O

ATOM 619 OD2 ASP A 79 11.508 51.966 0.765 1.00 63.40 O

ATOM 620 N GLU A 80 9.863 55.882 4.237 1.00 35.80 N

ATOM 621 CA GLU A 80 9.373 57.230 4.377 1.00 36.50 C

ATOM 622 C GLU A 80 10.194 58.102 5.370 1.00 41.00 C

ATOM 623 O GLU A 80 10.240 59.297 5.267 1.00 43.40 O

ATOM 624 CB GLU A 80 8.222 56.980 5.237 1.00 40.40 C

ATOM 625 CG GLU A 80 6.950 57.424 4.598 1.00 49.80 C

ATOM 626 CD GLU A 80 5.789 56.576 5.039 1.00 51.70 C

ATOM 627 OE1 GLU A 80 5.887 55.389 4.708 1.00 54.80 O

ATOM 628 OE2 GLU A 80 4.908 57.246 5.752 1.00 57.80 O

ATOM 629 N ALA A 81 10.883 57.488 6.319 1.00 38.70 N

ATOM 630 CA ALA A 81 11.783 58.159 7.305 1.00 37.10 C

ATOM 631 C ALA A 81 12.958 58.594 6.466 1.00 34.70 C

ATOM 632 O ALA A 81 13.163 59.822 6.679 1.00 39.70 O

ATOM 633 CB ALA A 81 12.412 57.166 8.342 1.00 32.90 C

ATOM 634 N ILE A 82 13.596 57.924 5.642 1.00 36.80 N

ATOM 635 CA ILE A 82 14.622 58.296 4.811 1.00 38.50 C

ATOM 636 C ILE A 82 14.333 59.604 4.009 1.00 42.50 C

ATOM 637 O ILE A 82 14.980 60.693 3.935 1.00 42.70 O

ATOM 638 CB ILE A 82 15.339 57.359 3.950 1.00 41.20 C

ATOM 639 CG1 ILE A 82 16.183 56.528 5.017 1.00 44.20 C

ATOM 640 CG2 ILE A 82 16.547 57.658 2.987 1.00 34.10 C

ATOM 641 CD1 ILE A 82 15.666 55.083 4.973 1.00 47.20 C

ATOM 642 N ALA A 83 13.228 59.531 3.354 1.00 42.30 N

ATOM 643 CA ALA A 83 12.752 60.629 2.479 1.00 42.20 C

ATOM 644 C ALA A 83 12.445 61.824 3.340 1.00 39.30 C

ATOM 645 O ALA A 83 12.855 62.873 2.795 1.00 43.60 O

ATOM 646 CB ALA A 83 11.494 60.048 1.780 1.00 40.10 C

ATOM 647 N ALA A 84 11.830 61.711 4.495 1.00 41.30 N

ATOM 648 CA ALA A 84 11.499 62.817 5.377 1.00 35.50 C

ATOM 649 C ALA A 84 12.762 63.584 5.679 1.00 35.50 C

ATOM 650 O ALA A 84 12.622 64.762 6.098 1.00 43.20 O

ATOM 651 CB ALA A 84 10.730 62.518 6.547 1.00 36.50 C

ATOM 652 N CYS A 85 13.932 63.075 5.554 1.00 33.90 N

ATOM 653 CA CYS A 85 15.102 63.664 5.863 1.00 33.30 C

ATOM 654 C CYS A 85 15.726 64.601 4.774 1.00 37.50 C

ATOM 655 O CYS A 85 16.491 65.602 5.142 1.00 37.60 O

ATOM 656 CB CYS A 85 16.290 62.558 6.025 1.00 36.10 C

ATOM 657 SG CYS A 85 16.015 61.743 7.680 1.00 36.40 S

ATOM 658 N GLY A 86 15.288 64.278 3.531 1.00 37.70 N

ATOM 659 CA GLY A 86 16.029 65.255 2.611 1.00 42.90 C

ATOM 660 C GLY A 86 17.400 64.754 2.222 1.00 47.70 C

ATOM 661 O GLY A 86 17.605 63.608 2.442 1.00 46.70 O

ATOM 662 N ASP A 87 18.211 65.691 1.596 1.00 49.90 N

ATOM 663 CA ASP A 87 19.530 65.392 1.111 1.00 51.70 C

ATOM 664 C ASP A 87 20.499 66.264 1.905 1.00 49.50 C

ATOM 665 O ASP A 87 20.867 67.483 1.810 1.00 50.50 O

ATOM 666 CB ASP A 87 19.707 65.667 -0.434 1.00 60.50 C

ATOM 667 CG ASP A 87 20.713 64.472 -0.787 1.00 64.70 C

ATOM 668 OD1 ASP A 87 19.991 63.382 -1.037 1.00 68.30 O

ATOM 669 OD2 ASP A 87 21.967 64.738 -0.780 1.00 68.30 O

ATOM 670 N VAL A 88 20.900 65.376 2.854 1.00 43.20 N

ATOM 671 CA VAL A 88 21.813 65.715 3.921 1.00 33.10 C

ATOM 672 C VAL A 88 22.825 64.657 3.788 1.00 32.00 C

ATOM 673 O VAL A 88 22.634 63.551 3.465 1.00 32.60 O

ATOM 674 CB VAL A 88 21.124 65.667 5.429 1.00 31.30 C

ATOM 675 CG1 VAL A 88 19.949 66.668 5.385 1.00 33.60 C

ATOM 676 CG2 VAL A 88 20.406 64.520 5.907 1.00 31.80 C

ATOM 677 N PRO A 89 23.897 65.206 4.355 1.00 29.40 N

ATOM 678 CA PRO A 89 24.969 64.286 4.458 1.00 34.70 C

ATOM 679 C PRO A 89 25.048 63.293 5.510 1.00 31.20 C

ATOM 680 O PRO A 89 25.813 62.357 5.414 1.00 37.60 O

ATOM 681 CB PRO A 89 26.148 65.150 4.870 1.00 32.00 C

ATOM 682 CG PRO A 89 25.733 66.514 4.965 1.00 33.30 C

ATOM 683 CD PRO A 89 24.279 66.595 4.884 1.00 31.50 C

ATOM 684 N GLU A 90 24.279 63.463 6.709 1.00 30.60 N

ATOM 685 CA GLU A 90 24.396 62.534 7.746 1.00 25.90 C

ATOM 686 C GLU A 90 22.988 62.566 8.496 1.00 28.70 C

ATOM 687 O GLU A 90 22.443 63.527 8.915 1.00 25.60 O

ATOM 688 CB GLU A 90 25.328 62.841 8.702 1.00 28.50 C

ATOM 689 CG GLU A 90 25.570 61.646 9.754 1.00 23.50 C

ATOM 690 CD GLU A 90 26.717 61.872 10.541 1.00 25.90 C

ATOM 691 OE1 GLU A 90 27.379 62.825 10.784 1.00 26.40 O

ATOM 692 OE2 GLU A 90 27.244 60.750 10.968 1.00 26.80 O

ATOM 693 N ILE A 91 22.443 61.380 8.562 1.00 26.80 N

ATOM 694 CA ILE A 91 21.226 60.968 9.099 1.00 27.20 C

ATOM 695 C ILE A 91 21.529 60.314 10.453 1.00 25.50 C

ATOM 696 O ILE A 91 22.275 59.265 10.343 1.00 29.40 O

ATOM 697 CB ILE A 91 20.252 60.185 8.217 1.00 26.70 C

ATOM 698 CG1 ILE A 91 19.982 61.024 6.951 1.00 30.40 C

ATOM 699 CG2 ILE A 91 18.947 59.668 8.989 1.00 27.10 C

ATOM 700 CD1 ILE A 91 19.241 60.161 5.877 1.00 32.90 C

ATOM 701 N MET A 92 20.970 60.750 11.622 1.00 24.60 N

ATOM 702 CA MET A 92 21.277 60.104 12.880 1.00 22.60 C

ATOM 703 C MET A 92 20.177 59.265 13.314 1.00 20.10 C

ATOM 704 O MET A 92 18.984 59.765 13.344 1.00 22.20 O

ATOM 705 CB MET A 92 21.552 61.259 13.947 1.00 23.40 C

ATOM 706 CG MET A 92 22.741 62.058 13.564 1.00 20.90 C

ATOM 707 SD MET A 92 24.237 61.323 13.307 1.00 24.90 S

ATOM 708 CE MET A 92 24.787 60.500 14.587 1.00 25.20 C

ATOM 709 N VAL A 93 20.280 57.973 13.594 1.00 22.30 N

ATOM 710 CA VAL A 93 19.194 57.141 14.065 1.00 21.00 C

ATOM 711 C VAL A 93 19.436 56.948 15.624 1.00 18.80 C

ATOM 712 O VAL A 93 20.695 56.512 15.933 1.00 20.00 O

ATOM 713 CB VAL A 93 19.138 55.704 13.278 1.00 22.50 C

ATOM 714 CG1 VAL A 93 18.290 54.703 13.984 1.00 19.70 C

ATOM 715 CG2 VAL A 93 18.830 56.156 11.806 1.00 22.10 C

ATOM 716 N ILE A 94 18.541 57.384 16.411 1.00 20.70 N

ATOM 717 CA ILE A 94 18.933 57.497 17.890 1.00 17.90 C

ATOM 718 C ILE A 94 18.322 56.487 18.736 1.00 17.70 C

ATOM 719 O ILE A 94 18.346 56.576 19.979 1.00 17.70 O

ATOM 720 CB ILE A 94 18.653 58.885 18.331 1.00 18.80 C

ATOM 721 CG1 ILE A 94 17.069 59.208 18.375 1.00 18.60 C

ATOM 722 CG2 ILE A 94 19.413 59.927 17.404 1.00 19.10 C

ATOM 723 CD1 ILE A 94 16.812 60.330 19.332 1.00 18.00 C

ATOM 724 N GLY A 95 17.619 55.543 18.133 1.00 21.90 N

ATOM 725 CA GLY A 95 17.031 54.445 18.743 1.00 21.00 C

ATOM 726 C GLY A 95 15.572 54.195 18.817 1.00 23.60 C

ATOM 727 O GLY A 95 14.859 55.042 18.250 1.00 23.10 O

ATOM 728 N GLY A 96 15.111 53.250 19.457 1.00 19.20 N

ATOM 729 CA GLY A 96 15.400 52.168 20.273 1.00 21.90 C

ATOM 730 C GLY A 96 15.703 50.982 19.420 1.00 21.90 C

ATOM 731 O GLY A 96 16.043 50.957 18.309 1.00 22.00 O

ATOM 732 N GLY A 97 15.782 49.859 20.060 1.00 25.80 N

ATOM 733 CA GLY A 97 16.094 48.511 19.493 1.00 23.90 C

ATOM 734 C GLY A 97 15.726 48.180 18.096 1.00 27.00 C

ATOM 735 O GLY A 97 16.421 47.930 17.206 1.00 23.90 O

ATOM 736 N ARG A 98 14.458 48.148 17.941 1.00 25.90 N

ATOM 737 CA ARG A 98 13.857 47.817 16.632 1.00 29.60 C

ATOM 738 C ARG A 98 14.300 48.648 15.529 1.00 25.10 C

ATOM 739 O ARG A 98 14.533 48.358 14.477 1.00 21.70 O

ATOM 740 CB ARG A 98 12.314 47.599 16.823 1.00 31.70 C

ATOM 741 CG ARG A 98 12.268 46.178 17.596 1.00 47.20 C

ATOM 742 CD ARG A 98 11.583 45.088 16.904 1.00 53.50 C

ATOM 743 NE ARG A 98 11.214 45.290 15.381 1.00 61.50 N

ATOM 744 CZ ARG A 98 12.123 45.379 14.322 1.00 64.20 C

ATOM 745 NH1 ARG A 98 13.358 44.806 13.998 1.00 61.10 N

ATOM 746 NH2 ARG A 98 11.555 46.267 13.403 1.00 66.10 N

ATOM 747 N VAL A 99 14.361 49.948 15.926 1.00 24.60 N

ATOM 748 CA VAL A 99 14.803 51.054 14.999 1.00 22.10 C

ATOM 749 C VAL A 99 16.276 50.747 14.661 1.00 22.40 C

ATOM 750 O VAL A 99 16.677 50.909 13.469 1.00 28.80 O

ATOM 751 CB VAL A 99 14.407 52.451 15.573 1.00 24.20 C

ATOM 752 CG1 VAL A 99 15.083 53.525 14.638 1.00 22.90 C

ATOM 753 CG2 VAL A 99 12.976 52.685 15.668 1.00 26.90 C

ATOM 754 N TYR A 100 17.092 50.449 15.632 1.00 24.50 N

ATOM 755 CA TYR A 100 18.495 50.134 15.315 1.00 21.30 C

ATOM 756 C TYR A 100 18.672 48.907 14.234 1.00 26.00 C

ATOM 757 O TYR A 100 19.408 48.955 13.447 1.00 22.80 O

ATOM 758 CB TYR A 100 19.408 49.892 16.463 1.00 23.00 C

ATOM 759 CG TYR A 100 19.665 51.143 17.390 1.00 19.10 C

ATOM 760 CD1 TYR A 100 19.935 52.435 16.860 1.00 19.70 C

ATOM 761 CD2 TYR A 100 19.418 50.877 18.765 1.00 17.40 C

ATOM 762 CE1 TYR A 100 20.257 53.347 17.941 1.00 21.50 C

ATOM 763 CE2 TYR A 100 19.641 51.845 19.721 1.00 18.30 C

ATOM 764 CZ TYR A 100 20.061 53.089 19.243 1.00 21.40 C

ATOM 765 OH TYR A 100 20.322 54.187 20.052 1.00 20.50 O

ATOM 766 N GLU A 101 17.726 47.978 14.587 1.00 29.30 N

ATOM 767 CA GLU A 101 17.754 46.654 13.793 1.00 30.40 C

ATOM 768 C GLU A 101 17.479 46.921 12.446 1.00 29.10 C

ATOM 769 O GLU A 101 18.024 46.412 11.549 1.00 31.70 O

ATOM 770 CB GLU A 101 16.863 45.629 14.381 1.00 33.20 C

ATOM 771 CG GLU A 101 17.227 44.822 15.595 1.00 31.70 C

ATOM 772 CD GLU A 101 16.141 44.119 16.360 1.00 35.10 C

ATOM 773 OE1 GLU A 101 14.962 43.950 15.801 1.00 37.80 O

ATOM 774 OE2 GLU A 101 16.467 43.910 17.551 1.00 37.30 O

ATOM 775 N GLN A 102 16.500 47.728 12.167 1.00 33.30 N

ATOM 776 CA GLN A 102 16.090 48.132 10.828 1.00 34.80 C

ATOM 777 C GLN A 102 17.101 49.028 10.159 1.00 33.40 C

ATOM 778 O GLN A 102 17.227 48.988 8.915 1.00 36.10 O

ATOM 779 CB GLN A 102 14.710 48.891 10.865 1.00 34.90 C

ATOM 780 CG GLN A 102 13.703 47.857 11.461 1.00 44.80 C

ATOM 781 CD GLN A 102 12.389 48.487 11.461 1.00 45.10 C

ATOM 782 OE1 GLN A 102 11.685 48.689 10.313 1.00 52.10 O

ATOM 783 NE2 GLN A 102 11.960 48.907 12.571 1.00 53.50 N

ATOM 784 N PHE A 103 17.861 49.876 10.828 1.00 30.10 N

ATOM 785 CA PHE A 103 18.812 50.715 10.048 1.00 27.50 C

ATOM 786 C PHE A 103 20.042 50.231 9.982 1.00 26.30 C

ATOM 787 O PHE A 103 20.830 50.707 9.107 1.00 28.80 O

ATOM 788 CB PHE A 103 18.677 52.209 10.600 1.00 27.00 C

ATOM 789 CG PHE A 103 17.488 52.943 10.181 1.00 29.20 C

ATOM 790 CD1 PHE A 103 17.661 53.775 8.982 1.00 28.10 C

ATOM 791 CD2 PHE A 103 16.309 53.064 10.865 1.00 26.70 C

ATOM 792 CE1 PHE A 103 16.556 54.590 8.651 1.00 28.30 C

ATOM 793 CE2 PHE A 103 15.195 53.751 10.460 1.00 28.80 C

ATOM 794 CZ PHE A 103 15.475 54.461 9.283 1.00 28.50 C

ATOM 795 N LEU A 104 20.620 49.343 10.769 1.00 30.80 N

ATOM 796 CA LEU A 104 21.981 48.907 10.740 1.00 33.10 C

ATOM 797 C LEU A 104 22.499 48.366 9.386 1.00 32.80 C

ATOM 798 O LEU A 104 23.557 48.713 9.092 1.00 35.70 O

ATOM 799 CB LEU A 104 22.238 47.865 11.711 1.00 34.60 C

ATOM 800 CG LEU A 104 23.305 47.373 12.468 1.00 35.80 C

ATOM 801 CD1 LEU A 104 23.561 46.009 12.527 1.00 35.80 C

ATOM 802 CD2 LEU A 104 24.619 48.180 12.527 1.00 38.90 C

ATOM 803 N PRO A 105 21.823 47.550 8.717 1.00 34.20 N

ATOM 804 CA PRO A 105 22.503 47.034 7.510 1.00 36.00 C

ATOM 805 C PRO A 105 22.783 48.035 6.495 1.00 35.40 C

ATOM 806 O PRO A 105 23.412 48.075 5.488 1.00 35.90 O

ATOM 807 CB PRO A 105 21.352 46.218 6.951 1.00 36.20 C

ATOM 808 CG PRO A 105 20.122 46.089 7.643 1.00 37.00 C

ATOM 809 CD PRO A 105 20.327 47.074 8.842 1.00 35.10 C

ATOM 810 N LYS A 106 22.051 49.157 6.665 1.00 37.20 N

ATOM 811 CA LYS A 106 22.070 50.400 5.870 1.00 39.30 C

ATOM 812 C LYS A 106 23.147 51.442 6.319 1.00 36.40 C

ATOM 813 O LYS A 106 23.575 52.443 5.635 1.00 38.10 O

ATOM 814 CB LYS A 106 20.779 51.167 5.797 1.00 39.80 C

ATOM 815 CG LYS A 106 19.646 50.739 4.789 1.00 42.30 C

ATOM 816 CD LYS A 106 18.150 51.216 5.458 1.00 41.30 C

ATOM 817 N ALA A 107 23.622 51.232 7.584 1.00 37.30 N

ATOM 818 CA ALA A 107 24.466 52.063 8.231 1.00 35.90 C

ATOM 819 C ALA A 107 25.934 51.975 7.915 1.00 35.80 C

ATOM 820 O ALA A 107 26.712 51.095 7.922 1.00 33.20 O

ATOM 821 CB ALA A 107 24.372 51.773 9.828 1.00 34.00 C

ATOM 822 N GLN A 108 26.377 53.226 7.819 1.00 35.40 N

ATOM 823 CA GLN A 108 27.840 53.420 7.672 1.00 36.30 C

ATOM 824 C GLN A 108 28.623 53.791 8.849 1.00 34.50 C

ATOM 825 O GLN A 108 29.863 53.662 8.864 1.00 29.10 O

ATOM 826 CB GLN A 108 28.208 54.170 6.510 1.00 44.00 C

ATOM 827 CG GLN A 108 29.089 55.067 5.745 1.00 54.00 C

ATOM 828 CD GLN A 108 28.670 55.341 4.208 1.00 58.00 C

ATOM 829 OE1 GLN A 108 28.800 56.439 3.619 1.00 60.90 O

ATOM 830 NE2 GLN A 108 28.059 54.300 3.509 1.00 61.10 N

ATOM 831 N LYS A 109 28.073 54.388 9.953 1.00 29.40 N

ATOM 832 CA LYS A 109 28.940 54.760 11.085 1.00 27.40 C

ATOM 833 C LYS A 109 28.115 54.477 12.373 1.00 21.90 C

ATOM 834 O LYS A 109 26.997 54.639 12.262 1.00 24.10 O

ATOM 835 CB LYS A 109 29.215 56.286 10.931 1.00 30.20 C

ATOM 836 CG LYS A 109 30.185 57.141 10.754 1.00 36.70 C

ATOM 837 CD LYS A 109 30.744 58.368 11.328 1.00 36.30 C

ATOM 838 CE LYS A 109 31.275 59.531 10.593 1.00 42.60 C

ATOM 839 NZ LYS A 109 31.765 60.702 11.725 1.00 43.80 N

ATOM 840 N LEU A 110 28.712 54.203 13.270 1.00 23.40 N

ATOM 841 CA LEU A 110 28.446 53.888 14.734 1.00 25.50 C

ATOM 842 C LEU A 110 29.159 54.832 15.595 1.00 22.10 C

ATOM 843 O LEU A 110 30.301 55.083 15.661 1.00 27.20 O

ATOM 844 CB LEU A 110 28.600 52.410 15.131 1.00 25.60 C

ATOM 845 CG LEU A 110 27.896 51.514 14.079 1.00 27.00 C

ATOM 846 CD1 LEU A 110 28.166 50.029 14.874 1.00 29.10 C

ATOM 847 CD2 LEU A 110 26.405 51.514 14.006 1.00 24.60 C

ATOM 848 N TYR A 111 28.222 55.567 16.419 1.00 24.50 N

ATOM 849 CA TYR A 111 28.744 56.439 17.551 1.00 19.80 C

ATOM 850 C TYR A 111 28.493 55.729 18.765 1.00 21.60 C

ATOM 851 O TYR A 111 27.090 55.688 19.037 1.00 22.00 O

ATOM 852 CB TYR A 111 28.176 57.811 17.412 1.00 23.50 C

ATOM 853 CG TYR A 111 28.409 58.619 16.088 1.00 18.50 C

ATOM 854 CD1 TYR A 111 27.705 58.336 14.903 1.00 20.90 C

ATOM 855 CD2 TYR A 111 29.304 59.587 16.271 1.00 20.90 C

ATOM 856 CE1 TYR A 111 28.022 59.289 13.918 1.00 22.80 C

ATOM 857 CE2 TYR A 111 29.541 60.532 15.242 1.00 23.80 C

ATOM 858 CZ TYR A 111 28.838 60.379 14.065 1.00 24.20 C

ATOM 859 OH TYR A 111 29.178 61.210 13.035 1.00 27.40 O

ATOM 860 N LEU A 112 29.057 55.091 19.508 1.00 22.00 N

ATOM 861 CA LEU A 112 28.754 54.292 20.737 1.00 20.80 C

ATOM 862 C LEU A 112 29.448 54.768 21.847 1.00 22.60 C

ATOM 863 O LEU A 112 30.516 55.212 21.987 1.00 25.60 O

ATOM 864 CB LEU A 112 29.220 52.790 20.450 1.00 22.90 C

ATOM 865 CG LEU A 112 28.674 52.088 19.229 1.00 23.90 C

ATOM 866 CD1 LEU A 112 29.453 50.675 19.170 1.00 27.10 C

ATOM 867 CD2 LEU A 112 27.202 52.039 18.978 1.00 22.70 C

ATOM 868 N THR A 113 28.558 54.760 22.973 1.00 20.20 N

ATOM 869 CA THR A 113 28.959 55.099 24.290 1.00 20.60 C

ATOM 870 C THR A 113 28.973 53.718 25.003 1.00 21.40 C

ATOM 871 O THR A 113 27.780 53.331 25.216 1.00 24.70 O

ATOM 872 CB THR A 113 28.264 56.318 24.981 1.00 20.10 C

ATOM 873 OG1 THR A 113 28.232 57.279 24.150 1.00 21.00 O

ATOM 874 CG2 THR A 113 28.796 56.576 26.371 1.00 15.90 C

ATOM 875 N HIS A 114 30.008 53.153 25.452 1.00 23.30 N

ATOM 876 CA HIS A 114 30.077 51.918 26.121 1.00 24.30 C

ATOM 877 C HIS A 114 30.185 52.281 27.600 1.00 22.50 C

ATOM 878 O HIS A 114 31.084 53.000 28.063 1.00 25.80 O

ATOM 879 CB HIS A 114 31.177 50.852 25.842 1.00 24.70 C

ATOM 880 CG HIS A 114 31.229 50.425 24.466 1.00 26.90 C

ATOM 881 ND1 HIS A 114 30.432 49.464 24.025 1.00 29.40 N

ATOM 882 CD2 HIS A 114 31.839 50.901 23.355 1.00 30.20 C

ATOM 883 CE1 HIS A 114 30.562 49.157 22.715 1.00 30.00 C

ATOM 884 NE2 HIS A 114 31.424 50.069 22.267 1.00 31.40 N

ATOM 885 N ILE A 115 29.071 51.934 28.313 1.00 24.50 N

ATOM 886 CA ILE A 115 29.103 52.281 29.740 1.00 22.20 C

ATOM 887 C ILE A 115 29.294 51.095 30.675 1.00 26.20 C

ATOM 888 O ILE A 115 28.651 50.061 30.483 1.00 27.80 O

ATOM 889 CB ILE A 115 27.528 52.927 30.027 1.00 24.10 C

ATOM 890 CG1 ILE A 115 27.309 54.195 29.108 1.00 24.50 C

ATOM 891 CG2 ILE A 115 27.388 53.363 31.616 1.00 23.40 C

ATOM 892 CD1 ILE A 115 25.929 54.356 28.630 1.00 23.20 C

ATOM 893 N ASP A 116 30.017 51.361 31.704 1.00 25.60 N

ATOM 894 CA ASP A 116 30.371 50.247 32.734 1.00 25.70 C

ATOM 895 C ASP A 116 29.360 50.126 33.632 1.00 26.00 C

ATOM 896 O ASP A 116 29.509 50.416 34.794 1.00 27.60 O

ATOM 897 CB ASP A 116 31.858 50.384 33.234 1.00 28.10 C

ATOM 898 CG ASP A 116 32.832 50.263 32.094 1.00 36.70 C

ATOM 899 OD1 ASP A 116 32.925 49.779 30.895 1.00 40.70 O

ATOM 900 OD2 ASP A 116 33.858 50.973 32.352 1.00 43.50 O

ATOM 901 N ALA A 117 28.213 49.577 33.198 1.00 28.20 N

ATOM 902 CA ALA A 117 27.076 49.399 34.073 1.00 29.90 C

ATOM 903 C ALA A 117 26.493 48.067 33.771 1.00 30.70 C

ATOM 904 O ALA A 117 26.046 47.825 32.631 1.00 29.20 O

ATOM 905 CB ALA A 117 25.943 50.473 33.941 1.00 28.40 C

ATOM 906 N GLU A 118 26.130 47.341 34.728 1.00 34.00 N

ATOM 907 CA GLU A 118 25.468 46.000 34.676 1.00 39.10 C

ATOM 908 C GLU A 118 24.046 46.315 34.919 1.00 35.50 C

ATOM 909 O GLU A 118 23.533 46.767 35.941 1.00 35.00 O

ATOM 910 CB GLU A 118 26.092 45.080 35.684 1.00 42.90 C

ATOM 911 CG GLU A 118 27.696 45.064 35.581 1.00 56.30 C

ATOM 912 CD GLU A 118 28.367 43.740 36.015 1.00 62.00 C

ATOM 913 OE1 GLU A 118 27.780 42.642 35.618 1.00 66.00 O

ATOM 914 OE2 GLU A 118 29.453 43.780 36.751 1.00 67.50 O

ATOM 915 N VAL A 119 23.244 46.154 33.926 1.00 32.50 N

ATOM 916 CA VAL A 119 21.813 46.485 33.963 1.00 34.30 C

ATOM 917 C VAL A 119 21.072 45.217 33.565 1.00 38.70 C

ATOM 918 O VAL A 119 21.594 44.636 32.580 1.00 39.70 O

ATOM 919 CB VAL A 119 21.636 47.631 33.036 1.00 35.30 C

ATOM 920 CG1 VAL A 119 20.229 47.970 32.734 1.00 35.50 C

ATOM 921 CG2 VAL A 119 22.536 48.883 33.440 1.00 33.00 C

ATOM 922 N GLU A 120 19.893 44.999 34.124 1.00 42.90 N

ATOM 923 CA GLU A 120 19.213 43.708 33.580 1.00 45.10 C

ATOM 924 C GLU A 120 18.444 43.974 32.337 1.00 42.90 C

ATOM 925 O GLU A 120 17.744 44.959 32.366 1.00 40.90 O

ATOM 926 CB GLU A 120 18.392 43.110 34.676 1.00 54.80 C

ATOM 927 CG GLU A 120 18.402 43.159 36.162 1.00 65.80 C

ATOM 928 CD GLU A 120 17.311 42.820 37.236 1.00 69.80 C

ATOM 929 OE1 GLU A 120 16.015 43.013 37.023 1.00 73.10 O

ATOM 930 OE2 GLU A 120 17.805 42.368 38.428 1.00 72.90 O

ATOM 931 N GLY A 121 18.481 43.361 31.226 1.00 40.80 N

ATOM 932 CA GLY A 121 17.581 43.788 30.160 1.00 43.00 C

ATOM 933 C GLY A 121 17.171 42.787 29.056 1.00 44.60 C

ATOM 934 O GLY A 121 17.936 41.899 28.718 1.00 45.80 O

ATOM 935 N ASP A 122 15.936 43.199 28.424 1.00 47.70 N

ATOM 936 CA ASP A 122 15.698 42.142 27.313 1.00 51.80 C

ATOM 937 C ASP A 122 16.402 42.489 26.003 1.00 50.30 C

ATOM 938 O ASP A 122 16.901 41.576 25.238 1.00 51.40 O

ATOM 939 CB ASP A 122 14.081 41.891 27.180 1.00 54.20 C

ATOM 940 CG ASP A 122 13.694 41.060 28.468 1.00 55.60 C

ATOM 941 OD1 ASP A 122 14.211 39.938 28.703 1.00 57.90 O

ATOM 942 OD2 ASP A 122 12.925 41.681 29.255 1.00 55.60 O

ATOM 943 N THR A 123 16.425 43.837 25.783 1.00 43.10 N

ATOM 944 CA THR A 123 16.919 44.450 24.635 1.00 40.20 C

ATOM 945 C THR A 123 18.318 44.741 24.598 1.00 33.50 C

ATOM 946 O THR A 123 18.835 45.088 25.496 1.00 30.30 O

ATOM 947 CB THR A 123 16.122 45.799 24.209 1.00 41.10 C

ATOM 948 OG1 THR A 123 14.789 45.476 24.532 1.00 44.30 O

ATOM 949 CG2 THR A 123 16.220 46.033 22.693 1.00 42.50 C

ATOM 950 N HIS A 124 18.835 44.394 23.414 1.00 32.50 N

ATOM 951 CA HIS A 124 20.327 44.620 23.282 1.00 29.20 C

ATOM 952 C HIS A 124 20.536 45.306 21.958 1.00 27.50 C

ATOM 953 O HIS A 124 19.721 45.153 21.068 1.00 27.70 O

ATOM 954 CB HIS A 124 21.152 43.304 23.076 1.00 32.10 C

ATOM 955 CG HIS A 124 20.993 42.384 24.238 1.00 31.40 C

ATOM 956 ND1 HIS A 124 21.781 42.279 25.283 1.00 34.80 N

ATOM 957 CD2 HIS A 124 19.856 41.657 24.518 1.00 35.30 C

ATOM 958 CE1 HIS A 124 21.310 41.625 26.224 1.00 34.60 C

ATOM 959 NE2 HIS A 124 20.024 41.221 25.695 1.00 37.00 N

ATOM 960 N PHE A 125 21.529 46.041 21.715 1.00 26.50 N

ATOM 961 CA PHE A 125 22.033 46.654 20.567 1.00 24.20 C

ATOM 962 C PHE A 125 22.214 45.565 19.486 1.00 29.60 C

ATOM 963 O PHE A 125 22.732 44.555 20.045 1.00 30.70 O

ATOM 964 CB PHE A 125 23.249 47.454 20.810 1.00 22.60 C

ATOM 965 CG PHE A 125 23.538 48.293 19.633 1.00 25.40 C

ATOM 966 CD1 PHE A 125 22.802 49.520 19.251 1.00 26.90 C

ATOM 967 CD2 PHE A 125 24.591 47.906 18.721 1.00 23.70 C

ATOM 968 CE1 PHE A 125 23.109 50.295 18.118 1.00 26.20 C

ATOM 969 CE2 PHE A 125 24.843 48.616 17.478 1.00 23.30 C

ATOM 970 CZ PHE A 125 24.135 49.859 17.257 1.00 24.70 C

ATOM 971 N PRO A 126 21.753 45.750 18.316 1.00 29.50 N

ATOM 972 CA PRO A 126 22.037 44.531 17.338 1.00 34.70 C

ATOM 973 C PRO A 126 23.384 43.893 17.294 1.00 35.30 C

ATOM 974 O PRO A 126 24.316 44.733 17.500 1.00 32.80 O

ATOM 975 CB PRO A 126 21.599 44.951 15.977 1.00 32.40 C

ATOM 976 CG PRO A 126 21.058 46.340 16.051 1.00 31.60 C

ATOM 977 CD PRO A 126 20.975 46.759 17.500 1.00 31.00 C

ATOM 978 N ASP A 127 23.832 42.699 17.000 1.00 41.40 N

ATOM 979 CA ASP A 127 25.202 42.117 16.941 1.00 46.00 C

ATOM 980 C ASP A 127 25.785 42.674 15.632 1.00 45.50 C

ATOM 981 O ASP A 127 25.118 42.747 14.565 1.00 41.40 O

ATOM 982 CB ASP A 127 25.300 40.543 16.551 1.00 55.10 C

ATOM 983 CG ASP A 127 26.554 39.857 17.125 1.00 60.40 C

ATOM 984 OD1 ASP A 127 27.756 39.695 16.845 1.00 64.80 O

ATOM 985 OD2 ASP A 127 26.213 39.154 18.287 1.00 65.80 O

ATOM 986 N TYR A 128 26.894 43.110 15.705 1.00 46.00 N

ATOM 987 CA TYR A 128 27.747 43.764 14.683 1.00 46.90 C

ATOM 988 C TYR A 128 29.122 43.062 15.043 1.00 49.20 C

ATOM 989 O TYR A 128 29.621 42.908 16.183 1.00 50.70 O

ATOM 990 CB TYR A 128 27.812 45.266 14.749 1.00 42.40 C

ATOM 991 CG TYR A 128 28.441 45.855 15.940 1.00 42.00 C

ATOM 992 CD1 TYR A 128 27.933 46.025 17.125 1.00 40.10 C

ATOM 993 CD2 TYR A 128 29.830 46.130 15.837 1.00 39.30 C

ATOM 994 CE1 TYR A 128 28.539 46.396 18.265 1.00 41.80 C

ATOM 995 CE2 TYR A 128 30.539 46.630 16.889 1.00 43.40 C

ATOM 996 CZ TYR A 128 29.905 46.808 18.074 1.00 42.20 C

ATOM 997 OH TYR A 128 30.502 47.228 19.207 1.00 43.70 O

ATOM 998 N GLU A 129 29.565 42.747 13.866 1.00 53.50 N

ATOM 999 CA GLU A 129 30.944 42.020 13.859 1.00 54.60 C

ATOM 1000 C GLU A 129 31.905 43.102 13.815 1.00 56.00 C

ATOM 1001 O GLU A 129 31.960 43.651 12.755 1.00 54.00 O

ATOM 1002 CB GLU A 129 30.758 40.955 12.674 1.00 52.20 C

ATOM 1003 CG GLU A 129 30.758 39.599 13.241 1.00 55.00 C

ATOM 1004 N PRO A 130 32.571 43.579 14.874 1.00 63.20 N

ATOM 1005 CA PRO A 130 33.517 44.701 14.763 1.00 66.00 C

ATOM 1006 C PRO A 130 34.617 44.475 13.741 1.00 66.70 C

ATOM 1007 O PRO A 130 35.372 45.476 13.579 1.00 69.90 O

ATOM 1008 CB PRO A 130 33.895 45.242 16.139 1.00 66.70 C

ATOM 1009 CG PRO A 130 33.564 44.055 17.051 1.00 67.30 C

ATOM 1010 CD PRO A 130 32.496 43.126 16.294 1.00 65.30 C

ATOM 1011 N ASP A 131 34.687 43.401 13.020 1.00 66.70 N

ATOM 1012 CA ASP A 131 35.605 43.070 11.954 1.00 67.30 C

ATOM 1013 C ASP A 131 35.209 43.611 10.541 1.00 68.20 C

ATOM 1014 O ASP A 131 35.946 43.433 9.401 1.00 73.40 O

ATOM 1015 CB ASP A 131 35.447 41.520 11.556 1.00 69.20 C

ATOM 1016 N ASP A 132 34.053 44.095 10.394 1.00 62.70 N

ATOM 1017 CA ASP A 132 33.405 44.685 9.217 1.00 55.80 C

ATOM 1018 C ASP A 132 33.284 46.170 9.445 1.00 48.60 C

ATOM 1019 O ASP A 132 32.552 46.711 8.805 1.00 43.60 O

ATOM 1020 CB ASP A 132 31.965 43.998 9.335 1.00 61.10 C

ATOM 1021 CG ASP A 132 31.578 42.876 8.393 1.00 64.90 C

ATOM 1022 OD1 ASP A 132 32.338 42.448 7.400 1.00 64.90 O

ATOM 1023 OD2 ASP A 132 30.380 42.432 8.783 1.00 64.90 O

ATOM 1024 N TRP A 133 34.016 46.711 10.409 1.00 46.00 N

ATOM 1025 CA TRP A 133 33.983 48.059 10.916 1.00 46.90 C

ATOM 1026 C TRP A 133 35.326 48.398 11.564 1.00 46.20 C

ATOM 1027 O TRP A 133 35.755 47.655 12.380 1.00 51.20 O

ATOM 1028 CB TRP A 133 32.902 48.108 12.233 1.00 40.10 C

ATOM 1029 CG TRP A 133 31.513 47.865 11.954 1.00 34.80 C

ATOM 1030 CD1 TRP A 133 30.805 46.703 11.976 1.00 36.60 C

ATOM 1031 CD2 TRP A 133 30.581 48.883 11.483 1.00 34.50 C

ATOM 1032 NE1 TRP A 133 29.462 46.864 11.549 1.00 36.80 N

ATOM 1033 CE2 TRP A 133 29.374 48.293 11.196 1.00 33.10 C

ATOM 1034 CE3 TRP A 133 30.697 50.231 11.247 1.00 33.60 C

ATOM 1035 CZ2 TRP A 133 28.227 48.891 10.762 1.00 31.10 C

ATOM 1036 CZ3 TRP A 133 29.574 50.788 10.784 1.00 32.00 C

ATOM 1037 CH2 TRP A 133 28.376 50.150 10.629 1.00 28.90 C

ATOM 1038 N GLU A 134 35.904 49.512 11.255 1.00 50.80 N

ATOM 1039 CA GLU A 134 37.074 50.198 11.725 1.00 50.60 C

ATOM 1040 C GLU A 134 36.934 51.280 12.880 1.00 49.20 C

ATOM 1041 O GLU A 134 36.300 52.265 12.719 1.00 44.50 O

ATOM 1042 CB GLU A 134 37.521 50.957 10.490 1.00 51.30 C

ATOM 1043 CG GLU A 134 38.915 51.563 10.563 1.00 57.60 C

ATOM 1044 CD GLU A 134 39.316 51.805 9.188 1.00 59.30 C

ATOM 1045 OE1 GLU A 134 38.635 52.774 8.584 1.00 63.60 O

ATOM 1046 OE2 GLU A 134 40.173 50.949 8.835 1.00 63.10 O

ATOM 1047 N SER A 135 37.544 51.191 14.109 1.00 47.20 N

ATOM 1048 CA SER A 135 37.540 52.088 15.139 1.00 47.10 C

ATOM 1049 C SER A 135 38.341 53.202 14.638 1.00 45.30 C

ATOM 1050 O SER A 135 39.553 53.040 14.278 1.00 53.70 O

ATOM 1051 CB SER A 135 38.118 51.991 16.500 1.00 47.90 C

ATOM 1052 OG SER A 135 37.791 50.957 17.279 1.00 53.60 O

ATOM 1053 N VAL A 136 37.721 54.292 14.587 1.00 46.40 N

ATOM 1054 CA VAL A 136 38.332 55.607 14.116 1.00 42.00 C

ATOM 1055 C VAL A 136 38.565 56.334 15.418 1.00 43.30 C

ATOM 1056 O VAL A 136 39.427 57.230 15.381 1.00 41.90 O

ATOM 1057 CB VAL A 136 37.288 56.156 13.189 1.00 44.80 C

ATOM 1058 CG1 VAL A 136 36.808 57.569 13.167 1.00 43.30 C

ATOM 1059 CG2 VAL A 136 37.698 55.591 11.799 1.00 42.50 C

ATOM 1060 N PHE A 137 37.819 56.173 16.544 1.00 36.50 N

ATOM 1061 CA PHE A 137 38.010 57.036 17.713 1.00 33.80 C

ATOM 1062 C PHE A 137 37.600 56.245 18.890 1.00 31.10 C

ATOM 1063 O PHE A 137 36.640 55.519 18.773 1.00 31.40 O

ATOM 1064 CB PHE A 137 37.130 58.223 17.441 1.00 35.10 C

ATOM 1065 CG PHE A 137 36.985 59.216 18.611 1.00 36.30 C

ATOM 1066 CD1 PHE A 137 37.894 60.177 18.809 1.00 38.60 C

ATOM 1067 CD2 PHE A 137 36.002 58.950 19.611 1.00 32.20 C

ATOM 1068 CE1 PHE A 137 37.796 60.960 19.927 1.00 37.50 C

ATOM 1069 CE2 PHE A 137 35.848 59.781 20.641 1.00 32.90 C

ATOM 1070 CZ PHE A 137 36.757 60.726 20.810 1.00 34.30 C

ATOM 1071 N SER A 138 38.262 56.342 19.949 1.00 32.80 N

ATOM 1072 CA SER A 138 38.034 55.640 21.207 1.00 33.60 C

ATOM 1073 C SER A 138 38.598 56.520 22.370 1.00 34.80 C

ATOM 1074 O SER A 138 39.740 56.851 22.274 1.00 35.20 O

ATOM 1075 CB SER A 138 38.784 54.292 21.303 1.00 36.00 C

ATOM 1076 OG SER A 138 38.365 53.759 22.465 1.00 35.90 O

ATOM 1077 N GLU A 139 37.763 56.883 23.363 1.00 29.90 N

ATOM 1078 CA GLU A 139 38.244 57.666 24.488 1.00 30.70 C

ATOM 1079 C GLU A 139 37.456 57.319 25.709 1.00 32.00 C

ATOM 1080 O GLU A 139 36.127 57.472 25.731 1.00 25.80 O

ATOM 1081 CB GLU A 139 37.945 59.119 24.061 1.00 29.00 C

ATOM 1082 CG GLU A 139 38.407 60.209 24.952 1.00 31.70 C

ATOM 1083 CD GLU A 139 37.698 61.582 24.657 1.00 35.30 C

ATOM 1084 OE1 GLU A 139 36.631 62.106 24.885 1.00 35.40 O

ATOM 1085 OE2 GLU A 139 38.458 62.155 23.973 1.00 36.20 O

ATOM 1086 N PHE A 140 38.183 56.964 26.754 1.00 27.50 N

ATOM 1087 CA PHE A 140 37.591 56.504 27.990 1.00 27.40 C

ATOM 1088 C PHE A 140 37.535 57.634 28.975 1.00 26.10 C

ATOM 1089 O PHE A 140 38.430 58.457 29.005 1.00 26.80 O

ATOM 1090 CB PHE A 140 38.528 55.414 28.497 1.00 28.00 C

ATOM 1091 CG PHE A 140 38.104 54.824 29.851 1.00 19.90 C

ATOM 1092 CD1 PHE A 140 37.111 53.815 29.807 1.00 20.50 C

ATOM 1093 CD2 PHE A 140 38.742 55.285 31.006 1.00 20.30 C

ATOM 1094 CE1 PHE A 140 36.663 53.331 30.976 1.00 25.50 C

ATOM 1095 CE2 PHE A 140 38.192 54.768 32.146 1.00 25.50 C

ATOM 1096 CZ PHE A 140 37.283 53.823 32.138 1.00 20.10 C

ATOM 1097 N HIS A 141 36.524 57.432 29.755 1.00 23.40 N

ATOM 1098 CA HIS A 141 36.458 58.401 30.836 1.00 21.90 C

ATOM 1099 C HIS A 141 36.099 57.811 32.109 1.00 23.20 C

ATOM 1100 O HIS A 141 35.219 56.899 32.190 1.00 26.30 O

ATOM 1101 CB HIS A 141 35.330 59.515 30.520 1.00 24.10 C

ATOM 1102 CG HIS A 141 35.652 60.298 29.314 1.00 22.00 C

ATOM 1103 ND1 HIS A 141 36.197 61.598 29.593 1.00 25.70 N

ATOM 1104 CD2 HIS A 141 35.521 59.959 28.048 1.00 22.80 C

ATOM 1105 CE1 HIS A 141 36.486 62.082 28.394 1.00 26.90 C

ATOM 1106 NE2 HIS A 141 36.020 61.081 27.563 1.00 26.50 N

ATOM 1107 N ASP A 142 36.547 58.167 33.227 1.00 25.60 N

ATOM 1108 CA ASP A 142 36.244 57.739 34.522 1.00 23.40 C

ATOM 1109 C ASP A 142 34.874 58.449 35.029 1.00 28.00 C

ATOM 1110 O ASP A 142 34.696 59.450 34.485 1.00 27.50 O

ATOM 1111 CB ASP A 142 37.339 58.134 35.596 1.00 28.90 C

ATOM 1112 CG ASP A 142 38.458 56.939 35.684 1.00 28.10 C

ATOM 1113 OD1 ASP A 142 38.183 55.769 36.066 1.00 35.30 O

ATOM 1114 OD2 ASP A 142 39.516 57.464 35.243 1.00 33.80 O

ATOM 1115 N ALA A 143 34.235 57.779 35.875 1.00 25.90 N

ATOM 1116 CA ALA A 143 32.991 58.288 36.567 1.00 25.40 C

ATOM 1117 C ALA A 143 33.387 59.491 37.324 1.00 30.20 C

ATOM 1118 O ALA A 143 34.729 59.539 37.641 1.00 28.10 O

ATOM 1119 CB ALA A 143 32.483 57.230 37.700 1.00 28.10 C

ATOM 1120 N ASP A 144 32.860 60.467 37.744 1.00 23.00 N

ATOM 1121 CA ASP A 144 33.009 61.646 38.494 1.00 27.60 C

ATOM 1122 C ASP A 144 31.933 62.155 39.266 1.00 24.50 C

ATOM 1123 O ASP A 144 30.791 61.501 39.310 1.00 25.70 O

ATOM 1124 CB ASP A 144 33.760 62.623 37.479 1.00 27.50 C

ATOM 1125 CG ASP A 144 32.804 63.245 36.427 1.00 27.10 C

ATOM 1126 OD1 ASP A 144 31.588 63.301 36.552 1.00 28.50 O

ATOM 1127 OD2 ASP A 144 33.471 63.737 35.515 1.00 29.00 O

ATOM 1128 N ALA A 145 31.821 63.317 39.870 1.00 23.70 N

ATOM 1129 CA ALA A 145 30.809 63.939 40.605 1.00 26.60 C

ATOM 1130 C ALA A 145 29.425 64.141 39.855 1.00 21.80 C

ATOM 1131 O ALA A 145 28.474 64.157 40.605 1.00 25.90 O

ATOM 1132 CB ALA A 145 31.466 65.029 41.429 1.00 25.70 C

ATOM 1133 N GLN A 146 29.630 64.270 38.604 1.00 24.10 N

ATOM 1134 CA GLN A 146 28.344 64.399 37.677 1.00 23.70 C

ATOM 1135 C GLN A 146 28.045 63.253 36.949 1.00 22.30 C

ATOM 1136 O GLN A 146 26.922 63.132 36.375 1.00 22.90 O

ATOM 1137 CB GLN A 146 28.903 65.416 36.736 1.00 30.20 C

ATOM 1138 CG GLN A 146 28.320 66.764 37.258 1.00 35.50 C

ATOM 1139 CD GLN A 146 29.206 67.410 38.156 1.00 41.90 C

ATOM 1140 OE1 GLN A 146 30.595 67.313 38.016 1.00 44.30 O

ATOM 1141 NE2 GLN A 146 28.451 67.959 39.097 1.00 44.10 N

ATOM 1142 N ASN A 147 28.949 62.252 36.677 1.00 23.00 N

ATOM 1143 CA ASN A 147 28.782 61.073 35.853 1.00 23.70 C

ATOM 1144 C ASN A 147 28.875 59.846 36.714 1.00 25.90 C

ATOM 1145 O ASN A 147 29.910 59.620 37.310 1.00 21.20 O

ATOM 1146 CB ASN A 147 29.788 61.073 34.684 1.00 24.60 C

ATOM 1147 CG ASN A 147 29.313 62.090 33.720 1.00 23.60 C

ATOM 1148 OD1 ASN A 147 28.488 62.130 32.837 1.00 22.80 O

ATOM 1149 ND2 ASN A 147 29.956 63.204 33.882 1.00 26.20 N

ATOM 1150 N SER A 148 27.831 59.038 36.868 1.00 20.20 N

ATOM 1151 CA SER A 148 27.644 57.876 37.633 1.00 17.40 C

ATOM 1152 C SER A 148 28.549 56.713 37.368 1.00 17.30 C

ATOM 1153 O SER A 148 28.917 55.963 38.310 1.00 22.50 O

ATOM 1154 CB SER A 148 26.204 57.464 37.655 1.00 18.00 C

ATOM 1155 OG SER A 148 25.780 57.036 36.353 1.00 20.10 O

ATOM 1156 N HIS A 149 28.987 56.520 36.155 1.00 18.80 N

ATOM 1157 CA HIS A 149 29.737 55.365 35.794 1.00 16.80 C

ATOM 1158 C HIS A 149 30.823 55.793 34.816 1.00 18.60 C

ATOM 1159 O HIS A 149 30.669 56.883 34.205 1.00 20.80 O

ATOM 1160 CB HIS A 149 28.917 54.364 34.912 1.00 20.30 C

ATOM 1161 CG HIS A 149 27.649 53.864 35.662 1.00 24.10 C

ATOM 1162 ND1 HIS A 149 26.507 54.534 35.971 1.00 22.20 N

ATOM 1163 CD2 HIS A 149 27.621 52.717 36.184 1.00 23.40 C

ATOM 1164 CE1 HIS A 149 25.747 53.848 36.706 1.00 22.70 C

ATOM 1165 NE2 HIS A 149 26.353 52.669 36.773 1.00 23.90 N

ATOM 1166 N SER A 150 31.853 54.945 34.617 1.00 22.20 N

ATOM 1167 CA SER A 150 32.832 54.962 33.573 1.00 22.70 C

ATOM 1168 C SER A 150 32.142 54.768 32.330 1.00 19.10 C

ATOM 1169 O SER A 150 31.191 53.993 32.013 1.00 20.80 O

ATOM 1170 CB SER A 150 34.081 54.187 33.941 1.00 20.00 C

ATOM 1171 OG SER A 150 34.748 54.727 35.044 1.00 20.00 O

ATOM 1172 N TYR A 151 32.655 55.252 31.248 1.00 19.00 N

ATOM 1173 CA TYR A 151 32.310 55.317 29.873 1.00 19.10 C

ATOM 1174 C TYR A 151 33.289 55.511 28.916 1.00 23.50 C

ATOM 1175 O TYR A 151 34.198 56.294 29.071 1.00 23.50 O

ATOM 1176 CB TYR A 151 31.042 56.302 29.770 1.00 19.90 C

ATOM 1177 CG TYR A 151 31.373 57.763 30.027 1.00 24.60 C

ATOM 1178 CD1 TYR A 151 31.373 58.263 31.314 1.00 23.10 C

ATOM 1179 CD2 TYR A 151 31.788 58.708 29.012 1.00 21.20 C

ATOM 1180 CE1 TYR A 151 31.853 59.628 31.726 1.00 26.80 C

ATOM 1181 CE2 TYR A 151 32.161 59.902 29.350 1.00 22.00 C

ATOM 1182 CZ TYR A 151 32.203 60.346 30.660 1.00 23.70 C

ATOM 1183 OH TYR A 151 32.613 61.654 30.917 1.00 22.60 O

ATOM 1184 N CYS A 152 33.182 55.002 27.842 1.00 20.20 N

ATOM 1185 CA CYS A 152 33.899 54.970 26.563 1.00 23.50 C

ATOM 1186 C CYS A 152 33.331 55.470 25.452 1.00 20.90 C

ATOM 1187 O CYS A 152 32.338 54.719 24.996 1.00 26.30 O

ATOM 1188 CB CYS A 152 34.613 53.573 26.526 1.00 25.90 C

ATOM 1189 SG CYS A 152 36.034 53.759 25.290 1.00 36.00 S

ATOM 1190 N PHE A 153 33.569 56.463 24.724 1.00 21.10 N

ATOM 1191 CA PHE A 153 33.163 56.923 23.436 1.00 20.20 C

ATOM 1192 C PHE A 153 33.774 56.302 22.311 1.00 22.70 C

ATOM 1193 O PHE A 153 35.032 56.350 22.443 1.00 25.40 O

ATOM 1194 CB PHE A 153 33.191 58.490 23.201 1.00 19.10 C

ATOM 1195 CG PHE A 153 32.459 59.305 24.216 1.00 21.20 C

ATOM 1196 CD1 PHE A 153 31.094 59.135 24.503 1.00 23.00 C

ATOM 1197 CD2 PHE A 153 33.158 60.403 24.760 1.00 19.80 C

ATOM 1198 CE1 PHE A 153 30.446 59.870 25.444 1.00 22.30 C

ATOM 1199 CE2 PHE A 153 32.529 61.218 25.790 1.00 22.30 C

ATOM 1200 CZ PHE A 153 31.154 60.920 26.121 1.00 21.20 C

ATOM 1201 N LYS A 154 33.116 55.842 21.288 1.00 27.00 N

ATOM 1202 CA LYS A 154 33.676 55.099 20.133 1.00 26.40 C

ATOM 1203 C LYS A 154 33.065 55.414 18.839 1.00 27.50 C

ATOM 1204 O LYS A 154 31.825 55.607 18.861 1.00 22.10 O

ATOM 1205 CB LYS A 154 33.545 53.549 20.354 1.00 29.50 C

ATOM 1206 CG LYS A 154 34.543 53.097 21.369 1.00 35.20 C

ATOM 1207 CD LYS A 154 34.841 51.724 21.715 1.00 42.50 C

ATOM 1208 CE LYS A 154 36.132 51.167 22.451 1.00 43.30 C

ATOM 1209 NZ LYS A 154 37.190 50.885 21.244 1.00 51.00 N

ATOM 1210 N ILE A 155 33.713 55.632 17.691 1.00 25.90 N

ATOM 1211 CA ILE A 155 33.284 55.906 16.463 1.00 26.60 C

ATOM 1212 C ILE A 155 33.778 54.744 15.587 1.00 30.80 C

ATOM 1213 O ILE A 155 35.013 54.590 15.668 1.00 32.00 O

ATOM 1214 CB ILE A 155 33.601 57.262 15.624 1.00 24.30 C

ATOM 1215 CG1 ILE A 155 32.972 58.272 16.595 1.00 23.30 C

ATOM 1216 CG2 ILE A 155 32.702 57.384 14.432 1.00 25.80 C

ATOM 1217 CD1 ILE A 155 33.391 59.838 16.433 1.00 23.00 C

ATOM 1218 N LEU A 156 32.925 54.090 14.896 1.00 31.50 N

ATOM 1219 CA LEU A 156 33.270 52.992 14.006 1.00 27.90 C

ATOM 1220 C LEU A 156 32.846 53.194 12.711 1.00 31.00 C

ATOM 1221 O LEU A 156 31.718 53.759 12.461 1.00 30.50 O

ATOM 1222 CB LEU A 156 32.664 51.748 14.594 1.00 31.00 C

ATOM 1223 CG LEU A 156 33.266 51.030 15.654 1.00 33.60 C

ATOM 1224 CD1 LEU A 156 33.811 51.652 16.875 1.00 41.90 C

ATOM 1225 CD2 LEU A 156 32.534 49.811 16.036 1.00 39.70 C

ATOM 1226 N GLU A 157 33.606 52.976 11.600 1.00 32.50 N

ATOM 1227 CA GLU A 157 33.298 53.202 10.225 1.00 38.00 C

ATOM 1228 C GLU A 157 33.242 51.829 9.533 1.00 39.40 C

ATOM 1229 O GLU A 157 34.067 50.998 9.828 1.00 41.20 O

ATOM 1230 CB GLU A 157 34.310 53.936 9.504 1.00 41.80 C

ATOM 1231 CG GLU A 157 34.193 55.317 9.864 1.00 49.80 C

ATOM 1232 CD GLU A 157 34.911 56.479 9.372 1.00 53.70 C

ATOM 1233 OE1 GLU A 157 35.410 56.245 8.224 1.00 57.50 O

ATOM 1234 OE2 GLU A 157 35.009 57.634 10.034 1.00 55.50 O

ATOM 1235 N ARG A 158 32.189 51.684 8.812 1.00 42.70 N

ATOM 1236 CA ARG A 158 31.849 50.465 8.062 1.00 42.50 C

ATOM 1237 C ARG A 158 32.860 50.505 6.804 1.00 44.50 C

ATOM 1238 O ARG A 158 32.739 51.377 5.907 1.00 43.90 O

ATOM 1239 CB ARG A 158 30.525 50.352 7.305 1.00 41.10 C

ATOM 1240 CG ARG A 158 30.189 48.786 7.231 1.00 41.50 C

ATOM 1241 CD ARG A 158 28.814 48.971 6.554 1.00 48.20 C

ATOM 1242 NE ARG A 158 28.115 47.777 7.282 1.00 52.40 N

ATOM 1243 CZ ARG A 158 26.861 47.801 7.812 1.00 50.90 C

ATOM 1244 NH1 ARG A 158 25.924 48.665 7.731 1.00 51.40 N

ATOM 1245 NH2 ARG A 158 26.498 46.687 8.584 1.00 56.00 N

ATOM 1246 N ARG A 159 33.592 49.480 7.054 1.00 49.80 N

ATOM 1247 CA ARG A 159 34.659 49.036 6.032 1.00 58.70 C

ATOM 1248 C ARG A 159 33.951 47.793 5.282 1.00 62.30 C

ATOM 1249 O ARG A 159 33.704 48.253 3.980 1.00 67.20 O

ATOM 1250 CB ARG A 159 35.899 48.487 6.547 1.00 57.00 C

ATOM 1251 CG ARG A 159 36.216 47.712 7.812 1.00 58.60 C

ATOM 1252 OXT ARG A 159 33.513 46.695 5.892 1.00 64.50 O

TER 1253 ARG A 159

ATOM 1254 N MET B 1 11.228 77.720 60.974 1.00 34.80 N

ATOM 1255 CA MET B 1 11.569 76.420 61.334 1.00 32.30 C

ATOM 1256 C MET B 1 12.711 75.685 60.275 1.00 26.50 C

ATOM 1257 O MET B 1 12.645 76.347 59.223 1.00 32.30 O

ATOM 1258 CB MET B 1 10.357 75.548 61.364 1.00 33.20 C

ATOM 1259 CG MET B 1 10.040 74.402 60.584 1.00 41.50 C

ATOM 1260 SD MET B 1 8.623 73.707 59.981 1.00 48.60 S

ATOM 1261 CE MET B 1 8.385 74.749 58.532 1.00 47.30 C

ATOM 1262 N ILE B 2 13.181 74.611 60.871 1.00 27.80 N

ATOM 1263 CA ILE B 2 14.058 73.998 59.915 1.00 27.70 C

ATOM 1264 C ILE B 2 13.526 72.658 59.370 1.00 24.60 C

ATOM 1265 O ILE B 2 13.167 71.810 60.150 1.00 25.60 O

ATOM 1266 CB ILE B 2 15.461 73.699 60.547 1.00 28.20 C

ATOM 1267 CG1 ILE B 2 16.006 75.306 60.915 1.00 27.40 C

ATOM 1268 CG2 ILE B 2 16.584 72.868 59.782 1.00 27.70 C

ATOM 1269 CD1 ILE B 2 17.017 75.249 61.908 1.00 32.00 C

ATOM 1270 N SER B 3 13.778 72.432 58.098 1.00 22.40 N

ATOM 1271 CA SER B 3 13.438 71.229 57.399 1.00 19.80 C

ATOM 1272 C SER B 3 14.496 70.640 56.678 1.00 21.90 C

ATOM 1273 O SER B 3 15.461 71.358 56.126 1.00 23.60 O

ATOM 1274 CB SER B 3 12.338 71.584 56.354 1.00 21.30 C

ATOM 1275 OG SER B 3 11.308 72.109 57.016 1.00 24.00 O

ATOM 1276 N LEU B 4 14.719 69.267 56.693 1.00 19.80 N

ATOM 1277 CA LEU B 4 15.670 68.573 55.861 1.00 18.10 C

ATOM 1278 C LEU B 4 15.153 67.951 54.604 1.00 19.90 C

ATOM 1279 O LEU B 4 13.960 67.418 54.765 1.00 20.40 O

ATOM 1280 CB LEU B 4 16.491 67.491 56.524 1.00 20.00 C

ATOM 1281 CG LEU B 4 17.455 68.097 57.649 1.00 24.70 C

ATOM 1282 CD1 LEU B 4 17.264 69.219 58.458 1.00 25.60 C

ATOM 1283 CD2 LEU B 4 17.870 66.877 58.495 1.00 26.10 C

ATOM 1284 N ILE B 5 15.656 68.064 53.463 1.00 17.20 N

ATOM 1285 CA ILE B 5 15.125 67.451 52.206 1.00 14.50 C

ATOM 1286 C ILE B 5 16.174 66.538 51.749 1.00 14.40 C

ATOM 1287 O ILE B 5 17.330 66.942 51.558 1.00 18.20 O

ATOM 1288 CB ILE B 5 14.542 68.605 51.404 1.00 16.40 C

ATOM 1289 CG1 ILE B 5 13.969 67.661 50.124 1.00 13.70 C

ATOM 1290 CG2 ILE B 5 15.619 69.598 50.926 1.00 17.50 C

ATOM 1291 CD1 ILE B 5 12.981 68.516 49.190 1.00 15.40 C

ATOM 1292 N ALA B 6 15.889 65.287 51.477 1.00 16.90 N

ATOM 1293 CA ALA B 6 16.859 64.318 51.065 1.00 16.20 C

ATOM 1294 C ALA B 6 16.388 63.293 50.168 1.00 18.90 C

ATOM 1295 O ALA B 6 15.120 62.841 50.234 1.00 14.70 O

ATOM 1296 CB ALA B 6 17.577 63.576 52.389 1.00 18.80 C

ATOM 1297 N ALA B 7 16.985 62.615 49.278 1.00 17.10 N

ATOM 1298 CA ALA B 7 16.770 61.468 48.454 1.00 19.00 C

ATOM 1299 C ALA B 7 17.423 60.338 49.197 1.00 19.50 C

ATOM 1300 O ALA B 7 18.751 60.427 49.065 1.00 17.00 O

ATOM 1301 CB ALA B 7 17.111 61.767 46.917 1.00 19.50 C

ATOM 1302 N LEU B 8 16.994 59.240 49.528 1.00 17.00 N

ATOM 1303 CA LEU B 8 17.614 58.070 50.146 1.00 18.20 C

ATOM 1304 C LEU B 8 17.455 56.843 49.432 1.00 19.30 C

ATOM 1305 O LEU B 8 16.323 56.479 48.991 1.00 21.80 O

ATOM 1306 CB LEU B 8 16.868 57.828 51.507 1.00 24.20 C

ATOM 1307 CG LEU B 8 17.246 58.562 52.713 1.00 26.90 C

ATOM 1308 CD1 LEU B 8 17.339 60.112 52.654 1.00 25.70 C

ATOM 1309 CD2 LEU B 8 16.672 58.167 54.074 1.00 25.20 C

ATOM 1310 N ALA B 9 18.444 56.068 49.072 1.00 19.40 N

ATOM 1311 CA ALA B 9 18.397 54.744 48.410 1.00 18.90 C

ATOM 1312 C ALA B 9 18.178 53.912 49.668 1.00 17.50 C

ATOM 1313 O ALA B 9 17.861 54.106 50.852 1.00 19.60 O

ATOM 1314 CB ALA B 9 19.660 54.477 47.711 1.00 20.40 C

ATOM 1315 N VAL B 10 18.010 52.556 49.388 1.00 20.80 N

ATOM 1316 CA VAL B 10 17.856 51.514 50.477 1.00 25.70 C

ATOM 1317 C VAL B 10 19.105 51.660 51.455 1.00 23.70 C

ATOM 1318 O VAL B 10 20.229 52.120 51.183 1.00 24.10 O

ATOM 1319 CB VAL B 10 18.047 50.150 49.844 1.00 25.20 C

ATOM 1320 CG1 VAL B 10 17.870 48.907 50.896 1.00 32.50 C

ATOM 1321 CG2 VAL B 10 16.607 49.819 49.087 1.00 30.40 C

ATOM 1322 N ASP B 11 18.779 51.466 52.676 1.00 24.20 N

ATOM 1323 CA ASP B 11 19.669 51.555 53.802 1.00 26.30 C

ATOM 1324 C ASP B 11 20.168 52.968 54.089 1.00 23.70 C

ATOM 1325 O ASP B 11 21.105 53.266 54.677 1.00 27.00 O

ATOM 1326 CB ASP B 11 20.993 50.651 53.662 1.00 34.60 C

ATOM 1327 CG ASP B 11 20.653 49.157 53.831 1.00 39.90 C

ATOM 1328 OD1 ASP B 11 19.763 48.681 54.420 1.00 39.40 O

ATOM 1329 OD2 ASP B 11 21.492 48.463 53.140 1.00 46.50 O

ATOM 1330 N ARG B 12 19.273 53.920 53.559 1.00 24.30 N

ATOM 1331 CA ARG B 12 19.586 55.236 53.905 1.00 23.00 C

ATOM 1332 C ARG B 12 20.839 55.825 53.250 1.00 22.30 C

ATOM 1333 O ARG B 12 21.245 56.899 53.618 1.00 23.00 O

ATOM 1334 CB ARG B 12 19.539 55.607 55.376 1.00 29.50 C

ATOM 1335 CG ARG B 12 18.434 55.083 56.325 1.00 31.30 C

ATOM 1336 CD ARG B 12 18.663 55.963 57.612 1.00 33.30 C

ATOM 1337 NE ARG B 12 19.548 55.123 58.429 1.00 42.10 N

ATOM 1338 CZ ARG B 12 20.704 54.784 58.701 1.00 42.60 C

ATOM 1339 NH1 ARG B 12 21.762 55.680 59.113 1.00 45.50 N

ATOM 1340 NH2 ARG B 12 21.105 53.476 58.385 1.00 48.00 N

ATOM 1341 N VAL B 13 21.226 55.365 52.110 1.00 21.10 N

ATOM 1342 CA VAL B 13 22.354 55.785 51.301 1.00 21.80 C

ATOM 1343 C VAL B 13 21.977 57.149 50.646 1.00 23.20 C

ATOM 1344 O VAL B 13 20.858 57.166 50.146 1.00 21.60 O

ATOM 1345 CB VAL B 13 22.746 54.719 50.197 1.00 23.40 C

ATOM 1346 CG1 VAL B 13 23.878 55.228 49.359 1.00 21.50 C

ATOM 1347 CG2 VAL B 13 23.389 53.557 51.117 1.00 26.10 C

ATOM 1348 N ILE B 14 22.816 58.102 50.830 1.00 22.50 N

ATOM 1349 CA ILE B 14 22.555 59.410 50.344 1.00 21.10 C

ATOM 1350 C ILE B 14 23.603 59.870 49.396 1.00 25.90 C

ATOM 1351 O ILE B 14 23.412 60.702 48.469 1.00 23.50 O

ATOM 1352 CB ILE B 14 22.168 60.564 51.264 1.00 19.90 C

ATOM 1353 CG1 ILE B 14 23.417 60.758 52.323 1.00 23.10 C

ATOM 1354 CG2 ILE B 14 20.853 60.338 52.022 1.00 18.10 C

ATOM 1355 CD1 ILE B 14 23.412 62.106 53.103 1.00 24.40 C

ATOM 1356 N GLY B 15 24.834 59.256 49.322 1.00 21.90 N

ATOM 1357 CA GLY B 15 25.971 59.660 48.483 1.00 23.70 C

ATOM 1358 C GLY B 15 26.983 58.570 48.277 1.00 21.70 C

ATOM 1359 O GLY B 15 26.997 57.755 49.116 1.00 22.80 O

ATOM 1360 N MET B 16 27.486 58.586 47.167 1.00 29.50 N

ATOM 1361 CA MET B 16 28.474 57.585 46.556 1.00 29.10 C

ATOM 1362 C MET B 16 29.653 58.481 46.335 1.00 27.20 C

ATOM 1363 O MET B 16 29.798 59.717 46.365 1.00 27.90 O

ATOM 1364 CB MET B 16 28.017 56.875 45.254 1.00 29.20 C

ATOM 1365 CG MET B 16 27.062 55.753 45.931 1.00 32.30 C

ATOM 1366 SD MET B 16 26.055 55.010 44.658 1.00 39.90 S

ATOM 1367 CE MET B 16 27.253 53.678 44.077 1.00 36.50 C

ATOM 1368 N GLU B 17 30.777 57.828 45.887 1.00 34.40 N

ATOM 1369 CA GLU B 17 31.919 58.756 45.556 1.00 37.60 C

ATOM 1370 C GLU B 17 31.727 59.555 44.268 1.00 35.20 C

ATOM 1371 O GLU B 17 32.147 60.637 43.967 1.00 39.20 O

ATOM 1372 CB GLU B 17 33.056 57.723 45.166 1.00 43.20 C

ATOM 1373 CG GLU B 17 33.690 56.770 45.887 1.00 52.10 C

ATOM 1374 CD GLU B 17 34.967 55.882 45.497 1.00 55.90 C

ATOM 1375 OE1 GLU B 17 35.605 56.455 44.496 1.00 55.80 O

ATOM 1376 OE2 GLU B 17 34.934 54.873 46.453 1.00 58.00 O

ATOM 1377 N ASN B 18 30.898 58.861 43.356 1.00 32.30 N

ATOM 1378 CA ASN B 18 30.618 59.620 42.032 1.00 26.00 C

ATOM 1379 C ASN B 18 29.066 59.854 42.135 1.00 26.50 C

ATOM 1380 O ASN B 18 28.367 59.709 42.988 1.00 23.40 O

ATOM 1381 CB ASN B 18 30.902 58.594 41.069 1.00 28.50 C

ATOM 1382 CG ASN B 18 32.552 58.191 41.032 1.00 30.10 C

ATOM 1383 OD1 ASN B 18 33.298 59.095 40.995 1.00 33.10 O

ATOM 1384 ND2 ASN B 18 32.366 56.818 41.083 1.00 31.40 N

ATOM 1385 N ALA B 19 28.595 60.395 40.966 1.00 24.40 N

ATOM 1386 CA ALA B 19 27.122 60.702 40.796 1.00 23.10 C

ATOM 1387 C ALA B 19 26.265 59.474 41.127 1.00 23.60 C

ATOM 1388 O ALA B 19 26.773 58.385 40.892 1.00 21.30 O

ATOM 1389 CB ALA B 19 26.843 61.267 39.509 1.00 20.60 C

ATOM 1390 N MET B 20 25.104 59.628 41.753 1.00 21.60 N

ATOM 1391 CA MET B 20 24.111 58.586 42.047 1.00 21.40 C

ATOM 1392 C MET B 20 23.697 58.094 40.811 1.00 19.30 C

ATOM 1393 O MET B 20 23.510 58.659 39.818 1.00 21.90 O

ATOM 1394 CB MET B 20 23.119 58.788 43.025 1.00 25.40 C

ATOM 1395 CG MET B 20 23.482 59.499 44.342 1.00 31.30 C

ATOM 1396 SD MET B 20 24.302 58.368 45.409 1.00 31.00 S

ATOM 1397 CE MET B 20 22.918 57.634 46.196 1.00 35.70 C

ATOM 1398 N PRO B 21 23.519 56.673 40.671 1.00 19.10 N

ATOM 1399 CA PRO B 21 23.170 56.003 39.428 1.00 21.50 C

ATOM 1400 C PRO B 21 21.641 55.858 39.244 1.00 21.30 C

ATOM 1401 O PRO B 21 21.152 54.752 39.244 1.00 25.90 O

ATOM 1402 CB PRO B 21 23.916 54.679 39.575 1.00 21.90 C

ATOM 1403 CG PRO B 21 23.687 54.348 41.024 1.00 24.60 C

ATOM 1404 CD PRO B 21 23.766 55.680 41.863 1.00 20.50 C

ATOM 1405 N TRP B 22 21.044 56.988 39.119 1.00 20.40 N

ATOM 1406 CA TRP B 22 19.609 56.988 38.854 1.00 17.40 C

ATOM 1407 C TRP B 22 19.408 58.336 38.134 1.00 19.70 C

ATOM 1408 O TRP B 22 20.140 59.281 38.082 1.00 21.50 O

ATOM 1409 CB TRP B 22 18.910 56.972 40.193 1.00 20.40 C

ATOM 1410 CG TRP B 22 19.213 57.900 41.260 1.00 21.90 C

ATOM 1411 CD1 TRP B 22 19.096 59.232 41.113 1.00 25.40 C

ATOM 1412 CD2 TRP B 22 19.474 57.690 42.569 1.00 23.60 C

ATOM 1413 NE1 TRP B 22 19.245 59.927 42.348 1.00 27.00 N

ATOM 1414 CE2 TRP B 22 19.539 58.966 43.239 1.00 22.00 C

ATOM 1415 CE3 TRP B 22 19.613 56.560 43.349 1.00 26.00 C

ATOM 1416 CZ2 TRP B 22 19.721 59.184 44.599 1.00 27.10 C

ATOM 1417 CZ3 TRP B 22 19.879 56.826 44.813 1.00 28.40 C

ATOM 1418 CH2 TRP B 22 19.879 57.989 45.225 1.00 24.80 C

ATOM 1419 N ASN B 23 18.360 58.393 37.442 1.00 20.50 N

ATOM 1420 CA ASN B 23 17.842 59.434 36.699 1.00 18.90 C

ATOM 1421 C ASN B 23 16.295 59.628 37.111 1.00 17.50 C

ATOM 1422 O ASN B 23 15.484 58.885 36.648 1.00 17.30 O

ATOM 1423 CB ASN B 23 18.085 58.901 35.250 1.00 22.40 C

ATOM 1424 CG ASN B 23 17.786 60.112 34.411 1.00 29.80 C

ATOM 1425 OD1 ASN B 23 17.507 61.291 34.522 1.00 29.80 O

ATOM 1426 ND2 ASN B 23 17.605 60.040 33.080 1.00 32.90 N

ATOM 1427 N LEU B 24 16.337 60.718 37.964 1.00 15.60 N

ATOM 1428 CA LEU B 24 15.008 60.984 38.612 1.00 17.10 C

ATOM 1429 C LEU B 24 14.514 62.373 38.590 1.00 16.70 C

ATOM 1430 O LEU B 24 14.435 63.107 39.472 1.00 16.60 O

ATOM 1431 CB LEU B 24 14.943 60.387 40.046 1.00 20.30 C

ATOM 1432 CG LEU B 24 15.353 58.966 40.333 1.00 25.50 C

ATOM 1433 CD1 LEU B 24 15.335 58.950 41.892 1.00 23.40 C

ATOM 1434 CD2 LEU B 24 14.072 58.183 39.789 1.00 18.90 C

ATOM 1435 N PRO B 25 14.123 62.744 37.324 1.00 16.10 N

ATOM 1436 CA PRO B 25 13.629 64.084 37.163 1.00 17.00 C

ATOM 1437 C PRO B 25 12.477 64.447 37.964 1.00 14.10 C

ATOM 1438 O PRO B 25 12.123 65.545 38.442 1.00 13.50 O

ATOM 1439 CB PRO B 25 13.275 64.213 35.728 1.00 14.30 C

ATOM 1440 CG PRO B 25 13.233 62.897 35.125 1.00 21.10 C

ATOM 1441 CD PRO B 25 14.202 62.106 35.927 1.00 18.10 C

ATOM 1442 N ALA B 26 11.639 63.398 38.332 1.00 11.80 N

ATOM 1443 CA ALA B 26 10.539 63.592 39.274 1.00 12.90 C

ATOM 1444 C ALA B 26 10.860 64.100 40.539 1.00 15.40 C

ATOM 1445 O ALA B 26 10.264 64.827 41.304 1.00 15.40 O

ATOM 1446 CB ALA B 26 9.434 62.486 39.207 1.00 18.70 C

ATOM 1447 N ASP B 27 12.011 63.495 41.083 1.00 14.50 N

ATOM 1448 CA ASP B 27 12.655 63.866 42.363 1.00 16.60 C

ATOM 1449 C ASP B 27 13.149 65.336 42.238 1.00 16.30 C

ATOM 1450 O ASP B 27 12.995 65.989 43.283 1.00 15.90 O

ATOM 1451 CB ASP B 27 13.685 62.873 42.863 1.00 15.00 C

ATOM 1452 CG ASP B 27 14.155 63.301 44.187 1.00 14.40 C

ATOM 1453 OD1 ASP B 27 13.610 63.519 45.210 1.00 16.00 O

ATOM 1454 OD2 ASP B 27 15.395 63.769 43.996 1.00 18.30 O

ATOM 1455 N LEU B 28 13.811 65.707 41.201 1.00 16.40 N

ATOM 1456 CA LEU B 28 14.197 67.184 41.076 1.00 15.90 C

ATOM 1457 C LEU B 28 13.032 68.088 40.988 1.00 14.90 C

ATOM 1458 O LEU B 28 13.279 69.114 41.576 1.00 16.80 O

ATOM 1459 CB LEU B 28 15.181 67.176 39.803 1.00 15.40 C

ATOM 1460 CG LEU B 28 16.519 66.555 40.134 1.00 19.60 C

ATOM 1461 CD1 LEU B 28 17.367 66.700 38.796 1.00 23.00 C

ATOM 1462 CD2 LEU B 28 17.483 67.095 41.355 1.00 21.10 C

ATOM 1463 N ALA B 29 11.965 67.741 40.377 1.00 15.60 N

ATOM 1464 CA ALA B 29 10.776 68.670 40.311 1.00 17.00 C

ATOM 1465 C ALA B 29 10.212 68.565 41.701 1.00 19.20 C

ATOM 1466 O ALA B 29 9.923 69.760 42.150 1.00 15.90 O

ATOM 1467 CB ALA B 29 9.765 67.967 39.310 1.00 15.50 C

ATOM 1468 N TRP B 30 10.194 67.661 42.562 1.00 15.70 N

ATOM 1469 CA TRP B 30 9.737 67.628 43.908 1.00 16.10 C

ATOM 1470 C TRP B 30 10.683 68.492 44.688 1.00 12.00 C

ATOM 1471 O TRP B 30 10.291 69.380 45.570 1.00 17.70 O

ATOM 1472 CB TRP B 30 9.672 66.240 44.423 1.00 15.30 C

ATOM 1473 CG TRP B 30 9.811 66.030 45.960 1.00 16.40 C

ATOM 1474 CD1 TRP B 30 10.800 65.788 46.850 1.00 19.20 C

ATOM 1475 CD2 TRP B 30 8.581 65.998 46.769 1.00 20.30 C

ATOM 1476 NE1 TRP B 30 10.305 65.626 48.027 1.00 16.40 N

ATOM 1477 CE2 TRP B 30 8.940 65.699 48.152 1.00 17.00 C

ATOM 1478 CE3 TRP B 30 7.164 66.175 46.497 1.00 18.70 C

ATOM 1479 CZ2 TRP B 30 7.961 65.618 49.168 1.00 18.50 C

ATOM 1480 CZ3 TRP B 30 6.260 66.078 47.483 1.00 20.50 C

ATOM 1481 CH2 TRP B 30 6.689 65.804 48.792 1.00 19.50 C

ATOM 1482 N PHE B 31 11.932 68.411 44.629 1.00 17.60 N

ATOM 1483 CA PHE B 31 13.037 69.178 45.254 1.00 14.90 C

ATOM 1484 C PHE B 31 12.757 70.728 44.901 1.00 17.10 C

ATOM 1485 O PHE B 31 12.790 71.334 45.901 1.00 15.20 O

ATOM 1486 CB PHE B 31 14.430 68.702 44.776 1.00 15.50 C

ATOM 1487 CG PHE B 31 15.526 69.501 45.350 1.00 16.10 C

ATOM 1488 CD1 PHE B 31 16.057 69.324 46.622 1.00 17.60 C

ATOM 1489 CD2 PHE B 31 16.020 70.551 44.496 1.00 15.90 C

ATOM 1490 CE1 PHE B 31 17.031 70.058 47.159 1.00 17.80 C

ATOM 1491 CE2 PHE B 31 17.008 71.390 45.085 1.00 17.80 C

ATOM 1492 CZ PHE B 31 17.651 71.084 46.416 1.00 15.50 C

ATOM 1493 N LYS B 32 12.711 71.051 43.673 1.00 15.80 N

ATOM 1494 CA LYS B 32 12.464 72.496 43.378 1.00 17.20 C

ATOM 1495 C LYS B 32 11.186 72.948 43.901 1.00 19.70 C

ATOM 1496 O LYS B 32 11.158 74.030 44.460 1.00 20.50 O

ATOM 1497 CB LYS B 32 12.319 72.521 41.812 1.00 17.80 C

ATOM 1498 CG LYS B 32 12.436 74.046 41.333 1.00 21.40 C

ATOM 1499 CD LYS B 32 12.272 74.022 39.862 1.00 21.90 C

ATOM 1500 CE LYS B 32 12.249 75.532 39.347 1.00 33.50 C

ATOM 1501 NZ LYS B 32 11.634 75.370 37.869 1.00 37.70 N

ATOM 1502 N ARG B 33 10.105 72.335 43.871 1.00 23.20 N

ATOM 1503 CA ARG B 33 8.833 72.730 44.313 1.00 20.30 C

ATOM 1504 C ARG B 33 8.833 73.199 45.740 1.00 21.80 C

ATOM 1505 O ARG B 33 8.273 73.974 46.365 1.00 20.80 O

ATOM 1506 CB ARG B 33 7.658 71.600 44.195 1.00 22.00 C

ATOM 1507 CG ARG B 33 6.264 71.867 44.504 1.00 35.90 C

ATOM 1508 CD ARG B 33 5.295 70.559 44.945 1.00 44.10 C

ATOM 1509 NE ARG B 33 4.409 70.204 43.717 1.00 52.80 N

ATOM 1510 CZ ARG B 33 3.412 71.156 43.136 1.00 52.90 C

ATOM 1511 NH1 ARG B 33 2.848 72.181 43.687 1.00 52.80 N

ATOM 1512 NH2 ARG B 33 3.183 71.035 41.789 1.00 57.40 N

ATOM 1513 N ASN B 34 9.602 72.190 46.497 1.00 17.10 N

ATOM 1514 CA ASN B 34 9.714 72.335 47.968 1.00 16.40 C

ATOM 1515 C ASN B 34 10.874 73.263 48.410 1.00 19.00 C

ATOM 1516 O ASN B 34 10.907 73.449 49.660 1.00 21.40 O

ATOM 1517 CB ASN B 34 9.853 70.898 48.623 1.00 17.50 C

ATOM 1518 CG ASN B 34 8.441 70.292 48.719 1.00 19.40 C

ATOM 1519 OD1 ASN B 34 7.411 70.704 49.131 1.00 24.50 O

ATOM 1520 ND2 ASN B 34 8.441 69.065 48.005 1.00 19.80 N

ATOM 1521 N THR B 35 11.592 73.683 47.549 1.00 20.10 N

ATOM 1522 CA THR B 35 12.743 74.515 48.057 1.00 18.00 C

ATOM 1523 C THR B 35 12.585 75.968 47.424 1.00 19.40 C

ATOM 1524 O THR B 35 13.275 76.872 47.961 1.00 21.90 O

ATOM 1525 CB THR B 35 14.211 73.974 47.586 1.00 16.50 C

ATOM 1526 OG1 THR B 35 14.314 73.732 46.232 1.00 18.80 O

ATOM 1527 CG2 THR B 35 14.524 72.787 48.483 1.00 19.00 C

ATOM 1528 N LEU B 36 11.867 76.162 46.365 1.00 20.70 N

ATOM 1529 CA LEU B 36 11.746 77.486 45.718 1.00 25.30 C

ATOM 1530 C LEU B 36 11.359 78.527 46.666 1.00 20.50 C

ATOM 1531 O LEU B 36 10.492 78.414 47.593 1.00 24.30 O

ATOM 1532 CB LEU B 36 10.846 77.413 44.570 1.00 23.40 C

ATOM 1533 CG LEU B 36 11.177 78.147 43.386 1.00 32.60 C

ATOM 1534 CD1 LEU B 36 12.477 78.091 42.554 1.00 31.20 C

ATOM 1535 CD2 LEU B 36 10.119 77.494 42.304 1.00 31.50 C

ATOM 1536 N ASP B 37 11.923 79.617 46.600 1.00 24.10 N

ATOM 1537 CA ASP B 37 11.778 80.804 47.431 1.00 27.10 C

ATOM 1538 C ASP B 37 12.039 80.771 48.866 1.00 27.50 C

ATOM 1539 O ASP B 37 11.489 81.514 49.727 1.00 33.00 O

ATOM 1540 CB ASP B 37 10.268 81.369 47.115 1.00 33.50 C

ATOM 1541 CG ASP B 37 10.291 81.797 45.570 1.00 33.80 C

ATOM 1542 OD1 ASP B 37 11.135 82.241 44.607 1.00 42.60 O

ATOM 1543 OD2 ASP B 37 9.108 81.312 45.497 1.00 44.60 O

ATOM 1544 N LYS B 38 13.046 79.770 49.138 1.00 23.00 N

ATOM 1545 CA LYS B 38 13.386 79.504 50.558 1.00 22.30 C

ATOM 1546 C LYS B 38 14.999 79.504 50.455 1.00 22.90 C

ATOM 1547 O LYS B 38 15.479 79.286 49.440 1.00 25.70 O

ATOM 1548 CB LYS B 38 12.948 78.147 51.146 1.00 19.90 C

ATOM 1549 CG LYS B 38 11.387 77.897 51.161 1.00 21.40 C

ATOM 1550 CD LYS B 38 10.958 76.638 51.742 1.00 25.00 C

ATOM 1551 CE LYS B 38 9.415 76.371 50.984 1.00 24.90 C

ATOM 1552 NZ LYS B 38 9.154 75.047 51.669 1.00 28.90 N

ATOM 1553 N PRO B 39 15.372 79.859 51.676 1.00 24.00 N

ATOM 1554 CA PRO B 39 16.863 79.649 51.632 1.00 22.50 C

ATOM 1555 C PRO B 39 17.339 78.228 51.735 1.00 27.70 C

ATOM 1556 O PRO B 39 16.630 77.405 52.397 1.00 23.70 O

ATOM 1557 CB PRO B 39 17.288 80.255 53.000 1.00 29.30 C

ATOM 1558 CG PRO B 39 16.090 80.376 53.897 1.00 30.10 C

ATOM 1559 CD PRO B 39 15.008 80.408 52.890 1.00 28.50 C

ATOM 1560 N VAL B 40 18.262 77.744 51.043 1.00 25.00 N

ATOM 1561 CA VAL B 40 18.928 76.460 51.080 1.00 23.90 C

ATOM 1562 C VAL B 40 20.289 76.396 51.786 1.00 25.90 C

ATOM 1563 O VAL B 40 21.152 77.276 51.286 1.00 25.50 O

ATOM 1564 CB VAL B 40 18.737 75.774 49.749 1.00 21.90 C

ATOM 1565 CG1 VAL B 40 17.339 75.516 49.182 1.00 21.30 C

ATOM 1566 CG2 VAL B 40 19.623 76.484 48.704 1.00 25.00 C

ATOM 1567 N ILE B 41 20.425 75.516 52.684 1.00 20.90 N

ATOM 1568 CA ILE B 41 21.795 75.338 53.235 1.00 19.60 C

ATOM 1569 C ILE B 41 22.396 74.103 52.676 1.00 21.00 C

ATOM 1570 O ILE B 41 21.772 72.973 52.882 1.00 21.30 O

ATOM 1571 CB ILE B 41 21.790 75.378 54.758 1.00 23.60 C

ATOM 1572 CG1 ILE B 41 21.399 76.832 55.280 1.00 25.10 C

ATOM 1573 CG2 ILE B 41 23.207 75.023 55.391 1.00 28.20 C

ATOM 1574 CD1 ILE B 41 20.979 76.638 56.722 1.00 26.10 C

ATOM 1575 N MET B 42 23.715 73.998 52.360 1.00 22.50 N

ATOM 1576 CA MET B 42 24.386 72.916 51.867 1.00 22.50 C

ATOM 1577 C MET B 42 25.906 72.932 52.331 1.00 24.60 C

ATOM 1578 O MET B 42 26.307 73.949 52.500 1.00 20.50 O

ATOM 1579 CB MET B 42 24.265 72.658 50.264 1.00 23.60 C

ATOM 1580 CG MET B 42 25.016 73.893 49.484 1.00 20.80 C

ATOM 1581 SD MET B 42 24.596 73.958 47.792 1.00 23.70 S

ATOM 1582 CE MET B 42 23.552 75.136 47.895 1.00 20.10 C

ATOM 1583 N GLY B 43 26.409 71.689 52.125 1.00 22.80 N

ATOM 1584 CA GLY B 43 27.882 71.673 52.316 1.00 29.70 C

ATOM 1585 C GLY B 43 28.497 71.867 51.080 1.00 24.60 C

ATOM 1586 O GLY B 43 27.975 71.915 49.866 1.00 26.10 O

ATOM 1587 N ARG B 44 29.938 72.004 51.176 1.00 27.20 N

ATOM 1588 CA ARG B 44 30.646 72.165 49.933 1.00 30.70 C

ATOM 1589 C ARG B 44 30.646 71.261 48.778 1.00 24.30 C

ATOM 1590 O ARG B 44 30.646 71.390 47.630 1.00 24.80 O

ATOM 1591 CB ARG B 44 32.287 72.198 50.470 1.00 32.60 C

ATOM 1592 CG ARG B 44 33.074 73.013 49.256 1.00 45.20 C

ATOM 1593 CD ARG B 44 34.501 73.110 49.763 1.00 47.80 C

ATOM 1594 NE ARG B 44 34.547 74.337 50.617 1.00 49.40 N

ATOM 1595 CZ ARG B 44 35.093 75.508 49.999 1.00 50.90 C

ATOM 1596 NH1 ARG B 44 35.195 75.750 48.697 1.00 52.50 N

ATOM 1597 NH2 ARG B 44 35.587 76.379 50.933 1.00 52.00 N

ATOM 1598 N AHIS B 45 30.683 69.986 49.101 1.00 27.20 N

ATOM 1599 N BHIS B 45 30.921 69.671 49.123 0.09 33.80 N

ATOM 1600 CA AHIS B 45 30.693 68.807 48.219 1.00 26.50 C

ATOM 1601 CA BHIS B 45 30.623 68.637 48.130 0.15 34.40 C

ATOM 1602 C AHIS B 45 29.383 68.718 47.527 1.00 28.00 C

ATOM 1603 C BHIS B 45 29.257 68.920 47.505 0.01 34.00 C

ATOM 1604 O AHIS B 45 29.276 68.500 46.277 1.00 26.90 O

ATOM 1605 O BHIS B 45 29.047 68.589 46.321 0.01 33.80 O

ATOM 1606 CB AHIS B 45 31.066 67.418 49.057 1.00 35.30 C

ATOM 1607 CB BHIS B 45 30.669 67.200 48.711 0.12 34.70 C

ATOM 1608 CG AHIS B 45 32.450 67.830 49.896 1.00 38.60 C

ATOM 1609 CG BHIS B 45 30.744 66.119 47.682 0.51 35.90 C

ATOM 1610 ND1AHIS B 45 33.834 67.919 49.366 1.00 44.50 N

ATOM 1611 ND1BHIS B 45 29.658 65.255 47.431 0.50 36.20 N

ATOM 1612 CD2AHIS B 45 32.524 68.331 51.257 1.00 43.30 C

ATOM 1613 CD2BHIS B 45 31.727 65.739 46.836 0.50 36.20 C

ATOM 1614 CE1AHIS B 45 34.673 68.468 50.212 1.00 42.10 C

ATOM 1615 CE1BHIS B 45 30.035 64.439 46.497 0.56 36.70 C

ATOM 1616 NE2AHIS B 45 33.923 68.637 51.293 1.00 44.40 N

ATOM 1617 NE2BHIS B 45 31.191 64.698 46.107 0.51 34.90 N

ATOM 1618 N THR B 46 28.208 69.073 48.123 1.00 26.00 N

ATOM 1619 CA THR B 46 26.950 69.186 47.505 1.00 24.90 C

ATOM 1620 C THR B 46 27.080 70.446 46.549 1.00 24.80 C

ATOM 1621 O THR B 46 26.554 70.228 45.460 1.00 25.70 O

ATOM 1622 CB THR B 46 25.761 69.340 48.402 1.00 26.80 C

ATOM 1623 OG1 THR B 46 25.747 68.137 49.160 1.00 24.00 O

ATOM 1624 CG2 THR B 46 24.302 69.412 47.821 1.00 24.80 C

ATOM 1625 N TRP B 47 27.565 71.673 47.042 1.00 26.00 N

ATOM 1626 CA TRP B 47 27.672 72.714 46.093 1.00 28.80 C

ATOM 1627 C TRP B 47 28.418 72.311 44.805 1.00 28.90 C

ATOM 1628 O TRP B 47 28.059 72.690 43.768 1.00 31.10 O

ATOM 1629 CB TRP B 47 28.358 73.723 46.924 1.00 30.00 C

ATOM 1630 CG TRP B 47 29.052 74.862 46.071 1.00 32.50 C

ATOM 1631 CD1 TRP B 47 30.404 75.039 45.850 1.00 35.30 C

ATOM 1632 CD2 TRP B 47 28.334 75.782 45.210 1.00 34.50 C

ATOM 1633 NE1 TRP B 47 30.581 76.040 44.930 1.00 36.20 N

ATOM 1634 CE2 TRP B 47 29.280 76.484 44.541 1.00 38.10 C

ATOM 1635 CE3 TRP B 47 26.992 76.008 44.938 1.00 32.50 C

ATOM 1636 CZ2 TRP B 47 28.856 77.607 43.621 1.00 35.40 C

ATOM 1637 CZ3 TRP B 47 26.642 76.985 44.151 1.00 37.30 C

ATOM 1638 CH2 TRP B 47 27.574 77.808 43.511 1.00 34.90 C

ATOM 1639 N GLU B 48 29.490 71.600 44.982 1.00 33.70 N

ATOM 1640 CA GLU B 48 30.329 71.293 43.717 1.00 36.90 C

ATOM 1641 C GLU B 48 29.700 70.381 42.871 1.00 36.80 C

ATOM 1642 O GLU B 48 29.816 70.405 41.701 1.00 38.00 O

ATOM 1643 CB GLU B 48 31.588 70.744 44.261 1.00 38.30 C

ATOM 1644 CG GLU B 48 32.562 71.334 45.181 1.00 43.30 C

ATOM 1645 CD GLU B 48 33.932 70.801 45.592 1.00 47.40 C

ATOM 1646 OE1 GLU B 48 34.184 69.638 45.225 1.00 47.70 O

ATOM 1647 OE2 GLU B 48 34.720 71.681 46.284 1.00 53.10 O

ATOM 1648 N SER B 49 28.833 69.574 43.334 1.00 34.60 N

ATOM 1649 CA SER B 49 28.036 68.581 42.650 1.00 36.50 C

ATOM 1650 C SER B 49 26.894 69.299 41.900 1.00 36.00 C

ATOM 1651 O SER B 49 26.619 68.823 40.848 1.00 39.10 O

ATOM 1652 CB SER B 49 27.248 67.669 43.643 1.00 35.30 C

ATOM 1653 OG SER B 49 28.348 66.684 43.996 1.00 39.20 O

ATOM 1654 N ILE B 50 26.377 70.341 42.400 1.00 35.50 N

ATOM 1655 CA ILE B 50 25.263 71.043 41.672 1.00 33.40 C

ATOM 1656 C ILE B 50 25.994 71.842 40.487 1.00 34.90 C

ATOM 1657 O ILE B 50 25.141 71.737 39.494 1.00 37.80 O

ATOM 1658 CB ILE B 50 24.340 71.818 42.525 1.00 30.50 C

ATOM 1659 CG1 ILE B 50 23.683 70.874 43.724 1.00 24.90 C

ATOM 1660 CG2 ILE B 50 23.286 72.642 41.686 1.00 29.50 C

ATOM 1661 CD1 ILE B 50 23.128 71.770 44.805 1.00 26.10 C

ATOM 1662 N GLY B 51 27.076 72.375 40.774 1.00 33.70 N

ATOM 1663 CA GLY B 51 27.486 73.053 39.502 1.00 40.20 C

ATOM 1664 C GLY B 51 27.197 74.442 39.590 1.00 41.10 C

ATOM 1665 O GLY B 51 28.013 75.354 39.163 1.00 46.70 O

ATOM 1666 N ARG B 52 26.106 74.959 40.046 1.00 38.00 N

ATOM 1667 CA ARG B 52 25.915 76.388 40.112 1.00 35.10 C

ATOM 1668 C ARG B 52 25.025 76.751 41.127 1.00 31.60 C

ATOM 1669 O ARG B 52 24.494 75.814 41.863 1.00 28.50 O

ATOM 1670 CB ARG B 52 25.155 76.589 38.685 1.00 40.00 C

ATOM 1671 CG ARG B 52 23.869 76.170 38.266 1.00 44.70 C

ATOM 1672 CD ARG B 52 22.932 75.112 38.016 1.00 49.90 C

ATOM 1673 NE ARG B 52 21.501 74.733 38.082 1.00 54.30 N

ATOM 1674 CZ ARG B 52 20.191 74.611 37.567 1.00 51.70 C

ATOM 1675 NH1 ARG B 52 19.390 75.451 36.854 1.00 52.90 N

ATOM 1676 NH2 ARG B 52 19.548 73.384 37.707 1.00 51.90 N

ATOM 1677 N PRO B 53 24.731 77.986 41.275 1.00 31.30 N

ATOM 1678 CA PRO B 53 23.711 78.414 42.238 1.00 27.30 C

ATOM 1679 C PRO B 53 22.308 78.018 41.738 1.00 26.40 C

ATOM 1680 O PRO B 53 21.818 77.800 40.620 1.00 24.70 O

ATOM 1681 CB PRO B 53 23.575 80.004 42.268 1.00 29.80 C

ATOM 1682 CG PRO B 53 25.016 80.206 42.025 1.00 31.80 C

ATOM 1683 CD PRO B 53 25.333 79.237 40.701 1.00 32.40 C

ATOM 1684 N LEU B 54 21.497 77.502 42.753 1.00 26.40 N

ATOM 1685 CA LEU B 54 20.117 77.082 42.444 1.00 23.70 C

ATOM 1686 C LEU B 54 19.236 78.414 42.268 1.00 23.10 C

ATOM 1687 O LEU B 54 19.222 79.229 43.091 1.00 28.20 O

ATOM 1688 CB LEU B 54 19.502 76.081 43.658 1.00 20.50 C

ATOM 1689 CG LEU B 54 20.168 74.652 43.665 1.00 19.00 C

ATOM 1690 CD1 LEU B 54 19.651 74.224 45.100 1.00 22.80 C

ATOM 1691 CD2 LEU B 54 19.586 73.885 42.496 1.00 22.10 C

ATOM 1692 N PRO B 55 18.532 78.244 41.069 1.00 25.10 N

ATOM 1693 CA PRO B 55 17.702 79.520 40.848 1.00 27.90 C

ATOM 1694 C PRO B 55 16.789 80.133 41.598 1.00 24.10 C

ATOM 1695 O PRO B 55 16.001 79.060 42.209 1.00 27.10 O

ATOM 1696 CB PRO B 55 17.339 79.358 39.377 1.00 25.10 C

ATOM 1697 CG PRO B 55 17.171 77.970 39.156 1.00 29.30 C

ATOM 1698 CD PRO B 55 18.504 77.421 39.870 1.00 27.90 C

ATOM 1699 N GLY B 56 16.365 81.110 42.165 1.00 25.50 N

ATOM 1700 CA GLY B 56 15.325 81.441 42.966 1.00 23.00 C

ATOM 1701 C GLY B 56 15.363 81.151 44.401 1.00 23.00 C

ATOM 1702 O GLY B 56 14.291 81.022 44.989 1.00 25.40 O

ATOM 1703 N ARG B 57 16.467 80.868 44.982 1.00 22.40 N

ATOM 1704 CA ARG B 57 16.565 80.569 46.387 1.00 21.50 C

ATOM 1705 C ARG B 57 17.963 81.231 46.777 1.00 20.40 C

ATOM 1706 O ARG B 57 18.905 81.522 45.960 1.00 25.80 O

ATOM 1707 CB ARG B 57 17.045 78.898 46.262 1.00 20.30 C

ATOM 1708 CG ARG B 57 15.642 78.244 46.365 1.00 23.00 C

ATOM 1709 CD ARG B 57 15.731 76.848 45.666 1.00 21.50 C

ATOM 1710 NE ARG B 57 15.829 76.872 44.217 1.00 21.20 N

ATOM 1711 CZ ARG B 57 15.764 75.919 43.422 1.00 19.30 C

ATOM 1712 NH1 ARG B 57 15.777 74.507 44.040 1.00 20.10 N

ATOM 1713 NH2 ARG B 57 15.885 76.081 42.179 1.00 21.30 N

ATOM 1714 N LYS B 58 18.089 81.433 48.064 1.00 23.80 N

ATOM 1715 CA LYS B 58 19.315 81.958 48.623 1.00 25.10 C

ATOM 1716 C LYS B 58 20.103 80.739 49.057 1.00 25.30 C

ATOM 1717 O LYS B 58 19.856 79.972 49.896 1.00 25.80 O

ATOM 1718 CB LYS B 58 18.905 82.733 49.830 1.00 28.40 C

ATOM 1719 CG LYS B 58 19.991 83.258 50.705 1.00 37.50 C

ATOM 1720 CD LYS B 58 19.884 84.541 51.411 1.00 39.40 C

ATOM 1721 CE LYS B 58 21.114 84.800 52.147 1.00 49.30 C

ATOM 1722 NZ LYS B 58 21.767 86.188 52.397 1.00 54.20 N

ATOM 1723 N ASN B 59 21.240 80.642 48.439 1.00 24.60 N

ATOM 1724 CA ASN B 59 22.322 79.657 48.513 1.00 23.60 C

ATOM 1725 C ASN B 59 23.165 79.714 49.624 1.00 22.40 C

ATOM 1726 O ASN B 59 23.930 80.828 49.476 1.00 24.10 O

ATOM 1727 CB ASN B 59 22.899 79.302 47.203 1.00 24.40 C

ATOM 1728 CG ASN B 59 22.112 78.745 46.218 1.00 28.20 C

ATOM 1729 OD1 ASN B 59 22.158 77.712 45.592 1.00 24.50 O

ATOM 1730 ND2 ASN B 59 21.040 79.520 45.637 1.00 32.60 N

ATOM 1731 N ILE B 60 23.375 79.108 50.617 1.00 23.90 N

ATOM 1732 CA ILE B 60 24.205 79.221 51.801 1.00 22.10 C

ATOM 1733 C ILE B 60 25.174 78.156 51.742 1.00 23.30 C

ATOM 1734 O ILE B 60 24.526 76.920 51.794 1.00 22.60 O

ATOM 1735 CB ILE B 60 23.384 79.641 53.022 1.00 26.50 C

ATOM 1736 CG1 ILE B 60 22.517 80.900 52.904 1.00 22.70 C

ATOM 1737 CG2 ILE B 60 24.498 79.714 54.170 1.00 27.10 C

ATOM 1738 CD1 ILE B 60 21.315 80.852 53.839 1.00 32.10 C

ATOM 1739 N ILE B 61 26.437 78.228 51.919 1.00 24.70 N

ATOM 1740 CA ILE B 61 27.393 77.041 51.786 1.00 22.80 C

ATOM 1741 C ILE B 61 28.017 77.090 53.177 1.00 29.20 C

ATOM 1742 O ILE B 61 28.567 78.156 53.728 1.00 25.10 O

ATOM 1743 CB ILE B 61 28.399 76.832 50.690 1.00 24.10 C

ATOM 1744 CG1 ILE B 61 28.162 76.888 49.248 1.00 28.00 C

ATOM 1745 CG2 ILE B 61 29.206 75.500 50.565 1.00 21.90 C

ATOM 1746 CD1 ILE B 61 26.759 77.332 48.579 1.00 29.00 C

ATOM 1747 N LEU B 62 27.868 76.008 53.861 1.00 25.20 N

ATOM 1748 CA LEU B 62 28.330 75.645 55.170 1.00 24.60 C

ATOM 1749 C LEU B 62 29.616 74.838 54.890 1.00 32.50 C

ATOM 1750 O LEU B 62 29.728 73.788 54.412 1.00 32.00 O

ATOM 1751 CB LEU B 62 27.463 74.838 56.141 1.00 30.40 C

ATOM 1752 CG LEU B 62 28.031 74.498 57.472 1.00 31.90 C

ATOM 1753 CD1 LEU B 62 28.344 75.750 58.392 1.00 33.60 C

ATOM 1754 CD2 LEU B 62 26.805 74.038 58.318 1.00 29.10 C

ATOM 1755 N SER B 63 30.781 75.596 55.288 1.00 32.80 N

ATOM 1756 CA SER B 63 32.147 75.152 55.001 1.00 37.40 C

ATOM 1757 C SER B 63 33.228 75.895 55.869 1.00 39.00 C

ATOM 1758 O SER B 63 33.126 77.155 56.045 1.00 35.70 O

ATOM 1759 CB SER B 63 32.529 75.508 53.515 1.00 36.60 C

ATOM 1760 OG SER B 63 33.755 74.757 53.316 1.00 45.90 O

ATOM 1761 N ASER B 64 34.165 75.047 56.251 1.00 40.10 N

ATOM 1762 N BSER B 64 33.955 75.282 56.237 0.12 40.70 N

ATOM 1763 CA ASER B 64 35.274 75.693 57.009 1.00 43.20 C

ATOM 1764 CA BSER B 64 35.121 75.863 56.928 0.02 40.40 C

ATOM 1765 C ASER B 64 36.230 76.315 56.097 1.00 47.00 C

ATOM 1766 C BSER B 64 36.076 76.517 55.920 0.15 40.70 C

ATOM 1767 O ASER B 64 37.097 77.138 56.546 1.00 47.60 O

ATOM 1768 O BSER B 64 37.018 77.211 56.347 0.01 40.90 O

ATOM 1769 CB ASER B 64 35.997 74.571 57.796 1.00 43.90 C

ATOM 1770 CB BSER B 64 35.820 74.862 57.818 0.06 40.30 C

ATOM 1771 OG ASER B 64 35.307 74.442 59.017 1.00 45.10 O

ATOM 1772 OG BSER B 64 36.649 73.925 57.186 0.26 38.90 O

ATOM 1773 N GLN B 65 36.183 76.008 54.898 1.00 53.70 N

ATOM 1774 CA GLN B 65 37.148 76.484 53.883 1.00 62.40 C

ATOM 1775 C GLN B 65 36.398 77.671 53.316 1.00 65.60 C

ATOM 1776 O GLN B 65 35.167 77.978 53.368 1.00 65.00 O

ATOM 1777 CB GLN B 65 37.861 75.395 53.081 1.00 64.80 C

ATOM 1778 CG GLN B 65 38.719 74.587 54.177 1.00 71.10 C

ATOM 1779 CD GLN B 65 37.899 73.263 54.383 1.00 75.20 C

ATOM 1780 OE1 GLN B 65 37.586 72.222 53.662 1.00 76.30 O

ATOM 1781 NE2 GLN B 65 37.316 73.126 55.641 1.00 75.70 N

ATOM 1782 N PRO B 66 37.260 78.551 52.757 1.00 68.50 N

ATOM 1783 CA PRO B 66 36.766 79.843 52.242 1.00 65.40 C

ATOM 1784 C PRO B 66 36.225 79.827 50.859 1.00 62.40 C

ATOM 1785 O PRO B 66 36.598 78.939 50.094 1.00 63.10 O

ATOM 1786 CB PRO B 66 37.987 80.731 52.470 1.00 70.10 C

ATOM 1787 CG PRO B 66 39.180 79.907 53.051 1.00 69.70 C

ATOM 1788 CD PRO B 66 38.770 78.470 52.617 1.00 70.50 C

ATOM 1789 N GLY B 67 35.391 80.804 50.550 1.00 59.20 N

ATOM 1790 CA GLY B 67 34.729 80.836 49.322 1.00 58.50 C

ATOM 1791 C GLY B 67 35.260 80.997 47.976 1.00 59.00 C

ATOM 1792 O GLY B 67 36.141 81.877 47.733 1.00 63.50 O

ATOM 1793 N THR B 68 34.785 80.335 47.027 1.00 54.50 N

ATOM 1794 CA THR B 68 35.181 80.311 45.659 1.00 55.30 C

ATOM 1795 C THR B 68 34.119 81.102 44.894 1.00 54.20 C

ATOM 1796 O THR B 68 34.380 81.603 43.702 1.00 57.80 O

ATOM 1797 CB THR B 68 35.400 78.769 45.313 1.00 56.80 C

ATOM 1798 OG1 THR B 68 34.212 78.034 44.607 1.00 60.70 O

ATOM 1799 CG2 THR B 68 35.755 77.687 46.424 1.00 55.20 C

ATOM 1800 N ASP B 69 32.916 81.377 45.269 1.00 44.60 N

ATOM 1801 CA ASP B 69 32.016 81.982 44.393 1.00 41.80 C

ATOM 1802 C ASP B 69 31.252 83.080 45.056 1.00 38.00 C

ATOM 1803 O ASP B 69 30.711 83.032 46.129 1.00 39.90 O

ATOM 1804 CB ASP B 69 31.247 80.941 43.695 1.00 43.60 C

ATOM 1805 CG ASP B 69 30.264 81.223 42.635 1.00 47.00 C

ATOM 1806 OD1 ASP B 69 29.252 81.942 42.437 1.00 48.20 O

ATOM 1807 OD2 ASP B 69 30.707 80.473 41.657 1.00 47.60 O

ATOM 1808 N ASP B 70 31.168 84.130 44.305 1.00 37.20 N

ATOM 1809 CA ASP B 70 30.511 85.397 44.769 1.00 36.70 C

ATOM 1810 C ASP B 70 29.033 85.341 44.717 1.00 34.60 C

ATOM 1811 O ASP B 70 28.437 86.277 45.217 1.00 37.00 O

ATOM 1812 CB ASP B 70 30.921 86.673 43.820 1.00 41.00 C

ATOM 1813 CG ASP B 70 32.385 86.963 43.923 1.00 40.10 C

ATOM 1814 OD1 ASP B 70 32.851 87.189 45.063 1.00 42.70 O

ATOM 1815 OD2 ASP B 70 33.121 86.996 43.018 1.00 45.30 O

ATOM 1816 N ARG B 71 28.511 84.453 44.011 1.00 32.20 N

ATOM 1817 CA ARG B 71 27.043 84.380 43.805 1.00 32.90 C

ATOM 1818 C ARG B 71 26.349 83.678 44.982 1.00 31.70 C

ATOM 1819 O ARG B 71 25.086 83.766 44.967 1.00 34.30 O

ATOM 1820 CB ARG B 71 26.763 83.621 42.554 1.00 34.60 C

ATOM 1821 CG ARG B 71 27.602 84.073 41.289 1.00 40.30 C

ATOM 1822 CD ARG B 71 27.188 83.096 40.289 1.00 37.30 C

ATOM 1823 NE ARG B 71 28.185 81.998 40.223 1.00 41.00 N

ATOM 1824 CZ ARG B 71 28.027 81.062 39.200 1.00 41.70 C

ATOM 1825 NH1 ARG B 71 27.188 81.126 38.104 1.00 43.40 N

ATOM 1826 NH2 ARG B 71 28.740 80.020 39.575 1.00 42.50 N

ATOM 1827 N VAL B 72 27.076 83.258 45.968 1.00 30.50 N

ATOM 1828 CA VAL B 72 26.479 82.515 47.130 1.00 30.70 C

ATOM 1829 C VAL B 72 26.805 82.935 48.476 1.00 30.80 C

ATOM 1830 O VAL B 72 27.845 83.815 48.292 1.00 31.50 O

ATOM 1831 CB VAL B 72 26.698 80.892 46.806 1.00 27.00 C

ATOM 1832 CG1 VAL B 72 26.013 80.658 45.416 1.00 28.20 C

ATOM 1833 CG2 VAL B 72 28.171 80.618 47.056 1.00 29.80 C

ATOM 1834 N THR B 73 26.372 82.652 49.602 1.00 24.60 N

ATOM 1835 CA THR B 73 26.866 83.104 50.823 1.00 28.30 C

ATOM 1836 C THR B 73 27.607 81.982 51.426 1.00 29.90 C

ATOM 1837 O THR B 73 27.099 80.860 51.396 1.00 29.70 O

ATOM 1838 CB THR B 73 25.850 83.573 51.830 1.00 25.80 C

ATOM 1839 OG1 THR B 73 24.992 84.477 51.029 1.00 38.40 O

ATOM 1840 CG2 THR B 73 25.878 83.799 53.309 1.00 31.10 C

ATOM 1841 N TRP B 74 28.782 82.273 51.867 1.00 27.70 N

ATOM 1842 CA TRP B 74 29.602 81.239 52.544 1.00 29.20 C

ATOM 1843 C TRP B 74 29.555 81.546 53.978 1.00 33.40 C

ATOM 1844 O TRP B 74 29.733 82.660 54.501 1.00 35.20 O

ATOM 1845 CB TRP B 74 31.028 81.353 52.117 1.00 31.30 C

ATOM 1846 CG TRP B 74 31.163 81.086 50.712 1.00 31.80 C

ATOM 1847 CD1 TRP B 74 30.916 82.015 49.690 1.00 32.70 C

ATOM 1848 CD2 TRP B 74 31.452 79.924 49.969 1.00 33.00 C

ATOM 1849 NE1 TRP B 74 31.014 81.538 48.594 1.00 37.20 N

ATOM 1850 CE2 TRP B 74 31.448 80.174 48.682 1.00 35.00 C

ATOM 1851 CE3 TRP B 74 31.727 78.575 50.344 1.00 36.80 C

ATOM 1852 CZ2 TRP B 74 31.695 79.165 47.718 1.00 35.60 C

ATOM 1853 CZ3 TRP B 74 32.049 77.518 49.594 1.00 32.20 C

ATOM 1854 CH2 TRP B 74 31.998 77.962 48.314 1.00 36.30 C

ATOM 1855 N VAL B 75 29.392 80.392 54.824 1.00 35.00 N

ATOM 1856 CA VAL B 75 29.276 80.448 56.244 1.00 30.30 C

ATOM 1857 C VAL B 75 30.208 79.334 56.832 1.00 33.40 C

ATOM 1858 O VAL B 75 30.483 78.390 56.178 1.00 35.00 O

ATOM 1859 CB VAL B 75 27.863 80.586 56.921 1.00 35.80 C

ATOM 1860 CG1 VAL B 75 27.272 81.837 56.391 1.00 31.20 C

ATOM 1861 CG2 VAL B 75 27.015 79.245 56.494 1.00 30.50 C

ATOM 1862 N LYS B 76 30.548 79.617 58.068 1.00 34.00 N

ATOM 1863 CA LYS B 76 31.476 78.688 58.664 1.00 40.20 C

ATOM 1864 C LYS B 76 30.837 78.147 59.907 1.00 39.50 C

ATOM 1865 O LYS B 76 31.602 77.324 60.584 1.00 39.40 O

ATOM 1866 CB LYS B 76 32.692 79.698 59.135 1.00 40.40 C

ATOM 1867 CG LYS B 76 33.587 80.166 58.031 1.00 45.20 C

ATOM 1868 CD LYS B 76 35.023 79.585 58.399 1.00 56.50 C

ATOM 1869 CE LYS B 76 36.281 80.214 57.759 1.00 57.10 C

ATOM 1870 NZ LYS B 76 37.610 79.334 57.951 1.00 64.70 N

ATOM 1871 N SER B 77 29.639 78.430 60.341 1.00 36.90 N

ATOM 1872 CA SER B 77 29.024 77.849 61.430 1.00 34.10 C

ATOM 1873 C SER B 77 27.579 77.574 61.099 1.00 34.30 C

ATOM 1874 O SER B 77 27.024 78.309 60.231 1.00 33.40 O

ATOM 1875 CB SER B 77 29.113 78.664 62.798 1.00 32.10 C

ATOM 1876 OG SER B 77 28.418 79.899 62.791 1.00 37.00 O

ATOM 1877 N VAL B 78 27.057 76.638 61.923 1.00 31.70 N

ATOM 1878 CA VAL B 78 25.687 76.379 61.893 1.00 33.50 C

ATOM 1879 C VAL B 78 24.983 77.631 62.291 1.00 35.30 C

ATOM 1880 O VAL B 78 24.041 77.905 61.680 1.00 35.90 O

ATOM 1881 CB VAL B 78 25.132 75.225 62.798 1.00 33.10 C

ATOM 1882 CG1 VAL B 78 23.776 74.991 63.350 1.00 34.50 C

ATOM 1883 CG2 VAL B 78 25.608 73.966 62.018 1.00 36.00 C

ATOM 1884 N ASP B 79 25.333 78.365 63.446 1.00 38.40 N

ATOM 1885 CA ASP B 79 24.680 79.593 63.799 1.00 37.50 C

ATOM 1886 C ASP B 79 24.964 80.602 62.776 1.00 33.10 C

ATOM 1887 O ASP B 79 23.999 81.385 62.651 1.00 34.80 O

ATOM 1888 CB ASP B 79 24.978 80.061 65.255 1.00 46.00 C

ATOM 1889 CG ASP B 79 24.442 79.181 66.329 1.00 52.60 C

ATOM 1890 OD1 ASP B 79 23.449 78.269 66.278 1.00 56.80 O

ATOM 1891 OD2 ASP B 79 24.936 79.213 67.558 1.00 57.90 O

ATOM 1892 N GLU B 80 25.920 80.868 61.989 1.00 29.20 N

ATOM 1893 CA GLU B 80 25.873 81.885 60.981 1.00 33.50 C

ATOM 1894 C GLU B 80 25.076 81.554 59.804 1.00 33.30 C

ATOM 1895 O GLU B 80 24.484 82.337 59.083 1.00 36.70 O

ATOM 1896 CB GLU B 80 27.337 81.837 60.533 1.00 35.70 C

ATOM 1897 CG GLU B 80 28.399 82.725 61.305 1.00 44.00 C

ATOM 1898 CD GLU B 80 29.840 82.313 60.827 1.00 45.00 C

ATOM 1899 OE1 GLU B 80 30.040 82.563 59.525 1.00 46.20 O

ATOM 1900 OE2 GLU B 80 30.516 81.772 61.849 1.00 50.60 O

ATOM 1901 N ALA B 81 24.960 80.206 59.495 1.00 35.50 N

ATOM 1902 CA ALA B 81 24.037 79.657 58.370 1.00 26.80 C

ATOM 1903 C ALA B 81 22.727 80.037 58.973 1.00 28.10 C

ATOM 1904 O ALA B 81 22.172 80.594 57.987 1.00 31.50 O

ATOM 1905 CB ALA B 81 24.410 78.139 58.282 1.00 32.30 C

ATOM 1906 N ILE B 82 22.177 79.907 60.091 1.00 26.60 N

ATOM 1907 CA ILE B 82 20.886 80.303 60.510 1.00 27.00 C

ATOM 1908 C ILE B 82 20.625 81.772 60.349 1.00 31.00 C

ATOM 1909 O ILE B 82 19.609 82.305 59.870 1.00 30.30 O

ATOM 1910 CB ILE B 82 20.588 79.786 61.908 1.00 30.20 C

ATOM 1911 CG1 ILE B 82 20.616 78.220 61.871 1.00 32.30 C

ATOM 1912 CG2 ILE B 82 19.213 80.263 62.445 1.00 33.60 C

ATOM 1913 CD1 ILE B 82 20.294 77.227 63.011 1.00 32.50 C

ATOM 1914 N ALA B 83 21.636 82.426 60.952 1.00 34.00 N

ATOM 1915 CA ALA B 83 21.473 83.920 60.871 1.00 32.90 C

ATOM 1916 C ALA B 83 21.422 84.493 59.510 1.00 33.50 C

ATOM 1917 O ALA B 83 20.765 85.454 59.186 1.00 36.70 O

ATOM 1918 CB ALA B 83 22.685 84.420 61.680 1.00 39.60 C

ATOM 1919 N ALA B 84 22.172 83.839 58.598 1.00 35.60 N

ATOM 1920 CA ALA B 84 22.098 84.356 57.289 1.00 37.00 C

ATOM 1921 C ALA B 84 20.821 84.243 56.494 1.00 37.70 C

ATOM 1922 O ALA B 84 20.709 84.776 55.339 1.00 37.50 O

ATOM 1923 CB ALA B 84 23.170 83.484 56.641 1.00 36.50 C

ATOM 1924 N CYS B 85 19.954 83.452 56.950 1.00 39.40 N

ATOM 1925 CA CYS B 85 18.611 82.983 56.406 1.00 37.20 C

ATOM 1926 C CYS B 85 17.633 84.049 56.796 1.00 40.90 C

ATOM 1927 O CYS B 85 16.696 84.348 55.898 1.00 42.00 O

ATOM 1928 CB CYS B 85 18.103 81.684 57.127 1.00 35.20 C

ATOM 1929 SG CYS B 85 19.050 80.335 56.501 1.00 30.00 S

ATOM 1930 N GLY B 86 17.912 84.630 57.987 1.00 40.30 N

ATOM 1931 CA GLY B 86 16.999 85.680 58.348 1.00 44.10 C

ATOM 1932 C GLY B 86 15.764 85.220 59.105 1.00 47.30 C

ATOM 1933 O GLY B 86 15.736 84.315 59.907 1.00 46.60 O

ATOM 1934 N ASP B 87 14.766 86.075 58.649 1.00 50.00 N

ATOM 1935 CA ASP B 87 13.386 85.865 59.186 1.00 53.30 C

ATOM 1936 C ASP B 87 12.468 85.308 58.002 1.00 49.90 C

ATOM 1937 O ASP B 87 11.900 85.938 57.178 1.00 52.80 O

ATOM 1938 CB ASP B 87 12.669 87.012 59.723 1.00 60.60 C

ATOM 1939 CG ASP B 87 13.261 87.682 60.930 1.00 64.70 C

ATOM 1940 OD1 ASP B 87 14.463 87.892 61.305 1.00 67.80 O

ATOM 1941 OD2 ASP B 87 11.988 87.803 61.283 1.00 69.30 O

ATOM 1942 N VAL B 88 12.491 84.057 57.899 1.00 44.30 N

ATOM 1943 CA VAL B 88 11.900 83.242 56.943 1.00 37.00 C

ATOM 1944 C VAL B 88 11.238 82.208 57.870 1.00 29.60 C

ATOM 1945 O VAL B 88 11.713 81.675 58.833 1.00 32.30 O

ATOM 1946 CB VAL B 88 12.869 82.644 55.847 1.00 36.20 C

ATOM 1947 CG1 VAL B 88 13.205 83.952 55.104 1.00 36.00 C

ATOM 1948 CG2 VAL B 88 13.839 81.692 56.325 1.00 35.30 C

ATOM 1949 N PRO B 89 9.984 81.942 57.281 1.00 27.80 N

ATOM 1950 CA PRO B 89 9.490 80.828 58.002 1.00 29.50 C

ATOM 1951 C PRO B 89 10.072 79.447 58.002 1.00 26.30 C

ATOM 1952 O PRO B 89 9.821 78.527 58.914 1.00 26.60 O

ATOM 1953 CB PRO B 89 8.031 80.836 57.311 1.00 30.90 C

ATOM 1954 CG PRO B 89 7.966 81.611 56.119 1.00 30.70 C

ATOM 1955 CD PRO B 89 9.280 82.483 56.185 1.00 29.50 C

ATOM 1956 N GLU B 90 10.758 79.165 56.877 1.00 26.70 N

ATOM 1957 CA GLU B 90 11.308 77.712 56.832 1.00 25.70 C

ATOM 1958 C GLU B 90 12.613 77.825 56.009 1.00 18.70 C

ATOM 1959 O GLU B 90 12.888 78.398 54.876 1.00 23.00 O

ATOM 1960 CB GLU B 90 10.315 76.928 55.935 1.00 26.00 C

ATOM 1961 CG GLU B 90 10.511 75.378 55.913 1.00 23.50 C

ATOM 1962 CD GLU B 90 9.732 74.450 55.111 1.00 22.00 C

ATOM 1963 OE1 GLU B 90 8.986 74.902 54.324 1.00 25.80 O

ATOM 1964 OE2 GLU B 90 9.811 73.296 55.405 1.00 23.10 O

ATOM 1965 N ILE B 91 13.559 77.171 56.568 1.00 24.20 N

ATOM 1966 CA ILE B 91 14.901 77.009 56.097 1.00 23.40 C

ATOM 1967 C ILE B 91 15.008 75.500 55.648 1.00 24.30 C

ATOM 1968 O ILE B 91 14.715 74.620 56.391 1.00 24.60 O

ATOM 1969 CB ILE B 91 15.894 77.259 57.215 1.00 23.70 C

ATOM 1970 CG1 ILE B 91 15.819 78.874 57.693 1.00 24.20 C

ATOM 1971 CG2 ILE B 91 17.330 77.017 56.766 1.00 25.30 C

ATOM 1972 CD1 ILE B 91 16.449 79.124 59.128 1.00 26.30 C

ATOM 1973 N MET B 92 15.582 75.362 54.530 1.00 25.10 N

ATOM 1974 CA MET B 92 15.838 74.063 53.861 1.00 20.20 C

ATOM 1975 C MET B 92 17.260 73.522 53.934 1.00 23.40 C

ATOM 1976 O MET B 92 18.043 74.280 53.419 1.00 21.80 O

ATOM 1977 CB MET B 92 15.316 74.063 52.389 1.00 22.00 C

ATOM 1978 CG MET B 92 13.871 74.531 52.235 1.00 23.50 C

ATOM 1979 SD MET B 92 12.603 73.401 53.147 1.00 25.40 S

ATOM 1980 CE MET B 92 12.589 71.939 52.279 1.00 23.00 C

ATOM 1981 N VAL B 93 17.539 72.424 54.508 1.00 19.70 N

ATOM 1982 CA VAL B 93 18.933 71.883 54.523 1.00 18.30 C

ATOM 1983 C VAL B 93 19.045 71.027 53.471 1.00 17.30 C

ATOM 1984 O VAL B 93 18.164 69.921 53.530 1.00 17.40 O

ATOM 1985 CB VAL B 93 19.208 71.293 55.884 1.00 15.80 C

ATOM 1986 CG1 VAL B 93 20.564 70.575 55.964 1.00 19.00 C

ATOM 1987 CG2 VAL B 93 19.161 72.311 56.855 1.00 15.70 C

ATOM 1988 N ILE B 94 19.777 70.825 52.537 1.00 16.60 N

ATOM 1989 CA ILE B 94 19.856 70.074 51.345 1.00 18.30 C

ATOM 1990 C ILE B 94 20.895 68.952 51.176 1.00 19.10 C

ATOM 1991 O ILE B 94 20.961 68.210 50.264 1.00 18.50 O

ATOM 1992 CB ILE B 94 19.665 70.906 50.116 1.00 20.20 C

ATOM 1993 CG1 ILE B 94 20.933 71.649 49.587 1.00 17.50 C

ATOM 1994 CG2 ILE B 94 18.369 71.778 50.080 1.00 21.30 C

ATOM 1995 CD1 ILE B 94 20.802 72.020 47.998 1.00 23.30 C

ATOM 1996 N GLY B 95 21.641 68.936 52.257 1.00 20.60 N

ATOM 1997 CA GLY B 95 22.760 67.935 52.331 1.00 21.70 C

ATOM 1998 C GLY B 95 24.186 68.532 52.353 1.00 22.30 C

ATOM 1999 O GLY B 95 24.316 69.727 52.103 1.00 28.50 O

ATOM 2000 N GLY B 96 25.151 67.620 52.375 1.00 21.20 N

ATOM 2001 CA GLY B 96 25.076 66.135 52.434 1.00 22.30 C

ATOM 2002 C GLY B 96 25.016 65.804 53.919 1.00 22.80 C

ATOM 2003 O GLY B 96 24.526 66.264 54.846 1.00 23.70 O

ATOM 2004 N GLY B 97 25.663 64.536 54.030 1.00 23.60 N

ATOM 2005 CA GLY B 97 25.612 63.818 55.442 1.00 22.30 C

ATOM 2006 C GLY B 97 25.822 64.407 56.700 1.00 21.20 C

ATOM 2007 O GLY B 97 25.127 64.447 57.649 1.00 23.10 O

ATOM 2008 N ARG B 98 27.015 65.101 56.641 1.00 23.30 N

ATOM 2009 CA ARG B 98 27.379 65.763 57.906 1.00 27.70 C

ATOM 2010 C ARG B 98 26.619 66.966 58.127 1.00 24.20 C

ATOM 2011 O ARG B 98 26.423 67.418 59.216 1.00 24.50 O

ATOM 2012 CB ARG B 98 28.889 66.393 57.921 1.00 34.70 C

ATOM 2013 CG ARG B 98 29.886 65.279 58.142 1.00 43.60 C

ATOM 2014 CD ARG B 98 30.338 65.126 59.554 1.00 48.80 C

ATOM 2015 NE ARG B 98 31.163 65.925 60.327 1.00 55.30 N

ATOM 2016 CZ ARG B 98 30.828 66.877 61.239 1.00 56.80 C

ATOM 2017 NH1 ARG B 98 29.653 66.942 61.842 1.00 63.30 N

ATOM 2018 NH2 ARG B 98 31.606 67.854 61.702 1.00 61.30 N

ATOM 2019 N VAL B 99 26.148 67.701 57.105 1.00 21.10 N

ATOM 2020 CA VAL B 99 25.281 68.815 57.259 1.00 20.00 C

ATOM 2021 C VAL B 99 23.939 68.395 57.899 1.00 19.30 C

ATOM 2022 O VAL B 99 23.305 68.960 58.730 1.00 23.60 O

ATOM 2023 CB VAL B 99 25.025 69.566 55.847 1.00 25.30 C

ATOM 2024 CG1 VAL B 99 24.041 70.688 55.994 1.00 22.10 C

ATOM 2025 CG2 VAL B 99 26.400 70.220 55.472 1.00 23.10 C

ATOM 2026 N TYR B 100 23.463 67.168 57.296 1.00 20.20 N

ATOM 2027 CA TYR B 100 22.130 66.716 57.899 1.00 20.10 C

ATOM 2028 C TYR B 100 22.405 66.337 59.422 1.00 22.50 C

ATOM 2029 O TYR B 100 21.450 66.619 60.187 1.00 23.20 O

ATOM 2030 CB TYR B 100 21.725 65.416 57.083 1.00 21.60 C

ATOM 2031 CG TYR B 100 21.077 65.763 55.670 1.00 16.50 C

ATOM 2032 CD1 TYR B 100 20.233 66.773 55.332 1.00 15.60 C

ATOM 2033 CD2 TYR B 100 21.678 64.657 54.707 1.00 17.30 C

ATOM 2034 CE1 TYR B 100 19.888 66.676 54.045 1.00 13.90 C

ATOM 2035 CE2 TYR B 100 21.273 64.778 53.346 1.00 15.20 C

ATOM 2036 CZ TYR B 100 20.392 65.901 53.162 1.00 13.70 C

ATOM 2037 OH TYR B 100 19.861 65.868 51.919 1.00 16.80 O

ATOM 2038 N GLU B 101 23.505 65.723 59.665 1.00 26.00 N

ATOM 2039 CA GLU B 101 23.724 65.344 61.121 1.00 26.50 C

ATOM 2040 C GLU B 101 23.715 66.409 62.041 1.00 28.90 C

ATOM 2041 O GLU B 101 23.021 66.659 63.056 1.00 28.50 O

ATOM 2042 CB GLU B 101 24.857 64.625 61.099 1.00 30.90 C

ATOM 2043 CG GLU B 101 25.361 63.446 60.496 1.00 40.20 C

ATOM 2044 CD GLU B 101 26.847 63.180 61.202 1.00 43.60 C

ATOM 2045 OE1 GLU B 101 27.090 63.390 62.460 1.00 49.10 O

ATOM 2046 OE2 GLU B 101 27.542 62.801 60.179 1.00 46.60 O

ATOM 2047 N GLN B 102 24.261 67.628 61.665 1.00 30.80 N

ATOM 2048 CA GLN B 102 24.274 68.847 62.497 1.00 30.60 C

ATOM 2049 C GLN B 102 23.081 69.477 62.658 1.00 30.50 C

ATOM 2050 O GLN B 102 22.694 70.115 63.629 1.00 28.40 O

ATOM 2051 CB GLN B 102 25.374 69.735 61.732 1.00 32.90 C

ATOM 2052 CG GLN B 102 26.805 69.114 62.004 1.00 36.60 C

ATOM 2053 CD GLN B 102 27.789 70.187 61.504 1.00 42.90 C

ATOM 2054 OE1 GLN B 102 28.250 71.293 62.136 1.00 42.30 O

ATOM 2055 NE2 GLN B 102 28.120 69.953 60.194 1.00 46.50 N

ATOM 2056 N PHE B 103 22.261 69.461 61.562 1.00 26.80 N

ATOM 2057 CA PHE B 103 20.914 70.066 61.562 1.00 25.80 C

ATOM 2058 C PHE B 103 19.739 69.211 62.121 1.00 25.80 C

ATOM 2059 O PHE B 103 18.802 69.816 62.519 1.00 26.30 O

ATOM 2060 CB PHE B 103 20.602 70.769 60.290 1.00 28.00 C

ATOM 2061 CG PHE B 103 21.413 72.028 60.069 1.00 25.40 C

ATOM 2062 CD1 PHE B 103 20.718 73.247 60.466 1.00 29.60 C

ATOM 2063 CD2 PHE B 103 22.643 72.141 59.385 1.00 31.40 C

ATOM 2064 CE1 PHE B 103 21.268 74.507 60.076 1.00 30.10 C

ATOM 2065 CE2 PHE B 103 23.063 73.433 59.194 1.00 28.20 C

ATOM 2066 CZ PHE B 103 22.466 74.531 59.444 1.00 25.20 C

ATOM 2067 N LEU B 104 19.958 67.992 62.077 1.00 27.90 N

ATOM 2068 CA LEU B 104 18.882 66.982 62.622 1.00 29.20 C

ATOM 2069 C LEU B 104 18.229 67.370 63.887 1.00 29.00 C

ATOM 2070 O LEU B 104 16.929 67.523 63.894 1.00 30.30 O

ATOM 2071 CB LEU B 104 19.063 65.457 62.430 1.00 30.20 C

ATOM 2072 CG LEU B 104 17.852 64.456 62.592 1.00 27.60 C

ATOM 2073 CD1 LEU B 104 16.612 64.730 61.702 1.00 27.90 C

ATOM 2074 CD2 LEU B 104 18.625 63.083 62.246 1.00 31.20 C

ATOM 2075 N PRO B 105 19.063 67.507 64.939 1.00 35.00 N

ATOM 2076 CA PRO B 105 18.257 67.806 66.079 1.00 29.30 C

ATOM 2077 C PRO B 105 17.469 69.073 66.167 1.00 29.50 C

ATOM 2078 O PRO B 105 16.602 69.138 67.116 1.00 33.80 O

ATOM 2079 CB PRO B 105 19.334 67.798 67.190 1.00 31.80 C

ATOM 2080 CG PRO B 105 20.522 68.274 66.667 1.00 37.50 C

ATOM 2081 CD PRO B 105 20.355 67.160 65.586 1.00 35.20 C

ATOM 2082 N LYS B 106 17.665 70.042 65.365 1.00 28.20 N

ATOM 2083 CA LYS B 106 16.989 71.277 65.226 1.00 29.10 C

ATOM 2084 C LYS B 106 15.689 71.253 64.269 1.00 29.00 C

ATOM 2085 O LYS B 106 14.873 72.101 64.174 1.00 32.10 O

ATOM 2086 CB LYS B 106 18.033 72.375 64.725 1.00 34.80 C

ATOM 2087 CG LYS B 106 19.222 72.512 65.616 1.00 40.50 C

ATOM 2088 CD LYS B 106 20.247 73.497 65.571 1.00 46.70 C

ATOM 2089 CE LYS B 106 20.201 74.692 66.461 1.00 48.10 C

ATOM 2090 NZ LYS B 106 20.755 74.587 67.889 1.00 52.20 N

ATOM 2091 N ALA B 107 15.708 70.139 63.453 1.00 30.20 N

ATOM 2092 CA ALA B 107 14.673 69.978 62.342 1.00 30.50 C

ATOM 2093 C ALA B 107 13.293 69.590 62.901 1.00 24.60 C

ATOM 2094 O ALA B 107 13.200 68.718 63.754 1.00 28.90 O

ATOM 2095 CB ALA B 107 15.144 68.872 61.356 1.00 26.50 C

ATOM 2096 N GLN B 108 12.328 70.147 62.357 1.00 28.30 N

ATOM 2097 CA GLN B 108 10.958 69.873 62.673 1.00 29.60 C

ATOM 2098 C GLN B 108 10.124 68.993 61.680 1.00 32.20 C

ATOM 2099 O GLN B 108 9.075 68.532 61.798 1.00 24.30 O

ATOM 2100 CB GLN B 108 10.352 71.310 62.798 1.00 36.70 C

ATOM 2101 CG GLN B 108 10.753 72.181 64.078 1.00 48.50 C

ATOM 2102 CD GLN B 108 10.991 71.479 65.439 1.00 51.00 C

ATOM 2103 OE1 GLN B 108 10.156 70.648 65.991 1.00 58.50 O

ATOM 2104 NE2 GLN B 108 12.189 71.568 66.211 1.00 56.00 N

ATOM 2105 N LYS B 109 10.739 68.912 60.415 1.00 25.30 N

ATOM 2106 CA LYS B 109 10.138 68.371 59.208 1.00 25.50 C

ATOM 2107 C LYS B 109 11.149 67.798 58.340 1.00 21.50 C

ATOM 2108 O LYS B 109 12.258 68.282 58.223 1.00 20.60 O

ATOM 2109 CB LYS B 109 9.308 69.453 58.657 1.00 23.10 C

ATOM 2110 CG LYS B 109 8.432 69.243 57.509 1.00 28.40 C

ATOM 2111 CD LYS B 109 7.458 70.478 57.517 1.00 30.30 C

ATOM 2112 CE LYS B 109 6.665 70.317 56.325 1.00 37.40 C

ATOM 2113 NZ LYS B 109 5.579 71.229 55.898 1.00 34.40 N

ATOM 2114 N LEU B 110 10.818 66.724 57.649 1.00 21.00 N

ATOM 2115 CA LEU B 110 11.606 65.925 56.847 1.00 19.80 C

ATOM 2116 C LEU B 110 10.916 65.780 55.442 1.00 20.10 C

ATOM 2117 O LEU B 110 9.769 65.327 55.538 1.00 18.50 O

ATOM 2118 CB LEU B 110 12.049 64.480 57.369 1.00 20.10 C

ATOM 2119 CG LEU B 110 12.669 64.278 58.819 1.00 20.80 C

ATOM 2120 CD1 LEU B 110 13.153 62.922 59.010 1.00 22.60 C

ATOM 2121 CD2 LEU B 110 14.048 65.118 58.745 1.00 25.70 C

ATOM 2122 N TYR B 111 11.471 66.014 54.493 1.00 18.00 N

ATOM 2123 CA TYR B 111 10.841 65.747 53.066 1.00 13.30 C

ATOM 2124 C TYR B 111 11.722 64.900 52.544 1.00 15.80 C

ATOM 2125 O TYR B 111 13.037 64.867 52.183 1.00 14.60 O

ATOM 2126 CB TYR B 111 10.851 66.958 52.088 1.00 19.10 C

ATOM 2127 CG TYR B 111 10.245 68.282 52.654 1.00 18.80 C

ATOM 2128 CD1 TYR B 111 10.636 68.928 53.640 1.00 21.50 C

ATOM 2129 CD2 TYR B 111 9.122 68.581 52.029 1.00 21.70 C

ATOM 2130 CE1 TYR B 111 9.975 70.091 54.140 1.00 23.10 C

ATOM 2131 CE2 TYR B 111 8.376 69.840 52.360 1.00 22.20 C

ATOM 2132 CZ TYR B 111 8.879 70.518 53.419 1.00 23.10 C

ATOM 2133 OH TYR B 111 8.175 71.721 53.662 1.00 25.30 O

ATOM 2134 N LEU B 112 11.317 63.600 52.360 1.00 15.90 N

ATOM 2135 CA LEU B 112 12.016 62.389 51.992 1.00 16.50 C

ATOM 2136 C LEU B 112 11.569 61.759 50.698 1.00 14.40 C

ATOM 2137 O LEU B 112 10.417 61.638 50.573 1.00 19.30 O

ATOM 2138 CB LEU B 112 12.156 61.242 53.110 1.00 16.90 C

ATOM 2139 CG LEU B 112 12.631 61.743 54.596 1.00 19.00 C

ATOM 2140 CD1 LEU B 112 12.477 60.508 55.427 1.00 22.30 C

ATOM 2141 CD2 LEU B 112 14.039 62.211 54.398 1.00 18.50 C

ATOM 2142 N THR B 113 12.603 61.420 49.896 1.00 13.00 N

ATOM 2143 CA THR B 113 12.314 60.629 48.726 1.00 17.90 C

ATOM 2144 C THR B 113 13.004 59.256 48.991 1.00 17.20 C

ATOM 2145 O THR B 113 14.244 59.192 48.969 1.00 18.00 O

ATOM 2146 CB THR B 113 12.720 61.186 47.395 1.00 14.20 C

ATOM 2147 OG1 THR B 113 12.244 62.478 47.262 1.00 13.20 O

ATOM 2148 CG2 THR B 113 12.342 60.435 46.078 1.00 14.90 C

ATOM 2149 N HIS B 114 12.193 58.142 49.035 1.00 15.60 N

ATOM 2150 CA HIS B 114 12.725 56.786 49.248 1.00 15.60 C

ATOM 2151 C HIS B 114 13.032 56.189 47.858 1.00 17.10 C

ATOM 2152 O HIS B 114 11.979 56.108 47.159 1.00 19.00 O

ATOM 2153 CB HIS B 114 11.918 56.003 50.219 1.00 19.20 C

ATOM 2154 CG HIS B 114 11.816 56.520 51.595 1.00 21.40 C

ATOM 2155 ND1 HIS B 114 12.976 56.302 52.573 1.00 23.80 N

ATOM 2156 CD2 HIS B 114 11.000 57.141 52.257 1.00 24.80 C

ATOM 2157 CE1 HIS B 114 12.519 56.802 53.633 1.00 26.30 C

ATOM 2158 NE2 HIS B 114 11.433 57.392 53.471 1.00 26.10 N

ATOM 2159 N ILE B 115 13.988 55.793 47.358 1.00 15.90 N

ATOM 2160 CA ILE B 115 14.230 55.260 46.049 1.00 14.60 C

ATOM 2161 C ILE B 115 14.566 53.678 46.225 1.00 19.90 C

ATOM 2162 O ILE B 115 15.391 53.395 46.968 1.00 21.50 O

ATOM 2163 CB ILE B 115 15.381 56.140 45.475 1.00 19.90 C

ATOM 2164 CG1 ILE B 115 14.966 57.682 45.328 1.00 20.20 C

ATOM 2165 CG2 ILE B 115 15.764 55.494 43.989 1.00 18.10 C

ATOM 2166 CD1 ILE B 115 16.225 58.683 45.173 1.00 21.90 C

ATOM 2167 N ASP B 116 13.960 53.000 45.320 1.00 20.00 N

ATOM 2168 CA ASP B 116 14.286 51.466 45.409 1.00 24.00 C

ATOM 2169 C ASP B 116 15.516 51.224 44.607 1.00 23.80 C

ATOM 2170 O ASP B 116 15.414 50.707 43.342 1.00 24.70 O

ATOM 2171 CB ASP B 116 13.004 50.828 44.916 1.00 30.70 C

ATOM 2172 CG ASP B 116 13.107 49.181 45.056 1.00 34.00 C

ATOM 2173 OD1 ASP B 116 13.955 48.648 45.968 1.00 39.60 O

ATOM 2174 OD2 ASP B 116 12.221 48.697 44.173 1.00 36.50 O

ATOM 2175 N ALA B 117 16.598 51.579 45.107 1.00 22.20 N

ATOM 2176 CA ALA B 117 17.945 51.409 44.496 1.00 26.70 C

ATOM 2177 C ALA B 117 18.854 50.772 45.453 1.00 26.00 C

ATOM 2178 O ALA B 117 18.998 51.232 46.615 1.00 26.10 O

ATOM 2179 CB ALA B 117 18.523 52.750 43.937 1.00 25.70 C

ATOM 2180 N GLU B 118 19.525 49.690 45.070 1.00 31.60 N

ATOM 2181 CA GLU B 118 20.397 49.020 46.085 1.00 34.60 C

ATOM 2182 C GLU B 118 21.767 49.310 45.600 1.00 33.40 C

ATOM 2183 O GLU B 118 22.391 49.052 44.541 1.00 34.20 O

ATOM 2184 CB GLU B 118 19.954 47.510 46.152 1.00 39.20 C

ATOM 2185 CG GLU B 118 19.301 46.961 47.417 1.00 52.80 C

ATOM 2186 CD GLU B 118 19.558 45.774 48.358 1.00 58.00 C

ATOM 2187 OE1 GLU B 118 20.397 44.822 47.888 1.00 63.80 O

ATOM 2188 OE2 GLU B 118 19.241 45.306 49.646 1.00 63.30 O

ATOM 2189 N VAL B 119 22.517 50.110 46.387 1.00 32.70 N

ATOM 2190 CA VAL B 119 23.846 50.764 46.115 1.00 35.40 C

ATOM 2191 C VAL B 119 24.755 50.691 47.358 1.00 31.00 C

ATOM 2192 O VAL B 119 24.223 50.691 48.454 1.00 34.00 O

ATOM 2193 CB VAL B 119 23.627 52.257 45.629 1.00 31.10 C

ATOM 2194 CG1 VAL B 119 23.305 51.862 44.114 1.00 33.70 C

ATOM 2195 CG2 VAL B 119 22.806 53.145 46.409 1.00 34.60 C

ATOM 2196 N GLU B 120 26.050 50.723 47.056 1.00 34.30 N

ATOM 2197 CA GLU B 120 27.020 50.723 48.182 1.00 34.80 C

ATOM 2198 C GLU B 120 27.285 52.120 48.483 1.00 31.00 C

ATOM 2199 O GLU B 120 27.845 52.766 47.645 1.00 30.20 O

ATOM 2200 CB GLU B 120 28.316 49.916 47.623 1.00 41.10 C

ATOM 2201 CG GLU B 120 29.290 49.456 48.542 1.00 52.60 C

ATOM 2202 CD GLU B 120 30.730 49.044 48.822 1.00 55.80 C

ATOM 2203 OE1 GLU B 120 31.569 49.464 47.902 1.00 61.00 O

ATOM 2204 OE2 GLU B 120 30.935 48.366 49.925 1.00 57.30 O

ATOM 2205 N GLY B 121 27.015 52.685 49.594 1.00 31.70 N

ATOM 2206 CA GLY B 121 27.388 54.122 49.550 1.00 35.80 C

ATOM 2207 C GLY B 121 28.511 54.614 50.506 1.00 34.80 C

ATOM 2208 O GLY B 121 28.894 53.823 51.249 1.00 31.50 O

ATOM 2209 N AASP B 122 28.782 55.777 50.264 1.00 30.90 N

ATOM 2210 N BASP B 122 28.674 55.559 50.389 0.20 40.50 N

ATOM 2211 CA AASP B 122 29.765 56.399 51.109 1.00 31.10 C

ATOM 2212 CA BASP B 122 29.919 56.148 50.940 0.18 40.50 C

ATOM 2213 C AASP B 122 29.197 56.931 52.257 1.00 28.50 C

ATOM 2214 C BASP B 122 29.588 56.786 52.286 0.25 40.00 C

ATOM 2215 O AASP B 122 29.793 56.931 53.419 1.00 26.60 O

ATOM 2216 O BASP B 122 30.436 56.931 53.184 0.14 38.80 O

ATOM 2217 CB AASP B 122 30.301 57.375 50.072 1.00 31.90 C

ATOM 2218 CB BASP B 122 30.516 57.053 49.888 0.18 40.30 C

ATOM 2219 CG AASP B 122 31.294 58.465 50.646 1.00 38.10 C

ATOM 2220 CG BASP B 122 31.863 56.576 49.278 0.28 40.80 C

ATOM 2221 OD1AASP B 122 31.774 58.199 51.919 1.00 46.80 O

ATOM 2222 OD1BASP B 122 31.807 55.591 48.520 0.37 42.40 O

ATOM 2223 OD2AASP B 122 31.369 59.450 49.749 1.00 44.50 O

ATOM 2224 OD2BASP B 122 32.883 57.198 49.616 0.41 44.30 O

ATOM 2225 N THR B 123 28.106 57.819 52.095 1.00 21.30 N

ATOM 2226 CA THR B 123 27.449 58.586 53.125 1.00 19.80 C

ATOM 2227 C THR B 123 25.948 58.183 53.191 1.00 23.00 C

ATOM 2228 O THR B 123 25.398 57.747 52.213 1.00 21.70 O

ATOM 2229 CB THR B 123 27.635 60.088 53.037 1.00 23.70 C

ATOM 2230 OG1 THR B 123 27.141 60.524 51.580 1.00 24.90 O

ATOM 2231 CG2 THR B 123 29.061 60.750 53.051 1.00 23.60 C

ATOM 2232 N HIS B 124 25.421 58.272 54.302 1.00 23.40 N

ATOM 2233 CA HIS B 124 24.139 57.844 54.714 1.00 23.60 C

ATOM 2234 C HIS B 124 23.403 58.909 55.420 1.00 25.70 C

ATOM 2235 O HIS B 124 24.139 59.781 56.178 1.00 28.00 O

ATOM 2236 CB HIS B 124 24.372 56.649 55.744 1.00 30.20 C

ATOM 2237 CG HIS B 124 24.913 55.406 55.141 1.00 32.40 C

ATOM 2238 ND1 HIS B 124 24.284 54.219 54.743 1.00 36.60 N

ATOM 2239 CD2 HIS B 124 26.246 55.341 54.692 1.00 34.40 C

ATOM 2240 CE1 HIS B 124 25.151 53.525 54.052 1.00 33.50 C

ATOM 2241 NE2 HIS B 124 26.358 54.178 54.022 1.00 37.70 N

ATOM 2242 N PHE B 125 22.126 58.942 55.420 1.00 24.40 N

ATOM 2243 CA PHE B 125 21.296 59.878 56.185 1.00 22.20 C

ATOM 2244 C PHE B 125 21.371 59.378 57.620 1.00 25.70 C

ATOM 2245 O PHE B 125 21.441 58.142 57.833 1.00 27.00 O

ATOM 2246 CB PHE B 125 19.781 59.741 55.604 1.00 23.50 C

ATOM 2247 CG PHE B 125 18.900 60.928 55.994 1.00 19.10 C

ATOM 2248 CD1 PHE B 125 19.059 62.171 55.560 1.00 20.30 C

ATOM 2249 CD2 PHE B 125 18.015 60.798 57.031 1.00 21.30 C

ATOM 2250 CE1 PHE B 125 18.313 63.220 55.906 1.00 20.10 C

ATOM 2251 CE2 PHE B 125 17.232 61.816 57.524 1.00 22.60 C

ATOM 2252 CZ PHE B 125 17.400 63.123 56.943 1.00 22.90 C

ATOM 2253 N PRO B 126 21.347 60.290 58.561 1.00 26.20 N

ATOM 2254 CA PRO B 126 21.427 59.846 59.922 1.00 32.40 C

ATOM 2255 C PRO B 126 20.173 59.095 60.275 1.00 33.40 C

ATOM 2256 O PRO B 126 19.054 58.998 59.731 1.00 32.40 O

ATOM 2257 CB PRO B 126 21.501 61.105 60.738 1.00 32.40 C

ATOM 2258 CG PRO B 126 21.361 62.155 59.900 1.00 31.60 C

ATOM 2259 CD PRO B 126 21.389 61.816 58.473 1.00 27.60 C

ATOM 2260 N ASP B 127 20.508 58.239 61.253 1.00 39.20 N

ATOM 2261 CA ASP B 127 19.446 57.287 61.805 1.00 47.00 C

ATOM 2262 C ASP B 127 18.434 58.183 62.519 1.00 46.40 C

ATOM 2263 O ASP B 127 19.008 59.063 63.232 1.00 51.20 O

ATOM 2264 CB ASP B 127 19.968 56.205 62.776 1.00 52.40 C

ATOM 2265 CG ASP B 127 19.068 54.905 62.629 1.00 57.10 C

ATOM 2266 OD1 ASP B 127 17.940 54.792 61.974 1.00 60.80 O

ATOM 2267 OD2 ASP B 127 19.544 53.856 63.284 1.00 62.00 O

ATOM 2268 N TYR B 128 17.185 58.070 62.166 1.00 47.30 N

ATOM 2269 CA TYR B 128 16.211 58.966 62.953 1.00 45.30 C

ATOM 2270 C TYR B 128 15.349 57.860 63.637 1.00 46.40 C

ATOM 2271 O TYR B 128 15.353 56.673 63.269 1.00 49.50 O

ATOM 2272 CB TYR B 128 15.526 59.846 61.967 1.00 43.50 C

ATOM 2273 CG TYR B 128 14.622 59.265 60.908 1.00 41.30 C

ATOM 2274 CD1 TYR B 128 15.288 58.901 59.797 1.00 39.00 C

ATOM 2275 CD2 TYR B 128 13.275 59.192 60.959 1.00 38.50 C

ATOM 2276 CE1 TYR B 128 14.608 58.385 58.789 1.00 42.10 C

ATOM 2277 CE2 TYR B 128 12.538 58.675 59.863 1.00 42.20 C

ATOM 2278 CZ TYR B 128 13.228 58.288 58.811 1.00 39.30 C

ATOM 2279 OH TYR B 128 12.799 57.577 57.597 1.00 48.40 O

ATOM 2280 N GLU B 129 14.566 58.199 64.578 1.00 48.40 N

ATOM 2281 CA GLU B 129 13.633 57.408 65.395 1.00 52.10 C

ATOM 2282 C GLU B 129 12.272 57.634 64.740 1.00 49.90 C

ATOM 2283 O GLU B 129 11.722 58.667 64.748 1.00 47.20 O

ATOM 2284 CB GLU B 129 13.629 58.062 66.873 1.00 52.60 C

ATOM 2285 CG GLU B 129 12.794 57.117 67.889 1.00 56.30 C

ATOM 2286 N PRO B 130 11.858 56.576 64.108 1.00 50.70 N

ATOM 2287 CA PRO B 130 10.627 56.608 63.343 1.00 53.30 C

ATOM 2288 C PRO B 130 9.411 56.713 64.144 1.00 51.80 C

ATOM 2289 O PRO B 130 8.469 57.198 63.490 1.00 54.00 O

ATOM 2290 CB PRO B 130 10.697 55.567 62.202 1.00 56.60 C

ATOM 2291 CG PRO B 130 11.340 54.453 63.048 1.00 58.10 C

ATOM 2292 CD PRO B 130 12.422 55.196 64.041 1.00 55.80 C

ATOM 2293 N ASP B 131 9.508 56.399 65.395 1.00 48.00 N

ATOM 2294 CA ASP B 131 8.343 56.592 66.292 1.00 44.60 C

ATOM 2295 C ASP B 131 8.399 57.949 66.631 1.00 41.30 C

ATOM 2296 O ASP B 131 7.341 58.377 67.109 1.00 42.50 O

ATOM 2297 CB ASP B 131 8.436 55.494 67.550 1.00 48.50 C

ATOM 2298 N ASP B 132 9.439 58.812 66.432 1.00 41.30 N

ATOM 2299 CA ASP B 132 9.280 60.217 66.807 1.00 35.40 C

ATOM 2300 C ASP B 132 8.753 61.194 65.660 1.00 32.40 C

ATOM 2301 O ASP B 132 8.609 62.381 66.035 1.00 30.00 O

ATOM 2302 CB ASP B 132 10.786 60.710 66.954 1.00 46.30 C

ATOM 2303 CG ASP B 132 11.489 60.201 68.183 1.00 50.80 C

ATOM 2304 OD1 ASP B 132 10.897 59.692 69.117 1.00 56.10 O

ATOM 2305 OD2 ASP B 132 12.752 60.435 68.080 1.00 57.20 O

ATOM 2306 N TRP B 133 8.418 60.613 64.564 1.00 29.60 N

ATOM 2307 CA TRP B 133 7.980 61.501 63.387 1.00 28.00 C

ATOM 2308 C TRP B 133 6.581 60.871 62.894 1.00 25.70 C

ATOM 2309 O TRP B 133 6.269 59.652 62.967 1.00 30.50 O

ATOM 2310 CB TRP B 133 8.889 61.347 62.283 1.00 26.80 C

ATOM 2311 CG TRP B 133 10.240 61.799 62.577 1.00 28.70 C

ATOM 2312 CD1 TRP B 133 11.242 61.065 63.225 1.00 30.50 C

ATOM 2313 CD2 TRP B 133 10.739 63.115 62.408 1.00 24.40 C

ATOM 2314 NE1 TRP B 133 12.254 61.929 63.453 1.00 28.30 N

ATOM 2315 CE2 TRP B 133 11.988 63.196 63.070 1.00 27.80 C

ATOM 2316 CE3 TRP B 133 10.170 64.213 61.923 1.00 21.10 C

ATOM 2317 CZ2 TRP B 133 12.655 64.415 62.886 1.00 24.90 C

ATOM 2318 CZ3 TRP B 133 10.804 65.505 61.827 1.00 23.00 C

ATOM 2319 CH2 TRP B 133 12.063 65.521 62.276 1.00 19.20 C

ATOM 2320 N GLU B 134 5.817 61.678 62.430 1.00 24.20 N

ATOM 2321 CA GLU B 134 4.456 61.388 61.967 1.00 23.50 C

ATOM 2322 C GLU B 134 4.526 61.622 60.430 1.00 23.30 C

ATOM 2323 O GLU B 134 4.684 62.768 59.973 1.00 21.60 O

ATOM 2324 CB GLU B 134 3.612 62.348 62.673 1.00 21.60 C

ATOM 2325 CG GLU B 134 2.069 62.292 62.048 1.00 30.00 C

ATOM 2326 CD GLU B 134 1.165 63.261 62.761 1.00 30.20 C

ATOM 2327 OE1 GLU B 134 1.454 64.149 63.578 1.00 37.80 O

ATOM 2328 OE2 GLU B 134 0.023 63.204 62.136 1.00 28.30 O

ATOM 2329 N SER B 135 4.111 60.645 59.569 1.00 23.50 N

ATOM 2330 CA SER B 135 4.022 60.815 58.157 1.00 23.70 C

ATOM 2331 C SER B 135 2.815 61.662 57.884 1.00 25.50 C

ATOM 2332 O SER B 135 1.683 61.428 58.252 1.00 24.00 O

ATOM 2333 CB SER B 135 3.920 59.361 57.450 1.00 25.60 C

ATOM 2334 OG SER B 135 3.985 59.717 56.067 1.00 28.00 O

ATOM 2335 N VAL B 136 2.722 62.792 57.266 1.00 19.70 N

ATOM 2336 CA VAL B 136 1.697 63.584 56.877 1.00 20.30 C

ATOM 2337 C VAL B 136 1.450 63.608 55.361 1.00 22.00 C

ATOM 2338 O VAL B 136 0.466 64.165 54.817 1.00 22.10 O

ATOM 2339 CB VAL B 136 1.762 65.021 57.443 1.00 20.80 C

ATOM 2340 CG1 VAL B 136 1.706 64.956 59.076 1.00 21.70 C

ATOM 2341 CG2 VAL B 136 2.960 65.884 56.943 1.00 16.00 C

ATOM 2342 N PHE B 137 2.289 62.865 54.582 1.00 18.50 N

ATOM 2343 CA PHE B 137 2.023 62.776 53.110 1.00 13.90 C

ATOM 2344 C PHE B 137 3.006 61.606 52.720 1.00 18.20 C

ATOM 2345 O PHE B 137 4.130 61.533 53.110 1.00 18.80 O

ATOM 2346 CB PHE B 137 2.550 64.060 52.419 1.00 17.30 C

ATOM 2347 CG PHE B 137 2.424 64.068 50.948 1.00 15.70 C

ATOM 2348 CD1 PHE B 137 1.179 64.254 50.344 1.00 16.00 C

ATOM 2349 CD2 PHE B 137 3.482 63.753 50.205 1.00 17.80 C

ATOM 2350 CE1 PHE B 137 0.974 64.254 48.991 1.00 20.50 C

ATOM 2351 CE2 PHE B 137 3.272 63.681 48.866 1.00 15.60 C

ATOM 2352 CZ PHE B 137 2.181 63.971 48.270 1.00 20.80 C

ATOM 2353 N SER B 138 2.331 60.920 51.875 1.00 18.50 N

ATOM 2354 CA SER B 138 3.011 59.692 51.205 1.00 15.30 C

ATOM 2355 C SER B 138 2.484 59.604 49.800 1.00 18.40 C

ATOM 2356 O SER B 138 1.305 59.709 49.432 1.00 17.00 O

ATOM 2357 CB SER B 138 2.540 58.603 52.198 1.00 25.50 C

ATOM 2358 OG SER B 138 3.160 57.706 51.830 1.00 35.30 O

ATOM 2359 N GLU B 139 3.393 59.353 48.844 1.00 15.10 N

ATOM 2360 CA GLU B 139 2.983 59.143 47.476 1.00 18.10 C

ATOM 2361 C GLU B 139 4.032 58.247 46.711 1.00 19.50 C

ATOM 2362 O GLU B 139 5.043 58.675 46.402 1.00 19.10 O

ATOM 2363 CB GLU B 139 2.899 60.435 46.733 1.00 17.80 C

ATOM 2364 CG GLU B 139 2.223 60.427 45.364 1.00 23.60 C

ATOM 2365 CD GLU B 139 2.200 61.614 44.666 1.00 23.60 C

ATOM 2366 OE1 GLU B 139 2.960 62.139 43.930 1.00 25.30 O

ATOM 2367 OE2 GLU B 139 1.156 62.373 45.100 1.00 27.40 O

ATOM 2368 N PHE B 140 3.510 57.053 46.203 1.00 18.80 N

ATOM 2369 CA PHE B 140 4.395 56.132 45.504 1.00 16.20 C

ATOM 2370 C PHE B 140 4.078 56.229 44.004 1.00 16.60 C

ATOM 2371 O PHE B 140 3.132 56.495 43.452 1.00 18.50 O

ATOM 2372 CB PHE B 140 3.817 54.744 45.887 1.00 21.90 C

ATOM 2373 CG PHE B 140 4.736 53.621 45.387 1.00 22.60 C

ATOM 2374 CD1 PHE B 140 6.017 53.355 45.740 1.00 29.30 C

ATOM 2375 CD2 PHE B 140 4.325 52.992 44.224 1.00 28.50 C

ATOM 2376 CE1 PHE B 140 6.717 52.386 45.048 1.00 28.10 C

ATOM 2377 CE2 PHE B 140 4.955 51.999 43.430 1.00 31.30 C

ATOM 2378 CZ PHE B 140 6.199 51.619 43.989 1.00 27.80 C

ATOM 2379 N HIS B 141 5.244 56.035 43.364 1.00 17.30 N

ATOM 2380 CA HIS B 141 5.346 56.003 41.944 1.00 16.50 C

ATOM 2381 C HIS B 141 6.358 54.994 41.480 1.00 18.70 C

ATOM 2382 O HIS B 141 7.486 54.736 41.848 1.00 17.90 O

ATOM 2383 CB HIS B 141 5.905 57.343 41.444 1.00 19.50 C

ATOM 2384 CG HIS B 141 5.136 58.562 41.738 1.00 18.90 C

ATOM 2385 ND1 HIS B 141 4.232 58.885 40.855 1.00 24.90 N

ATOM 2386 CD2 HIS B 141 5.183 59.273 42.841 1.00 19.40 C

ATOM 2387 CE1 HIS B 141 3.636 59.999 41.311 1.00 23.70 C

ATOM 2388 NE2 HIS B 141 4.106 60.314 42.422 1.00 19.50 N

ATOM 2389 N ASP B 142 5.910 54.219 40.392 1.00 19.10 N

ATOM 2390 CA ASP B 142 6.814 53.363 39.700 1.00 18.90 C

ATOM 2391 C ASP B 142 7.784 54.138 38.693 1.00 17.00 C

ATOM 2392 O ASP B 142 7.546 55.325 38.310 1.00 19.20 O

ATOM 2393 CB ASP B 142 5.966 52.346 38.781 1.00 20.10 C

ATOM 2394 CG ASP B 142 5.118 51.232 39.472 1.00 21.80 C

ATOM 2395 OD1 ASP B 142 5.635 50.788 40.502 1.00 27.90 O

ATOM 2396 OD2 ASP B 142 4.083 50.973 38.722 1.00 21.80 O

ATOM 2397 N ALA B 143 8.837 53.347 38.354 1.00 16.60 N

ATOM 2398 CA ALA B 143 9.797 53.815 37.229 1.00 18.90 C

ATOM 2399 C ALA B 143 8.921 54.074 35.963 1.00 17.00 C

ATOM 2400 O ALA B 143 7.789 53.371 35.875 1.00 16.40 O

ATOM 2401 CB ALA B 143 10.921 52.790 37.015 1.00 12.60 C

ATOM 2402 N ASP B 144 9.359 54.962 35.147 1.00 18.00 N

ATOM 2403 CA ASP B 144 8.693 55.228 33.860 1.00 16.20 C

ATOM 2404 C ASP B 144 9.709 55.616 32.859 1.00 19.10 C

ATOM 2405 O ASP B 144 10.869 55.398 33.051 1.00 18.70 O

ATOM 2406 CB ASP B 144 7.528 56.245 34.102 1.00 19.80 C

ATOM 2407 CG ASP B 144 7.980 57.610 34.544 1.00 22.10 C

ATOM 2408 OD1 ASP B 144 9.084 57.973 34.375 1.00 18.00 O

ATOM 2409 OD2 ASP B 144 7.103 58.239 35.221 1.00 20.90 O

ATOM 2410 N ALA B 145 9.131 56.181 31.719 1.00 16.40 N

ATOM 2411 CA ALA B 145 9.942 56.504 30.564 1.00 18.20 C

ATOM 2412 C ALA B 145 10.958 57.569 30.947 1.00 17.50 C

ATOM 2413 O ALA B 145 11.951 57.513 30.189 1.00 20.90 O

ATOM 2414 CB ALA B 145 9.205 57.182 29.424 1.00 19.90 C

ATOM 2415 N GLN B 146 10.730 58.320 32.080 1.00 20.70 N

ATOM 2416 CA GLN B 146 11.732 59.313 32.330 1.00 18.70 C

ATOM 2417 C GLN B 146 12.468 59.119 33.654 1.00 17.10 C

ATOM 2418 O GLN B 146 13.391 59.814 33.911 1.00 17.80 O

ATOM 2419 CB GLN B 146 11.042 60.702 32.425 1.00 21.20 C

ATOM 2420 CG GLN B 146 10.590 60.968 30.880 1.00 28.40 C

ATOM 2421 CD GLN B 146 10.021 62.308 31.013 1.00 35.00 C

ATOM 2422 OE1 GLN B 146 10.511 63.075 30.263 1.00 38.50 O

ATOM 2423 NE2 GLN B 146 9.187 62.817 31.756 1.00 38.40 N

ATOM 2424 N ASN B 147 11.955 58.215 34.507 1.00 15.30 N

ATOM 2425 CA ASN B 147 12.496 58.021 35.868 1.00 14.40 C

ATOM 2426 C ASN B 147 12.953 56.633 36.074 1.00 17.00 C

ATOM 2427 O ASN B 147 12.184 55.656 35.816 1.00 16.20 O

ATOM 2428 CB ASN B 147 11.424 58.377 37.045 1.00 14.20 C

ATOM 2429 CG ASN B 147 11.051 59.846 36.868 1.00 17.80 C

ATOM 2430 OD1 ASN B 147 11.699 60.548 37.530 1.00 16.10 O

ATOM 2431 ND2 ASN B 147 9.989 60.201 36.089 1.00 15.50 N

ATOM 2432 N SER B 148 14.225 56.318 36.339 1.00 15.10 N

ATOM 2433 CA SER B 148 14.864 54.986 36.287 1.00 16.70 C

ATOM 2434 C SER B 148 14.407 54.017 37.332 1.00 13.60 C

ATOM 2435 O SER B 148 14.608 52.766 37.170 1.00 16.50 O

ATOM 2436 CB SER B 148 16.411 55.341 36.199 1.00 14.40 C

ATOM 2437 OG SER B 148 16.803 55.745 37.464 1.00 15.60 O

ATOM 2438 N HIS B 149 13.899 54.429 38.465 1.00 15.90 N

ATOM 2439 CA HIS B 149 13.550 53.678 39.583 1.00 16.30 C

ATOM 2440 C HIS B 149 12.277 54.057 40.223 1.00 17.50 C

ATOM 2441 O HIS B 149 11.923 55.171 39.928 1.00 17.60 O

ATOM 2442 CB HIS B 149 14.608 53.880 40.532 1.00 18.20 C

ATOM 2443 CG HIS B 149 16.164 53.379 40.311 1.00 17.10 C

ATOM 2444 ND1 HIS B 149 17.083 54.082 39.509 1.00 20.30 N

ATOM 2445 CD2 HIS B 149 16.761 52.184 40.627 1.00 21.00 C

ATOM 2446 CE1 HIS B 149 18.178 53.315 39.531 1.00 20.20 C

ATOM 2447 NE2 HIS B 149 18.001 52.217 40.156 1.00 20.50 N

ATOM 2448 N SER B 150 11.662 53.218 40.921 1.00 17.70 N

ATOM 2449 CA SER B 150 10.478 53.573 41.686 1.00 18.60 C

ATOM 2450 C SER B 150 10.921 54.372 42.908 1.00 16.50 C

ATOM 2451 O SER B 150 12.095 54.259 43.437 1.00 18.80 O

ATOM 2452 CB SER B 150 9.527 52.362 41.973 1.00 22.40 C

ATOM 2453 OG SER B 150 10.119 51.805 43.040 1.00 33.30 O

ATOM 2454 N TYR B 151 10.058 55.236 43.408 1.00 19.20 N

ATOM 2455 CA TYR B 151 10.198 56.156 44.526 1.00 16.50 C

ATOM 2456 C TYR B 151 9.117 56.576 45.335 1.00 16.30 C

ATOM 2457 O TYR B 151 8.022 56.407 44.666 1.00 16.40 O

ATOM 2458 CB TYR B 151 10.879 57.448 43.930 1.00 20.70 C

ATOM 2459 CG TYR B 151 10.175 58.150 42.805 1.00 16.00 C

ATOM 2460 CD1 TYR B 151 10.264 57.593 41.480 1.00 18.70 C

ATOM 2461 CD2 TYR B 151 9.247 59.208 43.003 1.00 18.80 C

ATOM 2462 CE1 TYR B 151 9.588 58.183 40.407 1.00 16.40 C

ATOM 2463 CE2 TYR B 151 8.581 59.700 41.966 1.00 19.40 C

ATOM 2464 CZ TYR B 151 8.749 59.248 40.605 1.00 18.20 C

ATOM 2465 OH TYR B 151 7.989 59.709 39.737 1.00 21.30 O

ATOM 2466 N CYS B 152 9.271 56.939 46.453 1.00 15.90 N

ATOM 2467 CA CYS B 152 8.059 57.456 47.145 1.00 16.10 C

ATOM 2468 C CYS B 152 8.385 58.764 47.814 1.00 15.40 C

ATOM 2469 O CYS B 152 9.415 58.724 48.476 1.00 18.20 O

ATOM 2470 CB CYS B 152 7.751 56.342 48.211 1.00 21.30 C

ATOM 2471 SG CYS B 152 6.339 56.576 49.307 1.00 31.50 S

ATOM 2472 N PHE B 153 7.569 59.660 47.829 1.00 17.00 N

ATOM 2473 CA PHE B 153 7.593 60.944 48.476 1.00 15.60 C

ATOM 2474 C PHE B 153 7.005 60.895 49.896 1.00 17.60 C

ATOM 2475 O PHE B 153 5.882 60.322 49.859 1.00 17.00 O

ATOM 2476 CB PHE B 153 6.996 61.993 47.689 1.00 15.90 C

ATOM 2477 CG PHE B 153 7.602 62.268 46.431 1.00 16.40 C

ATOM 2478 CD1 PHE B 153 9.033 62.308 46.129 1.00 15.80 C

ATOM 2479 CD2 PHE B 153 6.786 62.324 45.320 1.00 18.60 C

ATOM 2480 CE1 PHE B 153 9.480 62.615 44.894 1.00 19.00 C

ATOM 2481 CE2 PHE B 153 7.276 62.623 43.937 1.00 19.60 C

ATOM 2482 CZ PHE B 153 8.697 62.696 43.856 1.00 18.10 C

ATOM 2483 N LYS B 154 7.565 61.299 50.852 1.00 17.50 N

ATOM 2484 CA LYS B 154 7.033 61.477 52.183 1.00 18.10 C

ATOM 2485 C LYS B 154 7.276 62.768 52.904 1.00 16.70 C

ATOM 2486 O LYS B 154 8.516 63.237 52.625 1.00 19.00 O

ATOM 2487 CB LYS B 154 7.630 60.411 53.235 1.00 22.60 C

ATOM 2488 CG LYS B 154 7.360 59.119 52.720 1.00 30.20 C

ATOM 2489 CD LYS B 154 7.467 58.385 54.074 1.00 35.90 C

ATOM 2490 CE LYS B 154 7.103 57.093 53.059 1.00 44.00 C

ATOM 2491 NZ LYS B 154 5.668 56.705 53.684 1.00 49.40 N

ATOM 2492 N ILE B 155 6.497 63.293 53.647 1.00 15.10 N

ATOM 2493 CA ILE B 155 6.819 64.447 54.508 1.00 15.30 C

ATOM 2494 C ILE B 155 6.497 63.858 55.839 1.00 14.90 C

ATOM 2495 O ILE B 155 5.491 63.325 56.170 1.00 16.90 O

ATOM 2496 CB ILE B 155 6.027 65.675 54.170 1.00 19.00 C

ATOM 2497 CG1 ILE B 155 6.204 66.062 52.750 1.00 18.70 C

ATOM 2498 CG2 ILE B 155 6.306 66.805 55.185 1.00 17.40 C

ATOM 2499 CD1 ILE B 155 5.369 67.023 52.080 1.00 17.90 C

ATOM 2500 N LEU B 156 7.388 64.125 56.766 1.00 18.40 N

ATOM 2501 CA LEU B 156 7.346 63.729 58.245 1.00 17.40 C

ATOM 2502 C LEU B 156 7.551 65.037 59.002 1.00 22.30 C

ATOM 2503 O LEU B 156 8.217 65.949 58.686 1.00 20.50 O

ATOM 2504 CB LEU B 156 8.492 62.776 58.598 1.00 20.50 C

ATOM 2505 CG LEU B 156 8.399 61.468 57.811 1.00 24.50 C

ATOM 2506 CD1 LEU B 156 9.499 60.548 58.252 1.00 27.40 C

ATOM 2507 CD2 LEU B 156 7.397 60.653 57.259 1.00 25.50 C

ATOM 2508 N GLU B 157 6.717 64.964 60.099 1.00 21.40 N

ATOM 2509 CA GLU B 157 6.661 66.127 60.996 1.00 22.80 C

ATOM 2510 C GLU B 157 6.945 65.505 62.364 1.00 23.20 C

ATOM 2511 O GLU B 157 6.530 64.480 62.703 1.00 28.10 O

ATOM 2512 CB GLU B 157 5.430 66.853 60.959 1.00 26.90 C

ATOM 2513 CG GLU B 157 4.931 67.620 59.863 1.00 35.10 C

ATOM 2514 CD GLU B 157 3.636 68.460 60.246 1.00 37.80 C

ATOM 2515 OE1 GLU B 157 2.941 68.339 61.209 1.00 43.50 O

ATOM 2516 OE2 GLU B 157 3.524 69.186 59.253 1.00 43.50 O

ATOM 2517 N ARG B 158 7.854 66.127 63.122 1.00 25.00 N

ATOM 2518 CA ARG B 158 8.283 65.739 64.402 1.00 30.40 C

ATOM 2519 C ARG B 158 7.057 65.715 65.446 1.00 28.40 C

ATOM 2520 O ARG B 158 6.432 66.716 65.454 1.00 31.40 O

ATOM 2521 CB ARG B 158 9.359 66.942 64.836 1.00 32.20 C

ATOM 2522 CG ARG B 158 10.175 66.320 65.961 1.00 38.70 C

ATOM 2523 CD ARG B 158 11.112 67.604 66.432 1.00 40.20 C

ATOM 2524 NE ARG B 158 12.482 67.055 66.175 1.00 42.00 N

ATOM 2525 CZ ARG B 158 13.456 66.143 66.101 1.00 41.60 C

ATOM 2526 NH1 ARG B 158 13.498 64.988 66.873 1.00 41.40 N

ATOM 2527 NH2 ARG B 158 14.594 66.224 65.373 1.00 39.40 N

ATOM 2528 N ARG B 159 7.141 64.536 66.116 1.00 28.20 N

ATOM 2529 CA ARG B 159 5.803 64.415 67.153 1.00 33.40 C

ATOM 2530 C ARG B 159 6.437 65.142 68.484 1.00 38.20 C

ATOM 2531 O ARG B 159 7.621 64.996 68.874 1.00 38.90 O

ATOM 2532 CB ARG B 159 5.686 63.051 67.322 1.00 29.70 C

ATOM 2533 CG ARG B 159 5.001 62.187 66.403 1.00 29.30 C

ATOM 2534 CD ARG B 159 4.778 60.782 66.873 1.00 28.90 C

ATOM 2535 NE ARG B 159 4.521 59.822 65.719 1.00 26.50 N

ATOM 2536 CZ ARG B 159 3.114 59.709 65.446 1.00 25.40 C

ATOM 2537 NH1 ARG B 159 2.228 60.435 65.954 1.00 24.90 N

ATOM 2538 NH2 ARG B 159 2.969 58.780 64.497 1.00 25.20 N

ATOM 2539 OXT ARG B 159 5.505 66.030 68.860 1.00 43.20 O

TER 2540 ARG B 159

HETATM 2541 CL CL A 160 11.750 52.951 20.523 1.00 28.60 CL

HETATM 2542 N1 MTX A 161 22.983 58.667 24.488 1.00 15.10 N

HETATM 2543 C2 MTX A 161 23.468 58.215 23.282 1.00 17.30 C

HETATM 2544 NA2 MTX A 161 24.797 58.223 23.208 1.00 16.50 N

HETATM 2545 N3 MTX A 161 22.792 57.819 22.230 1.00 17.90 N

HETATM 2546 C4 MTX A 161 21.459 57.803 22.068 1.00 18.60 C

HETATM 2547 NA4 MTX A 161 20.821 57.440 21.075 1.00 18.10 N

HETATM 2548 C4A MTX A 161 20.900 58.304 23.363 1.00 18.90 C

HETATM 2549 N5 MTX A 161 19.558 58.514 23.370 1.00 19.80 N

HETATM 2550 C6 MTX A 161 18.989 58.982 24.422 1.00 18.60 C

HETATM 2551 C7 MTX A 161 19.781 59.256 25.628 1.00 18.80 C

HETATM 2552 N8 MTX A 161 21.096 59.176 25.562 1.00 21.90 N

HETATM 2553 C8A MTX A 161 21.608 58.594 24.363 1.00 19.50 C

HETATM 2554 C9 MTX A 161 17.465 59.006 24.451 1.00 20.50 C

HETATM 2555 N10 MTX A 161 16.957 59.967 25.533 1.00 17.40 N

HETATM 2556 CM MTX A 161 16.225 59.184 26.643 1.00 22.30 C

HETATM 2557 C11 MTX A 161 18.122 64.100 25.805 1.00 22.10 C

HETATM 2558 C12 MTX A 161 17.288 63.511 26.732 1.00 18.80 C

HETATM 2559 C13 MTX A 161 16.845 62.195 26.688 1.00 18.10 C

HETATM 2560 C14 MTX A 161 17.320 61.452 25.680 1.00 19.70 C

HETATM 2561 C15 MTX A 161 18.141 62.098 24.672 1.00 17.60 C

HETATM 2562 C16 MTX A 161 18.518 63.414 24.738 1.00 17.00 C

HETATM 2563 C MTX A 161 18.192 65.626 25.834 1.00 23.30 C

HETATM 2564 O MTX A 161 17.516 66.280 26.783 1.00 25.90 O

HETATM 2565 N MTX A 161 19.329 65.981 25.135 1.00 21.30 N

HETATM 2566 CA MTX A 161 19.837 67.459 25.135 1.00 22.60 C

HETATM 2567 CT MTX A 161 20.159 67.548 23.635 1.00 22.80 C

HETATM 2568 O1 MTX A 161 20.289 66.659 22.848 1.00 21.30 O

HETATM 2569 O2 MTX A 161 19.921 68.750 23.149 1.00 27.20 O

HETATM 2570 CB MTX A 161 21.217 67.669 25.761 1.00 27.40 C

HETATM 2571 CG MTX A 161 20.891 67.636 27.320 1.00 36.20 C

HETATM 2572 CD MTX A 161 19.921 68.524 28.357 1.00 41.50 C

HETATM 2573 OE1 MTX A 161 19.413 68.371 29.593 1.00 49.10 O

HETATM 2574 OE2 MTX A 161 19.441 69.469 27.489 1.00 42.50 O

HETATM 2575 CL CL B 160 28.190 68.250 51.411 1.00 31.90 CL

HETATM 2576 CA CA B 161 -0.163 59.862 58.649 1.00 25.90 CA

HETATM 2577 N1 MTX B 162 16.724 65.101 45.857 1.00 16.60 N

HETATM 2578 C2 MTX B 162 16.136 65.424 47.049 1.00 13.40 C

HETATM 2579 NA2 MTX B 162 14.808 64.996 47.270 1.00 16.10 N

HETATM 2580 N3 MTX B 162 16.766 66.078 48.071 1.00 15.30 N

HETATM 2581 C4 MTX B 162 18.001 66.587 47.924 1.00 15.70 C

HETATM 2582 NA4 MTX B 162 18.523 67.297 48.888 1.00 14.30 N

HETATM 2583 C4A MTX B 162 18.630 66.369 46.644 1.00 14.30 C

HETATM 2584 N5 MTX B 162 19.814 66.982 46.490 1.00 21.30 N

HETATM 2585 C6 MTX B 162 20.308 66.821 45.261 1.00 20.20 C

HETATM 2586 C7 MTX B 162 19.725 66.102 44.371 1.00 17.60 C

HETATM 2587 N8 MTX B 162 18.560 65.424 44.401 1.00 16.70 N

HETATM 2588 C8A MTX B 162 17.991 65.747 45.644 1.00 17.50 C

HETATM 2589 C9 MTX B 162 21.711 67.394 45.048 1.00 22.70 C

HETATM 2590 N10 MTX B 162 22.028 67.717 43.540 1.00 22.50 N

HETATM 2591 CM MTX B 162 23.296 66.877 43.297 1.00 22.60 C

HETATM 2592 C11 MTX B 162 19.702 69.969 41.061 1.00 20.90 C

HETATM 2593 C12 MTX B 162 20.746 69.211 40.495 1.00 22.10 C

HETATM 2594 C13 MTX B 162 21.534 68.508 41.355 1.00 21.50 C

HETATM 2595 C14 MTX B 162 21.189 68.492 42.724 1.00 22.70 C

HETATM 2596 C15 MTX B 162 20.168 69.307 43.231 1.00 22.10 C

HETATM 2597 C16 MTX B 162 19.422 70.099 42.451 1.00 23.10 C

HETATM 2598 C MTX B 162 18.966 70.777 40.090 1.00 25.00 C

HETATM 2599 O MTX B 162 19.469 71.019 39.002 1.00 28.90 O

HETATM 2600 N MTX B 162 17.735 71.051 40.429 1.00 26.70 N

HETATM 2601 CA MTX B 162 16.877 71.923 39.715 1.00 25.40 C

HETATM 2602 CT MTX B 162 16.397 72.948 40.561 1.00 25.90 C

HETATM 2603 O1 MTX B 162 16.202 72.626 41.863 1.00 22.50 O

HETATM 2604 O2 MTX B 162 15.866 74.111 40.362 1.00 25.00 O

HETATM 2605 CB MTX B 162 15.656 71.197 39.259 1.00 28.40 C

HETATM 2606 CG MTX B 162 16.080 70.349 37.905 1.00 41.00 C

HETATM 2607 CD MTX B 162 16.286 70.898 36.272 1.00 49.50 C

HETATM 2608 OE1 MTX B 162 17.507 70.413 35.853 1.00 55.40 O

HETATM 2609 OE2 MTX B 162 15.722 72.117 36.236 1.00 54.20 O

HETATM 2610 O HOH A 162 14.724 49.464 22.590 0.99 25.30 O

HETATM 2611 O HOH A 163 22.932 59.466 28.571 1.02 39.50 O

HETATM 2612 O HOH A 164 24.675 54.929 4.862 0.99 37.00 O

HETATM 2613 O HOH A 165 27.295 57.319 21.583 1.00 15.90 O

HETATM 2614 O HOH A 166 28.977 47.446 26.099 0.90 47.50 O

HETATM 2615 O HOH A 167 29.821 48.326 28.394 1.05 47.00 O

HETATM 2616 O HOH A 168 20.774 54.840 23.510 1.04 31.40 O

HETATM 2617 O HOH A 169 20.341 52.863 25.974 1.01 29.70 O

HETATM 2618 O HOH A 170 23.081 51.119 37.552 0.99 35.30 O

HETATM 2619 O HOH A 171 18.984 57.472 32.131 0.97 28.60 O

HETATM 2620 O HOH A 172 22.102 60.387 31.204 1.03 34.30 O

HETATM 2621 O HOH A 173 20.014 55.511 26.209 0.91 37.70 O

HETATM 2622 O HOH A 174 17.134 56.560 29.490 1.08 31.50 O

HETATM 2623 O HOH A 175 11.182 49.173 30.623 1.00 23.20 O

HETATM 2624 O HOH A 176 17.283 55.171 22.340 1.05 31.80 O

HETATM 2625 O HOH A 177 24.125 44.773 31.248 0.90 31.10 O

HETATM 2626 O HOH A 178 14.193 50.255 29.667 0.99 21.00 O

HETATM 2627 O HOH A 179 7.994 53.081 17.184 1.03 32.40 O

HETATM 2628 O HOH A 180 4.503 52.895 23.363 1.05 53.50 O

HETATM 2629 O HOH A 181 11.997 71.689 22.627 1.04 45.10 O

HETATM 2630 O HOH A 182 10.972 68.637 14.381 1.00 37.10 O

HETATM 2631 O HOH A 183 9.359 67.620 11.821 1.08 41.00 O

HETATM 2632 O HOH A 184 17.721 60.742 1.839 0.94 50.70 O

HETATM 2633 O HOH A 185 30.049 62.623 10.085 0.81 48.80 O

HETATM 2634 O HOH A 186 29.336 64.310 14.168 1.03 38.80 O

HETATM 2635 O HOH A 187 30.366 50.287 37.494 0.94 51.50 O

HETATM 2636 O HOH A 188 16.146 46.469 27.828 1.04 36.60 O

HETATM 2637 O HOH A 189 13.722 52.976 23.892 1.05 40.10 O

HETATM 2638 O HOH A 190 16.742 52.120 23.289 1.09 43.70 O

HETATM 2639 O HOH A 191 21.981 68.282 8.298 0.94 30.60 O

HETATM 2640 O HOH A 192 25.962 67.313 8.710 1.01 47.00 O

HETATM 2641 O HOH A 193 10.049 50.328 14.087 0.73 51.30 O

HETATM 2642 O HOH A 194 6.507 69.316 25.569 0.78 54.10 O

HETATM 2643 O HOH A 195 16.635 47.914 31.314 0.83 55.70 O

HETATM 2644 O HOH A 196 40.807 59.200 27.960 1.02 34.80 O

HETATM 2645 O HOH A 197 11.694 50.061 22.855 1.05 46.80 O

HETATM 2646 O HOH A 198 42.373 54.275 12.785 0.87 58.30 O

HETATM 2647 O HOH A 199 26.917 44.765 10.195 0.88 51.40 O

HETATM 2648 O HOH A 200 34.156 59.466 8.621 0.72 52.70 O

HETATM 2649 O HOH A 201 20.849 58.360 2.244 0.88 58.50 O

HETATM 2650 O HOH A 202 7.136 54.098 2.052 0.93 55.20 O

HETATM 2651 O HOH A 203 4.736 58.950 1.964 0.89 55.20 O

HETATM 2652 O HOH A 204 4.018 55.285 1.530 0.81 55.80 O

HETATM 2653 O HOH A 205 1.683 51.030 2.508 0.77 56.00 O

HETATM 2654 O HOH A 206 12.175 70.656 10.497 0.91 57.10 O

HETATM 2655 O HOH A 207 14.631 68.597 5.495 0.96 60.00 O

HETATM 2656 O HOH A 208 -0.997 49.714 11.630 1.02 54.70 O

HETATM 2657 O HOH A 209 2.354 55.389 4.450 0.88 61.10 O

HETATM 2658 O HOH A 210 23.375 65.917 8.231 1.00 31.70 O

HETATM 2659 O HOH A 211 18.877 69.816 3.759 0.76 57.50 O

HETATM 2660 O HOH A 212 28.055 65.336 9.114 1.08 44.20 O

HETATM 2661 O HOH A 213 28.595 63.753 6.635 0.79 57.90 O

HETATM 2662 O HOH A 214 30.800 66.748 9.982 0.81 57.20 O

HETATM 2663 O HOH A 215 28.996 66.353 12.593 0.98 56.30 O

HETATM 2664 O HOH A 216 33.280 66.425 13.778 0.64 55.80 O

HETATM 2665 O HOH A 217 27.579 70.179 17.110 1.02 45.70 O

HETATM 2666 O HOH A 218 10.967 44.894 24.782 1.03 43.80 O

HETATM 2667 O HOH A 219 19.651 42.351 13.954 0.74 51.00 O

HETATM 2668 O HOH A 220 24.713 38.202 14.874 0.76 57.80 O

HETATM 2669 O HOH A 221 1.305 58.578 3.641 0.62 57.70 O

HETATM 2670 O HOH A 222 29.649 44.394 26.585 0.97 53.00 O

HETATM 2671 O HOH A 223 31.392 44.006 23.936 0.87 58.50 O

HETATM 2672 O HOH A 224 32.436 48.737 20.097 0.80 48.70 O

HETATM 2673 O HOH A 225 37.423 47.026 14.315 0.76 58.90 O

HETATM 2674 O HOH A 226 39.982 48.858 13.947 0.68 57.30 O

HETATM 2675 O HOH A 227 12.720 66.966 3.112 0.97 56.70 O

HETATM 2676 O HOH A 228 12.147 70.769 6.473 0.87 61.50 O

HETATM 2677 O HOH A 229 4.526 51.369 16.897 0.94 56.70 O

HETATM 2678 O HOH A 230 12.286 51.070 18.721 0.91 49.00 O

HETATM 2679 O HOH A 231 9.877 50.804 17.471 1.12 47.70 O

HETATM 2680 O HOH A 232 15.116 53.678 28.129 0.99 29.40 O

HETATM 2681 O HOH A 233 13.456 54.146 26.121 0.94 39.40 O

HETATM 2682 O HOH A 234 16.812 55.632 24.738 0.80 58.80 O

HETATM 2683 O HOH A 235 6.973 54.703 26.570 1.01 43.30 O

HETATM 2684 O HOH A 236 9.555 54.849 26.768 0.98 25.60 O

HETATM 2685 O HOH A 237 35.158 64.544 24.142 1.14 57.30 O

HETATM 2686 O HOH A 238 34.160 69.259 21.274 0.71 58.20 O

HETATM 2687 O HOH A 239 29.812 70.252 18.169 0.91 56.70 O

HETATM 2688 O HOH A 240 19.902 73.546 12.505 1.12 42.00 O

HETATM 2689 O HOH A 241 17.595 70.954 11.505 1.07 50.50 O

HETATM 2690 O HOH A 242 29.938 66.466 15.602 0.94 57.20 O

HETATM 2691 O HOH A 243 14.468 71.415 10.960 1.00 54.20 O

HETATM 2692 O HOH A 244 13.205 70.696 16.602 0.98 45.40 O

HETATM 2693 O HOH A 245 17.824 38.977 27.585 0.79 55.20 O

HETATM 2694 O HOH A 246 14.412 38.832 31.234 0.97 55.00 O

HETATM 2695 O HOH A 247 12.780 47.696 32.602 0.78 37.80 O

HETATM 2696 O HOH A 248 20.630 48.552 37.626 0.89 52.00 O

HETATM 2697 O HOH A 249 12.659 49.569 35.081 0.82 38.80 O

HETATM 2698 O HOH A 250 6.870 51.409 32.153 0.98 21.10 O

HETATM 2699 O HOH A 251 25.267 49.916 38.060 0.85 52.70 O

HETATM 2700 O HOH A 252 28.246 48.632 37.773 0.87 50.60 O

HETATM 2701 O HOH A 253 30.427 53.702 39.046 1.04 49.20 O

HETATM 2702 O HOH A 254 31.522 52.451 36.478 1.05 39.10 O

HETATM 2703 O HOH A 255 35.577 55.389 37.015 1.03 39.50 O

HETATM 2704 O HOH A 256 33.527 63.559 29.078 0.91 54.10 O

HETATM 2705 O HOH A 257 31.010 64.980 26.489 0.96 36.60 O

HETATM 2706 O HOH A 258 30.604 66.974 29.718 0.80 51.20 O

HETATM 2707 O HOH A 259 24.936 67.426 29.365 0.91 29.10 O

HETATM 2708 O HOH A 260 30.674 69.986 34.728 0.83 55.60 O

HETATM 2709 O HOH A 261 28.003 68.056 33.896 0.91 53.10 O

HETATM 2710 O HOH A 262 29.364 71.624 36.677 0.84 60.00 O

HETATM 2711 O HOH A 263 19.050 70.890 24.687 1.03 43.70 O

HETATM 2712 O HOH A 264 25.552 64.811 40.738 0.84 47.50 O

HETATM 2713 O HOH A 265 36.365 62.502 32.293 0.80 49.90 O

HETATM 2714 O HOH A 266 39.814 62.437 30.138 0.78 57.40 O

HETATM 2715 O HOH A 267 1.855 54.025 1.258 0.90 54.80 O

HETATM 2716 O HOH A 268 -1.729 56.584 4.620 0.84 57.60 O

HETATM 2717 O HOH A 269 9.196 49.754 7.268 0.71 52.40 O

HETATM 2718 O HOH A 270 23.543 54.857 2.648 0.74 59.40 O

HETATM 2719 O HOH A 271 26.265 57.472 1.508 0.93 53.20 O

HETATM 2720 O HOH A 272 26.819 60.209 1.979 0.91 56.20 O

HETATM 2721 O HOH A 273 3.869 64.181 10.070 0.90 51.20 O

HETATM 2722 O HOH A 274 26.209 69.324 10.423 0.83 54.50 O

HETATM 2723 O HOH A 275 18.122 69.380 9.460 0.77 59.00 O

HETATM 2724 O HOH A 276 -2.722 55.995 15.131 0.97 54.60 O

HETATM 2725 O HOH A 277 16.155 44.999 19.795 0.90 51.20 O

HETATM 2726 O HOH A 278 20.257 46.162 37.037 0.77 56.70 O

HETATM 2727 O HOH A 279 13.857 44.733 35.610 0.94 67.10 O

HETATM 2728 O HOH A 280 23.380 40.220 29.211 0.82 53.00 O

HETATM 2729 O HOH A 281 33.620 61.735 33.330 0.97 34.60 O

HETATM 2730 O HOH A 282 29.868 66.102 32.668 0.92 45.40 O

HETATM 2731 O HOH A 283 38.416 45.112 11.085 0.97 56.60 O

HETATM 2732 O HOH A 284 6.083 49.593 15.543 0.81 57.40 O

HETATM 2733 O HOH A 285 36.305 49.997 28.688 0.99 48.00 O

HETATM 2734 O HOH A 286 37.838 50.457 25.761 0.85 51.60 O

HETATM 2735 O HOH A 287 26.307 68.169 15.028 0.92 44.40 O

HETATM 2736 O HOH A 288 29.113 69.170 12.814 0.84 58.40 O

HETATM 2737 O HOH A 289 31.662 69.856 15.698 0.79 54.60 O

HETATM 2738 O HOH A 290 26.852 70.841 20.817 1.04 47.70 O

HETATM 2739 O HOH A 291 27.057 72.973 16.853 0.70 56.30 O

HETATM 2740 O HOH A 292 32.287 67.757 17.169 0.60 58.10 O

HETATM 2741 O HOH A 293 32.576 63.624 12.542 0.73 59.60 O

HETATM 2742 O HOH A 294 33.443 53.210 38.053 1.14 51.50 O

HETATM 2743 O HOH A 295 19.031 59.959 29.012 0.94 48.40 O

HETATM 2744 O HOH A 296 18.029 66.248 29.976 1.11 52.20 O

HETATM 2745 O HOH A 297 27.323 69.073 30.579 0.93 58.10 O

HETATM 2746 O HOH A 298 22.909 67.661 30.954 0.99 46.50 O

HETATM 2747 O HOH A 299 21.869 71.576 26.908 0.91 52.90 O

HETATM 2748 O HOH A 300 21.357 52.443 2.266 0.84 53.20 O

HETATM 2749 O HOH A 301 19.273 42.392 18.552 0.99 58.70 O

HETATM 2750 O HOH A 302 5.351 50.764 10.857 0.73 52.30 O

HETATM 2751 O HOH A 303 -2.442 53.299 12.726 1.00 55.80 O

HETATM 2752 O HOH A 304 27.346 38.420 20.714 0.77 55.60 O

HETATM 2753 O HOH A 305 0.583 61.509 10.460 0.86 57.90 O

HETATM 2754 O HOH A 306 2.303 58.546 9.217 1.07 53.00 O

HETATM 2755 O HOH A 307 -3.128 57.149 18.316 1.03 57.00 O

HETATM 2756 O HOH A 308 -0.065 55.882 22.200 0.65 58.30 O

HETATM 2757 O HOH A 309 21.911 40.503 16.617 1.05 54.60 O

HETATM 2758 O HOH A 310 17.730 39.978 39.318 0.81 57.50 O

HETATM 2759 O HOH A 311 19.814 44.685 11.534 0.76 53.90 O

HETATM 2760 O HOH A 312 10.683 66.442 28.836 1.03 49.10 O

HETATM 2761 O HOH A 313 29.364 43.546 19.199 0.78 59.50 O

HETATM 2762 O HOH A 314 29.430 41.673 23.355 0.85 61.20 O

HETATM 2763 O HOH A 315 35.633 49.674 35.309 0.98 58.00 O

HETATM 2764 O HOH A 316 33.256 43.861 28.122 0.65 54.50 O

HETATM 2765 O HOH A 317 35.377 44.499 26.916 0.74 53.10 O

HETATM 2766 O HOH A 318 30.497 43.522 28.666 0.63 59.20 O

HETATM 2767 O HOH A 319 32.375 46.808 28.416 0.83 57.80 O

HETATM 2768 O HOH A 320 35.880 49.375 31.278 0.70 56.00 O

HETATM 2769 O HOH A 321 26.507 36.321 17.000 0.88 58.50 O

HETATM 2770 O HOH A 322 35.466 42.666 23.914 0.84 61.10 O

HETATM 2771 O HOH A 323 14.500 66.191 26.864 0.88 46.50 O

HETATM 2772 O HOH A 324 21.142 56.608 28.122 0.70 52.90 O

HETATM 2773 O HOH A 325 36.221 59.087 39.575 0.87 57.60 O

HETATM 2774 O HOH A 326 24.890 64.908 37.199 1.02 42.00 O

HETATM 2775 O HOH A 327 25.496 69.913 26.540 0.76 48.60 O

HETATM 2776 O HOH A 328 23.692 68.274 27.070 0.91 50.80 O

HETATM 2777 O HOH A 329 17.400 42.489 21.766 0.90 54.30 O

HETATM 2778 O HOH A 330 20.835 74.983 26.945 0.66 54.10 O

HETATM 2779 O HOH A 331 24.722 72.416 25.349 0.94 52.40 O

HETATM 2780 O HOH A 332 24.741 71.172 30.233 0.93 60.60 O

HETATM 2781 O HOH A 333 35.228 67.927 23.561 0.93 58.40 O

HETATM 2782 O HOH A 334 14.794 41.286 35.316 1.05 59.40 O

HETATM 2783 O HOH A 335 39.679 60.072 36.456 0.78 59.10 O

HETATM 2784 O HOH A 336 39.166 58.716 38.994 0.86 53.50 O

HETATM 2785 O HOH A 337 32.338 65.844 34.323 0.83 52.80 O

HETATM 2786 O HOH A 338 31.919 70.494 36.986 0.78 61.50 O

HETATM 2787 O HOH A 339 41.949 58.788 12.844 0.89 57.70 O

HETATM 2788 O HOH A 340 41.996 51.748 13.086 1.02 55.40 O

HETATM 2789 O HOH A 341 40.681 54.283 9.828 0.68 54.80 O

HETATM 2790 O HOH A 342 41.408 48.794 8.776 0.84 58.70 O

HETATM 2791 O HOH A 343 5.295 52.104 19.265 0.88 53.60 O

HETATM 2792 O HOH A 344 33.335 40.640 14.403 0.69 54.00 O

HETATM 2793 O HOH A 345 17.059 55.042 27.798 0.80 56.10 O

HETATM 2794 O HOH A 346 25.263 50.602 3.031 0.75 53.90 O

HETATM 2795 O HOH A 347 33.937 51.531 29.071 1.03 52.60 O

HETATM 2796 O HOH A 348 29.164 39.986 38.259 0.87 57.80 O

HETATM 2797 O HOH A 349 12.888 46.025 21.318 0.95 56.70 O

HETATM 2798 O HOH A 350 20.583 49.278 1.971 0.84 56.30 O

HETATM 2799 O HOH A 351 36.388 49.674 19.177 0.66 52.30 O

HETATM 2800 O HOH A 352 3.295 66.224 12.204 0.84 52.70 O

HETATM 2801 O HOH A 353 5.071 68.573 10.843 0.87 57.00 O

HETATM 2802 O HOH A 354 2.988 62.365 21.362 0.84 58.30 O

HETATM 2803 O HOH A 355 34.314 39.768 7.444 0.67 59.00 O

HETATM 2804 O HOH A 356 35.820 52.435 6.216 0.93 54.10 O

HETATM 2805 O HOH A 357 32.198 50.215 2.361 1.19 52.90 O

HETATM 2806 O HOH A 358 36.575 52.225 35.824 0.97 55.20 O

HETATM 2807 O HOH A 359 21.781 62.865 32.565 0.87 50.80 O

HETATM 2808 O HOH A 360 25.682 65.747 0.831 0.80 51.50 O

HETATM 2809 O HOH A 361 27.220 69.461 23.605 0.92 48.10 O

HETATM 2810 O HOH A 362 31.741 69.848 11.512 0.85 54.80 O

HETATM 2811 O HOH A 363 41.376 58.877 22.664 0.89 51.10 O

HETATM 2812 O HOH A 364 4.144 57.408 13.145 0.70 54.80 O

HETATM 2813 O HOH A 365 -0.489 53.839 2.891 0.77 56.10 O

HETATM 2814 O HOH A 366 -0.587 52.846 9.298 0.67 60.70 O

HETATM 2815 O HOH A 367 -0.075 53.557 6.076 0.69 57.80 O

HETATM 2816 O HOH A 368 21.119 40.696 20.862 0.82 57.50 O

HETATM 2817 O HOH A 369 29.444 58.054 1.927 0.38 48.50 O

HETATM 2818 O HOH A 370 16.570 68.210 7.018 0.72 55.50 O

HETATM 2819 O HOH A 371 40.155 51.159 18.419 0.90 56.70 O

HETATM 2820 O HOH A 372 43.142 50.941 9.717 0.79 55.60 O

HETATM 2821 O HOH A 373 40.980 49.504 11.512 0.80 54.00 O

HETATM 2822 O HOH A 374 9.154 52.233 19.788 0.31 42.90 O

HETATM 2823 O HOH A 375 12.053 49.101 20.023 0.26 34.50 O

HETATM 2824 O HOH A 376 15.805 55.680 20.766 0.46 56.30 O

HETATM 2825 O HOH A 377 18.784 40.075 22.392 0.78 58.20 O

HETATM 2826 O HOH A 378 14.281 43.659 21.788 0.66 58.90 O

HETATM 2827 O HOH A 379 30.171 47.139 2.207 0.68 49.70 O

HETATM 2828 O HOH A 380 28.409 49.561 1.854 0.76 54.30 O

HETATM 2829 O HOH A 381 33.326 48.648 23.399 0.81 57.50 O

HETATM 2830 O HOH A 382 33.555 47.962 25.695 0.57 50.90 O

HETATM 2831 O HOH A 383 22.340 61.493 4.774 0.83 56.20 O

HETATM 2832 O HOH A 384 22.093 71.834 8.952 0.65 52.40 O

HETATM 2833 O HOH A 385 20.849 65.384 32.433 0.81 56.50 O

HETATM 2834 O HOH A 386 22.419 65.344 35.552 0.72 53.00 O

HETATM 2835 O HOH A 387 33.014 66.546 37.839 0.65 54.00 O

HETATM 2836 O HOH A 388 20.578 62.897 40.178 1.14 52.90 O

HETATM 2837 O HOH A 389 3.687 52.677 29.829 0.67 57.50 O

HETATM 2838 O HOH A 390 17.936 63.228 30.630 0.93 51.20 O

HETATM 2839 O HOH A 391 22.438 61.275 39.641 1.00 38.50 O

HETATM 2840 O HOH A 392 21.315 65.013 39.038 0.87 51.30 O

HETATM 2841 O HOH A 393 19.315 65.311 36.155 0.84 55.90 O

HETATM 2842 O HOH A 394 16.351 66.651 35.301 0.93 50.90 O

HETATM 2843 O HOH A 395 28.316 63.931 43.121 1.08 48.80 O

HETATM 2844 O HOH A 396 14.892 60.621 29.792 0.97 48.30 O

HETATM 2845 O HOH A 397 30.940 68.847 39.825 0.83 53.60 O

HETATM 2846 O HOH A 398 14.524 45.855 38.494 0.89 51.10 O

HETATM 2847 O HOH A 399 5.537 56.980 28.291 0.76 54.20 O

HETATM 2848 O HOH A 400 21.790 48.204 40.443 0.80 55.80 O

HETATM 2849 O HOH B 163 14.901 51.450 34.926 1.02 38.30 O

HETATM 2850 O HOH B 164 17.036 50.110 37.346 0.94 57.70 O

HETATM 2851 O HOH B 165 16.798 49.117 34.441 0.92 51.90 O

HETATM 2852 O HOH B 166 24.456 67.887 39.141 0.79 51.70 O

HETATM 2853 O HOH B 167 10.254 64.197 28.387 0.42 58.00 O

HETATM 2854 O HOH B 168 30.231 54.509 46.350 0.89 50.80 O

HETATM 2855 O HOH B 169 26.978 60.887 45.107 1.01 30.30 O

HETATM 2856 O HOH B 170 17.432 62.857 42.260 0.95 33.10 O

HETATM 2857 O HOH B 171 18.089 62.558 39.016 0.93 38.40 O

HETATM 2858 O HOH B 172 14.976 54.534 51.779 0.98 32.40 O

HETATM 2859 O HOH B 173 14.179 52.540 49.543 0.99 42.00 O

HETATM 2860 O HOH B 174 8.641 76.323 47.799 1.00 34.30 O

HETATM 2861 O HOH B 175 8.847 71.657 40.333 0.93 40.80 O

HETATM 2862 O HOH B 176 29.145 64.706 54.368 1.02 27.20 O

HETATM 2863 O HOH B 177 33.168 84.445 48.307 0.97 50.50 O

HETATM 2864 O HOH B 178 22.886 66.829 48.998 1.00 44.00 O

HETATM 2865 O HOH B 179 26.661 63.132 51.507 0.98 28.30 O

HETATM 2866 O HOH B 180 31.033 71.511 53.691 1.03 30.20 O

HETATM 2867 O HOH B 181 13.060 73.772 63.335 1.00 36.80 O

HETATM 2868 O HOH B 182 21.697 50.901 49.190 1.00 35.20 O

HETATM 2869 O HOH B 183 22.862 58.441 62.577 0.81 43.90 O

HETATM 2870 O HOH B 184 13.326 50.626 41.282 0.96 27.60 O

HETATM 2871 O HOH B 185 9.457 50.481 39.340 0.95 37.70 O

HETATM 2872 O HOH B 186 2.773 66.611 68.028 0.87 56.70 O

HETATM 2873 O HOH B 187 19.725 63.794 49.042 1.00 25.10 O

HETATM 2874 O HOH B 188 20.807 61.565 47.645 0.99 24.50 O

HETATM 2875 O HOH B 189 21.166 63.059 45.791 1.01 38.60 O

HETATM 2876 O HOH B 190 21.725 51.014 59.973 0.69 57.10 O

HETATM 2877 O HOH B 191 29.248 61.105 49.719 1.02 39.50 O

HETATM 2878 O HOH B 192 35.661 55.696 41.120 0.82 58.10 O

HETATM 2879 O HOH B 193 16.882 46.937 53.566 0.87 57.70 O

HETATM 2880 O HOH B 194 7.583 59.668 31.579 0.72 52.70 O

HETATM 2881 O HOH B 195 7.481 65.368 41.061 0.96 31.40 O

HETATM 2882 O HOH B 196 7.043 65.126 37.957 0.95 50.30 O

HETATM 2883 O HOH B 197 5.654 63.430 41.010 0.95 47.70 O

HETATM 2884 O HOH B 198 22.391 82.588 46.152 0.99 39.00 O

HETATM 2885 O HOH B 199 23.333 84.251 48.836 1.01 48.50 O

HETATM 2886 O HOH B 200 14.552 81.635 61.003 1.09 53.70 O

HETATM 2887 O HOH B 201 10.720 83.815 61.217 0.81 55.60 O

HETATM 2888 O HOH B 202 12.678 64.552 49.190 0.99 18.30 O

HETATM 2889 O HOH B 203 21.706 43.732 44.908 0.58 55.40 O

HETATM 2890 O HOH B 204 1.361 59.337 55.288 1.02 33.30 O

HETATM 2891 O HOH B 205 -1.044 61.711 60.025 0.99 18.20 O

HETATM 2892 O HOH B 206 5.421 53.323 34.603 1.01 23.30 O

HETATM 2893 O HOH B 207 3.901 50.626 36.155 1.05 29.30 O

HETATM 2894 O HOH B 208 3.426 57.941 60.886 1.04 32.80 O

HETATM 2895 O HOH B 209 20.741 51.442 40.171 1.06 49.60 O

HETATM 2896 O HOH B 210 27.784 55.955 41.091 0.97 36.10 O

HETATM 2897 O HOH B 211 27.640 52.798 41.385 0.84 57.30 O

HETATM 2898 O HOH B 212 14.855 55.018 55.935 0.95 51.10 O

HETATM 2899 O HOH B 213 7.616 57.852 37.729 1.01 27.00 O

HETATM 2900 O HOH B 214 10.557 53.048 47.115 1.03 53.60 O

HETATM 2901 O HOH B 215 4.097 56.536 38.420 1.01 46.30 O

HETATM 2902 O HOH B 216 9.257 62.825 35.176 0.98 40.30 O

HETATM 2903 O HOH B 217 5.840 61.670 39.104 1.01 50.00 O

HETATM 2904 O HOH B 218 12.678 67.911 36.846 0.90 28.00 O

HETATM 2905 O HOH B 219 12.398 44.483 42.937 0.91 60.40 O

HETATM 2906 O HOH B 220 10.548 57.133 56.170 0.90 38.00 O

HETATM 2907 O HOH B 221 0.107 57.828 57.068 0.89 38.60 O

HETATM 2908 O HOH B 222 1.869 66.546 63.548 0.81 57.60 O

HETATM 2909 O HOH B 223 11.792 57.674 71.684 0.55 57.60 O

HETATM 2910 O HOH B 224 7.490 52.419 62.644 0.84 53.30 O

HETATM 2911 O HOH B 225 7.933 57.174 60.216 1.11 52.50 O

HETATM 2912 O HOH B 226 0.741 64.835 44.048 0.95 57.60 O

HETATM 2913 O HOH B 227 10.147 51.966 58.532 0.82 56.20 O

HETATM 2914 O HOH B 228 0.694 56.391 46.622 1.07 36.90 O

HETATM 2915 O HOH B 229 4.731 54.824 32.712 0.90 53.10 O

HETATM 2916 O HOH B 230 4.628 71.842 66.189 0.80 62.00 O

HETATM 2917 O HOH B 231 14.943 58.126 29.645 1.04 40.70 O

HETATM 2918 O HOH B 232 14.677 61.686 32.219 0.92 39.90 O

HETATM 2919 O HOH B 233 12.039 64.108 69.080 0.85 50.50 O

HETATM 2920 O HOH B 234 10.930 80.287 53.875 1.01 31.50 O

HETATM 2921 O HOH B 235 23.794 63.672 45.857 1.04 58.00 O

HETATM 2922 O HOH B 236 26.847 65.505 47.608 1.01 54.10 O

HETATM 2923 O HOH B 237 24.237 62.615 42.459 0.93 38.50 O

HETATM 2924 O HOH B 238 30.306 57.916 55.847 1.07 46.10 O

HETATM 2925 O HOH B 239 26.941 60.871 56.634 1.02 50.90 O

HETATM 2926 O HOH B 240 32.422 61.727 52.617 0.98 49.20 O

HETATM 2927 O HOH B 241 27.593 58.562 60.304 0.90 59.70 O

HETATM 2928 O HOH B 242 22.149 71.947 38.295 0.96 48.30 O

HETATM 2929 O HOH B 243 21.692 78.858 37.516 0.85 55.50 O

HETATM 2930 O HOH B 244 29.774 70.640 58.134 0.99 51.30 O

HETATM 2931 O HOH B 245 29.117 74.765 63.607 0.82 53.00 O

HETATM 2932 O HOH B 246 26.824 77.106 65.601 1.07 42.50 O

HETATM 2933 O HOH B 247 34.599 69.065 60.797 1.02 46.40 O

HETATM 2934 O HOH B 248 34.757 72.617 63.122 0.94 57.40 O

HETATM 2935 O HOH B 249 31.299 75.217 66.976 0.92 60.00 O

HETATM 2936 O HOH B 250 7.094 76.258 44.827 0.86 46.30 O

HETATM 2937 O HOH B 251 23.906 50.336 55.935 0.88 58.60 O

HETATM 2938 O HOH B 252 6.950 72.940 50.845 0.99 34.10 O

HETATM 2939 O HOH B 253 24.158 56.713 59.356 1.00 56.00 O

HETATM 2940 O HOH B 254 -1.403 58.296 51.073 0.91 44.80 O

HETATM 2941 O HOH B 255 6.129 62.155 36.809 0.77 56.10 O

HETATM 2942 O HOH B 256 14.524 60.920 65.741 1.01 49.90 O

HETATM 2943 O HOH B 257 15.861 53.985 53.986 0.92 54.30 O

HETATM 2944 O HOH B 258 16.188 50.659 53.816 1.11 51.30 O

HETATM 2945 O HOH B 259 19.152 62.268 44.268 0.77 53.70 O

HETATM 2946 O HOH B 260 15.214 75.112 37.883 1.01 42.10 O

HETATM 2947 O HOH B 261 7.234 79.149 47.865 0.88 63.50 O

HETATM 2948 O HOH B 262 8.022 78.559 61.651 0.92 52.80 O

HETATM 2949 O HOH B 263 27.770 50.521 54.067 1.03 54.10 O

HETATM 2950 O HOH B 264 32.389 58.490 54.493 1.12 54.30 O

HETATM 2951 O HOH B 265 28.027 56.746 56.626 1.02 44.50 O

HETATM 2952 O HOH B 266 24.829 59.733 61.540 0.70 51.90 O

HETATM 2953 O HOH B 267 28.288 62.187 47.534 0.90 51.90 O

HETATM 2954 O HOH B 268 25.980 63.729 49.300 0.90 54.80 O

HETATM 2955 O HOH B 269 7.970 49.375 41.333 1.00 45.90 O

HETATM 2956 O HOH B 270 11.708 54.558 57.568 0.63 57.20 O

HETATM 2957 O HOH B 271 0.536 57.182 44.055 0.99 38.30 O

HETATM 2958 O HOH B 272 1.827 55.817 48.689 1.03 52.30 O

HETATM 2959 O HOH B 273 2.969 53.355 50.492 0.74 56.90 O

HETATM 2960 O HOH B 274 6.390 54.905 30.961 1.00 53.00 O

HETATM 2961 O HOH B 275 27.118 50.683 44.261 0.82 50.20 O

HETATM 2962 O HOH B 276 25.962 51.248 52.110 0.97 47.80 O

HETATM 2963 O HOH B 277 23.855 49.278 51.794 1.06 54.30 O

HETATM 2964 O HOH B 278 30.026 51.894 52.382 0.52 27.10 O

HETATM 2965 O HOH B 279 31.490 51.345 50.492 0.46 29.40 O

HETATM 2966 O HOH B 280 31.858 53.274 48.491 0.93 55.90 O

HETATM 2967 O HOH B 281 9.728 71.374 37.339 0.80 53.30 O

HETATM 2968 O HOH B 282 30.259 56.027 42.797 1.01 50.60 O

HETATM 2969 O HOH B 283 35.955 60.371 41.826 0.79 57.20 O

HETATM 2970 O HOH B 284 30.324 69.235 55.185 1.04 53.50 O

HETATM 2971 O HOH B 285 28.176 67.467 54.199 1.12 46.30 O

HETATM 2972 O HOH B 286 17.362 82.790 60.944 1.13 56.80 O

HETATM 2973 O HOH B 287 29.131 77.599 38.862 0.72 51.20 O

HETATM 2974 O HOH B 288 36.677 68.888 45.269 0.89 55.30 O

HETATM 2975 O HOH B 289 36.971 71.027 48.167 1.10 61.60 O

HETATM 2976 O HOH B 290 36.141 69.978 53.250 1.05 52.90 O

HETATM 2977 O HOH B 291 31.247 73.045 59.098 0.89 54.10 O

HETATM 2978 O HOH B 292 25.617 84.993 58.215 0.83 51.80 O

HETATM 2979 O HOH B 293 34.477 74.894 45.725 0.85 58.30 O

HETATM 2980 O HOH B 294 32.669 79.254 54.280 1.07 51.40 O

HETATM 2981 O HOH B 295 6.339 68.218 42.069 1.09 50.30 O

HETATM 2982 O HOH B 296 4.316 69.994 48.138 1.03 60.20 O

HETATM 2983 O HOH B 297 5.374 58.021 68.977 0.79 55.10 O

HETATM 2984 O HOH B 298 14.011 50.069 38.141 0.80 51.10 O

HETATM 2985 O HOH B 299 11.583 48.818 37.670 0.78 49.20 O

HETATM 2986 O HOH B 300 15.717 47.486 42.481 0.70 50.20 O

HETATM 2987 O HOH B 301 8.078 46.687 45.982 0.83 60.50 O

HETATM 2988 O HOH B 302 6.581 48.019 43.459 0.84 51.50 O

HETATM 2989 O HOH B 303 17.786 45.242 51.970 0.92 51.40 O

HETATM 2990 O HOH B 304 7.150 60.968 34.448 0.92 49.60 O

HETATM 2991 O HOH B 305 2.731 64.294 41.973 0.88 53.50 O

HETATM 2992 O HOH B 306 3.230 69.727 56.347 0.82 52.50 O

HETATM 2993 O HOH B 307 17.353 48.818 39.340 0.81 53.90 O

HETATM 2994 O HOH B 308 23.794 45.088 43.025 0.70 58.30 O

HETATM 2995 O HOH B 309 19.292 45.540 42.782 0.46 59.50 O

HETATM 2996 O HOH B 310 23.962 52.564 57.472 0.84 54.80 O

HETATM 2997 O HOH B 311 11.937 70.518 37.479 0.83 54.80 O

HETATM 2998 O HOH B 312 6.707 69.630 63.813 0.93 53.20 O

HETATM 2999 O HOH B 313 7.826 76.541 63.541 0.80 55.40 O

HETATM 3000 O HOH B 314 8.385 84.953 58.885 0.76 58.10 O

HETATM 3001 O HOH B 315 37.819 52.653 45.188 0.67 57.50 O

HETATM 3002 O HOH B 316 38.253 55.632 42.437 0.73 55.50 O

HETATM 3003 O HOH B 317 34.538 61.146 46.299 0.79 58.70 O

HETATM 3004 O HOH B 318 21.347 77.938 67.388 0.90 57.30 O

HETATM 3005 O HOH B 319 21.124 71.334 67.756 0.78 56.10 O

HETATM 3006 O HOH B 320 6.330 82.781 48.505 0.94 61.80 O

HETATM 3007 O HOH B 321 26.092 78.923 36.250 0.87 58.40 O

HETATM 3008 O HOH B 322 23.338 85.276 43.577 0.78 48.50 O

HETATM 3009 O HOH B 323 11.433 82.208 52.220 0.97 49.00 O

HETATM 3010 O HOH B 324 22.382 65.053 47.174 0.92 55.40 O

HETATM 3011 O HOH B 325 24.461 65.957 65.983 0.90 56.90 O

HETATM 3012 O HOH B 326 14.636 83.314 48.851 0.89 53.70 O

HETATM 3013 O HOH B 327 9.914 87.666 56.362 0.77 52.30 O

HETATM 3014 O HOH B 328 21.580 82.087 64.748 0.79 53.20 O

HETATM 3015 O HOH B 329 33.680 67.604 46.740 0.82 54.20 O

HETATM 3016 O HOH B 330 38.523 77.800 48.498 1.01 58.10 O

HETATM 3017 O HOH B 331 37.367 73.070 50.940 0.94 51.90 O

HETATM 3018 O HOH B 332 38.994 75.225 49.476 0.86 58.60 O

HETATM 3019 O HOH B 333 34.692 83.726 45.519 0.80 56.80 O

HETATM 3020 O HOH B 334 37.265 82.773 44.673 0.64 55.50 O

HETATM 3021 O HOH B 335 4.764 57.222 63.718 0.82 55.50 O

HETATM 3022 O HOH B 336 34.426 72.303 53.434 0.94 51.90 O

HETATM 3023 O HOH B 337 29.434 85.228 51.551 0.87 45.60 O

HETATM 3024 O HOH B 338 8.814 57.924 70.000 0.74 53.10 O

HETATM 3025 O HOH B 339 27.038 47.962 53.434 0.33 46.10 O

HETATM 3026 O HOH B 340 15.652 53.056 63.394 0.77 57.10 O

HETATM 3027 O HOH B 341 15.027 55.398 60.437 0.80 58.20 O

HETATM 3028 O HOH B 342 22.149 55.930 56.774 0.68 53.20 O

HETATM 3029 O HOH B 343 7.956 68.823 68.352 0.65 55.30 O

HETATM 3030 O HOH B 344 8.511 76.404 39.310 0.70 55.20 O

HETATM 3031 O HOH B 345 8.646 79.851 52.890 0.71 50.30 O

HETATM 3032 O HOH B 346 30.380 47.518 46.387 0.68 52.90 O

HETATM 3033 O HOH B 347 30.777 62.623 44.143 0.68 49.60 O

HETATM 3034 O HOH B 348 21.776 64.988 49.807 0.70 46.90 O

HETATM 3035 O HOH B 349 20.266 84.977 46.453 0.82 59.50 O

HETATM 3036 O HOH B 350 37.773 67.879 49.410 0.80 60.60 O

HETATM 3037 O HOH B 351 34.720 83.338 52.316 0.81 56.30 O

CONECT 2332 2576

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CONECT 2608 2607

CONECT 2609 2607

CONECT 2891 2576

CONECT 2907 2576

MASTER 614 0 5 8 16 0 30 9 3005 2 70 26

END

MODEL 2 – RANK1 :



MODEL 1

ATOM 1 N MET A 1 -12.453 12.886 5.248 1.00 95.90 N

ATOM 2 CA MET A 1 -11.383 11.902 5.389 1.00 95.90 C

ATOM 3 C MET A 1 -10.646 11.706 4.069 1.00 95.90 C

ATOM 4 CB MET A 1 -11.943 10.566 5.879 1.00 95.90 C

ATOM 5 O MET A 1 -11.270 11.453 3.036 1.00 95.90 O

ATOM 6 CG MET A 1 -10.879 9.507 6.118 1.00 95.90 C

ATOM 7 SD MET A 1 -11.594 7.893 6.620 1.00 95.90 S

ATOM 8 CE MET A 1 -12.316 7.358 5.044 1.00 95.90 C

ATOM 9 N LYS A 2 -9.349 11.877 4.031 1.00 97.17 N

ATOM 10 CA LYS A 2 -8.493 11.683 2.864 1.00 97.17 C

ATOM 11 C LYS A 2 -8.206 10.202 2.634 1.00 97.17 C

ATOM 12 CB LYS A 2 -7.181 12.452 3.027 1.00 97.17 C

ATOM 13 O LYS A 2 -7.916 9.466 3.579 1.00 97.17 O

ATOM 14 CG LYS A 2 -6.277 12.399 1.804 1.00 97.17 C

ATOM 15 CD LYS A 2 -5.009 13.218 2.010 1.00 97.17 C

ATOM 16 CE LYS A 2 -4.087 13.136 0.801 1.00 97.17 C

ATOM 17 NZ LYS A 2 -2.844 13.940 0.998 1.00 97.17 N

ATOM 18 N LEU A 3 -8.332 9.795 1.332 1.00 98.23 N

ATOM 19 CA LEU A 3 -8.007 8.421 0.966 1.00 98.23 C

ATOM 20 C LEU A 3 -6.822 8.381 0.007 1.00 98.23 C

ATOM 21 CB LEU A 3 -9.218 7.735 0.329 1.00 98.23 C

ATOM 22 O LEU A 3 -6.871 8.975 -1.073 1.00 98.23 O

ATOM 23 CG LEU A 3 -10.371 7.384 1.270 1.00 98.23 C

ATOM 24 CD1 LEU A 3 -11.508 6.727 0.494 1.00 98.23 C

ATOM 25 CD2 LEU A 3 -9.887 6.472 2.393 1.00 98.23 C

ATOM 26 N SER A 4 -5.768 7.701 0.500 1.00 98.55 N

ATOM 27 CA SER A 4 -4.601 7.442 -0.336 1.00 98.55 C

ATOM 28 C SER A 4 -4.442 5.952 -0.619 1.00 98.55 C

ATOM 29 CB SER A 4 -3.333 7.981 0.330 1.00 98.55 C

ATOM 30 O SER A 4 -4.940 5.115 0.137 1.00 98.55 O

ATOM 31 OG SER A 4 -3.421 9.383 0.517 1.00 98.55 O

ATOM 32 N LEU A 5 -3.849 5.720 -1.790 1.00 98.70 N

ATOM 33 CA LEU A 5 -3.560 4.341 -2.168 1.00 98.70 C

ATOM 34 C LEU A 5 -2.069 4.150 -2.428 1.00 98.70 C

ATOM 35 CB LEU A 5 -4.361 3.948 -3.412 1.00 98.70 C

ATOM 36 O LEU A 5 -1.452 4.944 -3.142 1.00 98.70 O

ATOM 37 CG LEU A 5 -4.273 2.482 -3.839 1.00 98.70 C

ATOM 38 CD1 LEU A 5 -5.534 2.073 -4.594 1.00 98.70 C

ATOM 39 CD2 LEU A 5 -3.033 2.247 -4.694 1.00 98.70 C

ATOM 40 N MET A 6 -1.543 3.099 -1.777 1.00 98.50 N

ATOM 41 CA MET A 6 -0.131 2.799 -2.002 1.00 98.50 C

ATOM 42 C MET A 6 0.046 1.380 -2.531 1.00 98.50 C

ATOM 43 CB MET A 6 0.669 2.980 -0.711 1.00 98.50 C

ATOM 44 O MET A 6 -0.554 0.439 -2.009 1.00 98.50 O

ATOM 45 CG MET A 6 2.153 2.688 -0.864 1.00 98.50 C

ATOM 46 SD MET A 6 3.134 3.259 0.578 1.00 98.50 S

ATOM 47 CE MET A 6 4.813 2.944 -0.033 1.00 98.50 C

ATOM 48 N ALA A 7 0.919 1.248 -3.580 1.00 98.69 N

ATOM 49 CA ALA A 7 1.160 -0.063 -4.176 1.00 98.69 C

ATOM 50 C ALA A 7 2.546 -0.130 -4.813 1.00 98.69 C

ATOM 51 CB ALA A 7 0.086 -0.383 -5.213 1.00 98.69 C

ATOM 52 O ALA A 7 3.069 0.882 -5.282 1.00 98.69 O

ATOM 53 N ALA A 8 3.176 -1.296 -4.725 1.00 98.62 N

ATOM 54 CA ALA A 8 4.315 -1.657 -5.565 1.00 98.62 C

ATOM 55 C ALA A 8 3.884 -2.563 -6.715 1.00 98.62 C

ATOM 56 CB ALA A 8 5.397 -2.340 -4.731 1.00 98.62 C

ATOM 57 O ALA A 8 3.299 -3.625 -6.491 1.00 98.62 O

ATOM 58 N ILE A 9 4.221 -2.099 -7.949 1.00 98.67 N

ATOM 59 CA ILE A 9 3.746 -2.767 -9.156 1.00 98.67 C

ATOM 60 C ILE A 9 4.933 -3.129 -10.046 1.00 98.67 C

ATOM 61 CB ILE A 9 2.744 -1.884 -9.933 1.00 98.67 C

ATOM 62 O ILE A 9 5.842 -2.318 -10.239 1.00 98.67 O

ATOM 63 CG1 ILE A 9 1.663 -1.345 -8.988 1.00 98.67 C

ATOM 64 CG2 ILE A 9 2.118 -2.668 -11.090 1.00 98.67 C

ATOM 65 CD1 ILE A 9 0.802 -0.246 -9.596 1.00 98.67 C

ATOM 66 N SER A 10 4.880 -4.382 -10.477 1.00 98.71 N

ATOM 67 CA SER A 10 5.911 -4.754 -11.440 1.00 98.71 C

ATOM 68 C SER A 10 5.625 -4.159 -12.815 1.00 98.71 C

ATOM 69 CB SER A 10 6.020 -6.276 -11.547 1.00 98.71 C

ATOM 70 O SER A 10 4.530 -3.650 -13.061 1.00 98.71 O

ATOM 71 OG SER A 10 4.879 -6.818 -12.190 1.00 98.71 O

ATOM 72 N LYS A 11 6.530 -4.310 -13.772 1.00 98.46 N

ATOM 73 CA LYS A 11 6.377 -3.743 -15.108 1.00 98.46 C

ATOM 74 C LYS A 11 5.221 -4.402 -15.856 1.00 98.46 C

ATOM 75 CB LYS A 11 7.671 -3.895 -15.908 1.00 98.46 C

ATOM 76 O LYS A 11 4.619 -3.791 -16.741 1.00 98.46 O

ATOM 77 CG LYS A 11 8.756 -2.898 -15.525 1.00 98.46 C

ATOM 78 CD LYS A 11 9.912 -2.922 -16.516 1.00 98.46 C

ATOM 79 CE LYS A 11 10.911 -1.806 -16.239 1.00 98.46 C

ATOM 80 NZ LYS A 11 12.092 -1.882 -17.149 1.00 98.46 N

ATOM 81 N ASN A 12 5.005 -5.633 -15.449 1.00 98.36 N

ATOM 82 CA ASN A 12 3.926 -6.331 -16.141 1.00 98.36 C

ATOM 83 C ASN A 12 2.637 -6.319 -15.326 1.00 98.36 C

ATOM 84 CB ASN A 12 4.337 -7.769 -16.464 1.00 98.36 C

ATOM 85 O ASN A 12 1.725 -7.106 -15.586 1.00 98.36 O

ATOM 86 CG ASN A 12 4.682 -8.570 -15.223 1.00 98.36 C

ATOM 87 ND2 ASN A 12 4.560 -9.889 -15.317 1.00 98.36 N

ATOM 88 OD1 ASN A 12 5.052 -8.008 -14.190 1.00 98.36 O

ATOM 89 N GLY A 13 2.589 -5.431 -14.252 1.00 98.40 N

ATOM 90 CA GLY A 13 1.356 -5.167 -13.529 1.00 98.40 C

ATOM 91 C GLY A 13 1.125 -6.124 -12.375 1.00 98.40 C

ATOM 92 O GLY A 13 0.113 -6.029 -11.676 1.00 98.40 O

ATOM 93 N VAL A 14 2.045 -7.062 -12.183 1.00 98.67 N

ATOM 94 CA VAL A 14 1.904 -8.068 -11.136 1.00 98.67 C

ATOM 95 C VAL A 14 2.179 -7.438 -9.773 1.00 98.67 C

ATOM 96 CB VAL A 14 2.850 -9.267 -11.370 1.00 98.67 C

ATOM 97 O VAL A 14 3.136 -6.677 -9.615 1.00 98.67 O

ATOM 98 CG1 VAL A 14 2.917 -10.153 -10.127 1.00 98.67 C

ATOM 99 CG2 VAL A 14 2.396 -10.076 -12.583 1.00 98.67 C

ATOM 100 N ILE A 15 1.339 -7.862 -8.745 1.00 98.48 N

ATOM 101 CA ILE A 15 1.570 -7.364 -7.393 1.00 98.48 C

ATOM 102 C ILE A 15 1.603 -8.534 -6.411 1.00 98.48 C

ATOM 103 CB ILE A 15 0.489 -6.343 -6.974 1.00 98.48 C

ATOM 104 O ILE A 15 1.914 -8.353 -5.232 1.00 98.48 O

ATOM 105 CG1 ILE A 15 -0.895 -7.001 -6.971 1.00 98.48 C

ATOM 106 CG2 ILE A 15 0.514 -5.122 -7.898 1.00 98.48 C

ATOM 107 CD1 ILE A 15 -1.987 -6.144 -6.346 1.00 98.48 C

ATOM 108 N GLY A 16 1.355 -9.688 -6.868 1.00 98.07 N

ATOM 109 CA GLY A 16 1.366 -10.839 -5.979 1.00 98.07 C

ATOM 110 C GLY A 16 1.339 -12.164 -6.717 1.00 98.07 C

ATOM 111 O GLY A 16 0.862 -12.239 -7.851 1.00 98.07 O

ATOM 112 N ASN A 17 1.825 -13.153 -6.140 1.00 97.52 N

ATOM 113 CA ASN A 17 1.776 -14.564 -6.509 1.00 97.52 C

ATOM 114 C ASN A 17 1.369 -15.439 -5.328 1.00 97.52 C

ATOM 115 CB ASN A 17 3.126 -15.020 -7.068 1.00 97.52 C

ATOM 116 O ASN A 17 2.212 -15.824 -4.515 1.00 97.52 O

ATOM 117 CG ASN A 17 3.067 -16.407 -7.678 1.00 97.52 C

ATOM 118 ND2 ASN A 17 4.232 -16.992 -7.933 1.00 97.52 N

ATOM 119 OD1 ASN A 17 1.985 -16.947 -7.918 1.00 97.52 O

ATOM 120 N GLY A 18 -0.020 -15.773 -5.359 1.00 94.28 N

ATOM 121 CA GLY A 18 -0.540 -16.351 -4.130 1.00 94.28 C

ATOM 122 C GLY A 18 -0.437 -15.415 -2.940 1.00 94.28 C

ATOM 123 O GLY A 18 -0.851 -14.257 -3.016 1.00 94.28 O

ATOM 124 N PRO A 19 0.167 -15.899 -1.825 1.00 91.56 N

ATOM 125 CA PRO A 19 0.274 -15.054 -0.633 1.00 91.56 C

ATOM 126 C PRO A 19 1.551 -14.216 -0.617 1.00 91.56 C

ATOM 127 CB PRO A 19 0.269 -16.063 0.517 1.00 91.56 C

ATOM 128 O PRO A 19 1.747 -13.400 0.288 1.00 91.56 O

ATOM 129 CG PRO A 19 0.857 -17.308 -0.065 1.00 91.56 C

ATOM 130 CD PRO A 19 0.440 -17.405 -1.504 1.00 91.56 C

ATOM 131 N ASP A 20 2.304 -14.401 -1.745 1.00 95.39 N

ATOM 132 CA ASP A 20 3.641 -13.820 -1.675 1.00 95.39 C

ATOM 133 C ASP A 20 3.769 -12.622 -2.614 1.00 95.39 C

ATOM 134 CB ASP A 20 4.701 -14.870 -2.015 1.00 95.39 C

ATOM 135 O ASP A 20 3.085 -12.552 -3.637 1.00 95.39 O

ATOM 136 CG ASP A 20 4.706 -16.041 -1.048 1.00 95.39 C

ATOM 137 OD1 ASP A 20 4.617 -15.820 0.179 1.00 95.39 O

ATOM 138 OD2 ASP A 20 4.803 -17.196 -1.518 1.00 95.39 O

ATOM 139 N ILE A 21 4.715 -11.710 -2.272 1.00 96.64 N

ATOM 140 CA ILE A 21 5.263 -10.709 -3.181 1.00 96.64 C

ATOM 141 C ILE A 21 6.429 -11.307 -3.965 1.00 96.64 C

ATOM 142 CB ILE A 21 5.720 -9.445 -2.421 1.00 96.64 C

ATOM 143 O ILE A 21 7.423 -11.740 -3.378 1.00 96.64 O

ATOM 144 CG1 ILE A 21 4.538 -8.809 -1.681 1.00 96.64 C

ATOM 145 CG2 ILE A 21 6.369 -8.443 -3.380 1.00 96.64 C

ATOM 146 CD1 ILE A 21 4.930 -7.672 -0.748 1.00 96.64 C

ATOM 147 N PRO A 22 6.391 -11.421 -5.263 1.00 97.08 N

ATOM 148 CA PRO A 22 7.319 -12.223 -6.065 1.00 97.08 C

ATOM 149 C PRO A 22 8.663 -11.531 -6.279 1.00 97.08 C

ATOM 150 CB PRO A 22 6.577 -12.397 -7.393 1.00 97.08 C

ATOM 151 O PRO A 22 9.420 -11.909 -7.177 1.00 97.08 O

ATOM 152 CG PRO A 22 5.717 -11.180 -7.512 1.00 97.08 C

ATOM 153 CD PRO A 22 5.285 -10.765 -6.135 1.00 97.08 C

ATOM 154 N TRP A 23 8.908 -10.504 -5.552 1.00 97.85 N

ATOM 155 CA TRP A 23 10.207 -9.844 -5.621 1.00 97.85 C

ATOM 156 C TRP A 23 10.654 -9.375 -4.241 1.00 97.85 C

ATOM 157 CB TRP A 23 10.156 -8.656 -6.586 1.00 97.85 C

ATOM 158 O TRP A 23 9.880 -9.420 -3.282 1.00 97.85 O

ATOM 159 CG TRP A 23 9.157 -7.605 -6.206 1.00 97.85 C

ATOM 160 CD1 TRP A 23 9.332 -6.589 -5.309 1.00 97.85 C

ATOM 161 CD2 TRP A 23 7.825 -7.471 -6.711 1.00 97.85 C

ATOM 162 CE2 TRP A 23 7.248 -6.349 -6.075 1.00 97.85 C

ATOM 163 CE3 TRP A 23 7.063 -8.191 -7.641 1.00 97.85 C

ATOM 164 NE1 TRP A 23 8.187 -5.830 -5.226 1.00 97.85 N

ATOM 165 CH2 TRP A 23 5.218 -6.652 -7.254 1.00 97.85 C

ATOM 166 CZ2 TRP A 23 5.942 -5.930 -6.340 1.00 97.85 C

ATOM 167 CZ3 TRP A 23 5.763 -7.772 -7.903 1.00 97.85 C

ATOM 168 N SER A 24 11.915 -8.979 -4.187 1.00 97.75 N

ATOM 169 CA SER A 24 12.485 -8.324 -3.014 1.00 97.75 C

ATOM 170 C SER A 24 13.366 -7.145 -3.412 1.00 97.75 C

ATOM 171 CB SER A 24 13.297 -9.320 -2.185 1.00 97.75 C

ATOM 172 O SER A 24 14.570 -7.306 -3.620 1.00 97.75 O

ATOM 173 OG SER A 24 13.747 -8.724 -0.980 1.00 97.75 O

ATOM 174 N ALA A 25 12.757 -6.022 -3.636 1.00 98.12 N

ATOM 175 CA ALA A 25 13.481 -4.806 -3.998 1.00 98.12 C

ATOM 176 C ALA A 25 13.954 -4.059 -2.754 1.00 98.12 C

ATOM 177 CB ALA A 25 12.603 -3.900 -4.857 1.00 98.12 C

ATOM 178 O ALA A 25 13.144 -3.493 -2.016 1.00 98.12 O

ATOM 179 N LYS A 26 15.286 -3.969 -2.592 1.00 98.17 N

ATOM 180 CA LYS A 26 15.846 -3.333 -1.403 1.00 98.17 C

ATOM 181 C LYS A 26 15.504 -1.846 -1.363 1.00 98.17 C

ATOM 182 CB LYS A 26 17.363 -3.523 -1.357 1.00 98.17 C

ATOM 183 O LYS A 26 15.630 -1.148 -2.371 1.00 98.17 O

ATOM 184 CG LYS A 26 17.799 -4.940 -1.012 1.00 98.17 C

ATOM 185 CD LYS A 26 19.309 -5.032 -0.834 1.00 98.17 C

ATOM 186 CE LYS A 26 19.741 -6.438 -0.439 1.00 98.17 C

ATOM 187 NZ LYS A 26 21.226 -6.549 -0.323 1.00 98.17 N

ATOM 188 N GLY A 27 14.937 -1.382 -0.231 1.00 97.69 N

ATOM 189 CA GLY A 27 14.660 0.030 -0.019 1.00 97.69 C

ATOM 190 C GLY A 27 13.207 0.396 -0.259 1.00 97.69 C

ATOM 191 O GLY A 27 12.706 1.370 0.306 1.00 97.69 O

ATOM 192 N GLU A 28 12.530 -0.379 -1.057 1.00 98.13 N

ATOM 193 CA GLU A 28 11.157 -0.032 -1.411 1.00 98.13 C

ATOM 194 C GLU A 28 10.232 -0.137 -0.202 1.00 98.13 C

ATOM 195 CB GLU A 28 10.649 -0.932 -2.541 1.00 98.13 C

ATOM 196 O GLU A 28 9.320 0.677 -0.038 1.00 98.13 O

ATOM 197 CG GLU A 28 9.331 -0.473 -3.147 1.00 98.13 C

ATOM 198 CD GLU A 28 8.116 -0.933 -2.357 1.00 98.13 C

ATOM 199 OE1 GLU A 28 7.070 -0.246 -2.397 1.00 98.13 O

ATOM 200 OE2 GLU A 28 8.210 -1.989 -1.693 1.00 98.13 O

ATOM 201 N GLN A 29 10.460 -1.088 0.571 1.00 97.29 N

ATOM 202 CA GLN A 29 9.630 -1.264 1.758 1.00 97.29 C

ATOM 203 C GLN A 29 9.815 -0.107 2.735 1.00 97.29 C

ATOM 204 CB GLN A 29 9.954 -2.591 2.447 1.00 97.29 C

ATOM 205 O GLN A 29 8.953 0.142 3.581 1.00 97.29 O

ATOM 206 CG GLN A 29 9.446 -3.814 1.697 1.00 97.29 C

ATOM 207 CD GLN A 29 9.734 -5.112 2.427 1.00 97.29 C

ATOM 208 NE2 GLN A 29 9.883 -6.196 1.674 1.00 97.29 N

ATOM 209 OE1 GLN A 29 9.822 -5.141 3.659 1.00 97.29 O

ATOM 210 N LEU A 30 10.936 0.573 2.691 1.00 97.95 N

ATOM 211 CA LEU A 30 11.142 1.766 3.505 1.00 97.95 C

ATOM 212 C LEU A 30 10.194 2.884 3.081 1.00 97.95 C

ATOM 213 CB LEU A 30 12.592 2.243 3.399 1.00 97.95 C

ATOM 214 O LEU A 30 9.730 3.661 3.919 1.00 97.95 O

ATOM 215 CG LEU A 30 13.654 1.326 4.007 1.00 97.95 C

ATOM 216 CD1 LEU A 30 15.050 1.869 3.723 1.00 97.95 C

ATOM 217 CD2 LEU A 30 13.431 1.170 5.508 1.00 97.95 C

ATOM 218 N LEU A 31 9.952 2.929 1.749 1.00 98.10 N

ATOM 219 CA LEU A 31 8.955 3.882 1.272 1.00 98.10 C

ATOM 220 C LEU A 31 7.575 3.549 1.829 1.00 98.10 C

ATOM 221 CB LEU A 31 8.912 3.892 -0.258 1.00 98.10 C

ATOM 222 O LEU A 31 6.845 4.441 2.266 1.00 98.10 O

ATOM 223 CG LEU A 31 10.149 4.447 -0.968 1.00 98.10 C

ATOM 224 CD1 LEU A 31 10.051 4.204 -2.470 1.00 98.10 C

ATOM 225 CD2 LEU A 31 10.315 5.933 -0.670 1.00 98.10 C

ATOM 226 N PHE A 32 7.294 2.246 1.831 1.00 98.20 N

ATOM 227 CA PHE A 32 6.023 1.792 2.385 1.00 98.20 C

ATOM 228 C PHE A 32 5.908 2.172 3.856 1.00 98.20 C

ATOM 229 CB PHE A 32 5.875 0.276 2.220 1.00 98.20 C

ATOM 230 O PHE A 32 4.885 2.710 4.285 1.00 98.20 O

ATOM 231 CG PHE A 32 4.581 -0.269 2.760 1.00 98.20 C

ATOM 232 CD1 PHE A 32 4.544 -0.928 3.983 1.00 98.20 C

ATOM 233 CD2 PHE A 32 3.399 -0.122 2.044 1.00 98.20 C

ATOM 234 CE1 PHE A 32 3.348 -1.434 4.485 1.00 98.20 C

ATOM 235 CE2 PHE A 32 2.200 -0.625 2.540 1.00 98.20 C

ATOM 236 CZ PHE A 32 2.176 -1.281 3.760 1.00 98.20 C

ATOM 237 N LYS A 33 6.895 1.977 4.576 1.00 98.17 N

ATOM 238 CA LYS A 33 6.912 2.328 5.993 1.00 98.17 C

ATOM 239 C LYS A 33 6.736 3.831 6.189 1.00 98.17 C

ATOM 240 CB LYS A 33 8.214 1.864 6.646 1.00 98.17 C

ATOM 241 O LYS A 33 5.944 4.265 7.028 1.00 98.17 O

ATOM 242 CG LYS A 33 8.314 2.190 8.129 1.00 98.17 C

ATOM 243 CD LYS A 33 9.625 1.693 8.724 1.00 98.17 C

ATOM 244 CE LYS A 33 9.765 2.095 10.186 1.00 98.17 C

ATOM 245 NZ LYS A 33 11.034 1.582 10.783 1.00 98.17 N

ATOM 246 N ALA A 34 7.432 4.555 5.465 1.00 97.95 N

ATOM 247 CA ALA A 34 7.395 6.008 5.601 1.00 97.95 C

ATOM 248 C ALA A 34 5.986 6.546 5.362 1.00 97.95 C

ATOM 249 CB ALA A 34 8.380 6.659 4.633 1.00 97.95 C

ATOM 250 O ALA A 34 5.510 7.408 6.104 1.00 97.95 O

ATOM 251 N ILE A 35 5.340 5.962 4.495 1.00 97.63 N

ATOM 252 CA ILE A 35 4.032 6.468 4.092 1.00 97.63 C

ATOM 253 C ILE A 35 2.959 5.935 5.039 1.00 97.63 C

ATOM 254 CB ILE A 35 3.701 6.080 2.634 1.00 97.63 C

ATOM 255 O ILE A 35 2.004 6.644 5.367 1.00 97.63 O

ATOM 256 CG1 ILE A 35 4.703 6.724 1.669 1.00 97.63 C

ATOM 257 CG2 ILE A 35 2.266 6.481 2.281 1.00 97.63 C

ATOM 258 CD1 ILE A 35 4.689 8.247 1.687 1.00 97.63 C

ATOM 259 N THR A 36 3.163 4.782 5.534 1.00 98.35 N

ATOM 260 CA THR A 36 2.082 4.133 6.267 1.00 98.35 C

ATOM 261 C THR A 36 2.296 4.261 7.773 1.00 98.35 C

ATOM 262 CB THR A 36 1.965 2.645 5.888 1.00 98.35 C

ATOM 263 O THR A 36 1.432 3.876 8.563 1.00 98.35 O

ATOM 264 CG2 THR A 36 1.748 2.475 4.388 1.00 98.35 C

ATOM 265 OG1 THR A 36 3.168 1.965 6.266 1.00 98.35 O

ATOM 266 N TYR A 37 3.424 4.783 8.170 1.00 98.05 N

ATOM 267 CA TYR A 37 3.780 4.878 9.581 1.00 98.05 C

ATOM 268 C TYR A 37 2.753 5.701 10.349 1.00 98.05 C

ATOM 269 CB TYR A 37 5.172 5.496 9.744 1.00 98.05 C

ATOM 270 O TYR A 37 2.403 6.809 9.936 1.00 98.05 O

ATOM 271 CG TYR A 37 5.722 5.392 11.146 1.00 98.05 C

ATOM 272 CD1 TYR A 37 5.641 6.467 12.028 1.00 98.05 C

ATOM 273 CD2 TYR A 37 6.323 4.219 11.591 1.00 98.05 C

ATOM 274 CE1 TYR A 37 6.148 6.376 13.320 1.00 98.05 C

ATOM 275 CE2 TYR A 37 6.834 4.118 12.881 1.00 98.05 C

ATOM 276 OH TYR A 37 7.245 5.104 15.015 1.00 98.05 O

ATOM 277 CZ TYR A 37 6.741 5.199 13.737 1.00 98.05 C

ATOM 278 N ASN A 38 2.150 5.132 11.473 1.00 97.30 N

ATOM 279 CA ASN A 38 1.191 5.744 12.386 1.00 97.30 C

ATOM 280 C ASN A 38 -0.115 6.092 11.677 1.00 97.30 C

ATOM 281 CB ASN A 38 1.791 6.993 13.036 1.00 97.30 C

ATOM 282 O ASN A 38 -0.798 7.044 12.058 1.00 97.30 O

ATOM 283 CG ASN A 38 2.629 6.670 14.257 1.00 97.30 C

ATOM 284 ND2 ASN A 38 3.551 7.564 14.597 1.00 97.30 N

ATOM 285 OD1 ASN A 38 2.451 5.626 14.889 1.00 97.30 O

ATOM 286 N GLN A 39 -0.378 5.270 10.631 1.00 98.24 N

ATOM 287 CA GLN A 39 -1.607 5.495 9.877 1.00 98.24 C

ATOM 288 C GLN A 39 -2.542 4.293 9.979 1.00 98.24 C

ATOM 289 CB GLN A 39 -1.290 5.790 8.410 1.00 98.24 C

ATOM 290 O GLN A 39 -2.134 3.219 10.426 1.00 98.24 O

ATOM 291 CG GLN A 39 -0.378 6.993 8.208 1.00 98.24 C

ATOM 292 CD GLN A 39 -1.037 8.302 8.604 1.00 98.24 C

ATOM 293 NE2 GLN A 39 -0.243 9.230 9.127 1.00 98.24 N

ATOM 294 OE1 GLN A 39 -2.248 8.477 8.440 1.00 98.24 O

ATOM 295 N TRP A 40 -3.803 4.582 9.462 1.00 98.60 N

ATOM 296 CA TRP A 40 -4.761 3.499 9.260 1.00 98.60 C

ATOM 297 C TRP A 40 -4.618 2.901 7.864 1.00 98.60 C

ATOM 298 CB TRP A 40 -6.192 4.000 9.470 1.00 98.60 C

ATOM 299 O TRP A 40 -4.642 3.625 6.866 1.00 98.60 O

ATOM 300 CG TRP A 40 -6.600 4.090 10.910 1.00 98.60 C

ATOM 301 CD1 TRP A 40 -6.516 5.185 11.724 1.00 98.60 C

ATOM 302 CD2 TRP A 40 -7.152 3.038 11.708 1.00 98.60 C

ATOM 303 CE2 TRP A 40 -7.381 3.567 12.997 1.00 98.60 C

ATOM 304 CE3 TRP A 40 -7.478 1.698 11.457 1.00 98.60 C

ATOM 305 NE1 TRP A 40 -6.984 4.877 12.981 1.00 98.60 N

ATOM 306 CH2 TRP A 40 -8.229 1.494 13.762 1.00 98.60 C

ATOM 307 CZ2 TRP A 40 -7.920 2.802 14.034 1.00 98.60 C

ATOM 308 CZ3 TRP A 40 -8.014 0.938 12.490 1.00 98.60 C

ATOM 309 N LEU A 41 -4.440 1.529 7.895 1.00 98.84 N

ATOM 310 CA LEU A 41 -4.360 0.817 6.623 1.00 98.84 C

ATOM 311 C LEU A 41 -5.638 0.026 6.362 1.00 98.84 C

ATOM 312 CB LEU A 41 -3.152 -0.123 6.610 1.00 98.84 C

ATOM 313 O LEU A 41 -6.122 -0.686 7.244 1.00 98.84 O

ATOM 314 CG LEU A 41 -1.775 0.542 6.647 1.00 98.84 C

ATOM 315 CD1 LEU A 41 -1.556 1.233 7.990 1.00 98.84 C

ATOM 316 CD2 LEU A 41 -0.678 -0.484 6.383 1.00 98.84 C

ATOM 317 N LEU A 42 -6.187 0.226 5.206 1.00 98.84 N

ATOM 318 CA LEU A 42 -7.292 -0.611 4.751 1.00 98.84 C

ATOM 319 C LEU A 42 -6.789 -1.731 3.846 1.00 98.84 C

ATOM 320 CB LEU A 42 -8.334 0.231 4.011 1.00 98.84 C

ATOM 321 O LEU A 42 -6.236 -1.468 2.776 1.00 98.84 O

ATOM 322 CG LEU A 42 -9.626 -0.484 3.613 1.00 98.84 C

ATOM 323 CD1 LEU A 42 -10.821 0.447 3.785 1.00 98.84 C

ATOM 324 CD2 LEU A 42 -9.537 -0.990 2.177 1.00 98.84 C

ATOM 325 N VAL A 43 -7.010 -2.937 4.258 1.00 98.77 N

ATOM 326 CA VAL A 43 -6.490 -4.086 3.525 1.00 98.77 C

ATOM 327 C VAL A 43 -7.529 -5.204 3.511 1.00 98.77 C

ATOM 328 CB VAL A 43 -5.165 -4.596 4.135 1.00 98.77 C

ATOM 329 O VAL A 43 -8.452 -5.213 4.329 1.00 98.77 O

ATOM 330 CG1 VAL A 43 -4.079 -3.526 4.039 1.00 98.77 C

ATOM 331 CG2 VAL A 43 -5.376 -5.019 5.588 1.00 98.77 C

ATOM 332 N GLY A 44 -7.359 -6.054 2.467 1.00 98.51 N

ATOM 333 CA GLY A 44 -8.111 -7.298 2.513 1.00 98.51 C

ATOM 334 C GLY A 44 -7.537 -8.307 3.489 1.00 98.51 C

ATOM 335 O GLY A 44 -6.380 -8.192 3.900 1.00 98.51 O

ATOM 336 N ARG A 45 -8.315 -9.347 3.784 1.00 98.12 N

ATOM 337 CA ARG A 45 -7.938 -10.331 4.793 1.00 98.12 C

ATOM 338 C ARG A 45 -6.689 -11.098 4.372 1.00 98.12 C

ATOM 339 CB ARG A 45 -9.089 -11.306 5.050 1.00 98.12 C

ATOM 340 O ARG A 45 -5.754 -11.254 5.160 1.00 98.12 O

ATOM 341 CG ARG A 45 -8.780 -12.361 6.101 1.00 98.12 C

ATOM 342 CD ARG A 45 -8.946 -13.770 5.550 1.00 98.12 C

ATOM 343 NE ARG A 45 -9.511 -13.760 4.204 1.00 98.12 N

ATOM 344 NH1 ARG A 45 -9.985 -16.021 4.162 1.00 98.12 N

ATOM 345 NH2 ARG A 45 -10.483 -14.707 2.351 1.00 98.12 N

ATOM 346 CZ ARG A 45 -9.992 -14.829 3.575 1.00 98.12 C

ATOM 347 N LYS A 46 -6.587 -11.502 3.136 1.00 97.14 N

ATOM 348 CA LYS A 46 -5.457 -12.303 2.675 1.00 97.14 C

ATOM 349 C LYS A 46 -4.159 -11.502 2.722 1.00 97.14 C

ATOM 350 CB LYS A 46 -5.706 -12.815 1.255 1.00 97.14 C

ATOM 351 O LYS A 46 -3.111 -12.030 3.097 1.00 97.14 O

ATOM 352 CG LYS A 46 -6.808 -13.859 1.157 1.00 97.14 C

ATOM 353 CD LYS A 46 -6.990 -14.347 -0.274 1.00 97.14 C

ATOM 354 CE LYS A 46 -8.120 -15.363 -0.380 1.00 97.14 C

ATOM 355 NZ LYS A 46 -8.346 -15.794 -1.791 1.00 97.14 N

ATOM 356 N THR A 47 -4.218 -10.282 2.345 1.00 97.86 N

ATOM 357 CA THR A 47 -3.041 -9.426 2.434 1.00 97.86 C

ATOM 358 C THR A 47 -2.591 -9.273 3.884 1.00 97.86 C

ATOM 359 CB THR A 47 -3.314 -8.036 1.830 1.00 97.86 C

ATOM 360 O THR A 47 -1.398 -9.356 4.182 1.00 97.86 O

ATOM 361 CG2 THR A 47 -2.115 -7.112 2.012 1.00 97.86 C

ATOM 362 OG1 THR A 47 -3.588 -8.176 0.430 1.00 97.86 O

ATOM 363 N PHE A 48 -3.545 -9.065 4.739 1.00 98.02 N

ATOM 364 CA PHE A 48 -3.219 -8.912 6.152 1.00 98.02 C

ATOM 365 C PHE A 48 -2.556 -10.172 6.695 1.00 98.02 C

ATOM 366 CB PHE A 48 -4.478 -8.589 6.963 1.00 98.02 C

ATOM 367 O PHE A 48 -1.553 -10.095 7.406 1.00 98.02 O

ATOM 368 CG PHE A 48 -4.212 -8.342 8.424 1.00 98.02 C

ATOM 369 CD1 PHE A 48 -4.566 -9.287 9.379 1.00 98.02 C

ATOM 370 CD2 PHE A 48 -3.608 -7.163 8.841 1.00 98.02 C

ATOM 371 CE1 PHE A 48 -4.321 -9.061 10.731 1.00 98.02 C

ATOM 372 CE2 PHE A 48 -3.360 -6.930 10.191 1.00 98.02 C

ATOM 373 CZ PHE A 48 -3.718 -7.880 11.134 1.00 98.02 C

ATOM 374 N GLU A 49 -3.065 -11.309 6.348 1.00 96.17 N

ATOM 375 CA GLU A 49 -2.517 -12.575 6.825 1.00 96.17 C

ATOM 376 C GLU A 49 -1.101 -12.797 6.300 1.00 96.17 C

ATOM 377 CB GLU A 49 -3.419 -13.741 6.414 1.00 96.17 C

ATOM 378 O GLU A 49 -0.241 -13.312 7.016 1.00 96.17 O

ATOM 379 CG GLU A 49 -4.735 -13.799 7.176 1.00 96.17 C

ATOM 380 CD GLU A 49 -5.602 -14.986 6.787 1.00 96.17 C

ATOM 381 OE1 GLU A 49 -6.424 -15.436 7.618 1.00 96.17 O

ATOM 382 OE2 GLU A 49 -5.459 -15.470 5.642 1.00 96.17 O

ATOM 383 N SER A 50 -0.910 -12.380 5.100 1.00 95.51 N

ATOM 384 CA SER A 50 0.406 -12.560 4.496 1.00 95.51 C

ATOM 385 C SER A 50 1.423 -11.588 5.085 1.00 95.51 C

ATOM 386 CB SER A 50 0.331 -12.374 2.980 1.00 95.51 C

ATOM 387 O SER A 50 2.566 -11.964 5.354 1.00 95.51 O

ATOM 388 OG SER A 50 1.619 -12.471 2.396 1.00 95.51 O

ATOM 389 N MET A 51 1.033 -10.399 5.258 1.00 94.27 N

ATOM 390 CA MET A 51 1.906 -9.312 5.689 1.00 94.27 C

ATOM 391 C MET A 51 2.117 -9.350 7.199 1.00 94.27 C

ATOM 392 CB MET A 51 1.324 -7.958 5.277 1.00 94.27 C

ATOM 393 O MET A 51 3.237 -9.164 7.679 1.00 94.27 O

ATOM 394 CG MET A 51 2.175 -6.771 5.697 1.00 94.27 C

ATOM 395 SD MET A 51 1.465 -5.169 5.152 1.00 94.27 S

ATOM 396 CE MET A 51 -0.086 -5.171 6.093 1.00 94.27 C

ATOM 397 N GLY A 52 1.070 -9.736 7.958 1.00 92.99 N

ATOM 398 CA GLY A 52 1.071 -9.567 9.403 1.00 92.99 C

ATOM 399 C GLY A 52 0.948 -8.118 9.835 1.00 92.99 C

ATOM 400 O GLY A 52 0.941 -7.214 8.997 1.00 92.99 O

ATOM 401 N ALA A 53 0.808 -7.970 11.194 1.00 93.95 N

ATOM 402 CA ALA A 53 0.673 -6.623 11.741 1.00 93.95 C

ATOM 403 C ALA A 53 2.036 -5.955 11.895 1.00 93.95 C

ATOM 404 CB ALA A 53 -0.051 -6.664 13.084 1.00 93.95 C

ATOM 405 O ALA A 53 2.863 -6.394 12.698 1.00 93.95 O

ATOM 406 N LEU A 54 2.254 -4.923 11.073 1.00 96.37 N

ATOM 407 CA LEU A 54 3.490 -4.155 11.168 1.00 96.37 C

ATOM 408 C LEU A 54 3.410 -3.135 12.299 1.00 96.37 C

ATOM 409 CB LEU A 54 3.783 -3.445 9.844 1.00 96.37 C

ATOM 410 O LEU A 54 2.346 -2.566 12.553 1.00 96.37 O

ATOM 411 CG LEU A 54 3.886 -4.336 8.605 1.00 96.37 C

ATOM 412 CD1 LEU A 54 3.954 -3.483 7.343 1.00 96.37 C

ATOM 413 CD2 LEU A 54 5.101 -5.252 8.704 1.00 96.37 C

ATOM 414 N PRO A 55 4.472 -2.949 13.038 1.00 96.71 N

ATOM 415 CA PRO A 55 4.444 -2.054 14.198 1.00 96.71 C

ATOM 416 C PRO A 55 4.053 -0.624 13.831 1.00 96.71 C

ATOM 417 CB PRO A 55 5.882 -2.109 14.720 1.00 96.71 C

ATOM 418 O PRO A 55 4.376 -0.153 12.737 1.00 96.71 O

ATOM 419 CG PRO A 55 6.701 -2.530 13.543 1.00 96.71 C

ATOM 420 CD PRO A 55 5.839 -3.360 12.635 1.00 96.71 C

ATOM 421 N ASN A 56 3.284 -0.005 14.725 1.00 97.86 N

ATOM 422 CA ASN A 56 2.933 1.410 14.692 1.00 97.86 C

ATOM 423 C ASN A 56 2.024 1.734 13.510 1.00 97.86 C

ATOM 424 CB ASN A 56 4.194 2.276 14.644 1.00 97.86 C

ATOM 425 O ASN A 56 2.104 2.824 12.939 1.00 97.86 O

ATOM 426 CG ASN A 56 5.011 2.188 15.919 1.00 97.86 C

ATOM 427 ND2 ASN A 56 6.284 1.837 15.784 1.00 97.86 N

ATOM 428 OD1 ASN A 56 4.501 2.432 17.015 1.00 97.86 O

ATOM 429 N ARG A 57 1.241 0.726 13.238 1.00 98.23 N

ATOM 430 CA ARG A 57 0.173 0.879 12.256 1.00 98.23 C

ATOM 431 C ARG A 57 -1.126 0.257 12.758 1.00 98.23 C

ATOM 432 CB ARG A 57 0.575 0.248 10.921 1.00 98.23 C

ATOM 433 O ARG A 57 -1.104 -0.644 13.599 1.00 98.23 O

ATOM 434 CG ARG A 57 1.661 1.011 10.181 1.00 98.23 C

ATOM 435 CD ARG A 57 3.011 0.316 10.288 1.00 98.23 C

ATOM 436 NE ARG A 57 4.021 0.968 9.459 1.00 98.23 N

ATOM 437 NH1 ARG A 57 5.796 0.435 10.838 1.00 98.23 N

ATOM 438 NH2 ARG A 57 6.151 1.631 8.915 1.00 98.23 N

ATOM 439 CZ ARG A 57 5.320 1.010 9.739 1.00 98.23 C

ATOM 440 N LYS A 58 -2.152 0.839 12.322 1.00 98.51 N

ATOM 441 CA LYS A 58 -3.471 0.276 12.599 1.00 98.51 C

ATOM 442 C LYS A 58 -4.123 -0.251 11.324 1.00 98.51 C

ATOM 443 CB LYS A 58 -4.374 1.321 13.256 1.00 98.51 C

ATOM 444 O LYS A 58 -3.838 0.236 10.228 1.00 98.51 O

ATOM 445 CG LYS A 58 -3.849 1.845 14.585 1.00 98.51 C

ATOM 446 CD LYS A 58 -4.763 2.919 15.162 1.00 98.51 C

ATOM 447 CE LYS A 58 -4.210 3.484 16.463 1.00 98.51 C

ATOM 448 NZ LYS A 58 -5.100 4.540 17.031 1.00 98.51 N

ATOM 449 N TYR A 59 -5.051 -1.248 11.553 1.00 98.79 N

ATOM 450 CA TYR A 59 -5.570 -1.937 10.377 1.00 98.79 C

ATOM 451 C TYR A 59 -7.093 -1.992 10.405 1.00 98.79 C

ATOM 452 CB TYR A 59 -4.998 -3.355 10.288 1.00 98.79 C

ATOM 453 O TYR A 59 -7.691 -2.272 11.447 1.00 98.79 O

ATOM 454 CG TYR A 59 -3.513 -3.395 10.022 1.00 98.79 C

ATOM 455 CD1 TYR A 59 -3.021 -3.558 8.729 1.00 98.79 C

ATOM 456 CD2 TYR A 59 -2.599 -3.271 11.063 1.00 98.79 C

ATOM 457 CE1 TYR A 59 -1.653 -3.598 8.480 1.00 98.79 C

ATOM 458 CE2 TYR A 59 -1.229 -3.309 10.826 1.00 98.79 C

ATOM 459 OH TYR A 59 0.589 -3.510 9.292 1.00 98.79 O

ATOM 460 CZ TYR A 59 -0.766 -3.472 9.533 1.00 98.79 C

ATOM 461 N ALA A 60 -7.653 -1.697 9.261 1.00 98.70 N

ATOM 462 CA ALA A 60 -9.018 -2.084 8.916 1.00 98.70 C

ATOM 463 C ALA A 60 -9.026 -3.215 7.891 1.00 98.70 C

ATOM 464 CB ALA A 60 -9.794 -0.882 8.384 1.00 98.70 C

ATOM 465 O ALA A 60 -8.697 -3.003 6.722 1.00 98.70 O

ATOM 466 N VAL A 61 -9.373 -4.368 8.401 1.00 98.78 N

ATOM 467 CA VAL A 61 -9.335 -5.554 7.552 1.00 98.78 C

ATOM 468 C VAL A 61 -10.741 -5.874 7.049 1.00 98.78 C

ATOM 469 CB VAL A 61 -8.748 -6.771 8.302 1.00 98.78 C

ATOM 470 O VAL A 61 -11.678 -5.999 7.842 1.00 98.78 O

ATOM 471 CG1 VAL A 61 -8.743 -8.007 7.405 1.00 98.78 C

ATOM 472 CG2 VAL A 61 -7.336 -6.461 8.796 1.00 98.78 C

ATOM 473 N VAL A 62 -10.851 -6.006 5.717 1.00 98.71 N

ATOM 474 CA VAL A 62 -12.145 -6.314 5.117 1.00 98.71 C

ATOM 475 C VAL A 62 -12.206 -7.795 4.750 1.00 98.71 C

ATOM 476 CB VAL A 62 -12.412 -5.444 3.868 1.00 98.71 C

ATOM 477 O VAL A 62 -11.332 -8.302 4.042 1.00 98.71 O

ATOM 478 CG1 VAL A 62 -13.743 -5.823 3.221 1.00 98.71 C

ATOM 479 CG2 VAL A 62 -12.396 -3.962 4.237 1.00 98.71 C

ATOM 480 N THR A 63 -13.235 -8.378 5.211 1.00 98.17 N

ATOM 481 CA THR A 63 -13.413 -9.798 4.926 1.00 98.17 C

ATOM 482 C THR A 63 -14.887 -10.184 5.008 1.00 98.17 C

ATOM 483 CB THR A 63 -12.596 -10.669 5.897 1.00 98.17 C

ATOM 484 O THR A 63 -15.653 -9.576 5.759 1.00 98.17 O

ATOM 485 CG2 THR A 63 -13.035 -10.445 7.340 1.00 98.17 C

ATOM 486 OG1 THR A 63 -12.782 -12.050 5.562 1.00 98.17 O

ATOM 487 N ARG A 64 -15.322 -11.204 4.251 1.00 94.79 N

ATOM 488 CA ARG A 64 -16.668 -11.759 4.341 1.00 94.79 C

ATOM 489 C ARG A 64 -16.676 -13.046 5.161 1.00 94.79 C

ATOM 490 CB ARG A 64 -17.235 -12.024 2.945 1.00 94.79 C

ATOM 491 O ARG A 64 -17.736 -13.626 5.405 1.00 94.79 O

ATOM 492 CG ARG A 64 -17.462 -10.765 2.123 1.00 94.79 C

ATOM 493 CD ARG A 64 -17.993 -11.086 0.733 1.00 94.79 C

ATOM 494 NE ARG A 64 -18.315 -9.874 -0.014 1.00 94.79 N

ATOM 495 NH1 ARG A 64 -16.558 -10.077 -1.501 1.00 94.79 N

ATOM 496 NH2 ARG A 64 -18.007 -8.308 -1.665 1.00 94.79 N

ATOM 497 CZ ARG A 64 -17.626 -9.422 -1.059 1.00 94.79 C

ATOM 498 N SER A 65 -15.587 -13.458 5.649 1.00 95.64 N

ATOM 499 CA SER A 65 -15.471 -14.678 6.440 1.00 95.64 C

ATOM 500 C SER A 65 -15.645 -14.392 7.928 1.00 95.64 C

ATOM 501 CB SER A 65 -14.119 -15.350 6.196 1.00 95.64 C

ATOM 502 O SER A 65 -15.893 -13.250 8.320 1.00 95.64 O

ATOM 503 OG SER A 65 -13.080 -14.640 6.848 1.00 95.64 O

ATOM 504 N SER A 66 -15.593 -15.406 8.744 1.00 93.20 N

ATOM 505 CA SER A 66 -15.724 -15.276 10.191 1.00 93.20 C

ATOM 506 C SER A 66 -14.401 -14.871 10.832 1.00 93.20 C

ATOM 507 CB SER A 66 -16.218 -16.587 10.805 1.00 93.20 C

ATOM 508 O SER A 66 -14.237 -14.979 12.049 1.00 93.20 O

ATOM 509 OG SER A 66 -15.375 -17.665 10.433 1.00 93.20 O

ATOM 510 N PHE A 67 -13.472 -14.365 10.105 1.00 95.37 N

ATOM 511 CA PHE A 67 -12.161 -13.927 10.572 1.00 95.37 C

ATOM 512 C PHE A 67 -12.300 -12.899 11.689 1.00 95.37 C

ATOM 513 CB PHE A 67 -11.346 -13.340 9.416 1.00 95.37 C

ATOM 514 O PHE A 67 -13.126 -11.989 11.602 1.00 95.37 O

ATOM 515 CG PHE A 67 -10.019 -12.769 9.838 1.00 95.37 C

ATOM 516 CD1 PHE A 67 -9.872 -11.405 10.060 1.00 95.37 C

ATOM 517 CD2 PHE A 67 -8.917 -13.597 10.012 1.00 95.37 C

ATOM 518 CE1 PHE A 67 -8.645 -10.874 10.451 1.00 95.37 C

ATOM 519 CE2 PHE A 67 -7.688 -13.073 10.402 1.00 95.37 C

ATOM 520 CZ PHE A 67 -7.554 -11.711 10.620 1.00 95.37 C

ATOM 521 N THR A 68 -11.499 -13.077 12.758 1.00 94.54 N

ATOM 522 CA THR A 68 -11.472 -12.121 13.860 1.00 94.54 C

ATOM 523 C THR A 68 -10.038 -11.849 14.305 1.00 94.54 C

ATOM 524 CB THR A 68 -12.297 -12.625 15.058 1.00 94.54 C

ATOM 525 O THR A 68 -9.128 -12.620 13.990 1.00 94.54 O

ATOM 526 CG2 THR A 68 -13.752 -12.860 14.664 1.00 94.54 C

ATOM 527 OG1 THR A 68 -11.737 -13.856 15.532 1.00 94.54 O

ATOM 528 N SER A 69 -9.838 -10.739 14.933 1.00 94.25 N

ATOM 529 CA SER A 69 -8.536 -10.377 15.484 1.00 94.25 C

ATOM 530 C SER A 69 -8.655 -9.935 16.939 1.00 94.25 C

ATOM 531 CB SER A 69 -7.895 -9.263 14.655 1.00 94.25 C

ATOM 532 O SER A 69 -9.605 -9.241 17.307 1.00 94.25 O

ATOM 533 OG SER A 69 -6.652 -8.872 15.215 1.00 94.25 O

ATOM 534 N SER A 70 -7.726 -10.371 17.764 1.00 93.98 N

ATOM 535 CA SER A 70 -7.698 -9.951 19.161 1.00 93.98 C

ATOM 536 C SER A 70 -6.813 -8.723 19.350 1.00 93.98 C

ATOM 537 CB SER A 70 -7.202 -11.090 20.053 1.00 93.98 C

ATOM 538 O SER A 70 -6.744 -8.165 20.447 1.00 93.98 O

ATOM 539 OG SER A 70 -5.910 -11.515 19.655 1.00 93.98 O

ATOM 540 N ASP A 71 -6.170 -8.344 18.306 1.00 95.54 N

ATOM 541 CA ASP A 71 -5.303 -7.170 18.307 1.00 95.54 C

ATOM 542 C ASP A 71 -6.122 -5.882 18.265 1.00 95.54 C

ATOM 543 CB ASP A 71 -4.335 -7.217 17.122 1.00 95.54 C

ATOM 544 O ASP A 71 -6.895 -5.662 17.330 1.00 95.54 O

ATOM 545 CG ASP A 71 -3.272 -6.135 17.183 1.00 95.54 C

ATOM 546 OD1 ASP A 71 -3.494 -5.097 17.843 1.00 95.54 O

ATOM 547 OD2 ASP A 71 -2.202 -6.321 16.562 1.00 95.54 O

ATOM 548 N GLU A 72 -5.899 -5.006 19.242 1.00 94.81 N

ATOM 549 CA GLU A 72 -6.688 -3.784 19.361 1.00 94.81 C

ATOM 550 C GLU A 72 -6.403 -2.828 18.207 1.00 94.81 C

ATOM 551 CB GLU A 72 -6.410 -3.092 20.698 1.00 94.81 C

ATOM 552 O GLU A 72 -7.182 -1.909 17.948 1.00 94.81 O

ATOM 553 CG GLU A 72 -4.967 -2.642 20.869 1.00 94.81 C

ATOM 554 CD GLU A 72 -4.694 -2.001 22.221 1.00 94.81 C

ATOM 555 OE1 GLU A 72 -3.520 -1.680 22.514 1.00 94.81 O

ATOM 556 OE2 GLU A 72 -5.662 -1.820 22.992 1.00 94.81 O

ATOM 557 N ASN A 73 -5.267 -3.064 17.591 1.00 97.21 N

ATOM 558 CA ASN A 73 -4.911 -2.204 16.468 1.00 97.21 C

ATOM 559 C ASN A 73 -5.479 -2.734 15.154 1.00 97.21 C

ATOM 560 CB ASN A 73 -3.392 -2.053 16.367 1.00 97.21 C

ATOM 561 O ASN A 73 -5.198 -2.187 14.086 1.00 97.21 O

ATOM 562 CG ASN A 73 -2.804 -1.271 17.525 1.00 97.21 C

ATOM 563 ND2 ASN A 73 -1.661 -1.722 18.026 1.00 97.21 N

ATOM 564 OD1 ASN A 73 -3.374 -0.269 17.966 1.00 97.21 O

ATOM 565 N VAL A 74 -6.277 -3.817 15.234 1.00 98.49 N

ATOM 566 CA VAL A 74 -6.872 -4.414 14.042 1.00 98.49 C

ATOM 567 C VAL A 74 -8.390 -4.469 14.194 1.00 98.49 C

ATOM 568 CB VAL A 74 -6.311 -5.829 13.777 1.00 98.49 C

ATOM 569 O VAL A 74 -8.906 -5.136 15.095 1.00 98.49 O

ATOM 570 CG1 VAL A 74 -6.935 -6.431 12.519 1.00 98.49 C

ATOM 571 CG2 VAL A 74 -4.789 -5.785 13.653 1.00 98.49 C

ATOM 572 N LEU A 75 -9.009 -3.742 13.298 1.00 98.55 N

ATOM 573 CA LEU A 75 -10.464 -3.809 13.212 1.00 98.55 C

ATOM 574 C LEU A 75 -10.900 -4.602 11.984 1.00 98.55 C

ATOM 575 CB LEU A 75 -11.064 -2.401 13.164 1.00 98.55 C

ATOM 576 O LEU A 75 -10.355 -4.415 10.894 1.00 98.55 O

ATOM 577 CG LEU A 75 -10.728 -1.481 14.338 1.00 98.55 C

ATOM 578 CD1 LEU A 75 -11.388 -0.119 14.150 1.00 98.55 C

ATOM 579 CD2 LEU A 75 -11.162 -2.115 15.656 1.00 98.55 C

ATOM 580 N VAL A 76 -11.918 -5.430 12.149 1.00 98.61 N

ATOM 581 CA VAL A 76 -12.380 -6.280 11.056 1.00 98.61 C

ATOM 582 C VAL A 76 -13.783 -5.855 10.628 1.00 98.61 C

ATOM 583 CB VAL A 76 -12.373 -7.772 11.455 1.00 98.61 C

ATOM 584 O VAL A 76 -14.670 -5.685 11.468 1.00 98.61 O

ATOM 585 CG1 VAL A 76 -12.804 -8.648 10.280 1.00 98.61 C

ATOM 586 CG2 VAL A 76 -10.989 -8.184 11.954 1.00 98.61 C

ATOM 587 N PHE A 77 -13.926 -5.686 9.280 1.00 98.58 N

ATOM 588 CA PHE A 77 -15.198 -5.226 8.737 1.00 98.58 C

ATOM 589 C PHE A 77 -15.692 -6.166 7.644 1.00 98.58 C

ATOM 590 CB PHE A 77 -15.065 -3.803 8.184 1.00 98.58 C

ATOM 591 O PHE A 77 -14.890 -6.757 6.917 1.00 98.58 O

ATOM 592 CG PHE A 77 -14.651 -2.788 9.215 1.00 98.58 C

ATOM 593 CD1 PHE A 77 -15.602 -2.134 9.989 1.00 98.58 C

ATOM 594 CD2 PHE A 77 -13.309 -2.487 9.410 1.00 98.58 C

ATOM 595 CE1 PHE A 77 -15.222 -1.194 10.944 1.00 98.58 C

ATOM 596 CE2 PHE A 77 -12.921 -1.549 10.362 1.00 98.58 C

ATOM 597 CZ PHE A 77 -13.879 -0.903 11.128 1.00 98.58 C

ATOM 598 N PRO A 78 -17.026 -6.264 7.447 1.00 98.06 N

ATOM 599 CA PRO A 78 -17.584 -7.188 6.457 1.00 98.06 C

ATOM 600 C PRO A 78 -17.573 -6.614 5.042 1.00 98.06 C

ATOM 601 CB PRO A 78 -19.018 -7.406 6.947 1.00 98.06 C

ATOM 602 O PRO A 78 -17.781 -7.348 4.073 1.00 98.06 O

ATOM 603 CG PRO A 78 -19.354 -6.165 7.709 1.00 98.06 C

ATOM 604 CD PRO A 78 -18.108 -5.666 8.382 1.00 98.06 C

ATOM 605 N SER A 79 -17.352 -5.278 4.968 1.00 98.36 N

ATOM 606 CA SER A 79 -17.336 -4.646 3.653 1.00 98.36 C

ATOM 607 C SER A 79 -16.494 -3.374 3.661 1.00 98.36 C

ATOM 608 CB SER A 79 -18.759 -4.323 3.195 1.00 98.36 C

ATOM 609 O SER A 79 -16.223 -2.810 4.723 1.00 98.36 O

ATOM 610 OG SER A 79 -19.305 -3.263 3.962 1.00 98.36 O

ATOM 611 N ILE A 80 -16.096 -2.911 2.491 1.00 98.54 N

ATOM 612 CA ILE A 80 -15.339 -1.677 2.309 1.00 98.54 C

ATOM 613 C ILE A 80 -16.157 -0.491 2.814 1.00 98.54 C

ATOM 614 CB ILE A 80 -14.948 -1.467 0.829 1.00 98.54 C

ATOM 615 O ILE A 80 -15.638 0.370 3.529 1.00 98.54 O

ATOM 616 CG1 ILE A 80 -13.866 -2.471 0.414 1.00 98.54 C

ATOM 617 CG2 ILE A 80 -14.480 -0.028 0.593 1.00 98.54 C

ATOM 618 CD1 ILE A 80 -13.612 -2.522 -1.086 1.00 98.54 C

ATOM 619 N ASP A 81 -17.392 -0.511 2.508 1.00 98.31 N

ATOM 620 CA ASP A 81 -18.272 0.586 2.898 1.00 98.31 C

ATOM 621 C ASP A 81 -18.341 0.722 4.418 1.00 98.31 C

ATOM 622 CB ASP A 81 -19.675 0.380 2.324 1.00 98.31 C

ATOM 623 O ASP A 81 -18.226 1.826 4.954 1.00 98.31 O

ATOM 624 CG ASP A 81 -19.755 0.669 0.836 1.00 98.31 C

ATOM 625 OD1 ASP A 81 -18.847 1.335 0.294 1.00 98.31 O

ATOM 626 OD2 ASP A 81 -20.738 0.229 0.199 1.00 98.31 O

ATOM 627 N GLU A 82 -18.564 -0.361 5.112 1.00 98.62 N

ATOM 628 CA GLU A 82 -18.620 -0.321 6.570 1.00 98.62 C

ATOM 629 C GLU A 82 -17.285 0.123 7.162 1.00 98.62 C

ATOM 630 CB GLU A 82 -19.014 -1.690 7.131 1.00 98.62 C

ATOM 631 O GLU A 82 -17.252 0.874 8.139 1.00 98.62 O

ATOM 632 CG GLU A 82 -20.463 -2.070 6.863 1.00 98.62 C

ATOM 633 CD GLU A 82 -20.915 -3.297 7.638 1.00 98.62 C

ATOM 634 OE1 GLU A 82 -21.663 -4.129 7.076 1.00 98.62 O

ATOM 635 OE2 GLU A 82 -20.520 -3.427 8.818 1.00 98.62 O

ATOM 636 N ALA A 83 -16.233 -0.365 6.556 1.00 98.66 N

ATOM 637 CA ALA A 83 -14.911 0.052 7.017 1.00 98.66 C

ATOM 638 C ALA A 83 -14.732 1.561 6.875 1.00 98.66 C

ATOM 639 CB ALA A 83 -13.820 -0.685 6.244 1.00 98.66 C

ATOM 640 O ALA A 83 -14.354 2.240 7.832 1.00 98.66 O

ATOM 641 N LEU A 84 -15.058 2.094 5.750 1.00 98.56 N

ATOM 642 CA LEU A 84 -14.865 3.515 5.483 1.00 98.56 C

ATOM 643 C LEU A 84 -15.782 4.362 6.360 1.00 98.56 C

ATOM 644 CB LEU A 84 -15.124 3.823 4.006 1.00 98.56 C

ATOM 645 O LEU A 84 -15.378 5.418 6.850 1.00 98.56 O

ATOM 646 CG LEU A 84 -14.108 3.264 3.009 1.00 98.56 C

ATOM 647 CD1 LEU A 84 -14.521 3.609 1.582 1.00 98.56 C

ATOM 648 CD2 LEU A 84 -12.712 3.797 3.311 1.00 98.56 C

ATOM 649 N ASN A 85 -17.016 3.955 6.524 1.00 98.43 N

ATOM 650 CA ASN A 85 -17.947 4.681 7.382 1.00 98.43 C

ATOM 651 C ASN A 85 -17.425 4.786 8.813 1.00 98.43 C

ATOM 652 CB ASN A 85 -19.323 4.013 7.367 1.00 98.43 C

ATOM 653 O ASN A 85 -17.514 5.846 9.434 1.00 98.43 O

ATOM 654 CG ASN A 85 -20.093 4.291 6.091 1.00 98.43 C

ATOM 655 ND2 ASN A 85 -21.076 3.448 5.796 1.00 98.43 N

ATOM 656 OD1 ASN A 85 -19.806 5.254 5.376 1.00 98.43 O

ATOM 657 N HIS A 86 -16.921 3.692 9.316 1.00 98.63 N

ATOM 658 CA HIS A 86 -16.369 3.695 10.666 1.00 98.63 C

ATOM 659 C HIS A 86 -15.109 4.551 10.744 1.00 98.63 C

ATOM 660 CB HIS A 86 -16.062 2.267 11.122 1.00 98.63 C

ATOM 661 O HIS A 86 -14.962 5.364 11.659 1.00 98.63 O

ATOM 662 CG HIS A 86 -15.473 2.189 12.495 1.00 98.63 C

ATOM 663 CD2 HIS A 86 -14.184 2.159 12.908 1.00 98.63 C

ATOM 664 ND1 HIS A 86 -16.246 2.129 13.634 1.00 98.63 N

ATOM 665 CE1 HIS A 86 -15.455 2.066 14.692 1.00 98.63 C

ATOM 666 NE2 HIS A 86 -14.199 2.082 14.279 1.00 98.63 N

ATOM 667 N LEU A 87 -14.177 4.421 9.759 1.00 98.46 N

ATOM 668 CA LEU A 87 -12.885 5.099 9.785 1.00 98.46 C

ATOM 669 C LEU A 87 -13.063 6.611 9.704 1.00 98.46 C

ATOM 670 CB LEU A 87 -12.002 4.614 8.633 1.00 98.46 C

ATOM 671 O LEU A 87 -12.264 7.365 10.264 1.00 98.46 O

ATOM 672 CG LEU A 87 -11.390 3.221 8.786 1.00 98.46 C

ATOM 673 CD1 LEU A 87 -10.732 2.784 7.482 1.00 98.46 C

ATOM 674 CD2 LEU A 87 -10.384 3.202 9.932 1.00 98.46 C

ATOM 675 N LYS A 88 -14.054 7.030 9.072 1.00 98.03 N

ATOM 676 CA LYS A 88 -14.295 8.465 8.960 1.00 98.03 C

ATOM 677 C LYS A 88 -14.532 9.091 10.332 1.00 98.03 C

ATOM 678 CB LYS A 88 -15.489 8.740 8.045 1.00 98.03 C

ATOM 679 O LYS A 88 -14.371 10.301 10.505 1.00 98.03 O

ATOM 680 CG LYS A 88 -16.821 8.266 8.607 1.00 98.03 C

ATOM 681 CD LYS A 88 -17.967 8.551 7.644 1.00 98.03 C

ATOM 682 CE LYS A 88 -19.306 8.113 8.222 1.00 98.03 C

ATOM 683 NZ LYS A 88 -20.434 8.402 7.287 1.00 98.03 N

ATOM 684 N THR A 89 -14.918 8.263 11.304 1.00 98.05 N

ATOM 685 CA THR A 89 -15.225 8.758 12.642 1.00 98.05 C

ATOM 686 C THR A 89 -13.972 8.779 13.512 1.00 98.05 C

ATOM 687 CB THR A 89 -16.310 7.901 13.319 1.00 98.05 C

ATOM 688 O THR A 89 -13.953 9.417 14.567 1.00 98.05 O

ATOM 689 CG2 THR A 89 -17.489 7.663 12.381 1.00 98.05 C

ATOM 690 OG1 THR A 89 -15.749 6.637 13.693 1.00 98.05 O

ATOM 691 N ILE A 90 -12.871 8.180 13.109 1.00 97.75 N

ATOM 692 CA ILE A 90 -11.791 8.029 14.078 1.00 97.75 C

ATOM 693 C ILE A 90 -10.478 8.512 13.466 1.00 97.75 C

ATOM 694 CB ILE A 90 -11.656 6.564 14.550 1.00 97.75 C

ATOM 695 O ILE A 90 -9.456 8.585 14.152 1.00 97.75 O

ATOM 696 CG1 ILE A 90 -11.381 5.642 13.357 1.00 97.75 C

ATOM 697 CG2 ILE A 90 -12.912 6.122 15.306 1.00 97.75 C

ATOM 698 CD1 ILE A 90 -11.036 4.211 13.747 1.00 97.75 C

ATOM 699 N THR A 91 -10.475 8.777 12.170 1.00 97.88 N

ATOM 700 CA THR A 91 -9.238 9.254 11.561 1.00 97.88 C

ATOM 701 C THR A 91 -9.535 10.167 10.376 1.00 97.88 C

ATOM 702 CB THR A 91 -8.354 8.080 11.100 1.00 97.88 C

ATOM 703 O THR A 91 -10.631 10.125 9.812 1.00 97.88 O

ATOM 704 CG2 THR A 91 -9.026 7.293 9.980 1.00 97.88 C

ATOM 705 OG1 THR A 91 -7.102 8.590 10.626 1.00 97.88 O

ATOM 706 N ASP A 92 -8.623 10.959 9.928 1.00 97.47 N

ATOM 707 CA ASP A 92 -8.776 11.886 8.810 1.00 97.47 C

ATOM 708 C ASP A 92 -8.084 11.355 7.557 1.00 97.47 C

ATOM 709 CB ASP A 92 -8.219 13.264 9.175 1.00 97.47 C

ATOM 710 O ASP A 92 -8.250 11.908 6.468 1.00 97.47 O

ATOM 711 CG ASP A 92 -9.041 13.973 10.237 1.00 97.47 C

ATOM 712 OD1 ASP A 92 -10.279 13.808 10.262 1.00 97.47 O

ATOM 713 OD2 ASP A 92 -8.444 14.706 11.055 1.00 97.47 O

ATOM 714 N HIS A 93 -7.286 10.251 7.761 1.00 98.25 N

ATOM 715 CA HIS A 93 -6.497 9.747 6.643 1.00 98.25 C

ATOM 716 C HIS A 93 -6.397 8.226 6.680 1.00 98.25 C

ATOM 717 CB HIS A 93 -5.098 10.366 6.652 1.00 98.25 C

ATOM 718 O HIS A 93 -6.029 7.649 7.706 1.00 98.25 O

ATOM 719 CG HIS A 93 -4.280 10.017 5.450 1.00 98.25 C

ATOM 720 CD2 HIS A 93 -4.648 9.678 4.192 1.00 98.25 C

ATOM 721 ND1 HIS A 93 -2.902 9.991 5.470 1.00 98.25 N

ATOM 722 CE1 HIS A 93 -2.457 9.650 4.272 1.00 98.25 C

ATOM 723 NE2 HIS A 93 -3.496 9.454 3.478 1.00 98.25 N

ATOM 724 N VAL A 94 -6.748 7.651 5.535 1.00 98.73 N

ATOM 725 CA VAL A 94 -6.645 6.205 5.363 1.00 98.73 C

ATOM 726 C VAL A 94 -5.790 5.890 4.137 1.00 98.73 C

ATOM 727 CB VAL A 94 -8.038 5.550 5.224 1.00 98.73 C

ATOM 728 O VAL A 94 -5.919 6.542 3.098 1.00 98.73 O

ATOM 729 CG1 VAL A 94 -7.905 4.066 4.887 1.00 98.73 C

ATOM 730 CG2 VAL A 94 -8.846 5.739 6.506 1.00 98.73 C

ATOM 731 N ILE A 95 -4.963 4.851 4.366 1.00 98.80 N

ATOM 732 CA ILE A 95 -4.153 4.405 3.238 1.00 98.80 C

ATOM 733 C ILE A 95 -4.605 3.015 2.795 1.00 98.80 C

ATOM 734 CB ILE A 95 -2.649 4.392 3.592 1.00 98.80 C

ATOM 735 O ILE A 95 -4.468 2.044 3.542 1.00 98.80 O

ATOM 736 CG1 ILE A 95 -2.213 5.763 4.120 1.00 98.80 C

ATOM 737 CG2 ILE A 95 -1.811 3.981 2.377 1.00 98.80 C

ATOM 738 CD1 ILE A 95 -0.764 5.815 4.587 1.00 98.80 C

ATOM 739 N VAL A 96 -5.116 2.953 1.571 1.00 98.80 N

ATOM 740 CA VAL A 96 -5.463 1.664 0.983 1.00 98.80 C

ATOM 741 C VAL A 96 -4.191 0.912 0.600 1.00 98.80 C

ATOM 742 CB VAL A 96 -6.376 1.830 -0.252 1.00 98.80 C

ATOM 743 O VAL A 96 -3.405 1.387 -0.223 1.00 98.80 O

ATOM 744 CG1 VAL A 96 -6.739 0.469 -0.843 1.00 98.80 C

ATOM 745 CG2 VAL A 96 -7.637 2.609 0.119 1.00 98.80 C

ATOM 746 N SER A 97 -3.979 -0.255 1.164 1.00 98.25 N

ATOM 747 CA SER A 97 -2.672 -0.889 1.025 1.00 98.25 C

ATOM 748 C SER A 97 -2.804 -2.322 0.521 1.00 98.25 C

ATOM 749 CB SER A 97 -1.924 -0.875 2.359 1.00 98.25 C

ATOM 750 O SER A 97 -1.879 -3.124 0.666 1.00 98.25 O

ATOM 751 OG SER A 97 -1.665 0.454 2.777 1.00 98.25 O

ATOM 752 N GLY A 98 -3.957 -2.552 -0.111 1.00 93.82 N

ATOM 753 CA GLY A 98 -4.069 -3.802 -0.845 1.00 93.82 C

ATOM 754 C GLY A 98 -5.094 -4.752 -0.254 1.00 93.82 C

ATOM 755 O GLY A 98 -5.665 -4.477 0.803 1.00 93.82 O

ATOM 756 N GLY A 99 -5.174 -5.835 -1.060 1.00 93.65 N

ATOM 757 CA GLY A 99 -5.184 -6.905 -2.045 1.00 93.65 C

ATOM 758 C GLY A 99 -5.833 -6.505 -3.356 1.00 93.65 C

ATOM 759 O GLY A 99 -6.403 -5.417 -3.465 1.00 93.65 O

ATOM 760 N GLY A 100 -5.436 -7.120 -4.442 1.00 95.41 N

ATOM 761 CA GLY A 100 -5.905 -6.833 -5.788 1.00 95.41 C

ATOM 762 C GLY A 100 -7.360 -6.407 -5.835 1.00 95.41 C

ATOM 763 O GLY A 100 -7.705 -5.430 -6.503 1.00 95.41 O

ATOM 764 N GLU A 101 -8.238 -7.066 -5.059 1.00 97.21 N

ATOM 765 CA GLU A 101 -9.664 -6.753 -5.057 1.00 97.21 C

ATOM 766 C GLU A 101 -9.934 -5.416 -4.371 1.00 97.21 C

ATOM 767 CB GLU A 101 -10.459 -7.866 -4.369 1.00 97.21 C

ATOM 768 O GLU A 101 -10.800 -4.654 -4.806 1.00 97.21 O

ATOM 769 CG GLU A 101 -10.523 -9.159 -5.169 1.00 97.21 C

ATOM 770 CD GLU A 101 -11.368 -10.235 -4.504 1.00 97.21 C

ATOM 771 OE1 GLU A 101 -11.356 -11.394 -4.975 1.00 97.21 O

ATOM 772 OE2 GLU A 101 -12.049 -9.914 -3.504 1.00 97.21 O

ATOM 773 N ILE A 102 -9.249 -5.171 -3.276 1.00 98.54 N

ATOM 774 CA ILE A 102 -9.387 -3.906 -2.563 1.00 98.54 C

ATOM 775 C ILE A 102 -8.945 -2.755 -3.463 1.00 98.54 C

ATOM 776 CB ILE A 102 -8.570 -3.905 -1.251 1.00 98.54 C

ATOM 777 O ILE A 102 -9.654 -1.754 -3.595 1.00 98.54 O

ATOM 778 CG1 ILE A 102 -9.102 -4.974 -0.290 1.00 98.54 C

ATOM 779 CG2 ILE A 102 -8.597 -2.519 -0.599 1.00 98.54 C

ATOM 780 CD1 ILE A 102 -10.537 -4.741 0.162 1.00 98.54 C

ATOM 781 N TYR A 103 -7.792 -2.966 -4.119 1.00 98.66 N

ATOM 782 CA TYR A 103 -7.318 -1.932 -5.032 1.00 98.66 C

ATOM 783 C TYR A 103 -8.337 -1.667 -6.133 1.00 98.66 C

ATOM 784 CB TYR A 103 -5.975 -2.335 -5.649 1.00 98.66 C

ATOM 785 O TYR A 103 -8.657 -0.513 -6.427 1.00 98.66 O

ATOM 786 CG TYR A 103 -4.817 -2.261 -4.684 1.00 98.66 C

ATOM 787 CD1 TYR A 103 -4.727 -1.231 -3.751 1.00 98.66 C

ATOM 788 CD2 TYR A 103 -3.810 -3.220 -4.704 1.00 98.66 C

ATOM 789 CE1 TYR A 103 -3.660 -1.157 -2.861 1.00 98.66 C

ATOM 790 CE2 TYR A 103 -2.739 -3.157 -3.819 1.00 98.66 C

ATOM 791 OH TYR A 103 -1.615 -2.056 -2.024 1.00 98.66 O

ATOM 792 CZ TYR A 103 -2.673 -2.124 -2.902 1.00 98.66 C

ATOM 793 N LYS A 104 -8.785 -2.658 -6.722 1.00 98.35 N

ATOM 794 CA LYS A 104 -9.728 -2.544 -7.831 1.00 98.35 C

ATOM 795 C LYS A 104 -10.986 -1.791 -7.407 1.00 98.35 C

ATOM 796 CB LYS A 104 -10.101 -3.929 -8.362 1.00 98.35 C

ATOM 797 O LYS A 104 -11.509 -0.970 -8.164 1.00 98.35 O

ATOM 798 CG LYS A 104 -10.965 -3.900 -9.614 1.00 98.35 C

ATOM 799 CD LYS A 104 -11.226 -5.303 -10.147 1.00 98.35 C

ATOM 800 CE LYS A 104 -12.100 -5.275 -11.393 1.00 98.35 C

ATOM 801 NZ LYS A 104 -12.333 -6.647 -11.937 1.00 98.35 N

ATOM 802 N SER A 105 -11.425 -1.977 -6.235 1.00 98.26 N

ATOM 803 CA SER A 105 -12.681 -1.419 -5.746 1.00 98.26 C

ATOM 804 C SER A 105 -12.524 0.049 -5.366 1.00 98.26 C

ATOM 805 CB SER A 105 -13.188 -2.215 -4.542 1.00 98.26 C

ATOM 806 O SER A 105 -13.485 0.819 -5.430 1.00 98.26 O

ATOM 807 OG SER A 105 -13.544 -3.532 -4.923 1.00 98.26 O

ATOM 808 N LEU A 106 -11.301 0.442 -4.991 1.00 98.31 N

ATOM 809 CA LEU A 106 -11.196 1.749 -4.352 1.00 98.31 C

ATOM 810 C LEU A 106 -10.378 2.709 -5.210 1.00 98.31 C

ATOM 811 CB LEU A 106 -10.561 1.619 -2.965 1.00 98.31 C

ATOM 812 O LEU A 106 -10.362 3.915 -4.956 1.00 98.31 O

ATOM 813 CG LEU A 106 -11.452 1.043 -1.864 1.00 98.31 C

ATOM 814 CD1 LEU A 106 -10.623 0.720 -0.625 1.00 98.31 C

ATOM 815 CD2 LEU A 106 -12.577 2.015 -1.522 1.00 98.31 C

ATOM 816 N ILE A 107 -9.716 2.224 -6.263 1.00 98.06 N

ATOM 817 CA ILE A 107 -8.752 3.027 -7.008 1.00 98.06 C

ATOM 818 C ILE A 107 -9.436 4.276 -7.558 1.00 98.06 C

ATOM 819 CB ILE A 107 -8.110 2.217 -8.157 1.00 98.06 C

ATOM 820 O ILE A 107 -8.823 5.343 -7.636 1.00 98.06 O

ATOM 821 CG1 ILE A 107 -6.932 2.990 -8.762 1.00 98.06 C

ATOM 822 CG2 ILE A 107 -9.152 1.881 -9.228 1.00 98.06 C

ATOM 823 CD1 ILE A 107 -6.027 2.146 -9.648 1.00 98.06 C

ATOM 824 N ASP A 108 -10.727 4.193 -7.887 1.00 96.39 N

ATOM 825 CA ASP A 108 -11.432 5.333 -8.465 1.00 96.39 C

ATOM 826 C ASP A 108 -11.919 6.287 -7.378 1.00 96.39 C

ATOM 827 CB ASP A 108 -12.612 4.858 -9.316 1.00 96.39 C

ATOM 828 O ASP A 108 -12.358 7.401 -7.673 1.00 96.39 O

ATOM 829 CG ASP A 108 -12.191 4.347 -10.682 1.00 96.39 C

ATOM 830 OD1 ASP A 108 -11.170 4.823 -11.223 1.00 96.39 O

ATOM 831 OD2 ASP A 108 -12.889 3.463 -11.224 1.00 96.39 O

ATOM 832 N LYS A 109 -11.791 5.900 -6.158 1.00 96.40 N

ATOM 833 CA LYS A 109 -12.366 6.697 -5.079 1.00 96.40 C

ATOM 834 C LYS A 109 -11.278 7.415 -4.285 1.00 96.40 C

ATOM 835 CB LYS A 109 -13.201 5.817 -4.147 1.00 96.40 C

ATOM 836 O LYS A 109 -11.575 8.263 -3.441 1.00 96.40 O

ATOM 837 CG LYS A 109 -14.432 5.212 -4.806 1.00 96.40 C

ATOM 838 CD LYS A 109 -15.232 4.365 -3.824 1.00 96.40 C

ATOM 839 CE LYS A 109 -16.456 3.747 -4.486 1.00 96.40 C

ATOM 840 NZ LYS A 109 -17.259 2.939 -3.520 1.00 96.40 N

ATOM 841 N VAL A 110 -10.029 7.001 -4.527 1.00 98.12 N

ATOM 842 CA VAL A 110 -8.964 7.590 -3.722 1.00 98.12 C

ATOM 843 C VAL A 110 -8.542 8.929 -4.322 1.00 98.12 C

ATOM 844 CB VAL A 110 -7.745 6.646 -3.615 1.00 98.12 C

ATOM 845 O VAL A 110 -8.814 9.205 -5.493 1.00 98.12 O

ATOM 846 CG1 VAL A 110 -8.135 5.335 -2.936 1.00 98.12 C

ATOM 847 CG2 VAL A 110 -7.154 6.380 -4.999 1.00 98.12 C

ATOM 848 N ASP A 111 -7.881 9.765 -3.503 1.00 97.14 N

ATOM 849 CA ASP A 111 -7.465 11.112 -3.883 1.00 97.14 C

ATOM 850 C ASP A 111 -6.044 11.111 -4.441 1.00 97.14 C

ATOM 851 CB ASP A 111 -7.561 12.061 -2.687 1.00 97.14 C

ATOM 852 O ASP A 111 -5.728 11.880 -5.351 1.00 97.14 O

ATOM 853 CG ASP A 111 -8.948 12.100 -2.070 1.00 97.14 C

ATOM 854 OD1 ASP A 111 -9.919 12.447 -2.775 1.00 97.14 O

ATOM 855 OD2 ASP A 111 -9.069 11.784 -0.867 1.00 97.14 O

ATOM 856 N THR A 112 -5.182 10.245 -3.837 1.00 98.50 N

ATOM 857 CA THR A 112 -3.759 10.197 -4.156 1.00 98.50 C

ATOM 858 C THR A 112 -3.290 8.755 -4.323 1.00 98.50 C

ATOM 859 CB THR A 112 -2.919 10.890 -3.067 1.00 98.50 C

ATOM 860 O THR A 112 -3.728 7.865 -3.591 1.00 98.50 O

ATOM 861 CG2 THR A 112 -1.443 10.927 -3.451 1.00 98.50 C

ATOM 862 OG1 THR A 112 -3.389 12.232 -2.890 1.00 98.50 O

ATOM 863 N LEU A 113 -2.445 8.579 -5.355 1.00 98.80 N

ATOM 864 CA LEU A 113 -1.784 7.292 -5.546 1.00 98.80 C

ATOM 865 C LEU A 113 -0.286 7.406 -5.284 1.00 98.80 C

ATOM 866 CB LEU A 113 -2.028 6.769 -6.964 1.00 98.80 C

ATOM 867 O LEU A 113 0.373 8.308 -5.806 1.00 98.80 O

ATOM 868 CG LEU A 113 -3.483 6.731 -7.432 1.00 98.80 C

ATOM 869 CD1 LEU A 113 -3.560 6.294 -8.891 1.00 98.80 C

ATOM 870 CD2 LEU A 113 -4.306 5.801 -6.546 1.00 98.80 C

ATOM 871 N HIS A 114 0.215 6.557 -4.396 1.00 98.78 N

ATOM 872 CA HIS A 114 1.645 6.310 -4.248 1.00 98.78 C

ATOM 873 C HIS A 114 2.046 4.989 -4.896 1.00 98.78 C

ATOM 874 CB HIS A 114 2.038 6.311 -2.770 1.00 98.78 C

ATOM 875 O HIS A 114 1.752 3.917 -4.362 1.00 98.78 O

ATOM 876 CG HIS A 114 1.776 7.611 -2.079 1.00 98.78 C

ATOM 877 CD2 HIS A 114 0.668 8.080 -1.458 1.00 98.78 C

ATOM 878 ND1 HIS A 114 2.725 8.605 -1.979 1.00 98.78 N

ATOM 879 CE1 HIS A 114 2.211 9.632 -1.322 1.00 98.78 C

ATOM 880 NE2 HIS A 114 0.964 9.339 -0.995 1.00 98.78 N

ATOM 881 N ILE A 115 2.792 5.149 -6.048 1.00 98.81 N

ATOM 882 CA ILE A 115 3.058 3.955 -6.842 1.00 98.81 C

ATOM 883 C ILE A 115 4.565 3.759 -6.991 1.00 98.81 C

ATOM 884 CB ILE A 115 2.389 4.040 -8.232 1.00 98.81 C

ATOM 885 O ILE A 115 5.275 4.666 -7.434 1.00 98.81 O

ATOM 886 CG1 ILE A 115 0.876 4.234 -8.085 1.00 98.81 C

ATOM 887 CG2 ILE A 115 2.703 2.790 -9.060 1.00 98.81 C

ATOM 888 CD1 ILE A 115 0.166 3.074 -7.400 1.00 98.81 C

ATOM 889 N SER A 116 5.030 2.605 -6.549 1.00 98.77 N

ATOM 890 CA SER A 116 6.366 2.148 -6.916 1.00 98.77 C

ATOM 891 C SER A 116 6.311 1.142 -8.061 1.00 98.77 C

ATOM 892 CB SER A 116 7.069 1.523 -5.710 1.00 98.77 C

ATOM 893 O SER A 116 5.664 0.099 -7.948 1.00 98.77 O

ATOM 894 OG SER A 116 7.250 2.480 -4.682 1.00 98.77 O

ATOM 895 N THR A 117 6.950 1.470 -9.171 1.00 98.78 N

ATOM 896 CA THR A 117 7.070 0.520 -10.271 1.00 98.78 C

ATOM 897 C THR A 117 8.391 -0.240 -10.188 1.00 98.78 C

ATOM 898 CB THR A 117 6.967 1.228 -11.635 1.00 98.78 C

ATOM 899 O THR A 117 9.462 0.347 -10.352 1.00 98.78 O

ATOM 900 CG2 THR A 117 7.016 0.224 -12.781 1.00 98.78 C

ATOM 901 OG1 THR A 117 5.731 1.951 -11.699 1.00 98.78 O

ATOM 902 N ILE A 118 8.271 -1.534 -9.933 1.00 98.80 N

ATOM 903 CA ILE A 118 9.426 -2.415 -9.804 1.00 98.80 C

ATOM 904 C ILE A 118 9.904 -2.846 -11.189 1.00 98.80 C

ATOM 905 CB ILE A 118 9.097 -3.654 -8.941 1.00 98.80 C

ATOM 906 O ILE A 118 9.133 -3.406 -11.972 1.00 98.80 O

ATOM 907 CG1 ILE A 118 8.436 -3.228 -7.625 1.00 98.80 C

ATOM 908 CG2 ILE A 118 10.361 -4.479 -8.677 1.00 98.80 C

ATOM 909 CD1 ILE A 118 9.278 -2.274 -6.789 1.00 98.80 C

ATOM 910 N ASP A 119 11.168 -2.686 -11.501 1.00 98.62 N

ATOM 911 CA ASP A 119 11.683 -2.834 -12.858 1.00 98.62 C

ATOM 912 C ASP A 119 12.006 -4.295 -13.167 1.00 98.62 C

ATOM 913 CB ASP A 119 12.928 -1.967 -13.058 1.00 98.62 C

ATOM 914 O ASP A 119 13.149 -4.629 -13.487 1.00 98.62 O

ATOM 915 CG ASP A 119 13.331 -1.834 -14.516 1.00 98.62 C

ATOM 916 OD1 ASP A 119 12.483 -2.057 -15.406 1.00 98.62 O

ATOM 917 OD2 ASP A 119 14.509 -1.507 -14.777 1.00 98.62 O

ATOM 918 N ILE A 120 10.980 -5.138 -13.059 1.00 98.65 N

ATOM 919 CA ILE A 120 11.052 -6.548 -13.424 1.00 98.65 C

ATOM 920 C ILE A 120 9.691 -7.021 -13.929 1.00 98.65 C

ATOM 921 CB ILE A 120 11.513 -7.418 -12.232 1.00 98.65 C

ATOM 922 O ILE A 120 8.694 -6.306 -13.806 1.00 98.65 O

ATOM 923 CG1 ILE A 120 10.506 -7.321 -11.080 1.00 98.65 C

ATOM 924 CG2 ILE A 120 12.914 -7.003 -11.772 1.00 98.65 C

ATOM 925 CD1 ILE A 120 10.733 -8.341 -9.973 1.00 98.65 C

ATOM 926 N GLU A 121 9.650 -8.151 -14.505 1.00 98.62 N

ATOM 927 CA GLU A 121 8.432 -8.814 -14.962 1.00 98.62 C

ATOM 928 C GLU A 121 8.331 -10.230 -14.404 1.00 98.62 C

ATOM 929 CB GLU A 121 8.378 -8.846 -16.491 1.00 98.62 C

ATOM 930 O GLU A 121 8.671 -11.198 -15.088 1.00 98.62 O

ATOM 931 CG GLU A 121 8.338 -7.467 -17.135 1.00 98.62 C

ATOM 932 CD GLU A 121 8.228 -7.515 -18.650 1.00 98.62 C

ATOM 933 OE1 GLU A 121 8.122 -6.442 -19.285 1.00 98.62 O

ATOM 934 OE2 GLU A 121 8.247 -8.636 -19.207 1.00 98.62 O

ATOM 935 N PRO A 122 7.892 -10.391 -13.195 1.00 98.27 N

ATOM 936 CA PRO A 122 7.788 -11.713 -12.572 1.00 98.27 C

ATOM 937 C PRO A 122 6.507 -12.448 -12.960 1.00 98.27 C

ATOM 938 CB PRO A 122 7.805 -11.400 -11.074 1.00 98.27 C

ATOM 939 O PRO A 122 5.590 -11.844 -13.524 1.00 98.27 O

ATOM 940 CG PRO A 122 7.075 -10.102 -10.947 1.00 98.27 C

ATOM 941 CD PRO A 122 7.410 -9.247 -12.136 1.00 98.27 C

ATOM 942 N GLU A 123 6.471 -13.725 -12.692 1.00 98.32 N

ATOM 943 CA GLU A 123 5.212 -14.463 -12.727 1.00 98.32 C

ATOM 944 C GLU A 123 4.347 -14.137 -11.513 1.00 98.32 C

ATOM 945 CB GLU A 123 5.474 -15.970 -12.796 1.00 98.32 C

ATOM 946 O GLU A 123 4.861 -13.970 -10.404 1.00 98.32 O

ATOM 947 CG GLU A 123 6.150 -16.418 -14.084 1.00 98.32 C

ATOM 948 CD GLU A 123 6.262 -17.929 -14.208 1.00 98.32 C

ATOM 949 OE1 GLU A 123 6.658 -18.421 -15.289 1.00 98.32 O

ATOM 950 OE2 GLU A 123 5.951 -18.626 -13.217 1.00 98.32 O

ATOM 951 N GLY A 124 3.015 -13.969 -11.780 1.00 97.90 N

ATOM 952 CA GLY A 124 2.098 -13.709 -10.682 1.00 97.90 C

ATOM 953 C GLY A 124 0.639 -13.826 -11.083 1.00 97.90 C

ATOM 954 O GLY A 124 0.321 -13.896 -12.271 1.00 97.90 O

ATOM 955 N ASP A 125 -0.167 -13.890 -9.985 1.00 97.87 N

ATOM 956 CA ASP A 125 -1.575 -14.147 -10.273 1.00 97.87 C

ATOM 957 C ASP A 125 -2.457 -13.013 -9.757 1.00 97.87 C

ATOM 958 CB ASP A 125 -2.014 -15.477 -9.656 1.00 97.87 C

ATOM 959 O ASP A 125 -3.686 -13.100 -9.815 1.00 97.87 O

ATOM 960 CG ASP A 125 -1.762 -15.549 -8.161 1.00 97.87 C

ATOM 961 OD1 ASP A 125 -1.220 -14.581 -7.586 1.00 97.87 O

ATOM 962 OD2 ASP A 125 -2.107 -16.585 -7.551 1.00 97.87 O

ATOM 963 N VAL A 126 -1.838 -12.069 -9.183 1.00 98.23 N

ATOM 964 CA VAL A 126 -2.576 -10.902 -8.711 1.00 98.23 C

ATOM 965 C VAL A 126 -2.068 -9.648 -9.418 1.00 98.23 C

ATOM 966 CB VAL A 126 -2.458 -10.737 -7.180 1.00 98.23 C

ATOM 967 O VAL A 126 -0.865 -9.376 -9.424 1.00 98.23 O

ATOM 968 CG1 VAL A 126 -3.332 -9.583 -6.692 1.00 98.23 C

ATOM 969 CG2 VAL A 126 -2.838 -12.036 -6.472 1.00 98.23 C

ATOM 970 N TYR A 127 -3.006 -8.873 -9.944 1.00 98.50 N

ATOM 971 CA TYR A 127 -2.622 -7.728 -10.762 1.00 98.50 C

ATOM 972 C TYR A 127 -3.194 -6.435 -10.193 1.00 98.50 C

ATOM 973 CB TYR A 127 -3.094 -7.916 -12.207 1.00 98.50 C

ATOM 974 O TYR A 127 -4.287 -6.431 -9.622 1.00 98.50 O

ATOM 975 CG TYR A 127 -2.426 -9.068 -12.918 1.00 98.50 C

ATOM 976 CD1 TYR A 127 -1.304 -8.862 -13.718 1.00 98.50 C

ATOM 977 CD2 TYR A 127 -2.916 -10.364 -12.793 1.00 98.50 C

ATOM 978 CE1 TYR A 127 -0.686 -9.920 -14.377 1.00 98.50 C

ATOM 979 CE2 TYR A 127 -2.306 -11.429 -13.448 1.00 98.50 C

ATOM 980 OH TYR A 127 -0.586 -12.249 -14.886 1.00 98.50 O

ATOM 981 CZ TYR A 127 -1.194 -11.198 -14.235 1.00 98.50 C

ATOM 982 N PHE A 128 -2.418 -5.424 -10.338 1.00 98.55 N

ATOM 983 CA PHE A 128 -2.897 -4.083 -10.020 1.00 98.55 C

ATOM 984 C PHE A 128 -3.857 -3.583 -11.093 1.00 98.55 C

ATOM 985 CB PHE A 128 -1.721 -3.112 -9.874 1.00 98.55 C

ATOM 986 O PHE A 128 -3.652 -3.834 -12.282 1.00 98.55 O

ATOM 987 CG PHE A 128 -2.098 -1.791 -9.260 1.00 98.55 C

ATOM 988 CD1 PHE A 128 -2.192 -0.646 -10.042 1.00 98.55 C

ATOM 989 CD2 PHE A 128 -2.360 -1.694 -7.899 1.00 98.55 C

ATOM 990 CE1 PHE A 128 -2.540 0.578 -9.476 1.00 98.55 C

ATOM 991 CE2 PHE A 128 -2.709 -0.474 -7.326 1.00 98.55 C

ATOM 992 CZ PHE A 128 -2.798 0.660 -8.116 1.00 98.55 C

ATOM 993 N PRO A 129 -4.945 -2.931 -10.668 1.00 98.18 N

ATOM 994 CA PRO A 129 -5.880 -2.407 -11.666 1.00 98.18 C

ATOM 995 C PRO A 129 -5.305 -1.231 -12.453 1.00 98.18 C

ATOM 996 CB PRO A 129 -7.082 -1.968 -10.827 1.00 98.18 C

ATOM 997 O PRO A 129 -4.304 -0.639 -12.042 1.00 98.18 O

ATOM 998 CG PRO A 129 -6.502 -1.566 -9.510 1.00 98.18 C

ATOM 999 CD PRO A 129 -5.354 -2.481 -9.195 1.00 98.18 C

ATOM 1000 N GLU A 130 -5.920 -0.926 -13.595 1.00 97.54 N

ATOM 1001 CA GLU A 130 -5.494 0.202 -14.418 1.00 97.54 C

ATOM 1002 C GLU A 130 -5.727 1.528 -13.699 1.00 97.54 C

ATOM 1003 CB GLU A 130 -6.228 0.196 -15.761 1.00 97.54 C

ATOM 1004 O GLU A 130 -6.764 1.722 -13.063 1.00 97.54 O

ATOM 1005 CG GLU A 130 -5.685 1.204 -16.763 1.00 97.54 C

ATOM 1006 CD GLU A 130 -6.427 1.190 -18.090 1.00 97.54 C

ATOM 1007 OE1 GLU A 130 -6.066 1.976 -18.996 1.00 97.54 O

ATOM 1008 OE2 GLU A 130 -7.376 0.386 -18.226 1.00 97.54 O

ATOM 1009 N ILE A 131 -4.739 2.397 -13.722 1.00 97.90 N

ATOM 1010 CA ILE A 131 -4.882 3.735 -13.157 1.00 97.90 C

ATOM 1011 C ILE A 131 -5.817 4.567 -14.031 1.00 97.90 C

ATOM 1012 CB ILE A 131 -3.513 4.437 -13.015 1.00 97.90 C

ATOM 1013 O ILE A 131 -5.590 4.708 -15.235 1.00 97.90 O

ATOM 1014 CG1 ILE A 131 -2.609 3.656 -12.054 1.00 97.90 C

ATOM 1015 CG2 ILE A 131 -3.695 5.883 -12.543 1.00 97.90 C

ATOM 1016 CD1 ILE A 131 -1.196 4.213 -11.944 1.00 97.90 C

ATOM 1017 N PRO A 132 -6.915 5.104 -13.444 1.00 97.64 N

ATOM 1018 CA PRO A 132 -7.866 5.923 -14.199 1.00 97.64 C

ATOM 1019 C PRO A 132 -7.204 7.115 -14.886 1.00 97.64 C

ATOM 1020 CB PRO A 132 -8.855 6.391 -13.128 1.00 97.64 C

ATOM 1021 O PRO A 132 -6.234 7.672 -14.365 1.00 97.64 O

ATOM 1022 CG PRO A 132 -8.783 5.349 -12.060 1.00 97.64 C

ATOM 1023 CD PRO A 132 -7.364 4.867 -11.958 1.00 97.64 C

ATOM 1024 N SER A 133 -7.718 7.466 -16.005 1.00 96.88 N

ATOM 1025 CA SER A 133 -7.152 8.533 -16.823 1.00 96.88 C

ATOM 1026 C SER A 133 -7.243 9.880 -16.115 1.00 96.88 C

ATOM 1027 CB SER A 133 -7.865 8.609 -18.174 1.00 96.88 C

ATOM 1028 O SER A 133 -6.544 10.828 -16.479 1.00 96.88 O

ATOM 1029 OG SER A 133 -9.254 8.832 -17.997 1.00 96.88 O

ATOM 1030 N SER A 134 -8.122 9.940 -15.088 1.00 96.70 N

ATOM 1031 CA SER A 134 -8.293 11.177 -14.333 1.00 96.70 C

ATOM 1032 C SER A 134 -7.061 11.483 -13.488 1.00 96.70 C

ATOM 1033 CB SER A 134 -9.528 11.091 -13.435 1.00 96.70 C

ATOM 1034 O SER A 134 -6.912 12.595 -12.978 1.00 96.70 O

ATOM 1035 OG SER A 134 -9.433 9.986 -12.553 1.00 96.70 O

ATOM 1036 N PHE A 135 -6.112 10.588 -13.313 1.00 98.38 N

ATOM 1037 CA PHE A 135 -4.904 10.787 -12.522 1.00 98.38 C

ATOM 1038 C PHE A 135 -3.745 11.231 -13.407 1.00 98.38 C

ATOM 1039 CB PHE A 135 -4.532 9.503 -11.774 1.00 98.38 C

ATOM 1040 O PHE A 135 -3.624 10.787 -14.550 1.00 98.38 O

ATOM 1041 CG PHE A 135 -5.352 9.262 -10.536 1.00 98.38 C

ATOM 1042 CD1 PHE A 135 -5.003 9.853 -9.328 1.00 98.38 C

ATOM 1043 CD2 PHE A 135 -6.473 8.443 -10.580 1.00 98.38 C

ATOM 1044 CE1 PHE A 135 -5.761 9.632 -8.180 1.00 98.38 C

ATOM 1045 CE2 PHE A 135 -7.235 8.218 -9.438 1.00 98.38 C

ATOM 1046 CZ PHE A 135 -6.877 8.812 -8.239 1.00 98.38 C

ATOM 1047 N ARG A 136 -2.917 12.089 -12.840 1.00 98.01 N

ATOM 1048 CA ARG A 136 -1.674 12.512 -13.477 1.00 98.01 C

ATOM 1049 C ARG A 136 -0.511 12.465 -12.492 1.00 98.01 C

ATOM 1050 CB ARG A 136 -1.817 13.922 -14.054 1.00 98.01 C

ATOM 1051 O ARG A 136 -0.666 12.824 -11.323 1.00 98.01 O

ATOM 1052 CG ARG A 136 -2.963 14.070 -15.042 1.00 98.01 C

ATOM 1053 CD ARG A 136 -2.591 13.543 -16.421 1.00 98.01 C

ATOM 1054 NE ARG A 136 -3.615 13.859 -17.413 1.00 98.01 N

ATOM 1055 NH1 ARG A 136 -2.977 12.210 -18.899 1.00 98.01 N

ATOM 1056 NH2 ARG A 136 -4.739 13.590 -19.397 1.00 98.01 N

ATOM 1057 CZ ARG A 136 -3.775 13.219 -18.567 1.00 98.01 C

ATOM 1058 N PRO A 137 0.629 12.020 -13.019 1.00 98.13 N

ATOM 1059 CA PRO A 137 1.785 12.040 -12.120 1.00 98.13 C

ATOM 1060 C PRO A 137 2.238 13.456 -11.772 1.00 98.13 C

ATOM 1061 CB PRO A 137 2.864 11.303 -12.918 1.00 98.13 C

ATOM 1062 O PRO A 137 2.328 14.314 -12.654 1.00 98.13 O

ATOM 1063 CG PRO A 137 2.498 11.524 -14.350 1.00 98.13 C

ATOM 1064 CD PRO A 137 1.002 11.602 -14.453 1.00 98.13 C

ATOM 1065 N VAL A 138 2.502 13.676 -10.547 1.00 98.42 N

ATOM 1066 CA VAL A 138 2.903 15.014 -10.123 1.00 98.42 C

ATOM 1067 C VAL A 138 4.290 14.961 -9.487 1.00 98.42 C

ATOM 1068 CB VAL A 138 1.886 15.625 -9.134 1.00 98.42 C

ATOM 1069 O VAL A 138 4.867 15.999 -9.154 1.00 98.42 O

ATOM 1070 CG1 VAL A 138 0.542 15.865 -9.820 1.00 98.42 C

ATOM 1071 CG2 VAL A 138 1.714 14.717 -7.918 1.00 98.42 C

ATOM 1072 N PHE A 139 4.804 13.722 -9.311 1.00 98.64 N

ATOM 1073 CA PHE A 139 6.125 13.476 -8.746 1.00 98.64 C

ATOM 1074 C PHE A 139 6.680 12.141 -9.228 1.00 98.64 C

ATOM 1075 CB PHE A 139 6.070 13.500 -7.216 1.00 98.64 C

ATOM 1076 O PHE A 139 5.930 11.178 -9.403 1.00 98.64 O

ATOM 1077 CG PHE A 139 7.389 13.198 -6.556 1.00 98.64 C

ATOM 1078 CD1 PHE A 139 7.713 11.900 -6.182 1.00 98.64 C

ATOM 1079 CD2 PHE A 139 8.304 14.213 -6.309 1.00 98.64 C

ATOM 1080 CE1 PHE A 139 8.933 11.617 -5.571 1.00 98.64 C

ATOM 1081 CE2 PHE A 139 9.524 13.938 -5.699 1.00 98.64 C

ATOM 1082 CZ PHE A 139 9.837 12.640 -5.330 1.00 98.64 C

ATOM 1083 N SER A 140 7.989 12.164 -9.432 1.00 98.66 N

ATOM 1084 CA SER A 140 8.659 10.921 -9.800 1.00 98.66 C

ATOM 1085 C SER A 140 10.100 10.901 -9.300 1.00 98.66 C

ATOM 1086 CB SER A 140 8.635 10.728 -11.317 1.00 98.66 C

ATOM 1087 O SER A 140 10.798 11.915 -9.362 1.00 98.66 O

ATOM 1088 OG SER A 140 9.261 9.509 -11.678 1.00 98.66 O

ATOM 1089 N GLN A 141 10.455 9.800 -8.796 1.00 98.63 N

ATOM 1090 CA GLN A 141 11.833 9.586 -8.366 1.00 98.63 C

ATOM 1091 C GLN A 141 12.294 8.166 -8.681 1.00 98.63 C

ATOM 1092 CB GLN A 141 11.978 9.865 -6.869 1.00 98.63 C

ATOM 1093 O GLN A 141 11.646 7.195 -8.283 1.00 98.63 O

ATOM 1094 CG GLN A 141 13.411 9.777 -6.362 1.00 98.63 C

ATOM 1095 CD GLN A 141 13.554 10.235 -4.923 1.00 98.63 C

ATOM 1096 NE2 GLN A 141 14.759 10.107 -4.377 1.00 98.63 N

ATOM 1097 OE1 GLN A 141 12.591 10.701 -4.307 1.00 98.63 O

ATOM 1098 N ASP A 142 13.502 8.096 -9.262 1.00 98.71 N

ATOM 1099 CA ASP A 142 14.076 6.796 -9.594 1.00 98.71 C

ATOM 1100 C ASP A 142 15.058 6.338 -8.519 1.00 98.71 C

ATOM 1101 CB ASP A 142 14.772 6.850 -10.956 1.00 98.71 C

ATOM 1102 O ASP A 142 15.793 7.151 -7.955 1.00 98.71 O

ATOM 1103 CG ASP A 142 13.811 7.097 -12.105 1.00 98.71 C

ATOM 1104 OD1 ASP A 142 12.634 6.685 -12.015 1.00 98.71 O

ATOM 1105 OD2 ASP A 142 14.234 7.708 -13.110 1.00 98.71 O

ATOM 1106 N PHE A 143 15.102 5.033 -8.277 1.00 98.63 N

ATOM 1107 CA PHE A 143 15.993 4.446 -7.284 1.00 98.63 C

ATOM 1108 C PHE A 143 16.830 3.330 -7.899 1.00 98.63 C

ATOM 1109 CB PHE A 143 15.192 3.906 -6.094 1.00 98.63 C

ATOM 1110 O PHE A 143 16.293 2.429 -8.546 1.00 98.63 O

ATOM 1111 CG PHE A 143 14.485 4.974 -5.304 1.00 98.63 C

ATOM 1112 CD1 PHE A 143 15.046 5.483 -4.139 1.00 98.63 C

ATOM 1113 CD2 PHE A 143 13.258 5.469 -5.727 1.00 98.63 C

ATOM 1114 CE1 PHE A 143 14.393 6.471 -3.406 1.00 98.63 C

ATOM 1115 CE2 PHE A 143 12.600 6.456 -5.000 1.00 98.63 C

ATOM 1116 CZ PHE A 143 13.169 6.955 -3.839 1.00 98.63 C

ATOM 1117 N VAL A 144 18.143 3.484 -7.718 1.00 98.54 N

ATOM 1118 CA VAL A 144 19.047 2.392 -8.065 1.00 98.54 C

ATOM 1119 C VAL A 144 19.190 1.443 -6.878 1.00 98.54 C

ATOM 1120 CB VAL A 144 20.434 2.919 -8.496 1.00 98.54 C

ATOM 1121 O VAL A 144 19.571 1.862 -5.782 1.00 98.54 O

ATOM 1122 CG1 VAL A 144 21.384 1.760 -8.791 1.00 98.54 C

ATOM 1123 CG2 VAL A 144 20.302 3.830 -9.716 1.00 98.54 C

ATOM 1124 N SER A 145 18.917 0.177 -7.040 1.00 97.84 N

ATOM 1125 CA SER A 145 18.888 -0.882 -6.036 1.00 97.84 C

ATOM 1126 C SER A 145 19.230 -2.235 -6.651 1.00 97.84 C

ATOM 1127 CB SER A 145 17.514 -0.949 -5.367 1.00 97.84 C

ATOM 1128 O SER A 145 19.751 -2.303 -7.766 1.00 97.84 O

ATOM 1129 OG SER A 145 17.528 -1.860 -4.282 1.00 97.84 O

ATOM 1130 N ASN A 146 19.059 -3.250 -5.874 1.00 98.48 N

ATOM 1131 CA ASN A 146 19.223 -4.581 -6.448 1.00 98.48 C

ATOM 1132 C ASN A 146 18.189 -4.853 -7.537 1.00 98.48 C

ATOM 1133 CB ASN A 146 19.140 -5.651 -5.358 1.00 98.48 C

ATOM 1134 O ASN A 146 18.444 -5.628 -8.461 1.00 98.48 O

ATOM 1135 CG ASN A 146 17.827 -5.611 -4.599 1.00 98.48 C

ATOM 1136 ND2 ASN A 146 17.166 -6.758 -4.496 1.00 98.48 N

ATOM 1137 OD1 ASN A 146 17.411 -4.557 -4.111 1.00 98.48 O

ATOM 1138 N ILE A 147 17.072 -4.319 -7.351 1.00 98.54 N

ATOM 1139 CA ILE A 147 16.042 -4.170 -8.373 1.00 98.54 C

ATOM 1140 C ILE A 147 15.618 -2.706 -8.470 1.00 98.54 C

ATOM 1141 CB ILE A 147 14.817 -5.064 -8.075 1.00 98.54 C

ATOM 1142 O ILE A 147 15.054 -2.153 -7.523 1.00 98.54 O

ATOM 1143 CG1 ILE A 147 15.250 -6.525 -7.908 1.00 98.54 C

ATOM 1144 CG2 ILE A 147 13.767 -4.928 -9.182 1.00 98.54 C

ATOM 1145 CD1 ILE A 147 14.131 -7.455 -7.459 1.00 98.54 C

ATOM 1146 N ASN A 148 15.947 -2.168 -9.599 1.00 98.79 N

ATOM 1147 CA ASN A 148 15.602 -0.759 -9.755 1.00 98.79 C

ATOM 1148 C ASN A 148 14.092 -0.542 -9.696 1.00 98.79 C

ATOM 1149 CB ASN A 148 16.167 -0.209 -11.066 1.00 98.79 C

ATOM 1150 O ASN A 148 13.319 -1.419 -10.085 1.00 98.79 O

ATOM 1151 CG ASN A 148 17.682 -0.241 -11.108 1.00 98.79 C

ATOM 1152 ND2 ASN A 148 18.243 -0.153 -12.308 1.00 98.79 N

ATOM 1153 OD1 ASN A 148 18.342 -0.345 -10.071 1.00 98.79 O

ATOM 1154 N TYR A 149 13.721 0.558 -9.111 1.00 98.82 N

ATOM 1155 CA TYR A 149 12.305 0.909 -9.117 1.00 98.82 C

ATOM 1156 C TYR A 149 12.118 2.421 -9.152 1.00 98.82 C

ATOM 1157 CB TYR A 149 11.601 0.324 -7.889 1.00 98.82 C

ATOM 1158 O TYR A 149 13.051 3.175 -8.867 1.00 98.82 O

ATOM 1159 CG TYR A 149 12.214 0.751 -6.577 1.00 98.82 C

ATOM 1160 CD1 TYR A 149 13.258 0.027 -6.005 1.00 98.82 C

ATOM 1161 CD2 TYR A 149 11.751 1.878 -5.907 1.00 98.82 C

ATOM 1162 CE1 TYR A 149 13.824 0.415 -4.796 1.00 98.82 C

ATOM 1163 CE2 TYR A 149 12.310 2.276 -4.697 1.00 98.82 C

ATOM 1164 OH TYR A 149 13.902 1.929 -2.953 1.00 98.82 O

ATOM 1165 CZ TYR A 149 13.345 1.540 -4.151 1.00 98.82 C

ATOM 1166 N SER A 150 10.938 2.864 -9.611 1.00 98.79 N

ATOM 1167 CA SER A 150 10.529 4.263 -9.685 1.00 98.79 C

ATOM 1168 C SER A 150 9.318 4.532 -8.798 1.00 98.79 C

ATOM 1169 CB SER A 150 10.211 4.653 -11.128 1.00 98.79 C

ATOM 1170 O SER A 150 8.310 3.828 -8.884 1.00 98.79 O

ATOM 1171 OG SER A 150 9.825 6.014 -11.208 1.00 98.79 O

ATOM 1172 N TYR A 151 9.504 5.487 -7.938 1.00 98.82 N

ATOM 1173 CA TYR A 151 8.395 5.926 -7.099 1.00 98.82 C

ATOM 1174 C TYR A 151 7.705 7.145 -7.699 1.00 98.82 C

ATOM 1175 CB TYR A 151 8.885 6.247 -5.683 1.00 98.82 C

ATOM 1176 O TYR A 151 8.363 8.126 -8.053 1.00 98.82 O

ATOM 1177 CG TYR A 151 7.832 6.876 -4.804 1.00 98.82 C

ATOM 1178 CD1 TYR A 151 7.914 8.216 -4.435 1.00 98.82 C

ATOM 1179 CD2 TYR A 151 6.753 6.131 -4.340 1.00 98.82 C

ATOM 1180 CE1 TYR A 151 6.947 8.800 -3.623 1.00 98.82 C

ATOM 1181 CE2 TYR A 151 5.780 6.704 -3.527 1.00 98.82 C

ATOM 1182 OH TYR A 151 4.925 8.609 -2.372 1.00 98.82 O

ATOM 1183 CZ TYR A 151 5.885 8.037 -3.175 1.00 98.82 C

ATOM 1184 N GLN A 152 6.374 7.074 -7.768 1.00 98.75 N

ATOM 1185 CA GLN A 152 5.590 8.173 -8.319 1.00 98.75 C

ATOM 1186 C GLN A 152 4.406 8.511 -7.417 1.00 98.75 C

ATOM 1187 CB GLN A 152 5.097 7.830 -9.726 1.00 98.75 C

ATOM 1188 O GLN A 152 3.866 7.635 -6.739 1.00 98.75 O

ATOM 1189 CG GLN A 152 6.217 7.612 -10.734 1.00 98.75 C

ATOM 1190 CD GLN A 152 5.709 7.140 -12.083 1.00 98.75 C

ATOM 1191 NE2 GLN A 152 5.973 7.922 -13.124 1.00 98.75 N

ATOM 1192 OE1 GLN A 152 5.085 6.079 -12.189 1.00 98.75 O

ATOM 1193 N ILE A 153 4.045 9.792 -7.426 1.00 98.79 N

ATOM 1194 CA ILE A 153 2.797 10.274 -6.844 1.00 98.79 C

ATOM 1195 C ILE A 153 1.877 10.789 -7.950 1.00 98.79 C

ATOM 1196 CB ILE A 153 3.051 11.382 -5.799 1.00 98.79 C

ATOM 1197 O ILE A 153 2.305 11.558 -8.813 1.00 98.79 O

ATOM 1198 CG1 ILE A 153 3.990 10.874 -4.699 1.00 98.79 C

ATOM 1199 CG2 ILE A 153 1.729 11.878 -5.204 1.00 98.79 C

ATOM 1200 CD1 ILE A 153 4.439 11.951 -3.721 1.00 98.79 C

ATOM 1201 N TRP A 154 0.614 10.244 -7.845 1.00 98.62 N

ATOM 1202 CA TRP A 154 -0.400 10.649 -8.813 1.00 98.62 C

ATOM 1203 C TRP A 154 -1.560 11.358 -8.122 1.00 98.62 C

ATOM 1204 CB TRP A 154 -0.916 9.436 -9.591 1.00 98.62 C

ATOM 1205 O TRP A 154 -1.972 10.965 -7.028 1.00 98.62 O

ATOM 1206 CG TRP A 154 0.151 8.689 -10.333 1.00 98.62 C

ATOM 1207 CD1 TRP A 154 1.132 7.903 -9.796 1.00 98.62 C

ATOM 1208 CD2 TRP A 154 0.347 8.663 -11.751 1.00 98.62 C

ATOM 1209 CE2 TRP A 154 1.466 7.840 -12.003 1.00 98.62 C

ATOM 1210 CE3 TRP A 154 -0.316 9.257 -12.833 1.00 98.62 C

ATOM 1211 NE1 TRP A 154 1.926 7.389 -10.795 1.00 98.62 N

ATOM 1212 CH2 TRP A 154 1.270 8.187 -14.336 1.00 98.62 C

ATOM 1213 CZ2 TRP A 154 1.937 7.594 -13.295 1.00 98.62 C

ATOM 1214 CZ3 TRP A 154 0.154 9.011 -14.118 1.00 98.62 C

ATOM 1215 N GLN A 155 -2.090 12.423 -8.753 1.00 97.34 N

ATOM 1216 CA GLN A 155 -3.246 13.151 -8.241 1.00 97.34 C

ATOM 1217 C GLN A 155 -4.324 13.295 -9.311 1.00 97.34 C

ATOM 1218 CB GLN A 155 -2.828 14.530 -7.728 1.00 97.34 C

ATOM 1219 O GLN A 155 -4.020 13.331 -10.505 1.00 97.34 O

ATOM 1220 CG GLN A 155 -1.971 14.484 -6.470 1.00 97.34 C

ATOM 1221 CD GLN A 155 -1.744 15.857 -5.865 1.00 97.34 C

ATOM 1222 NE2 GLN A 155 -1.151 15.890 -4.676 1.00 97.34 N

ATOM 1223 OE1 GLN A 155 -2.097 16.879 -6.461 1.00 97.34 O

ATOM 1224 N LYS A 156 -5.544 13.329 -8.761 1.00 90.95 N

ATOM 1225 CA LYS A 156 -6.638 13.574 -9.697 1.00 90.95 C

ATOM 1226 C LYS A 156 -6.550 14.977 -10.290 1.00 90.95 C

ATOM 1227 CB LYS A 156 -7.988 13.381 -9.005 1.00 90.95 C

ATOM 1228 O LYS A 156 -6.194 15.930 -9.593 1.00 90.95 O

ATOM 1229 CG LYS A 156 -8.341 11.926 -8.731 1.00 90.95 C

ATOM 1230 CD LYS A 156 -9.721 11.795 -8.099 1.00 90.95 C

ATOM 1231 CE LYS A 156 -10.078 10.339 -7.832 1.00 90.95 C

ATOM 1232 NZ LYS A 156 -11.411 10.208 -7.172 1.00 90.95 N

ATOM 1233 N GLY A 157 -6.458 15.172 -11.627 1.00 78.90 N

ATOM 1234 CA GLY A 157 -6.480 16.461 -12.302 1.00 78.90 C

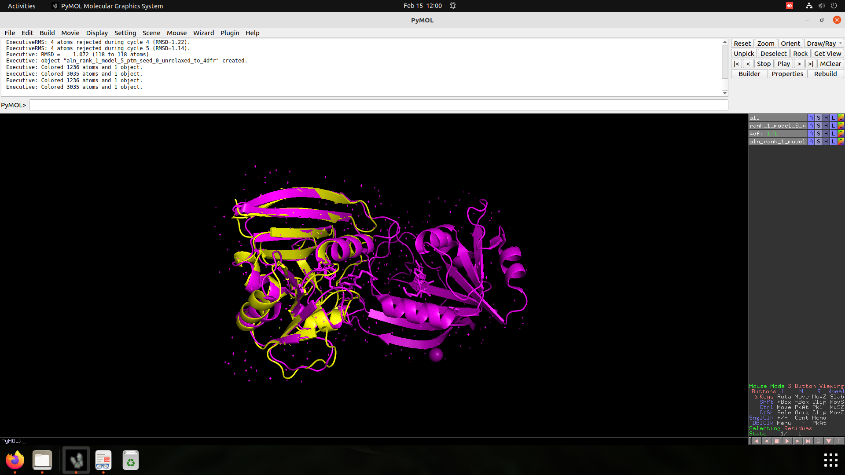
ATOM 1235 C GLY A 157 -7.782 17.214 -12.109 1.00 78.90 C

ATOM 1236 O GLY A 157 -8.785 16.632 -11.690 1.00 78.90 O

TER 1237 GLY A 157

ENDMDL

END



**RMSD = 1.072**

MODEL 2 – RANK2 :



MODEL 1

ATOM 1 N MET A 1 -8.397 11.090 9.431 1.00 95.07 N

ATOM 2 CA MET A 1 -7.455 10.001 9.188 1.00 95.07 C

ATOM 3 C MET A 1 -7.077 9.928 7.713 1.00 95.07 C

ATOM 4 CB MET A 1 -8.047 8.666 9.643 1.00 95.07 C

ATOM 5 O MET A 1 -7.947 9.794 6.850 1.00 95.07 O

ATOM 6 CG MET A 1 -7.102 7.488 9.477 1.00 95.07 C

ATOM 7 SD MET A 1 -7.884 5.890 9.928 1.00 95.07 S

ATOM 8 CE MET A 1 -9.007 5.675 8.519 1.00 95.07 C

ATOM 9 N LYS A 2 -5.838 10.083 7.359 1.00 97.19 N

ATOM 10 CA LYS A 2 -5.314 9.976 6.000 1.00 97.19 C

ATOM 11 C LYS A 2 -5.172 8.516 5.579 1.00 97.19 C

ATOM 12 CB LYS A 2 -3.965 10.687 5.888 1.00 97.19 C

ATOM 13 O LYS A 2 -4.651 7.694 6.336 1.00 97.19 O

ATOM 14 CG LYS A 2 -3.375 10.679 4.485 1.00 97.19 C

ATOM 15 CD LYS A 2 -2.051 11.429 4.430 1.00 97.19 C

ATOM 16 CE LYS A 2 -1.447 11.398 3.033 1.00 97.19 C

ATOM 17 NZ LYS A 2 -0.149 12.134 2.974 1.00 97.19 N

ATOM 18 N LEU A 3 -5.654 8.210 4.328 1.00 97.87 N

ATOM 19 CA LEU A 3 -5.529 6.864 3.779 1.00 97.87 C

ATOM 20 C LEU A 3 -4.620 6.859 2.554 1.00 97.87 C

ATOM 21 CB LEU A 3 -6.905 6.305 3.410 1.00 97.87 C

ATOM 22 O LEU A 3 -4.892 7.553 1.572 1.00 97.87 O

ATOM 23 CG LEU A 3 -7.805 5.895 4.577 1.00 97.87 C

ATOM 24 CD1 LEU A 3 -9.161 5.423 4.061 1.00 97.87 C

ATOM 25 CD2 LEU A 3 -7.137 4.807 5.411 1.00 97.87 C

ATOM 26 N SER A 4 -3.531 6.111 2.722 1.00 98.36 N

ATOM 27 CA SER A 4 -2.618 5.880 1.608 1.00 98.36 C

ATOM 28 C SER A 4 -2.652 4.423 1.159 1.00 98.36 C

ATOM 29 CB SER A 4 -1.190 6.269 1.996 1.00 98.36 C

ATOM 30 O SER A 4 -3.046 3.541 1.924 1.00 98.36 O

ATOM 31 OG SER A 4 -1.116 7.646 2.322 1.00 98.36 O

ATOM 32 N LEU A 5 -2.372 4.260 -0.105 1.00 98.50 N

ATOM 33 CA LEU A 5 -2.256 2.927 -0.686 1.00 98.50 C

ATOM 34 C LEU A 5 -0.890 2.734 -1.335 1.00 98.50 C

ATOM 35 CB LEU A 5 -3.362 2.694 -1.719 1.00 98.50 C

ATOM 36 O LEU A 5 -0.433 3.589 -2.097 1.00 98.50 O

ATOM 37 CG LEU A 5 -3.450 1.287 -2.312 1.00 98.50 C

ATOM 38 CD1 LEU A 5 -4.874 0.994 -2.773 1.00 98.50 C

ATOM 39 CD2 LEU A 5 -2.466 1.131 -3.467 1.00 98.50 C

ATOM 40 N MET A 6 -0.280 1.667 -0.962 1.00 98.33 N

ATOM 41 CA MET A 6 1.024 1.379 -1.553 1.00 98.33 C

ATOM 42 C MET A 6 1.019 0.021 -2.245 1.00 98.33 C

ATOM 43 CB MET A 6 2.118 1.418 -0.485 1.00 98.33 C

ATOM 44 O MET A 6 0.546 -0.967 -1.681 1.00 98.33 O

ATOM 45 CG MET A 6 3.518 1.196 -1.034 1.00 98.33 C

ATOM 46 SD MET A 6 4.822 1.494 0.222 1.00 98.33 S

ATOM 47 CE MET A 6 6.304 1.158 -0.769 1.00 98.33 C

ATOM 48 N ALA A 7 1.588 -0.045 -3.489 1.00 98.20 N

ATOM 49 CA ALA A 7 1.638 -1.293 -4.246 1.00 98.20 C

ATOM 50 C ALA A 7 2.813 -1.296 -5.220 1.00 98.20 C

ATOM 51 CB ALA A 7 0.328 -1.513 -4.998 1.00 98.20 C

ATOM 52 O ALA A 7 3.226 -0.242 -5.708 1.00 98.20 O

ATOM 53 N ALA A 8 3.411 -2.466 -5.412 1.00 98.08 N

ATOM 54 CA ALA A 8 4.312 -2.744 -6.528 1.00 98.08 C

ATOM 55 C ALA A 8 3.603 -3.540 -7.620 1.00 98.08 C

ATOM 56 CB ALA A 8 5.546 -3.500 -6.040 1.00 98.08 C

ATOM 57 O ALA A 8 3.064 -4.619 -7.360 1.00 98.08 O

ATOM 58 N ILE A 9 3.630 -2.943 -8.866 1.00 98.28 N

ATOM 59 CA ILE A 9 2.869 -3.494 -9.982 1.00 98.28 C

ATOM 60 C ILE A 9 3.807 -3.788 -11.150 1.00 98.28 C

ATOM 61 CB ILE A 9 1.744 -2.533 -10.426 1.00 98.28 C

ATOM 62 O ILE A 9 4.633 -2.950 -11.518 1.00 98.28 O

ATOM 63 CG1 ILE A 9 0.932 -2.064 -9.214 1.00 98.28 C

ATOM 64 CG2 ILE A 9 0.839 -3.205 -11.464 1.00 98.28 C

ATOM 65 CD1 ILE A 9 0.001 -0.896 -9.507 1.00 98.28 C

ATOM 66 N SER A 10 3.650 -5.001 -11.658 1.00 98.44 N

ATOM 67 CA SER A 10 4.415 -5.291 -12.866 1.00 98.44 C

ATOM 68 C SER A 10 3.841 -4.557 -14.073 1.00 98.44 C

ATOM 69 CB SER A 10 4.439 -6.796 -13.137 1.00 98.44 C

ATOM 70 O SER A 10 2.733 -4.021 -14.011 1.00 98.44 O

ATOM 71 OG SER A 10 3.168 -7.249 -13.570 1.00 98.44 O

ATOM 72 N LYS A 11 4.473 -4.565 -15.232 1.00 97.95 N

ATOM 73 CA LYS A 11 4.043 -3.869 -16.441 1.00 97.95 C

ATOM 74 C LYS A 11 2.715 -4.422 -16.951 1.00 97.95 C

ATOM 75 CB LYS A 11 5.110 -3.978 -17.532 1.00 97.95 C

ATOM 76 O LYS A 11 1.930 -3.697 -17.566 1.00 97.95 O

ATOM 77 CG LYS A 11 6.263 -2.999 -17.370 1.00 97.95 C

ATOM 78 CD LYS A 11 7.167 -2.992 -18.596 1.00 97.95 C

ATOM 79 CE LYS A 11 6.573 -2.162 -19.725 1.00 97.95 C

ATOM 80 NZ LYS A 11 7.462 -2.141 -20.925 1.00 97.95 N

ATOM 81 N ASN A 12 2.538 -5.728 -16.588 1.00 98.01 N

ATOM 82 CA ASN A 12 1.302 -6.340 -17.065 1.00 98.01 C

ATOM 83 C ASN A 12 0.233 -6.369 -15.976 1.00 98.01 C

ATOM 84 CB ASN A 12 1.569 -7.754 -17.585 1.00 98.01 C

ATOM 85 O ASN A 12 -0.761 -7.087 -16.096 1.00 98.01 O

ATOM 86 CG ASN A 12 2.113 -8.677 -16.513 1.00 98.01 C

ATOM 87 ND2 ASN A 12 1.955 -9.980 -16.716 1.00 98.01 N

ATOM 88 OD1 ASN A 12 2.671 -8.224 -15.510 1.00 98.01 O

ATOM 89 N GLY A 13 0.447 -5.579 -14.876 1.00 97.91 N

ATOM 90 CA GLY A 13 -0.592 -5.363 -13.882 1.00 97.91 C

ATOM 91 C GLY A 13 -0.588 -6.405 -12.779 1.00 97.91 C

ATOM 92 O GLY A 13 -1.419 -6.357 -11.870 1.00 97.91 O

ATOM 93 N VAL A 14 0.342 -7.338 -12.831 1.00 98.27 N

ATOM 94 CA VAL A 14 0.395 -8.429 -11.864 1.00 98.27 C

ATOM 95 C VAL A 14 0.991 -7.927 -10.550 1.00 98.27 C

ATOM 96 CB VAL A 14 1.217 -9.623 -12.400 1.00 98.27 C

ATOM 97 O VAL A 14 1.986 -7.199 -10.551 1.00 98.27 O

ATOM 98 CG1 VAL A 14 1.507 -10.624 -11.283 1.00 98.27 C

ATOM 99 CG2 VAL A 14 0.480 -10.302 -13.553 1.00 98.27 C

ATOM 100 N ILE A 15 0.440 -8.381 -9.420 1.00 97.71 N

ATOM 101 CA ILE A 15 0.993 -8.027 -8.117 1.00 97.71 C

ATOM 102 C ILE A 15 1.257 -9.294 -7.306 1.00 97.71 C

ATOM 103 CB ILE A 15 0.051 -7.080 -7.341 1.00 97.71 C

ATOM 104 O ILE A 15 1.863 -9.237 -6.234 1.00 97.71 O

ATOM 105 CG1 ILE A 15 -1.303 -7.756 -7.097 1.00 97.71 C

ATOM 106 CG2 ILE A 15 -0.126 -5.757 -8.093 1.00 97.71 C

ATOM 107 CD1 ILE A 15 -2.211 -6.998 -6.138 1.00 97.71 C

ATOM 108 N GLY A 16 0.836 -10.431 -7.805 1.00 96.93 N

ATOM 109 CA GLY A 16 1.039 -11.670 -7.072 1.00 96.93 C

ATOM 110 C GLY A 16 0.721 -12.907 -7.891 1.00 96.93 C

ATOM 111 O GLY A 16 -0.008 -12.831 -8.882 1.00 96.93 O

ATOM 112 N ASN A 17 1.216 -13.975 -7.584 1.00 96.44 N

ATOM 113 CA ASN A 17 0.966 -15.339 -8.038 1.00 96.44 C

ATOM 114 C ASN A 17 0.777 -16.295 -6.863 1.00 96.44 C

ATOM 115 CB ASN A 17 2.105 -15.823 -8.938 1.00 96.44 C

ATOM 116 O ASN A 17 1.752 -16.811 -6.314 1.00 96.44 O

ATOM 117 CG ASN A 17 1.814 -17.168 -9.575 1.00 96.44 C

ATOM 118 ND2 ASN A 17 2.859 -17.842 -10.040 1.00 96.44 N

ATOM 119 OD1 ASN A 17 0.660 -17.597 -9.649 1.00 96.44 O

ATOM 120 N GLY A 18 -0.523 -16.509 -6.490 1.00 92.68 N

ATOM 121 CA GLY A 18 -0.768 -17.151 -5.209 1.00 92.68 C

ATOM 122 C GLY A 18 -0.285 -16.330 -4.028 1.00 92.68 C

ATOM 123 O GLY A 18 -0.587 -15.139 -3.928 1.00 92.68 O

ATOM 124 N PRO A 19 0.513 -16.965 -3.121 1.00 90.60 N

ATOM 125 CA PRO A 19 0.982 -16.242 -1.937 1.00 90.60 C

ATOM 126 C PRO A 19 2.290 -15.492 -2.182 1.00 90.60 C

ATOM 127 CB PRO A 19 1.176 -17.352 -0.900 1.00 90.60 C

ATOM 128 O PRO A 19 2.781 -14.794 -1.292 1.00 90.60 O

ATOM 129 CG PRO A 19 1.527 -18.565 -1.700 1.00 90.60 C

ATOM 130 CD PRO A 19 0.755 -18.527 -2.988 1.00 90.60 C

ATOM 131 N ASP A 20 2.732 -15.604 -3.494 1.00 94.01 N

ATOM 132 CA ASP A 20 4.084 -15.106 -3.725 1.00 94.01 C

ATOM 133 C ASP A 20 4.061 -13.806 -4.525 1.00 94.01 C

ATOM 134 CB ASP A 20 4.926 -16.156 -4.453 1.00 94.01 C

ATOM 135 O ASP A 20 3.134 -13.564 -5.301 1.00 94.01 O

ATOM 136 CG ASP A 20 5.091 -17.439 -3.658 1.00 94.01 C

ATOM 137 OD1 ASP A 20 5.388 -17.371 -2.445 1.00 94.01 O

ATOM 138 OD2 ASP A 20 4.925 -18.528 -4.249 1.00 94.01 O

ATOM 139 N ILE A 21 5.088 -12.993 -4.344 1.00 95.03 N

ATOM 140 CA ILE A 21 5.460 -11.913 -5.250 1.00 95.03 C

ATOM 141 C ILE A 21 6.397 -12.446 -6.331 1.00 95.03 C

ATOM 142 CB ILE A 21 6.127 -10.743 -4.492 1.00 95.03 C

ATOM 143 O ILE A 21 7.504 -12.903 -6.033 1.00 95.03 O

ATOM 144 CG1 ILE A 21 5.180 -10.192 -3.420 1.00 95.03 C

ATOM 145 CG2 ILE A 21 6.552 -9.641 -5.466 1.00 95.03 C

ATOM 146 CD1 ILE A 21 3.933 -9.523 -3.981 1.00 95.03 C

ATOM 147 N PRO A 22 5.977 -12.515 -7.600 1.00 96.28 N

ATOM 148 CA PRO A 22 6.664 -13.242 -8.671 1.00 96.28 C

ATOM 149 C PRO A 22 7.940 -12.542 -9.135 1.00 96.28 C

ATOM 150 CB PRO A 22 5.624 -13.280 -9.794 1.00 96.28 C

ATOM 151 O PRO A 22 8.463 -12.852 -10.208 1.00 96.28 O

ATOM 152 CG PRO A 22 4.805 -12.045 -9.599 1.00 96.28 C

ATOM 153 CD PRO A 22 4.713 -11.761 -8.127 1.00 96.28 C

ATOM 154 N TRP A 23 8.425 -11.608 -8.412 1.00 96.98 N

ATOM 155 CA TRP A 23 9.686 -10.962 -8.762 1.00 96.98 C

ATOM 156 C TRP A 23 10.484 -10.613 -7.510 1.00 96.98 C

ATOM 157 CB TRP A 23 9.432 -9.698 -9.589 1.00 96.98 C

ATOM 158 O TRP A 23 9.984 -10.744 -6.390 1.00 96.98 O

ATOM 159 CG TRP A 23 8.580 -8.678 -8.896 1.00 96.98 C

ATOM 160 CD1 TRP A 23 8.990 -7.741 -7.988 1.00 96.98 C

ATOM 161 CD2 TRP A 23 7.169 -8.495 -9.052 1.00 96.98 C

ATOM 162 CE2 TRP A 23 6.790 -7.428 -8.208 1.00 96.98 C

ATOM 163 CE3 TRP A 23 6.188 -9.131 -9.825 1.00 96.98 C

ATOM 164 NE1 TRP A 23 7.918 -6.986 -7.571 1.00 96.98 N

ATOM 165 CH2 TRP A 23 4.530 -7.621 -8.882 1.00 96.98 C

ATOM 166 CZ2 TRP A 23 5.469 -6.982 -8.115 1.00 96.98 C

ATOM 167 CZ3 TRP A 23 4.875 -8.685 -9.731 1.00 96.98 C

ATOM 168 N SER A 24 11.763 -10.291 -7.748 1.00 97.03 N

ATOM 169 CA SER A 24 12.652 -9.747 -6.728 1.00 97.03 C

ATOM 170 C SER A 24 13.416 -8.535 -7.250 1.00 97.03 C

ATOM 171 CB SER A 24 13.637 -10.814 -6.249 1.00 97.03 C

ATOM 172 O SER A 24 14.473 -8.680 -7.868 1.00 97.03 O

ATOM 173 OG SER A 24 14.438 -10.320 -5.189 1.00 97.03 O

ATOM 174 N ALA A 25 12.836 -7.360 -7.136 1.00 97.50 N

ATOM 175 CA ALA A 25 13.461 -6.109 -7.556 1.00 97.50 C

ATOM 176 C ALA A 25 14.280 -5.497 -6.422 1.00 97.50 C

ATOM 177 CB ALA A 25 12.403 -5.120 -8.038 1.00 97.50 C

ATOM 178 O ALA A 25 13.720 -5.009 -5.437 1.00 97.50 O

ATOM 179 N LYS A 26 15.556 -5.508 -6.610 1.00 97.12 N

ATOM 180 CA LYS A 26 16.440 -5.008 -5.561 1.00 97.12 C

ATOM 181 C LYS A 26 16.168 -3.535 -5.268 1.00 97.12 C

ATOM 182 CB LYS A 26 17.905 -5.202 -5.955 1.00 97.12 C

ATOM 183 O LYS A 26 16.080 -2.720 -6.188 1.00 97.12 O

ATOM 184 CG LYS A 26 18.390 -6.640 -5.847 1.00 97.12 C

ATOM 185 CD LYS A 26 19.881 -6.750 -6.138 1.00 97.12 C

ATOM 186 CE LYS A 26 20.359 -8.195 -6.076 1.00 97.12 C

ATOM 187 NZ LYS A 26 21.822 -8.307 -6.352 1.00 97.12 N

ATOM 188 N GLY A 27 15.900 -3.190 -4.010 1.00 97.04 N

ATOM 189 CA GLY A 27 15.727 -1.809 -3.590 1.00 97.04 C

ATOM 190 C GLY A 27 14.272 -1.418 -3.413 1.00 97.04 C

ATOM 191 O GLY A 27 13.957 -0.510 -2.641 1.00 97.04 O

ATOM 192 N GLU A 28 13.391 -2.105 -4.121 1.00 97.35 N

ATOM 193 CA GLU A 28 11.989 -1.704 -4.060 1.00 97.35 C

ATOM 194 C GLU A 28 11.403 -1.953 -2.673 1.00 97.35 C

ATOM 195 CB GLU A 28 11.170 -2.449 -5.117 1.00 97.35 C

ATOM 196 O GLU A 28 10.619 -1.146 -2.170 1.00 97.35 O

ATOM 197 CG GLU A 28 9.767 -1.894 -5.313 1.00 97.35 C

ATOM 198 CD GLU A 28 8.766 -2.418 -4.296 1.00 97.35 C

ATOM 199 OE1 GLU A 28 7.817 -1.682 -3.943 1.00 97.35 O

ATOM 200 OE2 GLU A 28 8.934 -3.574 -3.847 1.00 97.35 O

ATOM 201 N GLN A 29 11.804 -3.085 -2.101 1.00 95.21 N

ATOM 202 CA GLN A 29 11.305 -3.407 -0.769 1.00 95.21 C

ATOM 203 C GLN A 29 11.798 -2.398 0.263 1.00 95.21 C

ATOM 204 CB GLN A 29 11.727 -4.821 -0.365 1.00 95.21 C

ATOM 205 O GLN A 29 11.180 -2.225 1.315 1.00 95.21 O

ATOM 206 CG GLN A 29 10.973 -5.921 -1.099 1.00 95.21 C

ATOM 207 CD GLN A 29 11.441 -7.312 -0.712 1.00 95.21 C

ATOM 208 NE2 GLN A 29 11.127 -8.297 -1.547 1.00 95.21 N

ATOM 209 OE1 GLN A 29 12.081 -7.499 0.328 1.00 95.21 O

ATOM 210 N LEU A 30 12.915 -1.735 -0.007 1.00 96.69 N

ATOM 211 CA LEU A 30 13.400 -0.680 0.875 1.00 96.69 C

ATOM 212 C LEU A 30 12.464 0.524 0.848 1.00 96.69 C

ATOM 213 CB LEU A 30 14.813 -0.251 0.472 1.00 96.69 C

ATOM 214 O LEU A 30 12.277 1.193 1.867 1.00 96.69 O

ATOM 215 CG LEU A 30 15.916 -1.295 0.651 1.00 96.69 C

ATOM 216 CD1 LEU A 30 17.240 -0.768 0.107 1.00 96.69 C

ATOM 217 CD2 LEU A 30 16.052 -1.682 2.120 1.00 96.69 C

ATOM 218 N LEU A 31 11.923 0.756 -0.357 1.00 96.95 N

ATOM 219 CA LEU A 31 10.920 1.812 -0.444 1.00 96.95 C

ATOM 220 C LEU A 31 9.696 1.471 0.399 1.00 96.95 C

ATOM 221 CB LEU A 31 10.504 2.038 -1.900 1.00 96.95 C

ATOM 222 O LEU A 31 9.193 2.317 1.142 1.00 96.95 O

ATOM 223 CG LEU A 31 11.551 2.680 -2.813 1.00 96.95 C

ATOM 224 CD1 LEU A 31 11.082 2.644 -4.264 1.00 96.95 C

ATOM 225 CD2 LEU A 31 11.838 4.111 -2.373 1.00 96.95 C

ATOM 226 N PHE A 32 9.289 0.201 0.290 1.00 96.90 N

ATOM 227 CA PHE A 32 8.150 -0.259 1.074 1.00 96.90 C

ATOM 228 C PHE A 32 8.427 -0.117 2.566 1.00 96.90 C

ATOM 229 CB PHE A 32 7.818 -1.716 0.738 1.00 96.90 C

ATOM 230 O PHE A 32 7.589 0.392 3.313 1.00 96.90 O

ATOM 231 CG PHE A 32 6.630 -2.257 1.488 1.00 96.90 C

ATOM 232 CD1 PHE A 32 6.805 -3.062 2.607 1.00 96.90 C

ATOM 233 CD2 PHE A 32 5.339 -1.959 1.073 1.00 96.90 C

ATOM 234 CE1 PHE A 32 5.707 -3.563 3.303 1.00 96.90 C

ATOM 235 CE2 PHE A 32 4.237 -2.457 1.764 1.00 96.90 C

ATOM 236 CZ PHE A 32 4.423 -3.259 2.878 1.00 96.90 C

ATOM 237 N LYS A 33 9.569 -0.497 2.959 1.00 97.17 N

ATOM 238 CA LYS A 33 9.959 -0.390 4.362 1.00 97.17 C

ATOM 239 C LYS A 33 9.950 1.063 4.826 1.00 97.17 C

ATOM 240 CB LYS A 33 11.344 -1.002 4.582 1.00 97.17 C

ATOM 241 O LYS A 33 9.408 1.378 5.887 1.00 97.17 O

ATOM 242 CG LYS A 33 11.826 -0.938 6.023 1.00 97.17 C

ATOM 243 CD LYS A 33 13.185 -1.607 6.188 1.00 97.17 C

ATOM 244 CE LYS A 33 13.694 -1.495 7.619 1.00 97.17 C

ATOM 245 NZ LYS A 33 14.995 -2.205 7.801 1.00 97.17 N

ATOM 246 N ALA A 34 10.513 1.902 4.072 1.00 97.43 N

ATOM 247 CA ALA A 34 10.642 3.311 4.434 1.00 97.43 C

ATOM 248 C ALA A 34 9.272 3.967 4.580 1.00 97.43 C

ATOM 249 CB ALA A 34 11.475 4.054 3.392 1.00 97.43 C

ATOM 250 O ALA A 34 9.028 4.701 5.541 1.00 97.43 O

ATOM 251 N ILE A 35 8.403 3.638 3.775 1.00 96.97 N

ATOM 252 CA ILE A 35 7.097 4.287 3.750 1.00 96.97 C

ATOM 253 C ILE A 35 6.212 3.707 4.851 1.00 96.97 C

ATOM 254 CB ILE A 35 6.414 4.129 2.374 1.00 96.97 C

ATOM 255 O ILE A 35 5.423 4.428 5.466 1.00 96.97 O

ATOM 256 CG1 ILE A 35 7.184 4.911 1.303 1.00 96.97 C

ATOM 257 CG2 ILE A 35 4.953 4.585 2.440 1.00 96.97 C

ATOM 258 CD1 ILE A 35 6.297 5.529 0.231 1.00 96.97 C

ATOM 259 N THR A 36 6.397 2.458 5.152 1.00 98.00 N

ATOM 260 CA THR A 36 5.477 1.795 6.070 1.00 98.00 C

ATOM 261 C THR A 36 6.064 1.738 7.478 1.00 98.00 C

ATOM 262 CB THR A 36 5.142 0.370 5.593 1.00 98.00 C

ATOM 263 O THR A 36 5.410 1.268 8.411 1.00 98.00 O

ATOM 264 CG2 THR A 36 4.533 0.387 4.195 1.00 98.00 C

ATOM 265 OG1 THR A 36 6.341 -0.414 5.570 1.00 98.00 O

ATOM 266 N TYR A 37 7.260 2.212 7.647 1.00 97.66 N

ATOM 267 CA TYR A 37 7.936 2.178 8.939 1.00 97.66 C

ATOM 268 C TYR A 37 7.135 2.931 9.994 1.00 97.66 C

ATOM 269 CB TYR A 37 9.342 2.776 8.826 1.00 97.66 C

ATOM 270 O TYR A 37 6.692 4.058 9.760 1.00 97.66 O

ATOM 271 CG TYR A 37 10.151 2.669 10.096 1.00 97.66 C

ATOM 272 CD1 TYR A 37 10.221 3.733 10.992 1.00 97.66 C

ATOM 273 CD2 TYR A 37 10.848 1.505 10.401 1.00 97.66 C

ATOM 274 CE1 TYR A 37 10.966 3.640 12.163 1.00 97.66 C

ATOM 275 CE2 TYR A 37 11.597 1.401 11.568 1.00 97.66 C

ATOM 276 OH TYR A 37 12.390 2.373 13.599 1.00 97.66 O

ATOM 277 CZ TYR A 37 11.650 2.471 12.442 1.00 97.66 C

ATOM 278 N ASN A 38 6.799 2.297 11.130 1.00 97.22 N

ATOM 279 CA ASN A 38 6.087 2.838 12.282 1.00 97.22 C

ATOM 280 C ASN A 38 4.684 3.307 11.906 1.00 97.22 C

ATOM 281 CB ASN A 38 6.879 3.986 12.912 1.00 97.22 C

ATOM 282 O ASN A 38 4.182 4.286 12.460 1.00 97.22 O

ATOM 283 CG ASN A 38 6.522 4.213 14.368 1.00 97.22 C

ATOM 284 ND2 ASN A 38 6.712 5.439 14.841 1.00 97.22 N

ATOM 285 OD1 ASN A 38 6.080 3.293 15.061 1.00 97.22 O

ATOM 286 N GLN A 39 4.130 2.598 10.930 1.00 98.08 N

ATOM 287 CA GLN A 39 2.785 2.941 10.480 1.00 98.08 C

ATOM 288 C GLN A 39 1.813 1.791 10.726 1.00 98.08 C

ATOM 289 CB GLN A 39 2.794 3.313 8.996 1.00 98.08 C

ATOM 290 O GLN A 39 2.232 0.664 11.001 1.00 98.08 O

ATOM 291 CG GLN A 39 3.701 4.490 8.663 1.00 98.08 C

ATOM 292 CD GLN A 39 3.191 5.802 9.228 1.00 98.08 C

ATOM 293 NE2 GLN A 39 4.109 6.651 9.676 1.00 98.08 N

ATOM 294 OE1 GLN A 39 1.981 6.051 9.262 1.00 98.08 O

ATOM 295 N TRP A 40 0.478 2.187 10.585 1.00 98.41 N

ATOM 296 CA TRP A 40 -0.579 1.182 10.541 1.00 98.41 C

ATOM 297 C TRP A 40 -0.817 0.704 9.112 1.00 98.41 C

ATOM 298 CB TRP A 40 -1.877 1.740 11.129 1.00 98.41 C

ATOM 299 O TRP A 40 -1.014 1.515 8.205 1.00 98.41 O

ATOM 300 CG TRP A 40 -1.914 1.746 12.628 1.00 98.41 C

ATOM 301 CD1 TRP A 40 -1.507 2.752 13.458 1.00 98.41 C

ATOM 302 CD2 TRP A 40 -2.381 0.691 13.474 1.00 98.41 C

ATOM 303 CE2 TRP A 40 -2.228 1.127 14.809 1.00 98.41 C

ATOM 304 CE3 TRP A 40 -2.916 -0.582 13.234 1.00 98.41 C

ATOM 305 NE1 TRP A 40 -1.693 2.386 14.772 1.00 98.41 N

ATOM 306 CH2 TRP A 40 -3.111 -0.907 15.637 1.00 98.41 C

ATOM 307 CZ2 TRP A 40 -2.591 0.334 15.900 1.00 98.41 C

ATOM 308 CZ3 TRP A 40 -3.277 -1.370 14.321 1.00 98.41 C

ATOM 309 N LEU A 41 -0.756 -0.669 8.982 1.00 98.67 N

ATOM 310 CA LEU A 41 -1.027 -1.274 7.682 1.00 98.67 C

ATOM 311 C LEU A 41 -2.358 -2.019 7.696 1.00 98.67 C

ATOM 312 CB LEU A 41 0.102 -2.230 7.289 1.00 98.67 C

ATOM 313 O LEU A 41 -2.637 -2.782 8.623 1.00 98.67 O

ATOM 314 CG LEU A 41 1.361 -1.588 6.705 1.00 98.67 C

ATOM 315 CD1 LEU A 41 2.000 -0.651 7.725 1.00 98.67 C

ATOM 316 CD2 LEU A 41 2.352 -2.659 6.262 1.00 98.67 C

ATOM 317 N LEU A 42 -3.161 -1.713 6.681 1.00 98.65 N

ATOM 318 CA LEU A 42 -4.373 -2.491 6.450 1.00 98.65 C

ATOM 319 C LEU A 42 -4.151 -3.533 5.359 1.00 98.65 C

ATOM 320 CB LEU A 42 -5.534 -1.570 6.063 1.00 98.65 C

ATOM 321 O LEU A 42 -3.832 -3.187 4.219 1.00 98.65 O

ATOM 322 CG LEU A 42 -6.908 -2.230 5.933 1.00 98.65 C

ATOM 323 CD1 LEU A 42 -8.002 -1.273 6.395 1.00 98.65 C

ATOM 324 CD2 LEU A 42 -7.153 -2.677 4.496 1.00 98.65 C

ATOM 325 N VAL A 43 -4.351 -4.776 5.716 1.00 98.33 N

ATOM 326 CA VAL A 43 -4.070 -5.862 4.783 1.00 98.33 C

ATOM 327 C VAL A 43 -5.149 -6.937 4.901 1.00 98.33 C

ATOM 328 CB VAL A 43 -2.675 -6.478 5.033 1.00 98.33 C

ATOM 329 O VAL A 43 -5.849 -7.014 5.914 1.00 98.33 O

ATOM 330 CG1 VAL A 43 -1.577 -5.448 4.777 1.00 98.33 C

ATOM 331 CG2 VAL A 43 -2.580 -7.023 6.457 1.00 98.33 C

ATOM 332 N GLY A 44 -5.350 -7.668 3.789 1.00 97.74 N

ATOM 333 CA GLY A 44 -6.141 -8.884 3.891 1.00 97.74 C

ATOM 334 C GLY A 44 -5.409 -10.016 4.586 1.00 97.74 C

ATOM 335 O GLY A 44 -4.180 -9.999 4.685 1.00 97.74 O

ATOM 336 N ARG A 45 -6.107 -11.017 4.971 1.00 96.91 N

ATOM 337 CA ARG A 45 -5.560 -12.120 5.756 1.00 96.91 C

ATOM 338 C ARG A 45 -4.516 -12.894 4.959 1.00 96.91 C

ATOM 339 CB ARG A 45 -6.677 -13.062 6.212 1.00 96.91 C

ATOM 340 O ARG A 45 -3.433 -13.190 5.467 1.00 96.91 O

ATOM 341 CG ARG A 45 -6.200 -14.191 7.111 1.00 96.91 C

ATOM 342 CD ARG A 45 -6.459 -15.556 6.488 1.00 96.91 C

ATOM 343 NE ARG A 45 -7.404 -15.471 5.378 1.00 96.91 N

ATOM 344 NH1 ARG A 45 -5.947 -16.324 3.801 1.00 96.91 N

ATOM 345 NH2 ARG A 45 -8.073 -15.718 3.195 1.00 96.91 N

ATOM 346 CZ ARG A 45 -7.139 -15.838 4.127 1.00 96.91 C

ATOM 347 N LYS A 46 -4.764 -13.155 3.700 1.00 95.33 N

ATOM 348 CA LYS A 46 -3.851 -13.948 2.883 1.00 95.33 C

ATOM 349 C LYS A 46 -2.520 -13.228 2.689 1.00 95.33 C

ATOM 350 CB LYS A 46 -4.480 -14.262 1.525 1.00 95.33 C

ATOM 351 O LYS A 46 -1.458 -13.854 2.722 1.00 95.33 O

ATOM 352 CG LYS A 46 -5.659 -15.222 1.596 1.00 95.33 C

ATOM 353 CD LYS A 46 -6.211 -15.532 0.210 1.00 95.33 C

ATOM 354 CE LYS A 46 -7.398 -16.484 0.281 1.00 95.33 C

ATOM 355 NZ LYS A 46 -7.970 -16.756 -1.071 1.00 95.33 N

ATOM 356 N THR A 47 -2.603 -11.963 2.449 1.00 95.95 N

ATOM 357 CA THR A 47 -1.378 -11.183 2.312 1.00 95.95 C

ATOM 358 C THR A 47 -0.583 -11.190 3.615 1.00 95.95 C

ATOM 359 CB THR A 47 -1.683 -9.730 1.903 1.00 95.95 C

ATOM 360 O THR A 47 0.638 -11.362 3.603 1.00 95.95 O

ATOM 361 CG2 THR A 47 -0.404 -8.905 1.807 1.00 95.95 C

ATOM 362 OG1 THR A 47 -2.337 -9.727 0.628 1.00 95.95 O

ATOM 363 N PHE A 48 -1.252 -11.036 4.697 1.00 96.75 N

ATOM 364 CA PHE A 48 -0.583 -11.034 5.993 1.00 96.75 C

ATOM 365 C PHE A 48 0.092 -12.375 6.256 1.00 96.75 C

ATOM 366 CB PHE A 48 -1.580 -10.720 7.113 1.00 96.75 C

ATOM 367 O PHE A 48 1.233 -12.420 6.721 1.00 96.75 O

ATOM 368 CG PHE A 48 -0.948 -10.604 8.473 1.00 96.75 C

ATOM 369 CD1 PHE A 48 -1.100 -11.615 9.414 1.00 96.75 C

ATOM 370 CD2 PHE A 48 -0.202 -9.483 8.812 1.00 96.75 C

ATOM 371 CE1 PHE A 48 -0.515 -11.511 10.675 1.00 96.75 C

ATOM 372 CE2 PHE A 48 0.385 -9.371 10.069 1.00 96.75 C

ATOM 373 CZ PHE A 48 0.226 -10.386 10.999 1.00 96.75 C

ATOM 374 N GLU A 49 -0.590 -13.465 5.980 1.00 95.05 N

ATOM 375 CA GLU A 49 -0.041 -14.800 6.195 1.00 95.05 C

ATOM 376 C GLU A 49 1.204 -15.030 5.343 1.00 95.05 C

ATOM 377 CB GLU A 49 -1.093 -15.870 5.889 1.00 95.05 C

ATOM 378 O GLU A 49 2.163 -15.662 5.792 1.00 95.05 O

ATOM 379 CG GLU A 49 -2.160 -16.009 6.964 1.00 95.05 C

ATOM 380 CD GLU A 49 -3.115 -17.165 6.716 1.00 95.05 C

ATOM 381 OE1 GLU A 49 -3.579 -17.791 7.696 1.00 95.05 O

ATOM 382 OE2 GLU A 49 -3.402 -17.448 5.531 1.00 95.05 O

ATOM 383 N SER A 50 1.187 -14.476 4.162 1.00 93.42 N

ATOM 384 CA SER A 50 2.315 -14.667 3.256 1.00 93.42 C

ATOM 385 C SER A 50 3.491 -13.777 3.643 1.00 93.42 C

ATOM 386 CB SER A 50 1.899 -14.377 1.813 1.00 93.42 C

ATOM 387 O SER A 50 4.645 -14.210 3.599 1.00 93.42 O

ATOM 388 OG SER A 50 1.628 -12.998 1.635 1.00 93.42 O

ATOM 389 N MET A 51 3.230 -12.583 4.029 1.00 93.02 N

ATOM 390 CA MET A 51 4.244 -11.568 4.299 1.00 93.02 C

ATOM 391 C MET A 51 4.777 -11.695 5.722 1.00 93.02 C

ATOM 392 CB MET A 51 3.673 -10.166 4.077 1.00 93.02 C

ATOM 393 O MET A 51 5.980 -11.562 5.952 1.00 93.02 O

ATOM 394 CG MET A 51 4.672 -9.049 4.336 1.00 93.02 C

ATOM 395 SD MET A 51 3.964 -7.386 4.023 1.00 93.02 S

ATOM 396 CE MET A 51 2.614 -7.379 5.236 1.00 93.02 C

ATOM 397 N GLY A 52 3.896 -12.064 6.661 1.00 92.07 N

ATOM 398 CA GLY A 52 4.220 -12.006 8.077 1.00 92.07 C

ATOM 399 C GLY A 52 4.258 -10.590 8.623 1.00 92.07 C

ATOM 400 O GLY A 52 4.059 -9.628 7.879 1.00 92.07 O

ATOM 401 N ALA A 53 4.424 -10.569 9.921 1.00 94.08 N

ATOM 402 CA ALA A 53 4.505 -9.269 10.584 1.00 94.08 C

ATOM 403 C ALA A 53 5.907 -8.679 10.464 1.00 94.08 C

ATOM 404 CB ALA A 53 4.107 -9.395 12.053 1.00 94.08 C

ATOM 405 O ALA A 53 6.861 -9.207 11.042 1.00 94.08 O

ATOM 406 N LEU A 54 6.041 -7.617 9.702 1.00 95.31 N

ATOM 407 CA LEU A 54 7.315 -6.929 9.529 1.00 95.31 C

ATOM 408 C LEU A 54 7.607 -6.018 10.717 1.00 95.31 C

ATOM 409 CB LEU A 54 7.312 -6.113 8.234 1.00 95.31 C

ATOM 410 O LEU A 54 6.694 -5.398 11.268 1.00 95.31 O

ATOM 411 CG LEU A 54 6.999 -6.881 6.949 1.00 95.31 C

ATOM 412 CD1 LEU A 54 6.841 -5.916 5.779 1.00 95.31 C

ATOM 413 CD2 LEU A 54 8.090 -7.907 6.659 1.00 95.31 C

ATOM 414 N PRO A 55 8.813 -5.997 11.239 1.00 95.80 N

ATOM 415 CA PRO A 55 9.148 -5.231 12.442 1.00 95.80 C

ATOM 416 C PRO A 55 8.798 -3.750 12.314 1.00 95.80 C

ATOM 417 CB PRO A 55 10.661 -5.424 12.573 1.00 95.80 C

ATOM 418 O PRO A 55 8.902 -3.178 11.226 1.00 95.80 O

ATOM 419 CG PRO A 55 11.127 -5.742 11.189 1.00 95.80 C

ATOM 420 CD PRO A 55 10.031 -6.478 10.473 1.00 95.80 C

ATOM 421 N ASN A 56 8.318 -3.190 13.399 1.00 97.39 N

ATOM 422 CA ASN A 56 8.071 -1.761 13.561 1.00 97.39 C

ATOM 423 C ASN A 56 6.922 -1.287 12.675 1.00 97.39 C

ATOM 424 CB ASN A 56 9.339 -0.959 13.259 1.00 97.39 C

ATOM 425 O ASN A 56 6.975 -0.191 12.116 1.00 97.39 O

ATOM 426 CG ASN A 56 10.473 -1.280 14.213 1.00 97.39 C

ATOM 427 ND2 ASN A 56 11.603 -1.711 13.666 1.00 97.39 N

ATOM 428 OD1 ASN A 56 10.334 -1.142 15.431 1.00 97.39 O

ATOM 429 N ARG A 57 5.970 -2.192 12.581 1.00 97.86 N

ATOM 430 CA ARG A 57 4.696 -1.919 11.923 1.00 97.86 C

ATOM 431 C ARG A 57 3.535 -2.520 12.708 1.00 97.86 C

ATOM 432 CB ARG A 57 4.702 -2.465 10.494 1.00 97.86 C

ATOM 433 O ARG A 57 3.714 -3.491 13.446 1.00 97.86 O

ATOM 434 CG ARG A 57 5.634 -1.720 9.553 1.00 97.86 C

ATOM 435 CD ARG A 57 6.207 -2.638 8.482 1.00 97.86 C

ATOM 436 NE ARG A 57 7.094 -1.918 7.573 1.00 97.86 N

ATOM 437 NH1 ARG A 57 8.975 -3.151 8.099 1.00 97.86 N

ATOM 438 NH2 ARG A 57 9.103 -1.460 6.557 1.00 97.86 N

ATOM 439 CZ ARG A 57 8.389 -2.178 7.412 1.00 97.86 C

ATOM 440 N LYS A 58 2.477 -1.844 12.584 1.00 98.32 N

ATOM 441 CA LYS A 58 1.227 -2.353 13.140 1.00 98.32 C

ATOM 442 C LYS A 58 0.253 -2.746 12.033 1.00 98.32 C

ATOM 443 CB LYS A 58 0.584 -1.313 14.059 1.00 98.32 C

ATOM 444 O LYS A 58 0.274 -2.165 10.945 1.00 98.32 O

ATOM 445 CG LYS A 58 1.429 -0.953 15.272 1.00 98.32 C

ATOM 446 CD LYS A 58 0.777 0.146 16.101 1.00 98.32 C

ATOM 447 CE LYS A 58 1.667 0.577 17.259 1.00 98.32 C

ATOM 448 NZ LYS A 58 1.109 1.763 17.975 1.00 98.32 N

ATOM 449 N TYR A 59 -0.629 -3.749 12.381 1.00 98.57 N

ATOM 450 CA TYR A 59 -1.456 -4.312 11.320 1.00 98.57 C

ATOM 451 C TYR A 59 -2.926 -4.323 11.721 1.00 98.57 C

ATOM 452 CB TYR A 59 -0.998 -5.733 10.978 1.00 98.57 C

ATOM 453 O TYR A 59 -3.263 -4.664 12.858 1.00 98.57 O

ATOM 454 CG TYR A 59 0.385 -5.796 10.375 1.00 98.57 C

ATOM 455 CD1 TYR A 59 0.562 -5.825 8.994 1.00 98.57 C

ATOM 456 CD2 TYR A 59 1.515 -5.828 11.185 1.00 98.57 C

ATOM 457 CE1 TYR A 59 1.834 -5.886 8.434 1.00 98.57 C

ATOM 458 CE2 TYR A 59 2.791 -5.889 10.635 1.00 98.57 C

ATOM 459 OH TYR A 59 4.202 -5.976 8.712 1.00 98.57 O

ATOM 460 CZ TYR A 59 2.941 -5.917 9.261 1.00 98.57 C

ATOM 461 N ALA A 60 -3.732 -3.934 10.790 1.00 98.40 N

ATOM 462 CA ALA A 60 -5.153 -4.268 10.756 1.00 98.40 C

ATOM 463 C ALA A 60 -5.447 -5.307 9.678 1.00 98.40 C

ATOM 464 CB ALA A 60 -5.990 -3.012 10.523 1.00 98.40 C

ATOM 465 O ALA A 60 -5.416 -4.998 8.484 1.00 98.40 O

ATOM 466 N VAL A 61 -5.679 -6.522 10.143 1.00 98.42 N

ATOM 467 CA VAL A 61 -5.922 -7.627 9.222 1.00 98.42 C

ATOM 468 C VAL A 61 -7.424 -7.846 9.062 1.00 98.42 C

ATOM 469 CB VAL A 61 -5.241 -8.928 9.703 1.00 98.42 C

ATOM 470 O VAL A 61 -8.141 -8.023 10.051 1.00 98.42 O

ATOM 471 CG1 VAL A 61 -5.540 -10.080 8.746 1.00 98.42 C

ATOM 472 CG2 VAL A 61 -3.734 -8.721 9.841 1.00 98.42 C

ATOM 473 N VAL A 62 -7.895 -7.833 7.776 1.00 98.29 N

ATOM 474 CA VAL A 62 -9.314 -8.015 7.491 1.00 98.29 C

ATOM 475 C VAL A 62 -9.563 -9.437 6.993 1.00 98.29 C

ATOM 476 CB VAL A 62 -9.820 -6.990 6.451 1.00 98.29 C

ATOM 477 O VAL A 62 -8.930 -9.885 6.033 1.00 98.29 O

ATOM 478 CG1 VAL A 62 -11.286 -7.249 6.107 1.00 98.29 C

ATOM 479 CG2 VAL A 62 -9.634 -5.566 6.972 1.00 98.29 C

ATOM 480 N THR A 63 -10.494 -10.116 7.651 1.00 97.12 N

ATOM 481 CA THR A 63 -10.842 -11.479 7.263 1.00 97.12 C

ATOM 482 C THR A 63 -12.252 -11.831 7.731 1.00 97.12 C

ATOM 483 CB THR A 63 -9.839 -12.496 7.837 1.00 97.12 C

ATOM 484 O THR A 63 -12.717 -11.322 8.753 1.00 97.12 O

ATOM 485 CG2 THR A 63 -9.823 -12.453 9.362 1.00 97.12 C

ATOM 486 OG1 THR A 63 -10.208 -13.814 7.412 1.00 97.12 O

ATOM 487 N ARG A 64 -12.952 -12.688 6.951 1.00 93.51 N

ATOM 488 CA ARG A 64 -14.262 -13.198 7.340 1.00 93.51 C

ATOM 489 C ARG A 64 -14.140 -14.558 8.020 1.00 93.51 C

ATOM 490 CB ARG A 64 -15.183 -13.302 6.123 1.00 93.51 C

ATOM 491 O ARG A 64 -15.137 -15.120 8.479 1.00 93.51 O

ATOM 492 CG ARG A 64 -15.522 -11.961 5.491 1.00 93.51 C

ATOM 493 CD ARG A 64 -16.347 -12.128 4.222 1.00 93.51 C

ATOM 494 NE ARG A 64 -16.696 -10.839 3.633 1.00 93.51 N

ATOM 495 NH1 ARG A 64 -16.912 -11.648 1.480 1.00 93.51 N

ATOM 496 NH2 ARG A 64 -17.264 -9.425 1.914 1.00 93.51 N

ATOM 497 CZ ARG A 64 -16.957 -10.641 2.344 1.00 93.51 C

ATOM 498 N SER A 65 -12.950 -15.041 8.160 1.00 93.48 N

ATOM 499 CA SER A 65 -12.713 -16.346 8.767 1.00 93.48 C

ATOM 500 C SER A 65 -12.321 -16.211 10.234 1.00 93.48 C

ATOM 501 CB SER A 65 -11.622 -17.101 8.006 1.00 93.48 C

ATOM 502 O SER A 65 -12.122 -15.100 10.729 1.00 93.48 O

ATOM 503 OG SER A 65 -10.368 -16.458 8.156 1.00 93.48 O

ATOM 504 N SER A 66 -12.333 -17.270 10.979 1.00 90.69 N

ATOM 505 CA SER A 66 -12.006 -17.307 12.401 1.00 90.69 C

ATOM 506 C SER A 66 -10.509 -17.133 12.629 1.00 90.69 C

ATOM 507 CB SER A 66 -12.477 -18.621 13.025 1.00 90.69 C

ATOM 508 O SER A 66 -10.000 -17.443 13.708 1.00 90.69 O

ATOM 509 OG SER A 66 -11.925 -19.731 12.337 1.00 90.69 O

ATOM 510 N PHE A 67 -9.853 -16.279 11.997 1.00 93.92 N

ATOM 511 CA PHE A 67 -8.433 -15.989 12.154 1.00 93.92 C

ATOM 512 C PHE A 67 -8.191 -15.112 13.376 1.00 93.92 C

ATOM 513 CB PHE A 67 -7.881 -15.304 10.899 1.00 93.92 C

ATOM 514 O PHE A 67 -8.934 -14.159 13.620 1.00 93.92 O

ATOM 515 CG PHE A 67 -6.452 -14.852 11.032 1.00 93.92 C

ATOM 516 CD1 PHE A 67 -6.152 -13.529 11.334 1.00 93.92 C

ATOM 517 CD2 PHE A 67 -5.408 -15.751 10.856 1.00 93.92 C

ATOM 518 CE1 PHE A 67 -4.830 -13.108 11.459 1.00 93.92 C

ATOM 519 CE2 PHE A 67 -4.085 -15.337 10.978 1.00 93.92 C

ATOM 520 CZ PHE A 67 -3.798 -14.015 11.279 1.00 93.92 C

ATOM 521 N THR A 68 -7.105 -15.488 14.143 1.00 93.67 N

ATOM 522 CA THR A 68 -6.726 -14.666 15.286 1.00 93.67 C

ATOM 523 C THR A 68 -5.211 -14.492 15.348 1.00 93.67 C

ATOM 524 CB THR A 68 -7.229 -15.278 16.606 1.00 93.67 C

ATOM 525 O THR A 68 -4.467 -15.257 14.730 1.00 93.67 O

ATOM 526 CG2 THR A 68 -8.749 -15.409 16.607 1.00 93.67 C

ATOM 527 OG1 THR A 68 -6.648 -16.576 16.776 1.00 93.67 O

ATOM 528 N SER A 69 -4.807 -13.410 15.973 1.00 93.50 N

ATOM 529 CA SER A 69 -3.387 -13.145 16.178 1.00 93.50 C

ATOM 530 C SER A 69 -3.080 -12.885 17.649 1.00 93.50 C

ATOM 531 CB SER A 69 -2.938 -11.950 15.336 1.00 93.50 C

ATOM 532 O SER A 69 -3.849 -12.214 18.340 1.00 93.50 O

ATOM 533 OG SER A 69 -1.569 -11.662 15.562 1.00 93.50 O

ATOM 534 N SER A 70 -1.987 -13.505 18.175 1.00 93.78 N

ATOM 535 CA SER A 70 -1.548 -13.246 19.542 1.00 93.78 C

ATOM 536 C SER A 70 -0.573 -12.075 19.598 1.00 93.78 C

ATOM 537 CB SER A 70 -0.896 -14.492 20.142 1.00 93.78 C

ATOM 538 O SER A 70 -0.142 -11.670 20.680 1.00 93.78 O

ATOM 539 OG SER A 70 0.197 -14.920 19.347 1.00 93.78 O

ATOM 540 N ASP A 71 -0.254 -11.555 18.445 1.00 95.31 N

ATOM 541 CA ASP A 71 0.644 -10.411 18.326 1.00 95.31 C

ATOM 542 C ASP A 71 -0.077 -9.109 18.667 1.00 95.31 C

ATOM 543 CB ASP A 71 1.231 -10.333 16.915 1.00 95.31 C

ATOM 544 O ASP A 71 -1.088 -8.772 18.048 1.00 95.31 O

ATOM 545 CG ASP A 71 2.323 -9.287 16.784 1.00 95.31 C

ATOM 546 OD1 ASP A 71 2.326 -8.307 17.560 1.00 95.31 O

ATOM 547 OD2 ASP A 71 3.187 -9.441 15.894 1.00 95.31 O

ATOM 548 N GLU A 72 0.488 -8.348 19.619 1.00 95.29 N

ATOM 549 CA GLU A 72 -0.166 -7.133 20.095 1.00 95.29 C

ATOM 550 C GLU A 72 -0.189 -6.058 19.012 1.00 95.29 C

ATOM 551 CB GLU A 72 0.532 -6.602 21.349 1.00 95.29 C

ATOM 552 O GLU A 72 -0.967 -5.106 19.091 1.00 95.29 O

ATOM 553 CG GLU A 72 1.977 -6.183 21.118 1.00 95.29 C

ATOM 554 CD GLU A 72 2.665 -5.682 22.377 1.00 95.29 C

ATOM 555 OE1 GLU A 72 3.852 -5.290 22.305 1.00 95.29 O

ATOM 556 OE2 GLU A 72 2.013 -5.681 23.445 1.00 95.29 O

ATOM 557 N ASN A 73 0.679 -6.211 18.030 1.00 97.20 N

ATOM 558 CA ASN A 73 0.728 -5.223 16.957 1.00 97.20 C

ATOM 559 C ASN A 73 -0.197 -5.601 15.804 1.00 97.20 C

ATOM 560 CB ASN A 73 2.162 -5.050 16.453 1.00 97.20 C

ATOM 561 O ASN A 73 -0.201 -4.941 14.764 1.00 97.20 O

ATOM 562 CG ASN A 73 3.067 -4.398 17.479 1.00 97.20 C

ATOM 563 ND2 ASN A 73 4.304 -4.872 17.566 1.00 97.20 N

ATOM 564 OD1 ASN A 73 2.658 -3.476 18.190 1.00 97.20 O

ATOM 565 N VAL A 74 -1.004 -6.683 15.995 1.00 98.11 N

ATOM 566 CA VAL A 74 -1.913 -7.149 14.953 1.00 98.11 C

ATOM 567 C VAL A 74 -3.345 -7.162 15.484 1.00 98.11 C

ATOM 568 CB VAL A 74 -1.521 -8.554 14.444 1.00 98.11 C

ATOM 569 O VAL A 74 -3.651 -7.871 16.445 1.00 98.11 O

ATOM 570 CG1 VAL A 74 -2.482 -9.021 13.353 1.00 98.11 C

ATOM 571 CG2 VAL A 74 -0.082 -8.552 13.929 1.00 98.11 C

ATOM 572 N LEU A 75 -4.142 -6.342 14.832 1.00 98.18 N

ATOM 573 CA LEU A 75 -5.576 -6.360 15.098 1.00 98.18 C

ATOM 574 C LEU A 75 -6.334 -7.019 13.951 1.00 98.18 C

ATOM 575 CB LEU A 75 -6.098 -4.938 15.320 1.00 98.18 C

ATOM 576 O LEU A 75 -6.064 -6.738 12.781 1.00 98.18 O

ATOM 577 CG LEU A 75 -5.456 -4.151 16.463 1.00 98.18 C

ATOM 578 CD1 LEU A 75 -6.074 -2.760 16.562 1.00 98.18 C

ATOM 579 CD2 LEU A 75 -5.606 -4.903 17.781 1.00 98.18 C

ATOM 580 N VAL A 76 -7.335 -7.853 14.262 1.00 98.29 N

ATOM 581 CA VAL A 76 -8.091 -8.579 13.247 1.00 98.29 C

ATOM 582 C VAL A 76 -9.535 -8.083 13.224 1.00 98.29 C

ATOM 583 CB VAL A 76 -8.055 -10.104 13.495 1.00 98.29 C

ATOM 584 O VAL A 76 -10.177 -7.973 14.272 1.00 98.29 O

ATOM 585 CG1 VAL A 76 -8.787 -10.849 12.380 1.00 98.29 C

ATOM 586 CG2 VAL A 76 -6.612 -10.591 13.610 1.00 98.29 C

ATOM 587 N PHE A 77 -9.987 -7.788 11.998 1.00 98.18 N

ATOM 588 CA PHE A 77 -11.333 -7.252 11.832 1.00 98.18 C

ATOM 589 C PHE A 77 -12.116 -8.066 10.808 1.00 98.18 C

ATOM 590 CB PHE A 77 -11.279 -5.782 11.404 1.00 98.18 C

ATOM 591 O PHE A 77 -11.537 -8.608 9.864 1.00 98.18 O

ATOM 592 CG PHE A 77 -10.580 -4.888 12.392 1.00 98.18 C

ATOM 593 CD1 PHE A 77 -11.287 -4.281 13.423 1.00 98.18 C

ATOM 594 CD2 PHE A 77 -9.215 -4.654 12.289 1.00 98.18 C

ATOM 595 CE1 PHE A 77 -10.642 -3.453 14.338 1.00 98.18 C

ATOM 596 CE2 PHE A 77 -8.564 -3.827 13.200 1.00 98.18 C

ATOM 597 CZ PHE A 77 -9.280 -3.227 14.224 1.00 98.18 C

ATOM 598 N PRO A 78 -13.441 -8.163 10.912 1.00 97.62 N

ATOM 599 CA PRO A 78 -14.262 -8.972 10.007 1.00 97.62 C

ATOM 600 C PRO A 78 -14.572 -8.257 8.694 1.00 97.62 C

ATOM 601 CB PRO A 78 -15.541 -9.213 10.813 1.00 97.62 C

ATOM 602 O PRO A 78 -15.039 -8.885 7.741 1.00 97.62 O

ATOM 603 CG PRO A 78 -15.640 -8.039 11.732 1.00 97.62 C

ATOM 604 CD PRO A 78 -14.252 -7.621 12.123 1.00 97.62 C

ATOM 605 N SER A 79 -14.282 -6.905 8.684 1.00 97.63 N

ATOM 606 CA SER A 79 -14.561 -6.138 7.474 1.00 97.63 C

ATOM 607 C SER A 79 -13.684 -4.893 7.395 1.00 97.63 C

ATOM 608 CB SER A 79 -16.036 -5.737 7.422 1.00 97.63 C

ATOM 609 O SER A 79 -13.157 -4.433 8.409 1.00 97.63 O

ATOM 610 OG SER A 79 -16.322 -4.744 8.391 1.00 97.63 O

ATOM 611 N ILE A 80 -13.589 -4.332 6.219 1.00 97.94 N

ATOM 612 CA ILE A 80 -12.822 -3.116 5.970 1.00 97.94 C

ATOM 613 C ILE A 80 -13.427 -1.955 6.756 1.00 97.94 C

ATOM 614 CB ILE A 80 -12.774 -2.776 4.464 1.00 97.94 C

ATOM 615 O ILE A 80 -12.704 -1.184 7.392 1.00 97.94 O

ATOM 616 CG1 ILE A 80 -11.898 -3.789 3.716 1.00 97.94 C

ATOM 617 CG2 ILE A 80 -12.265 -1.348 4.248 1.00 97.94 C

ATOM 618 CD1 ILE A 80 -11.978 -3.676 2.200 1.00 97.94 C

ATOM 619 N ASP A 81 -14.689 -1.884 6.780 1.00 97.68 N

ATOM 620 CA ASP A 81 -15.380 -0.797 7.468 1.00 97.68 C

ATOM 621 C ASP A 81 -15.086 -0.821 8.966 1.00 97.68 C

ATOM 622 CB ASP A 81 -16.889 -0.883 7.227 1.00 97.68 C

ATOM 623 O ASP A 81 -14.798 0.217 9.564 1.00 97.68 O

ATOM 624 CG ASP A 81 -17.293 -0.435 5.833 1.00 97.68 C

ATOM 625 OD1 ASP A 81 -16.502 0.264 5.164 1.00 97.68 O

ATOM 626 OD2 ASP A 81 -18.413 -0.783 5.401 1.00 97.68 O

ATOM 627 N GLU A 82 -15.212 -1.952 9.563 1.00 98.32 N

ATOM 628 CA GLU A 82 -14.926 -2.068 10.990 1.00 98.32 C

ATOM 629 C GLU A 82 -13.467 -1.736 11.290 1.00 98.32 C

ATOM 630 CB GLU A 82 -15.259 -3.475 11.493 1.00 98.32 C

ATOM 631 O GLU A 82 -13.167 -1.079 12.290 1.00 98.32 O

ATOM 632 CG GLU A 82 -16.751 -3.770 11.550 1.00 98.32 C

ATOM 633 CD GLU A 82 -17.078 -5.073 12.262 1.00 98.32 C

ATOM 634 OE1 GLU A 82 -18.017 -5.781 11.833 1.00 98.32 O

ATOM 635 OE2 GLU A 82 -16.390 -5.388 13.259 1.00 98.32 O

ATOM 636 N ALA A 83 -12.609 -2.196 10.414 1.00 98.29 N

ATOM 637 CA ALA A 83 -11.194 -1.873 10.582 1.00 98.29 C

ATOM 638 C ALA A 83 -10.967 -0.365 10.545 1.00 98.29 C

ATOM 639 CB ALA A 83 -10.359 -2.561 9.504 1.00 98.29 C

ATOM 640 O ALA A 83 -10.343 0.198 11.448 1.00 98.29 O

ATOM 641 N LEU A 84 -11.477 0.275 9.570 1.00 98.23 N

ATOM 642 CA LEU A 84 -11.269 1.709 9.395 1.00 98.23 C

ATOM 643 C LEU A 84 -11.920 2.494 10.529 1.00 98.23 C

ATOM 644 CB LEU A 84 -11.831 2.172 8.049 1.00 98.23 C

ATOM 645 O LEU A 84 -11.364 3.490 10.999 1.00 98.23 O

ATOM 646 CG LEU A 84 -11.095 1.682 6.801 1.00 98.23 C

ATOM 647 CD1 LEU A 84 -11.780 2.202 5.542 1.00 98.23 C

ATOM 648 CD2 LEU A 84 -9.633 2.116 6.838 1.00 98.23 C

ATOM 649 N ASN A 85 -13.124 2.121 10.975 1.00 98.10 N

ATOM 650 CA ASN A 85 -13.790 2.784 12.091 1.00 98.10 C

ATOM 651 C ASN A 85 -12.943 2.734 13.359 1.00 98.10 C

ATOM 652 CB ASN A 85 -15.164 2.159 12.345 1.00 98.10 C

ATOM 653 O ASN A 85 -12.821 3.733 14.069 1.00 98.10 O

ATOM 654 CG ASN A 85 -16.199 2.590 11.325 1.00 98.10 C

ATOM 655 ND2 ASN A 85 -17.269 1.814 11.202 1.00 98.10 N

ATOM 656 OD1 ASN A 85 -16.038 3.612 10.652 1.00 98.10 O

ATOM 657 N HIS A 86 -12.371 1.604 13.619 1.00 98.37 N

ATOM 658 CA HIS A 86 -11.511 1.467 14.789 1.00 98.37 C

ATOM 659 C HIS A 86 -10.233 2.283 14.631 1.00 98.37 C

ATOM 660 CB HIS A 86 -11.167 -0.004 15.031 1.00 98.37 C

ATOM 661 O HIS A 86 -9.827 2.994 15.554 1.00 98.37 O

ATOM 662 CG HIS A 86 -10.275 -0.225 16.212 1.00 98.37 C

ATOM 663 CD2 HIS A 86 -8.940 -0.436 16.290 1.00 98.37 C

ATOM 664 ND1 HIS A 86 -10.747 -0.248 17.506 1.00 98.37 N

ATOM 665 CE1 HIS A 86 -9.737 -0.463 18.332 1.00 98.37 C

ATOM 666 NE2 HIS A 86 -8.629 -0.581 17.620 1.00 98.37 N

ATOM 667 N LEU A 87 -9.580 2.232 13.447 1.00 98.27 N

ATOM 668 CA LEU A 87 -8.300 2.890 13.211 1.00 98.27 C

ATOM 669 C LEU A 87 -8.441 4.406 13.306 1.00 98.27 C

ATOM 670 CB LEU A 87 -7.742 2.503 11.839 1.00 98.27 C

ATOM 671 O LEU A 87 -7.504 5.097 13.710 1.00 98.27 O

ATOM 672 CG LEU A 87 -7.190 1.083 11.708 1.00 98.27 C

ATOM 673 CD1 LEU A 87 -6.865 0.773 10.251 1.00 98.27 C

ATOM 674 CD2 LEU A 87 -5.955 0.906 12.586 1.00 98.27 C

ATOM 675 N LYS A 88 -9.539 4.889 12.987 1.00 97.77 N

ATOM 676 CA LYS A 88 -9.786 6.324 13.100 1.00 97.77 C

ATOM 677 C LYS A 88 -9.617 6.799 14.540 1.00 97.77 C

ATOM 678 CB LYS A 88 -11.189 6.668 12.596 1.00 97.77 C

ATOM 679 O LYS A 88 -9.321 7.971 14.782 1.00 97.77 O

ATOM 680 CG LYS A 88 -11.332 6.620 11.082 1.00 97.77 C

ATOM 681 CD LYS A 88 -12.750 6.960 10.643 1.00 97.77 C

ATOM 682 CE LYS A 88 -12.902 6.882 9.130 1.00 97.77 C

ATOM 683 NZ LYS A 88 -14.301 7.176 8.698 1.00 97.77 N

ATOM 684 N THR A 89 -9.794 5.906 15.488 1.00 97.86 N

ATOM 685 CA THR A 89 -9.745 6.273 16.899 1.00 97.86 C

ATOM 686 C THR A 89 -8.321 6.166 17.437 1.00 97.86 C

ATOM 687 CB THR A 89 -10.682 5.385 17.739 1.00 97.86 C

ATOM 688 O THR A 89 -8.016 6.692 18.509 1.00 97.86 O

ATOM 689 CG2 THR A 89 -12.065 5.288 17.103 1.00 97.86 C

ATOM 690 OG1 THR A 89 -10.122 4.070 17.840 1.00 97.86 O

ATOM 691 N ILE A 90 -7.359 5.591 16.709 1.00 97.70 N

ATOM 692 CA ILE A 90 -6.083 5.317 17.361 1.00 97.70 C

ATOM 693 C ILE A 90 -4.938 5.824 16.489 1.00 97.70 C

ATOM 694 CB ILE A 90 -5.909 3.809 17.651 1.00 97.70 C

ATOM 695 O ILE A 90 -3.778 5.818 16.910 1.00 97.70 O

ATOM 696 CG1 ILE A 90 -5.972 3.004 16.347 1.00 97.70 C

ATOM 697 CG2 ILE A 90 -6.968 3.324 18.645 1.00 97.70 C

ATOM 698 CD1 ILE A 90 -5.612 1.534 16.510 1.00 97.70 C

ATOM 699 N THR A 91 -5.236 6.258 15.261 1.00 97.74 N

ATOM 700 CA THR A 91 -4.159 6.761 14.416 1.00 97.74 C

ATOM 701 C THR A 91 -4.690 7.781 13.412 1.00 97.74 C

ATOM 702 CB THR A 91 -3.457 5.616 13.664 1.00 97.74 C

ATOM 703 O THR A 91 -5.885 7.798 13.110 1.00 97.74 O

ATOM 704 CG2 THR A 91 -4.408 4.937 12.683 1.00 97.74 C

ATOM 705 OG1 THR A 91 -2.338 6.142 12.940 1.00 97.74 O

ATOM 706 N ASP A 92 -3.870 8.574 12.805 1.00 97.55 N

ATOM 707 CA ASP A 92 -4.237 9.600 11.834 1.00 97.55 C

ATOM 708 C ASP A 92 -3.872 9.168 10.415 1.00 97.55 C

ATOM 709 CB ASP A 92 -3.556 10.928 12.171 1.00 97.55 C

ATOM 710 O ASP A 92 -4.252 9.825 9.444 1.00 97.55 O

ATOM 711 CG ASP A 92 -4.074 11.550 13.456 1.00 97.55 C

ATOM 712 OD1 ASP A 92 -5.288 11.450 13.736 1.00 97.55 O

ATOM 713 OD2 ASP A 92 -3.261 12.149 14.193 1.00 97.55 O

ATOM 714 N HIS A 93 -3.123 7.975 10.351 1.00 98.14 N

ATOM 715 CA HIS A 93 -2.646 7.554 9.038 1.00 98.14 C

ATOM 716 C HIS A 93 -2.635 6.034 8.917 1.00 98.14 C

ATOM 717 CB HIS A 93 -1.246 8.112 8.772 1.00 98.14 C

ATOM 718 O HIS A 93 -2.121 5.341 9.797 1.00 98.14 O

ATOM 719 CG HIS A 93 -0.743 7.836 7.391 1.00 98.14 C

ATOM 720 CD2 HIS A 93 -1.403 7.668 6.221 1.00 98.14 C

ATOM 721 ND1 HIS A 93 0.598 7.700 7.101 1.00 98.14 N

ATOM 722 CE1 HIS A 93 0.740 7.461 5.808 1.00 98.14 C

ATOM 723 NE2 HIS A 93 -0.459 7.436 5.252 1.00 98.14 N

ATOM 724 N VAL A 94 -3.214 5.589 7.802 1.00 98.52 N

ATOM 725 CA VAL A 94 -3.241 4.167 7.477 1.00 98.52 C

ATOM 726 C VAL A 94 -2.745 3.953 6.049 1.00 98.52 C

ATOM 727 CB VAL A 94 -4.658 3.574 7.643 1.00 98.52 C

ATOM 728 O VAL A 94 -3.093 4.715 5.144 1.00 98.52 O

ATOM 729 CG1 VAL A 94 -4.711 2.143 7.113 1.00 98.52 C

ATOM 730 CG2 VAL A 94 -5.087 3.620 9.109 1.00 98.52 C

ATOM 731 N ILE A 95 -1.923 2.900 5.959 1.00 98.59 N

ATOM 732 CA ILE A 95 -1.447 2.542 4.627 1.00 98.59 C

ATOM 733 C ILE A 95 -2.046 1.201 4.208 1.00 98.59 C

ATOM 734 CB ILE A 95 0.096 2.480 4.576 1.00 98.59 C

ATOM 735 O ILE A 95 -1.742 0.165 4.805 1.00 98.59 O

ATOM 736 CG1 ILE A 95 0.700 3.793 5.085 1.00 98.59 C

ATOM 737 CG2 ILE A 95 0.577 2.170 3.155 1.00 98.59 C

ATOM 738 CD1 ILE A 95 2.217 3.769 5.212 1.00 98.59 C

ATOM 739 N VAL A 96 -2.877 1.264 3.136 1.00 98.52 N

ATOM 740 CA VAL A 96 -3.412 0.036 2.559 1.00 98.52 C

ATOM 741 C VAL A 96 -2.310 -0.705 1.805 1.00 98.52 C

ATOM 742 CB VAL A 96 -4.602 0.324 1.616 1.00 98.52 C

ATOM 743 O VAL A 96 -1.725 -0.167 0.862 1.00 98.52 O

ATOM 744 CG1 VAL A 96 -5.155 -0.975 1.032 1.00 98.52 C

ATOM 745 CG2 VAL A 96 -5.697 1.088 2.358 1.00 98.52 C

ATOM 746 N SER A 97 -1.976 -1.888 2.209 1.00 97.28 N

ATOM 747 CA SER A 97 -0.777 -2.539 1.692 1.00 97.28 C

ATOM 748 C SER A 97 -1.103 -3.906 1.100 1.00 97.28 C

ATOM 749 CB SER A 97 0.270 -2.689 2.796 1.00 97.28 C

ATOM 750 O SER A 97 -0.221 -4.758 0.969 1.00 97.28 O

ATOM 751 OG SER A 97 0.752 -1.421 3.207 1.00 97.28 O

ATOM 752 N GLY A 98 -2.360 -4.046 0.707 1.00 89.30 N

ATOM 753 CA GLY A 98 -2.586 -5.185 -0.167 1.00 89.30 C

ATOM 754 C GLY A 98 -3.440 -6.265 0.469 1.00 89.30 C

ATOM 755 O GLY A 98 -3.708 -6.224 1.672 1.00 89.30 O

ATOM 756 N GLY A 99 -3.879 -7.102 -0.365 1.00 90.67 N

ATOM 757 CA GLY A 99 -4.357 -8.119 -1.288 1.00 90.67 C

ATOM 758 C GLY A 99 -5.240 -7.560 -2.387 1.00 90.67 C

ATOM 759 O GLY A 99 -5.770 -6.454 -2.263 1.00 90.67 O

ATOM 760 N GLY A 100 -5.138 -8.081 -3.563 1.00 93.07 N

ATOM 761 CA GLY A 100 -5.921 -7.657 -4.713 1.00 93.07 C

ATOM 762 C GLY A 100 -7.323 -7.207 -4.348 1.00 93.07 C

ATOM 763 O GLY A 100 -7.791 -6.170 -4.821 1.00 93.07 O

ATOM 764 N GLU A 101 -8.004 -7.905 -3.402 1.00 95.04 N

ATOM 765 CA GLU A 101 -9.375 -7.585 -3.015 1.00 95.04 C

ATOM 766 C GLU A 101 -9.428 -6.313 -2.174 1.00 95.04 C

ATOM 767 CB GLU A 101 -10.002 -8.750 -2.245 1.00 95.04 C

ATOM 768 O GLU A 101 -10.343 -5.500 -2.324 1.00 95.04 O

ATOM 769 CG GLU A 101 -10.293 -9.970 -3.107 1.00 95.04 C

ATOM 770 CD GLU A 101 -10.959 -11.102 -2.340 1.00 95.04 C

ATOM 771 OE1 GLU A 101 -11.130 -12.203 -2.910 1.00 95.04 O

ATOM 772 OE2 GLU A 101 -11.313 -10.885 -1.160 1.00 95.04 O

ATOM 773 N ILE A 102 -8.480 -6.196 -1.293 1.00 97.66 N

ATOM 774 CA ILE A 102 -8.404 -5.006 -0.453 1.00 97.66 C

ATOM 775 C ILE A 102 -8.142 -3.778 -1.321 1.00 97.66 C

ATOM 776 CB ILE A 102 -7.306 -5.145 0.625 1.00 97.66 C

ATOM 777 O ILE A 102 -8.818 -2.756 -1.182 1.00 97.66 O

ATOM 778 CG1 ILE A 102 -7.646 -6.287 1.590 1.00 97.66 C

ATOM 779 CG2 ILE A 102 -7.122 -3.826 1.381 1.00 97.66 C

ATOM 780 CD1 ILE A 102 -8.906 -6.049 2.410 1.00 97.66 C

ATOM 781 N TYR A 103 -7.204 -3.929 -2.271 1.00 98.10 N

ATOM 782 CA TYR A 103 -6.924 -2.813 -3.168 1.00 98.10 C

ATOM 783 C TYR A 103 -8.170 -2.416 -3.951 1.00 98.10 C

ATOM 784 CB TYR A 103 -5.792 -3.171 -4.135 1.00 98.10 C

ATOM 785 O TYR A 103 -8.502 -1.232 -4.043 1.00 98.10 O

ATOM 786 CG TYR A 103 -4.436 -3.257 -3.477 1.00 98.10 C

ATOM 787 CD1 TYR A 103 -4.095 -2.409 -2.426 1.00 98.10 C

ATOM 788 CD2 TYR A 103 -3.493 -4.185 -3.905 1.00 98.10 C

ATOM 789 CE1 TYR A 103 -2.846 -2.483 -1.818 1.00 98.10 C

ATOM 790 CE2 TYR A 103 -2.241 -4.269 -3.305 1.00 98.10 C

ATOM 791 OH TYR A 103 -0.690 -3.493 -1.665 1.00 98.10 O

ATOM 792 CZ TYR A 103 -1.928 -3.415 -2.263 1.00 98.10 C

ATOM 793 N LYS A 104 -8.820 -3.350 -4.493 1.00 97.48 N

ATOM 794 CA LYS A 104 -10.007 -3.105 -5.306 1.00 97.48 C

ATOM 795 C LYS A 104 -11.078 -2.368 -4.507 1.00 97.48 C

ATOM 796 CB LYS A 104 -10.568 -4.420 -5.848 1.00 97.48 C

ATOM 797 O LYS A 104 -11.734 -1.462 -5.026 1.00 97.48 O

ATOM 798 CG LYS A 104 -11.713 -4.244 -6.835 1.00 97.48 C

ATOM 799 CD LYS A 104 -12.168 -5.581 -7.408 1.00 97.48 C

ATOM 800 CE LYS A 104 -13.341 -5.411 -8.362 1.00 97.48 C

ATOM 801 NZ LYS A 104 -13.781 -6.717 -8.938 1.00 97.48 N

ATOM 802 N SER A 105 -11.204 -2.648 -3.301 1.00 97.29 N

ATOM 803 CA SER A 105 -12.263 -2.111 -2.453 1.00 97.29 C

ATOM 804 C SER A 105 -11.938 -0.693 -1.995 1.00 97.29 C

ATOM 805 CB SER A 105 -12.485 -3.010 -1.237 1.00 97.29 C

ATOM 806 O SER A 105 -12.842 0.115 -1.772 1.00 97.29 O

ATOM 807 OG SER A 105 -12.998 -4.271 -1.630 1.00 97.29 O

ATOM 808 N LEU A 106 -10.623 -0.326 -1.936 1.00 97.78 N

ATOM 809 CA LEU A 106 -10.299 0.915 -1.241 1.00 97.78 C

ATOM 810 C LEU A 106 -9.660 1.920 -2.193 1.00 97.78 C

ATOM 811 CB LEU A 106 -9.359 0.640 -0.064 1.00 97.78 C

ATOM 812 O LEU A 106 -9.510 3.096 -1.852 1.00 97.78 O

ATOM 813 CG LEU A 106 -9.992 0.008 1.176 1.00 97.78 C

ATOM 814 CD1 LEU A 106 -8.911 -0.442 2.153 1.00 97.78 C

ATOM 815 CD2 LEU A 106 -10.950 0.988 1.846 1.00 97.78 C

ATOM 816 N ILE A 107 -9.331 1.494 -3.434 1.00 97.39 N

ATOM 817 CA ILE A 107 -8.530 2.323 -4.328 1.00 97.39 C

ATOM 818 C ILE A 107 -9.238 3.654 -4.570 1.00 97.39 C

ATOM 819 CB ILE A 107 -8.260 1.608 -5.671 1.00 97.39 C

ATOM 820 O ILE A 107 -8.590 4.696 -4.696 1.00 97.39 O

ATOM 821 CG1 ILE A 107 -7.271 2.419 -6.518 1.00 97.39 C

ATOM 822 CG2 ILE A 107 -9.568 1.374 -6.431 1.00 97.39 C

ATOM 823 CD1 ILE A 107 -5.857 2.452 -5.956 1.00 97.39 C

ATOM 824 N ASP A 108 -10.599 3.686 -4.533 1.00 95.85 N

ATOM 825 CA ASP A 108 -11.351 4.907 -4.803 1.00 95.85 C

ATOM 826 C ASP A 108 -11.526 5.737 -3.533 1.00 95.85 C

ATOM 827 CB ASP A 108 -12.717 4.575 -5.407 1.00 95.85 C

ATOM 828 O ASP A 108 -12.036 6.858 -3.583 1.00 95.85 O

ATOM 829 CG ASP A 108 -12.624 4.031 -6.821 1.00 95.85 C

ATOM 830 OD1 ASP A 108 -11.704 4.428 -7.569 1.00 95.85 O

ATOM 831 OD2 ASP A 108 -13.480 3.199 -7.193 1.00 95.85 O

ATOM 832 N LYS A 109 -11.118 5.234 -2.406 1.00 96.02 N

ATOM 833 CA LYS A 109 -11.379 5.903 -1.135 1.00 96.02 C

ATOM 834 C LYS A 109 -10.096 6.481 -0.544 1.00 96.02 C

ATOM 835 CB LYS A 109 -12.025 4.936 -0.142 1.00 96.02 C

ATOM 836 O LYS A 109 -10.135 7.186 0.467 1.00 96.02 O

ATOM 837 CG LYS A 109 -13.394 4.431 -0.571 1.00 96.02 C

ATOM 838 CD LYS A 109 -13.991 3.487 0.465 1.00 96.02 C

ATOM 839 CE LYS A 109 -15.354 2.966 0.028 1.00 96.02 C

ATOM 840 NZ LYS A 109 -15.913 1.988 1.009 1.00 96.02 N

ATOM 841 N VAL A 110 -8.950 6.110 -1.147 1.00 97.76 N

ATOM 842 CA VAL A 110 -7.693 6.557 -0.555 1.00 97.76 C

ATOM 843 C VAL A 110 -7.361 7.963 -1.048 1.00 97.76 C

ATOM 844 CB VAL A 110 -6.535 5.589 -0.886 1.00 97.76 C

ATOM 845 O VAL A 110 -7.907 8.420 -2.055 1.00 97.76 O

ATOM 846 CG1 VAL A 110 -6.828 4.191 -0.343 1.00 97.76 C

ATOM 847 CG2 VAL A 110 -6.294 5.541 -2.393 1.00 97.76 C

ATOM 848 N ASP A 111 -6.498 8.684 -0.310 1.00 97.51 N

ATOM 849 CA ASP A 111 -6.089 10.051 -0.615 1.00 97.51 C

ATOM 850 C ASP A 111 -4.835 10.068 -1.487 1.00 97.51 C

ATOM 851 CB ASP A 111 -5.844 10.839 0.673 1.00 97.51 C

ATOM 852 O ASP A 111 -4.685 10.934 -2.352 1.00 97.51 O

ATOM 853 CG ASP A 111 -7.058 10.877 1.585 1.00 97.51 C

ATOM 854 OD1 ASP A 111 -8.096 11.453 1.194 1.00 97.51 O

ATOM 855 OD2 ASP A 111 -6.974 10.329 2.705 1.00 97.51 O

ATOM 856 N THR A 112 -3.914 9.075 -1.274 1.00 98.23 N

ATOM 857 CA THR A 112 -2.613 9.024 -1.934 1.00 98.23 C

ATOM 858 C THR A 112 -2.280 7.597 -2.361 1.00 98.23 C

ATOM 859 CB THR A 112 -1.500 9.561 -1.016 1.00 98.23 C

ATOM 860 O THR A 112 -2.560 6.644 -1.632 1.00 98.23 O

ATOM 861 CG2 THR A 112 -0.154 9.571 -1.732 1.00 98.23 C

ATOM 862 OG1 THR A 112 -1.824 10.898 -0.613 1.00 98.23 O

ATOM 863 N LEU A 113 -1.732 7.493 -3.552 1.00 98.55 N

ATOM 864 CA LEU A 113 -1.214 6.220 -4.039 1.00 98.55 C

ATOM 865 C LEU A 113 0.307 6.258 -4.149 1.00 98.55 C

ATOM 866 CB LEU A 113 -1.827 5.876 -5.399 1.00 98.55 C

ATOM 867 O LEU A 113 0.868 7.180 -4.745 1.00 98.55 O

ATOM 868 CG LEU A 113 -3.355 5.858 -5.468 1.00 98.55 C

ATOM 869 CD1 LEU A 113 -3.818 5.650 -6.907 1.00 98.55 C

ATOM 870 CD2 LEU A 113 -3.919 4.773 -4.558 1.00 98.55 C

ATOM 871 N HIS A 114 0.966 5.313 -3.496 1.00 98.58 N

ATOM 872 CA HIS A 114 2.372 5.010 -3.736 1.00 98.58 C

ATOM 873 C HIS A 114 2.527 3.782 -4.626 1.00 98.58 C

ATOM 874 CB HIS A 114 3.108 4.795 -2.412 1.00 98.58 C

ATOM 875 O HIS A 114 2.308 2.654 -4.179 1.00 98.58 O

ATOM 876 CG HIS A 114 3.079 5.988 -1.510 1.00 98.58 C

ATOM 877 CD2 HIS A 114 2.187 6.367 -0.565 1.00 98.58 C

ATOM 878 ND1 HIS A 114 4.059 6.957 -1.527 1.00 98.58 N

ATOM 879 CE1 HIS A 114 3.768 7.883 -0.628 1.00 98.58 C

ATOM 880 NE2 HIS A 114 2.637 7.548 -0.031 1.00 98.58 N

ATOM 881 N ILE A 115 2.983 4.062 -5.891 1.00 98.50 N

ATOM 882 CA ILE A 115 2.982 2.982 -6.871 1.00 98.50 C

ATOM 883 C ILE A 115 4.396 2.772 -7.408 1.00 98.50 C

ATOM 884 CB ILE A 115 2.005 3.273 -8.032 1.00 98.50 C

ATOM 885 O ILE A 115 5.017 3.706 -7.921 1.00 98.50 O

ATOM 886 CG1 ILE A 115 0.588 3.499 -7.493 1.00 98.50 C

ATOM 887 CG2 ILE A 115 2.027 2.133 -9.055 1.00 98.50 C

ATOM 888 CD1 ILE A 115 0.003 2.296 -6.766 1.00 98.50 C

ATOM 889 N SER A 116 4.872 1.577 -7.203 1.00 98.45 N

ATOM 890 CA SER A 116 6.065 1.139 -7.921 1.00 98.45 C

ATOM 891 C SER A 116 5.700 0.280 -9.127 1.00 98.45 C

ATOM 892 CB SER A 116 6.993 0.357 -6.991 1.00 98.45 C

ATOM 893 O SER A 116 5.040 -0.752 -8.985 1.00 98.45 O

ATOM 894 OG SER A 116 7.467 1.184 -5.942 1.00 98.45 O

ATOM 895 N THR A 117 6.090 0.750 -10.342 1.00 98.40 N

ATOM 896 CA THR A 117 5.922 -0.069 -11.537 1.00 98.40 C

ATOM 897 C THR A 117 7.198 -0.849 -11.842 1.00 98.40 C

ATOM 898 CB THR A 117 5.539 0.791 -12.755 1.00 98.40 C

ATOM 899 O THR A 117 8.235 -0.257 -12.150 1.00 98.40 O

ATOM 900 CG2 THR A 117 5.294 -0.077 -13.986 1.00 98.40 C

ATOM 901 OG1 THR A 117 4.346 1.526 -12.458 1.00 98.40 O

ATOM 902 N ILE A 118 7.085 -2.189 -11.689 1.00 98.60 N

ATOM 903 CA ILE A 118 8.207 -3.096 -11.906 1.00 98.60 C

ATOM 904 C ILE A 118 8.338 -3.407 -13.396 1.00 98.60 C

ATOM 905 CB ILE A 118 8.041 -4.403 -11.099 1.00 98.60 C

ATOM 906 O ILE A 118 7.393 -3.896 -14.020 1.00 98.60 O

ATOM 907 CG1 ILE A 118 7.712 -4.089 -9.635 1.00 98.60 C

ATOM 908 CG2 ILE A 118 9.302 -5.266 -11.204 1.00 98.60 C

ATOM 909 CD1 ILE A 118 8.762 -3.239 -8.934 1.00 98.60 C

ATOM 910 N ASP A 119 9.495 -3.237 -14.038 1.00 98.34 N

ATOM 911 CA ASP A 119 9.673 -3.299 -15.485 1.00 98.34 C

ATOM 912 C ASP A 119 9.860 -4.741 -15.954 1.00 98.34 C

ATOM 913 CB ASP A 119 10.869 -2.447 -15.916 1.00 98.34 C

ATOM 914 O ASP A 119 10.898 -5.085 -16.523 1.00 98.34 O

ATOM 915 CG ASP A 119 10.935 -2.234 -17.418 1.00 98.34 C

ATOM 916 OD1 ASP A 119 9.906 -2.413 -18.105 1.00 98.34 O

ATOM 917 OD2 ASP A 119 12.026 -1.888 -17.920 1.00 98.34 O

ATOM 918 N ILE A 120 8.881 -5.604 -15.703 1.00 98.41 N

ATOM 919 CA ILE A 120 8.820 -6.983 -16.175 1.00 98.41 C

ATOM 920 C ILE A 120 7.364 -7.404 -16.355 1.00 98.41 C

ATOM 921 CB ILE A 120 9.540 -7.945 -15.204 1.00 98.41 C

ATOM 922 O ILE A 120 6.449 -6.698 -15.924 1.00 98.41 O

ATOM 923 CG1 ILE A 120 8.855 -7.930 -13.832 1.00 98.41 C

ATOM 924 CG2 ILE A 120 11.022 -7.579 -15.080 1.00 98.41 C

ATOM 925 CD1 ILE A 120 9.311 -9.044 -12.900 1.00 98.41 C

ATOM 926 N GLU A 121 7.109 -8.484 -17.024 1.00 98.46 N

ATOM 927 CA GLU A 121 5.791 -9.071 -17.247 1.00 98.46 C

ATOM 928 C GLU A 121 5.748 -10.523 -16.783 1.00 98.46 C

ATOM 929 CB GLU A 121 5.405 -8.979 -18.726 1.00 98.46 C

ATOM 930 O GLU A 121 5.766 -11.444 -17.603 1.00 98.46 O

ATOM 931 CG GLU A 121 5.269 -7.553 -19.239 1.00 98.46 C

ATOM 932 CD GLU A 121 4.828 -7.478 -20.692 1.00 98.46 C

ATOM 933 OE1 GLU A 121 4.543 -6.362 -21.183 1.00 98.46 O

ATOM 934 OE2 GLU A 121 4.767 -8.544 -21.345 1.00 98.46 O

ATOM 935 N PRO A 122 5.719 -10.792 -15.519 1.00 98.07 N

ATOM 936 CA PRO A 122 5.690 -12.148 -14.966 1.00 98.07 C

ATOM 937 C PRO A 122 4.322 -12.814 -15.106 1.00 98.07 C

ATOM 938 CB PRO A 122 6.045 -11.936 -13.492 1.00 98.07 C

ATOM 939 O PRO A 122 3.334 -12.143 -15.415 1.00 98.07 O

ATOM 940 CG PRO A 122 5.438 -10.617 -13.139 1.00 98.07 C

ATOM 941 CD PRO A 122 5.562 -9.702 -14.323 1.00 98.07 C

ATOM 942 N GLU A 123 4.279 -14.115 -14.980 1.00 98.07 N

ATOM 943 CA GLU A 123 3.021 -14.826 -14.772 1.00 98.07 C

ATOM 944 C GLU A 123 2.455 -14.552 -13.382 1.00 98.07 C

ATOM 945 CB GLU A 123 3.215 -16.331 -14.973 1.00 98.07 C

ATOM 946 O GLU A 123 3.204 -14.466 -12.407 1.00 98.07 O

ATOM 947 CG GLU A 123 3.566 -16.721 -16.402 1.00 98.07 C

ATOM 948 CD GLU A 123 3.624 -18.225 -16.616 1.00 98.07 C

ATOM 949 OE1 GLU A 123 3.770 -18.667 -17.779 1.00 98.07 O

ATOM 950 OE2 GLU A 123 3.522 -18.968 -15.614 1.00 98.07 O

ATOM 951 N GLY A 124 1.093 -14.308 -13.337 1.00 97.41 N

ATOM 952 CA GLY A 124 0.465 -14.074 -12.046 1.00 97.41 C

ATOM 953 C GLY A 124 -1.050 -14.133 -12.101 1.00 97.41 C

ATOM 954 O GLY A 124 -1.639 -14.098 -13.183 1.00 97.41 O

ATOM 955 N ASP A 125 -1.639 -14.303 -10.859 1.00 96.95 N

ATOM 956 CA ASP A 125 -3.086 -14.490 -10.833 1.00 96.95 C

ATOM 957 C ASP A 125 -3.765 -13.413 -9.990 1.00 96.95 C

ATOM 958 CB ASP A 125 -3.438 -15.879 -10.295 1.00 96.95 C

ATOM 959 O ASP A 125 -4.975 -13.468 -9.759 1.00 96.95 O

ATOM 960 CG ASP A 125 -2.875 -16.138 -8.909 1.00 96.95 C

ATOM 961 OD1 ASP A 125 -2.105 -15.297 -8.396 1.00 96.95 O

ATOM 962 OD2 ASP A 125 -3.202 -17.194 -8.325 1.00 96.95 O

ATOM 963 N VAL A 126 -2.939 -12.522 -9.527 1.00 97.02 N

ATOM 964 CA VAL A 126 -3.499 -11.406 -8.772 1.00 97.02 C

ATOM 965 C VAL A 126 -3.122 -10.087 -9.443 1.00 97.02 C

ATOM 966 CB VAL A 126 -3.015 -11.414 -7.304 1.00 97.02 C

ATOM 967 O VAL A 126 -1.943 -9.820 -9.683 1.00 97.02 O

ATOM 968 CG1 VAL A 126 -3.713 -10.320 -6.499 1.00 97.02 C

ATOM 969 CG2 VAL A 126 -3.255 -12.783 -6.671 1.00 97.02 C

ATOM 970 N TYR A 127 -4.136 -9.225 -9.652 1.00 97.88 N

ATOM 971 CA TYR A 127 -3.908 -8.006 -10.421 1.00 97.88 C

ATOM 972 C TYR A 127 -4.301 -6.773 -9.617 1.00 97.88 C

ATOM 973 CB TYR A 127 -4.694 -8.045 -11.735 1.00 97.88 C

ATOM 974 O TYR A 127 -5.205 -6.832 -8.780 1.00 97.88 O

ATOM 975 CG TYR A 127 -4.268 -9.157 -12.664 1.00 97.88 C

ATOM 976 CD1 TYR A 127 -3.328 -8.931 -13.668 1.00 97.88 C

ATOM 977 CD2 TYR A 127 -4.805 -10.434 -12.541 1.00 97.88 C

ATOM 978 CE1 TYR A 127 -2.935 -9.951 -14.527 1.00 97.88 C

ATOM 979 CE2 TYR A 127 -4.418 -11.461 -13.395 1.00 97.88 C

ATOM 980 OH TYR A 127 -3.097 -12.225 -15.231 1.00 97.88 O

ATOM 981 CZ TYR A 127 -3.484 -11.211 -14.383 1.00 97.88 C

ATOM 982 N PHE A 128 -3.565 -5.771 -9.867 1.00 98.01 N

ATOM 983 CA PHE A 128 -3.892 -4.462 -9.314 1.00 98.01 C

ATOM 984 C PHE A 128 -5.057 -3.832 -10.068 1.00 98.01 C

ATOM 985 CB PHE A 128 -2.672 -3.537 -9.364 1.00 98.01 C

ATOM 986 O PHE A 128 -5.150 -3.952 -11.291 1.00 98.01 O

ATOM 987 CG PHE A 128 -2.846 -2.261 -8.585 1.00 98.01 C

ATOM 988 CD1 PHE A 128 -3.153 -1.071 -9.233 1.00 98.01 C

ATOM 989 CD2 PHE A 128 -2.702 -2.252 -7.204 1.00 98.01 C

ATOM 990 CE1 PHE A 128 -3.315 0.111 -8.515 1.00 98.01 C

ATOM 991 CE2 PHE A 128 -2.862 -1.074 -6.479 1.00 98.01 C

ATOM 992 CZ PHE A 128 -3.167 0.107 -7.137 1.00 98.01 C

ATOM 993 N PRO A 129 -6.001 -3.221 -9.281 1.00 97.54 N

ATOM 994 CA PRO A 129 -7.124 -2.577 -9.967 1.00 97.54 C

ATOM 995 C PRO A 129 -6.703 -1.333 -10.747 1.00 97.54 C

ATOM 996 CB PRO A 129 -8.072 -2.209 -8.823 1.00 97.54 C

ATOM 997 O PRO A 129 -5.605 -0.810 -10.537 1.00 97.54 O

ATOM 998 CG PRO A 129 -7.181 -1.996 -7.642 1.00 97.54 C

ATOM 999 CD PRO A 129 -6.029 -2.954 -7.735 1.00 97.54 C

ATOM 1000 N GLU A 130 -7.510 -0.896 -11.690 1.00 96.66 N

ATOM 1001 CA GLU A 130 -7.256 0.319 -12.459 1.00 96.66 C

ATOM 1002 C GLU A 130 -7.253 1.552 -11.558 1.00 96.66 C

ATOM 1003 CB GLU A 130 -8.298 0.481 -13.568 1.00 96.66 C

ATOM 1004 O GLU A 130 -8.109 1.689 -10.683 1.00 96.66 O

ATOM 1005 CG GLU A 130 -7.985 1.604 -14.546 1.00 96.66 C

ATOM 1006 CD GLU A 130 -9.009 1.729 -15.664 1.00 96.66 C

ATOM 1007 OE1 GLU A 130 -8.856 2.620 -16.530 1.00 96.66 O

ATOM 1008 OE2 GLU A 130 -9.972 0.930 -15.673 1.00 96.66 O

ATOM 1009 N ILE A 131 -6.246 2.384 -11.695 1.00 97.17 N

ATOM 1010 CA ILE A 131 -6.192 3.649 -10.970 1.00 97.17 C

ATOM 1011 C ILE A 131 -7.258 4.600 -11.511 1.00 97.17 C

ATOM 1012 CB ILE A 131 -4.794 4.299 -11.069 1.00 97.17 C

ATOM 1013 O ILE A 131 -7.312 4.860 -12.716 1.00 97.17 O

ATOM 1014 CG1 ILE A 131 -3.732 3.376 -10.459 1.00 97.17 C

ATOM 1015 CG2 ILE A 131 -4.786 5.670 -10.386 1.00 97.17 C

ATOM 1016 CD1 ILE A 131 -2.304 3.875 -10.634 1.00 97.17 C

ATOM 1017 N PRO A 132 -8.178 5.112 -10.623 1.00 97.22 N

ATOM 1018 CA PRO A 132 -9.232 6.037 -11.046 1.00 97.22 C

ATOM 1019 C PRO A 132 -8.683 7.270 -11.760 1.00 97.22 C

ATOM 1020 CB PRO A 132 -9.910 6.425 -9.729 1.00 97.22 C

ATOM 1021 O PRO A 132 -7.581 7.729 -11.449 1.00 97.22 O

ATOM 1022 CG PRO A 132 -9.631 5.284 -8.805 1.00 97.22 C

ATOM 1023 CD PRO A 132 -8.260 4.750 -9.106 1.00 97.22 C

ATOM 1024 N SER A 133 -9.411 7.764 -12.664 1.00 96.85 N

ATOM 1025 CA SER A 133 -9.002 8.899 -13.484 1.00 96.85 C

ATOM 1026 C SER A 133 -8.857 10.164 -12.644 1.00 96.85 C

ATOM 1027 CB SER A 133 -10.009 9.138 -14.610 1.00 96.85 C

ATOM 1028 O SER A 133 -8.239 11.137 -13.079 1.00 96.85 O

ATOM 1029 OG SER A 133 -11.305 9.367 -14.085 1.00 96.85 O

ATOM 1030 N SER A 134 -9.453 10.155 -11.427 1.00 96.49 N

ATOM 1031 CA SER A 134 -9.374 11.301 -10.527 1.00 96.49 C

ATOM 1032 C SER A 134 -7.965 11.469 -9.968 1.00 96.49 C

ATOM 1033 CB SER A 134 -10.372 11.151 -9.378 1.00 96.49 C

ATOM 1034 O SER A 134 -7.645 12.502 -9.376 1.00 96.49 O

ATOM 1035 OG SER A 134 -10.143 9.947 -8.666 1.00 96.49 O

ATOM 1036 N PHE A 135 -7.047 10.514 -10.135 1.00 98.09 N

ATOM 1037 CA PHE A 135 -5.677 10.574 -9.640 1.00 98.09 C

ATOM 1038 C PHE A 135 -4.729 11.069 -10.726 1.00 98.09 C

ATOM 1039 CB PHE A 135 -5.226 9.200 -9.135 1.00 98.09 C

ATOM 1040 O PHE A 135 -4.895 10.735 -11.901 1.00 98.09 O

ATOM 1041 CG PHE A 135 -5.745 8.856 -7.765 1.00 98.09 C

ATOM 1042 CD1 PHE A 135 -5.046 9.235 -6.626 1.00 98.09 C

ATOM 1043 CD2 PHE A 135 -6.934 8.153 -7.617 1.00 98.09 C

ATOM 1044 CE1 PHE A 135 -5.524 8.918 -5.356 1.00 98.09 C

ATOM 1045 CE2 PHE A 135 -7.418 7.833 -6.352 1.00 98.09 C

ATOM 1046 CZ PHE A 135 -6.712 8.215 -5.223 1.00 98.09 C

ATOM 1047 N ARG A 136 -3.796 11.852 -10.299 1.00 97.73 N

ATOM 1048 CA ARG A 136 -2.728 12.309 -11.182 1.00 97.73 C

ATOM 1049 C ARG A 136 -1.364 12.147 -10.520 1.00 97.73 C

ATOM 1050 CB ARG A 136 -2.947 13.770 -11.581 1.00 97.73 C

ATOM 1051 O ARG A 136 -1.219 12.382 -9.319 1.00 97.73 O

ATOM 1052 CG ARG A 136 -4.291 14.033 -12.241 1.00 97.73 C

ATOM 1053 CD ARG A 136 -4.320 13.537 -13.680 1.00 97.73 C

ATOM 1054 NE ARG A 136 -5.544 13.943 -14.366 1.00 97.73 N

ATOM 1055 NH1 ARG A 136 -6.211 11.793 -14.885 1.00 97.73 N

ATOM 1056 NH2 ARG A 136 -7.496 13.582 -15.521 1.00 97.73 N

ATOM 1057 CZ ARG A 136 -6.414 13.105 -14.922 1.00 97.73 C

ATOM 1058 N PRO A 137 -0.420 11.738 -11.337 1.00 97.76 N

ATOM 1059 CA PRO A 137 0.919 11.642 -10.752 1.00 97.76 C

ATOM 1060 C PRO A 137 1.495 13.003 -10.370 1.00 97.76 C

ATOM 1061 CB PRO A 137 1.745 10.993 -11.866 1.00 97.76 C

ATOM 1062 O PRO A 137 1.396 13.959 -11.143 1.00 97.76 O

ATOM 1063 CG PRO A 137 1.057 11.390 -13.132 1.00 97.76 C

ATOM 1064 CD PRO A 137 -0.416 11.503 -12.860 1.00 97.76 C

ATOM 1065 N VAL A 138 2.052 13.097 -9.227 1.00 98.23 N

ATOM 1066 CA VAL A 138 2.589 14.372 -8.761 1.00 98.23 C

ATOM 1067 C VAL A 138 4.082 14.231 -8.476 1.00 98.23 C

ATOM 1068 CB VAL A 138 1.850 14.872 -7.500 1.00 98.23 C

ATOM 1069 O VAL A 138 4.765 15.222 -8.205 1.00 98.23 O

ATOM 1070 CG1 VAL A 138 0.396 15.209 -7.823 1.00 98.23 C

ATOM 1071 CG2 VAL A 138 1.924 13.826 -6.389 1.00 98.23 C

ATOM 1072 N PHE A 139 4.606 12.980 -8.518 1.00 98.41 N

ATOM 1073 CA PHE A 139 6.011 12.650 -8.305 1.00 98.41 C

ATOM 1074 C PHE A 139 6.377 11.357 -9.024 1.00 98.41 C

ATOM 1075 CB PHE A 139 6.314 12.524 -6.809 1.00 98.41 C

ATOM 1076 O PHE A 139 5.567 10.431 -9.099 1.00 98.41 O

ATOM 1077 CG PHE A 139 7.732 12.120 -6.510 1.00 98.41 C

ATOM 1078 CD1 PHE A 139 8.069 10.782 -6.345 1.00 98.41 C

ATOM 1079 CD2 PHE A 139 8.730 13.079 -6.393 1.00 98.41 C

ATOM 1080 CE1 PHE A 139 9.381 10.405 -6.067 1.00 98.41 C

ATOM 1081 CE2 PHE A 139 10.043 12.710 -6.116 1.00 98.41 C

ATOM 1082 CZ PHE A 139 10.366 11.373 -5.952 1.00 98.41 C

ATOM 1083 N SER A 140 7.600 11.401 -9.537 1.00 98.52 N

ATOM 1084 CA SER A 140 8.117 10.189 -10.165 1.00 98.52 C

ATOM 1085 C SER A 140 9.631 10.089 -10.007 1.00 98.52 C

ATOM 1086 CB SER A 140 7.747 10.154 -11.648 1.00 98.52 C

ATOM 1087 O SER A 140 10.339 11.093 -10.102 1.00 98.52 O

ATOM 1088 OG SER A 140 8.222 8.965 -12.257 1.00 98.52 O

ATOM 1089 N GLN A 141 10.056 8.920 -9.754 1.00 98.40 N

ATOM 1090 CA GLN A 141 11.484 8.631 -9.683 1.00 98.40 C

ATOM 1091 C GLN A 141 11.796 7.253 -10.261 1.00 98.40 C

ATOM 1092 CB GLN A 141 11.979 8.718 -8.238 1.00 98.40 C

ATOM 1093 O GLN A 141 11.207 6.253 -9.847 1.00 98.40 O

ATOM 1094 CG GLN A 141 13.479 8.501 -8.088 1.00 98.40 C

ATOM 1095 CD GLN A 141 13.984 8.838 -6.697 1.00 98.40 C

ATOM 1096 NE2 GLN A 141 15.295 9.006 -6.568 1.00 98.40 N

ATOM 1097 OE1 GLN A 141 13.202 8.946 -5.748 1.00 98.40 O

ATOM 1098 N ASP A 142 12.831 7.203 -11.111 1.00 98.42 N

ATOM 1099 CA ASP A 142 13.242 5.947 -11.732 1.00 98.42 C

ATOM 1100 C ASP A 142 14.433 5.335 -10.997 1.00 98.42 C

ATOM 1101 CB ASP A 142 13.588 6.164 -13.206 1.00 98.42 C

ATOM 1102 O ASP A 142 15.304 6.057 -10.508 1.00 98.42 O

ATOM 1103 CG ASP A 142 12.392 6.589 -14.040 1.00 98.42 C

ATOM 1104 OD1 ASP A 142 11.256 6.167 -13.735 1.00 98.42 O

ATOM 1105 OD2 ASP A 142 12.588 7.351 -15.011 1.00 98.42 O

ATOM 1106 N PHE A 143 14.430 3.990 -10.949 1.00 98.22 N

ATOM 1107 CA PHE A 143 15.506 3.243 -10.308 1.00 98.22 C

ATOM 1108 C PHE A 143 16.082 2.200 -11.258 1.00 98.22 C

ATOM 1109 CB PHE A 143 15.005 2.567 -9.028 1.00 98.22 C

ATOM 1110 O PHE A 143 15.341 1.397 -11.830 1.00 98.22 O

ATOM 1111 CG PHE A 143 14.551 3.535 -7.969 1.00 98.22 C

ATOM 1112 CD1 PHE A 143 15.400 3.902 -6.932 1.00 98.22 C

ATOM 1113 CD2 PHE A 143 13.273 4.078 -8.009 1.00 98.22 C

ATOM 1114 CE1 PHE A 143 14.982 4.798 -5.951 1.00 98.22 C

ATOM 1115 CE2 PHE A 143 12.848 4.973 -7.032 1.00 98.22 C

ATOM 1116 CZ PHE A 143 13.704 5.331 -6.003 1.00 98.22 C

ATOM 1117 N VAL A 144 17.413 2.349 -11.457 1.00 98.09 N

ATOM 1118 CA VAL A 144 18.126 1.318 -12.205 1.00 98.09 C

ATOM 1119 C VAL A 144 18.680 0.270 -11.242 1.00 98.09 C

ATOM 1120 CB VAL A 144 19.269 1.920 -13.052 1.00 98.09 C

ATOM 1121 O VAL A 144 19.467 0.593 -10.350 1.00 98.09 O

ATOM 1122 CG1 VAL A 144 20.010 0.824 -13.816 1.00 98.09 C

ATOM 1123 CG2 VAL A 144 18.722 2.971 -14.017 1.00 98.09 C

ATOM 1124 N SER A 145 18.257 -1.021 -11.384 1.00 95.62 N

ATOM 1125 CA SER A 145 18.623 -2.159 -10.546 1.00 95.62 C

ATOM 1126 C SER A 145 18.621 -3.457 -11.346 1.00 95.62 C

ATOM 1127 CB SER A 145 17.668 -2.280 -9.358 1.00 95.62 C

ATOM 1128 O SER A 145 18.783 -3.440 -12.568 1.00 95.62 O

ATOM 1129 OG SER A 145 18.066 -3.334 -8.498 1.00 95.62 O

ATOM 1130 N ASN A 146 18.622 -4.625 -10.624 1.00 97.99 N

ATOM 1131 CA ASN A 146 18.507 -5.893 -11.336 1.00 97.99 C

ATOM 1132 C ASN A 146 17.211 -5.969 -12.138 1.00 97.99 C

ATOM 1133 CB ASN A 146 18.596 -7.068 -10.360 1.00 97.99 C

ATOM 1134 O ASN A 146 17.157 -6.628 -13.178 1.00 97.99 O

ATOM 1135 CG ASN A 146 17.494 -7.048 -9.319 1.00 97.99 C

ATOM 1136 ND2 ASN A 146 16.832 -8.184 -9.135 1.00 97.99 N

ATOM 1137 OD1 ASN A 146 17.239 -6.020 -8.687 1.00 97.99 O

ATOM 1138 N ILE A 147 16.170 -5.388 -11.668 1.00 98.18 N

ATOM 1139 CA ILE A 147 14.913 -5.110 -12.354 1.00 98.18 C

ATOM 1140 C ILE A 147 14.554 -3.634 -12.194 1.00 98.18 C

ATOM 1141 CB ILE A 147 13.769 -6.001 -11.819 1.00 98.18 C

ATOM 1142 O ILE A 147 14.328 -3.161 -11.078 1.00 98.18 O

ATOM 1143 CG1 ILE A 147 14.133 -7.483 -11.965 1.00 98.18 C

ATOM 1144 CG2 ILE A 147 12.456 -5.685 -12.543 1.00 98.18 C

ATOM 1145 CD1 ILE A 147 13.142 -8.431 -11.305 1.00 98.18 C

ATOM 1146 N ASN A 148 14.582 -2.954 -13.313 1.00 98.58 N

ATOM 1147 CA ASN A 148 14.251 -1.535 -13.240 1.00 98.58 C

ATOM 1148 C ASN A 148 12.822 -1.317 -12.751 1.00 98.58 C

ATOM 1149 CB ASN A 148 14.454 -0.866 -14.602 1.00 98.58 C

ATOM 1150 O ASN A 148 11.951 -2.160 -12.969 1.00 98.58 O

ATOM 1151 CG ASN A 148 15.891 -0.938 -15.079 1.00 98.58 C

ATOM 1152 ND2 ASN A 148 16.097 -0.727 -16.374 1.00 98.58 N

ATOM 1153 OD1 ASN A 148 16.808 -1.183 -14.292 1.00 98.58 O

ATOM 1154 N TYR A 149 12.647 -0.267 -12.004 1.00 98.55 N

ATOM 1155 CA TYR A 149 11.291 0.103 -11.615 1.00 98.55 C

ATOM 1156 C TYR A 149 11.167 1.611 -11.434 1.00 98.55 C

ATOM 1157 CB TYR A 149 10.889 -0.613 -10.321 1.00 98.55 C

ATOM 1158 O TYR A 149 12.175 2.314 -11.332 1.00 98.55 O

ATOM 1159 CG TYR A 149 11.809 -0.328 -9.159 1.00 98.55 C

ATOM 1160 CD1 TYR A 149 12.956 -1.091 -8.951 1.00 98.55 C

ATOM 1161 CD2 TYR A 149 11.533 0.702 -8.267 1.00 98.55 C

ATOM 1162 CE1 TYR A 149 13.806 -0.833 -7.880 1.00 98.55 C

ATOM 1163 CE2 TYR A 149 12.376 0.968 -7.193 1.00 98.55 C

ATOM 1164 OH TYR A 149 14.346 0.456 -5.946 1.00 98.55 O

ATOM 1165 CZ TYR A 149 13.508 0.197 -7.008 1.00 98.55 C

ATOM 1166 N SER A 150 9.925 2.131 -11.501 1.00 98.48 N

ATOM 1167 CA SER A 150 9.576 3.537 -11.327 1.00 98.48 C

ATOM 1168 C SER A 150 8.615 3.727 -10.157 1.00 98.48 C

ATOM 1169 CB SER A 150 8.952 4.098 -12.605 1.00 98.48 C

ATOM 1170 O SER A 150 7.559 3.093 -10.106 1.00 98.48 O

ATOM 1171 OG SER A 150 8.640 5.472 -12.452 1.00 98.48 O

ATOM 1172 N TYR A 151 9.082 4.490 -9.241 1.00 98.61 N

ATOM 1173 CA TYR A 151 8.223 4.848 -8.118 1.00 98.61 C

ATOM 1174 C TYR A 151 7.464 6.138 -8.402 1.00 98.61 C

ATOM 1175 CB TYR A 151 9.049 5.000 -6.837 1.00 98.61 C

ATOM 1176 O TYR A 151 8.063 7.150 -8.775 1.00 98.61 O

ATOM 1177 CG TYR A 151 8.266 5.553 -5.671 1.00 98.61 C

ATOM 1178 CD1 TYR A 151 8.599 6.780 -5.102 1.00 98.61 C

ATOM 1179 CD2 TYR A 151 7.192 4.849 -5.137 1.00 98.61 C

ATOM 1180 CE1 TYR A 151 7.881 7.292 -4.026 1.00 98.61 C

ATOM 1181 CE2 TYR A 151 6.467 5.352 -4.061 1.00 98.61 C

ATOM 1182 OH TYR A 151 6.103 7.075 -2.450 1.00 98.61 O

ATOM 1183 CZ TYR A 151 6.818 6.572 -3.514 1.00 98.61 C

ATOM 1184 N GLN A 152 6.123 6.106 -8.222 1.00 98.57 N

ATOM 1185 CA GLN A 152 5.275 7.270 -8.456 1.00 98.57 C

ATOM 1186 C GLN A 152 4.359 7.532 -7.264 1.00 98.57 C

ATOM 1187 CB GLN A 152 4.443 7.082 -9.726 1.00 98.57 C

ATOM 1188 O GLN A 152 3.961 6.598 -6.564 1.00 98.57 O

ATOM 1189 CG GLN A 152 5.276 6.976 -10.997 1.00 98.57 C

ATOM 1190 CD GLN A 152 4.441 6.648 -12.220 1.00 98.57 C

ATOM 1191 NE2 GLN A 152 4.473 7.530 -13.214 1.00 98.57 N

ATOM 1192 OE1 GLN A 152 3.773 5.611 -12.272 1.00 98.57 O

ATOM 1193 N ILE A 153 4.093 8.829 -7.008 1.00 98.60 N

ATOM 1194 CA ILE A 153 3.050 9.263 -6.085 1.00 98.60 C

ATOM 1195 C ILE A 153 1.910 9.916 -6.864 1.00 98.60 C

ATOM 1196 CB ILE A 153 3.604 10.242 -5.025 1.00 98.60 C

ATOM 1197 O ILE A 153 2.143 10.794 -7.698 1.00 98.60 O

ATOM 1198 CG1 ILE A 153 4.759 9.595 -4.253 1.00 98.60 C

ATOM 1199 CG2 ILE A 153 2.492 10.693 -4.073 1.00 98.60 C

ATOM 1200 CD1 ILE A 153 5.470 10.541 -3.295 1.00 98.60 C

ATOM 1201 N TRP A 154 0.689 9.355 -6.560 1.00 98.52 N

ATOM 1202 CA TRP A 154 -0.513 9.881 -7.198 1.00 98.52 C

ATOM 1203 C TRP A 154 -1.434 10.532 -6.172 1.00 98.52 C

ATOM 1204 CB TRP A 154 -1.259 8.769 -7.940 1.00 98.52 C

ATOM 1205 O TRP A 154 -1.594 10.021 -5.060 1.00 98.52 O

ATOM 1206 CG TRP A 154 -0.455 8.113 -9.022 1.00 98.52 C

ATOM 1207 CD1 TRP A 154 0.671 7.352 -8.866 1.00 98.52 C

ATOM 1208 CD2 TRP A 154 -0.713 8.164 -10.428 1.00 98.52 C

ATOM 1209 CE2 TRP A 154 0.297 7.411 -11.066 1.00 98.52 C

ATOM 1210 CE3 TRP A 154 -1.702 8.774 -11.212 1.00 98.52 C

ATOM 1211 NE1 TRP A 154 1.128 6.927 -10.092 1.00 98.52 N

ATOM 1212 CH2 TRP A 154 -0.633 7.858 -13.196 1.00 98.52 C

ATOM 1213 CZ2 TRP A 154 0.346 7.251 -12.453 1.00 98.52 C

ATOM 1214 CZ3 TRP A 154 -1.651 8.614 -12.592 1.00 98.52 C

ATOM 1215 N GLN A 155 -2.038 11.684 -6.532 1.00 97.08 N

ATOM 1216 CA GLN A 155 -2.984 12.381 -5.667 1.00 97.08 C

ATOM 1217 C GLN A 155 -4.282 12.691 -6.408 1.00 97.08 C

ATOM 1218 CB GLN A 155 -2.368 13.671 -5.125 1.00 97.08 C

ATOM 1219 O GLN A 155 -4.281 12.852 -7.630 1.00 97.08 O

ATOM 1220 CG GLN A 155 -1.233 13.442 -4.136 1.00 97.08 C

ATOM 1221 CD GLN A 155 -0.739 14.729 -3.501 1.00 97.08 C

ATOM 1222 NE2 GLN A 155 -0.008 14.603 -2.399 1.00 97.08 N

ATOM 1223 OE1 GLN A 155 -1.013 15.826 -3.997 1.00 97.08 O

ATOM 1224 N LYS A 156 -5.314 12.737 -5.622 1.00 91.87 N

ATOM 1225 CA LYS A 156 -6.585 13.139 -6.216 1.00 91.87 C

ATOM 1226 C LYS A 156 -6.530 14.582 -6.710 1.00 91.87 C

ATOM 1227 CB LYS A 156 -7.724 12.974 -5.209 1.00 91.87 C

ATOM 1228 O LYS A 156 -5.976 15.454 -6.035 1.00 91.87 O

ATOM 1229 CG LYS A 156 -8.122 11.527 -4.957 1.00 91.87 C

ATOM 1230 CD LYS A 156 -9.312 11.431 -4.011 1.00 91.87 C

ATOM 1231 CE LYS A 156 -9.715 9.984 -3.763 1.00 91.87 C

ATOM 1232 NZ LYS A 156 -10.861 9.883 -2.810 1.00 91.87 N

ATOM 1233 N GLY A 157 -6.737 14.801 -8.030 1.00 79.76 N

ATOM 1234 CA GLY A 157 -6.825 16.151 -8.564 1.00 79.76 C

ATOM 1235 C GLY A 157 -7.958 16.958 -7.959 1.00 79.76 C

ATOM 1236 O GLY A 157 -8.818 16.409 -7.267 1.00 79.76 O

TER 1237 GLY A 157

ENDMDL

END



**RMSD = 1.125**

MODEL 2 – RANK3 :



MODEL 1

ATOM 1 N MET A 1 -11.499 -10.739 8.574 1.00 94.98 N

ATOM 2 CA MET A 1 -11.135 -9.691 7.624 1.00 94.98 C

ATOM 3 C MET A 1 -9.729 -9.914 7.080 1.00 94.98 C

ATOM 4 CB MET A 1 -11.230 -8.313 8.281 1.00 94.98 C

ATOM 5 O MET A 1 -8.775 -10.051 7.849 1.00 94.98 O

ATOM 6 CG MET A 1 -10.906 -7.162 7.342 1.00 94.98 C

ATOM 7 SD MET A 1 -10.886 -5.540 8.198 1.00 94.98 S

ATOM 8 CE MET A 1 -9.314 -5.671 9.095 1.00 94.98 C

ATOM 9 N LYS A 2 -9.532 -10.091 5.813 1.00 96.76 N

ATOM 10 CA LYS A 2 -8.244 -10.245 5.143 1.00 96.76 C

ATOM 11 C LYS A 2 -7.512 -8.909 5.045 1.00 96.76 C

ATOM 12 CB LYS A 2 -8.433 -10.843 3.748 1.00 96.76 C

ATOM 13 O LYS A 2 -8.109 -7.894 4.680 1.00 96.76 O

ATOM 14 CG LYS A 2 -7.131 -11.102 3.004 1.00 96.76 C

ATOM 15 CD LYS A 2 -7.382 -11.739 1.644 1.00 96.76 C

ATOM 16 CE LYS A 2 -6.082 -11.969 0.885 1.00 96.76 C

ATOM 17 NZ LYS A 2 -6.323 -12.592 -0.452 1.00 96.76 N

ATOM 18 N LEU A 3 -6.191 -8.930 5.416 1.00 97.60 N

ATOM 19 CA LEU A 3 -5.349 -7.743 5.308 1.00 97.60 C

ATOM 20 C LEU A 3 -4.239 -7.956 4.284 1.00 97.60 C

ATOM 21 CB LEU A 3 -4.743 -7.390 6.669 1.00 97.60 C

ATOM 22 O LEU A 3 -3.415 -8.861 4.434 1.00 97.60 O

ATOM 23 CG LEU A 3 -4.126 -5.996 6.796 1.00 97.60 C

ATOM 24 CD1 LEU A 3 -5.173 -4.926 6.505 1.00 97.60 C

ATOM 25 CD2 LEU A 3 -3.525 -5.801 8.183 1.00 97.60 C

ATOM 26 N SER A 4 -4.296 -7.125 3.244 1.00 98.27 N

ATOM 27 CA SER A 4 -3.264 -7.131 2.211 1.00 98.27 C

ATOM 28 C SER A 4 -2.487 -5.819 2.200 1.00 98.27 C

ATOM 29 CB SER A 4 -3.885 -7.377 0.835 1.00 98.27 C

ATOM 30 O SER A 4 -3.004 -4.781 2.616 1.00 98.27 O

ATOM 31 OG SER A 4 -4.551 -8.627 0.801 1.00 98.27 O

ATOM 32 N LEU A 5 -1.266 -5.944 1.788 1.00 98.33 N

ATOM 33 CA LEU A 5 -0.406 -4.774 1.647 1.00 98.33 C

ATOM 34 C LEU A 5 0.137 -4.667 0.226 1.00 98.33 C

ATOM 35 CB LEU A 5 0.753 -4.837 2.646 1.00 98.33 C

ATOM 36 O LEU A 5 0.626 -5.651 -0.332 1.00 98.33 O

ATOM 37 CG LEU A 5 1.671 -3.615 2.696 1.00 98.33 C

ATOM 38 CD1 LEU A 5 2.322 -3.498 4.071 1.00 98.33 C

ATOM 39 CD2 LEU A 5 2.731 -3.697 1.603 1.00 98.33 C

ATOM 40 N MET A 6 0.050 -3.493 -0.304 1.00 98.01 N

ATOM 41 CA MET A 6 0.562 -3.280 -1.655 1.00 98.01 C

ATOM 42 C MET A 6 1.532 -2.104 -1.690 1.00 98.01 C

ATOM 43 CB MET A 6 -0.588 -3.040 -2.634 1.00 98.01 C

ATOM 44 O MET A 6 1.240 -1.037 -1.148 1.00 98.01 O

ATOM 45 CG MET A 6 -0.139 -2.867 -4.076 1.00 98.01 C

ATOM 46 SD MET A 6 -1.549 -2.813 -5.250 1.00 98.01 S

ATOM 47 CE MET A 6 -0.654 -2.631 -6.817 1.00 98.01 C

ATOM 48 N ALA A 7 2.672 -2.301 -2.382 1.00 97.78 N

ATOM 49 CA ALA A 7 3.669 -1.238 -2.481 1.00 97.78 C

ATOM 50 C ALA A 7 4.500 -1.382 -3.753 1.00 97.78 C

ATOM 51 CB ALA A 7 4.576 -1.245 -1.253 1.00 97.78 C

ATOM 52 O ALA A 7 4.765 -2.498 -4.206 1.00 97.78 O

ATOM 53 N ALA A 8 4.815 -0.243 -4.372 1.00 97.58 N

ATOM 54 CA ALA A 8 5.888 -0.158 -5.360 1.00 97.58 C

ATOM 55 C ALA A 8 7.189 0.314 -4.717 1.00 97.58 C

ATOM 56 CB ALA A 8 5.490 0.779 -6.498 1.00 97.58 C

ATOM 57 O ALA A 8 7.229 1.373 -4.087 1.00 97.58 O

ATOM 58 N ILE A 9 8.233 -0.529 -4.940 1.00 97.89 N

ATOM 59 CA ILE A 9 9.500 -0.283 -4.261 1.00 97.89 C

ATOM 60 C ILE A 9 10.633 -0.235 -5.283 1.00 97.89 C

ATOM 61 CB ILE A 9 9.787 -1.361 -3.192 1.00 97.89 C

ATOM 62 O ILE A 9 10.687 -1.061 -6.198 1.00 97.89 O

ATOM 63 CG1 ILE A 9 8.570 -1.545 -2.279 1.00 97.89 C

ATOM 64 CG2 ILE A 9 11.033 -0.997 -2.379 1.00 97.89 C

ATOM 65 CD1 ILE A 9 8.632 -2.794 -1.410 1.00 97.89 C

ATOM 66 N SER A 10 11.466 0.816 -5.109 1.00 98.21 N

ATOM 67 CA SER A 10 12.662 0.831 -5.945 1.00 98.21 C

ATOM 68 C SER A 10 13.691 -0.182 -5.457 1.00 98.21 C

ATOM 69 CB SER A 10 13.282 2.229 -5.970 1.00 98.21 C

ATOM 70 O SER A 10 13.567 -0.718 -4.354 1.00 98.21 O

ATOM 71 OG SER A 10 13.850 2.549 -4.712 1.00 98.21 O

ATOM 72 N LYS A 11 14.791 -0.398 -6.152 1.00 97.76 N

ATOM 73 CA LYS A 11 15.812 -1.385 -5.814 1.00 97.76 C

ATOM 74 C LYS A 11 16.518 -1.023 -4.510 1.00 97.76 C

ATOM 75 CB LYS A 11 16.834 -1.510 -6.945 1.00 97.76 C

ATOM 76 O LYS A 11 16.971 -1.904 -3.778 1.00 97.76 O

ATOM 77 CG LYS A 11 16.327 -2.283 -8.154 1.00 97.76 C

ATOM 78 CD LYS A 11 17.453 -2.591 -9.133 1.00 97.76 C

ATOM 79 CE LYS A 11 16.914 -3.071 -10.473 1.00 97.76 C

ATOM 80 NZ LYS A 11 18.014 -3.341 -11.448 1.00 97.76 N

ATOM 81 N ASN A 12 16.560 0.299 -4.298 1.00 97.49 N

ATOM 82 CA ASN A 12 17.243 0.737 -3.086 1.00 97.49 C

ATOM 83 C ASN A 12 16.263 0.951 -1.936 1.00 97.49 C

ATOM 84 CB ASN A 12 18.038 2.018 -3.351 1.00 97.49 C

ATOM 85 O ASN A 12 16.623 1.521 -0.905 1.00 97.49 O

ATOM 86 CG ASN A 12 17.159 3.170 -3.796 1.00 97.49 C

ATOM 87 ND2 ASN A 12 17.689 4.384 -3.719 1.00 97.49 N

ATOM 88 OD1 ASN A 12 16.012 2.969 -4.204 1.00 97.49 O

ATOM 89 N GLY A 13 14.932 0.549 -2.138 1.00 97.02 N

ATOM 90 CA GLY A 13 13.992 0.522 -1.029 1.00 97.02 C

ATOM 91 C GLY A 13 13.188 1.801 -0.895 1.00 97.02 C

ATOM 92 O GLY A 13 12.363 1.931 0.012 1.00 97.02 O

ATOM 93 N VAL A 14 13.396 2.726 -1.821 1.00 97.81 N

ATOM 94 CA VAL A 14 12.717 4.017 -1.794 1.00 97.81 C

ATOM 95 C VAL A 14 11.294 3.864 -2.328 1.00 97.81 C

ATOM 96 CB VAL A 14 13.482 5.078 -2.616 1.00 97.81 C

ATOM 97 O VAL A 14 11.073 3.195 -3.340 1.00 97.81 O

ATOM 98 CG1 VAL A 14 12.623 6.325 -2.822 1.00 97.81 C

ATOM 99 CG2 VAL A 14 14.796 5.440 -1.926 1.00 97.81 C

ATOM 100 N ILE A 15 10.293 4.591 -1.618 1.00 96.99 N

ATOM 101 CA ILE A 15 8.914 4.559 -2.092 1.00 96.99 C

ATOM 102 C ILE A 15 8.394 5.985 -2.263 1.00 96.99 C

ATOM 103 CB ILE A 15 8.002 3.768 -1.128 1.00 96.99 C

ATOM 104 O ILE A 15 7.344 6.201 -2.874 1.00 96.99 O

ATOM 105 CG1 ILE A 15 7.983 4.432 0.254 1.00 96.99 C

ATOM 106 CG2 ILE A 15 8.457 2.310 -1.028 1.00 96.99 C

ATOM 107 CD1 ILE A 15 6.937 3.861 1.201 1.00 96.99 C

ATOM 108 N GLY A 16 9.103 6.942 -1.787 1.00 95.58 N

ATOM 109 CA GLY A 16 8.661 8.323 -1.892 1.00 95.58 C

ATOM 110 C GLY A 16 9.762 9.325 -1.601 1.00 95.58 C

ATOM 111 O GLY A 16 10.749 8.997 -0.939 1.00 95.58 O

ATOM 112 N ASN A 17 9.647 10.451 -2.042 1.00 95.12 N

ATOM 113 CA ASN A 17 10.422 11.663 -1.792 1.00 95.12 C

ATOM 114 C ASN A 17 9.516 12.859 -1.515 1.00 95.12 C

ATOM 115 CB ASN A 17 11.349 11.960 -2.973 1.00 95.12 C

ATOM 116 O ASN A 17 9.028 13.502 -2.445 1.00 95.12 O

ATOM 117 CG ASN A 17 12.308 13.099 -2.689 1.00 95.12 C

ATOM 118 ND2 ASN A 17 12.833 13.709 -3.745 1.00 95.12 N

ATOM 119 OD1 ASN A 17 12.576 13.427 -1.530 1.00 95.12 O

ATOM 120 N GLY A 18 9.293 13.104 -0.153 1.00 90.88 N

ATOM 121 CA GLY A 18 8.241 14.051 0.183 1.00 90.88 C

ATOM 122 C GLY A 18 6.863 13.592 -0.258 1.00 90.88 C

ATOM 123 O GLY A 18 6.459 12.463 0.026 1.00 90.88 O

ATOM 124 N PRO A 19 6.148 14.447 -1.024 1.00 89.15 N

ATOM 125 CA PRO A 19 4.793 14.094 -1.454 1.00 89.15 C

ATOM 126 C PRO A 19 4.773 13.329 -2.775 1.00 89.15 C

ATOM 127 CB PRO A 19 4.103 15.453 -1.599 1.00 89.15 C

ATOM 128 O PRO A 19 3.709 12.903 -3.230 1.00 89.15 O

ATOM 129 CG PRO A 19 5.201 16.402 -1.955 1.00 89.15 C

ATOM 130 CD PRO A 19 6.457 15.961 -1.259 1.00 89.15 C

ATOM 131 N ASP A 20 6.026 13.114 -3.242 1.00 91.49 N

ATOM 132 CA ASP A 20 6.068 12.603 -4.609 1.00 91.49 C

ATOM 133 C ASP A 20 6.536 11.150 -4.638 1.00 91.49 C

ATOM 134 CB ASP A 20 6.985 13.468 -5.477 1.00 91.49 C

ATOM 135 O ASP A 20 7.292 10.718 -3.766 1.00 91.49 O

ATOM 136 CG ASP A 20 6.515 14.908 -5.583 1.00 91.49 C

ATOM 137 OD1 ASP A 20 5.301 15.142 -5.766 1.00 91.49 O

ATOM 138 OD2 ASP A 20 7.367 15.818 -5.487 1.00 91.49 O

ATOM 139 N ILE A 21 6.115 10.439 -5.670 1.00 93.49 N

ATOM 140 CA ILE A 21 6.717 9.183 -6.106 1.00 93.49 C

ATOM 141 C ILE A 21 7.765 9.459 -7.182 1.00 93.49 C

ATOM 142 CB ILE A 21 5.651 8.199 -6.636 1.00 93.49 C

ATOM 143 O ILE A 21 7.450 10.018 -8.235 1.00 93.49 O

ATOM 144 CG1 ILE A 21 4.625 7.882 -5.542 1.00 93.49 C

ATOM 145 CG2 ILE A 21 6.310 6.918 -7.156 1.00 93.49 C

ATOM 146 CD1 ILE A 21 3.426 7.081 -6.030 1.00 93.49 C

ATOM 147 N PRO A 22 9.054 9.217 -6.951 1.00 94.14 N

ATOM 148 CA PRO A 22 10.203 9.677 -7.733 1.00 94.14 C

ATOM 149 C PRO A 22 10.360 8.922 -9.051 1.00 94.14 C

ATOM 150 CB PRO A 22 11.391 9.408 -6.806 1.00 94.14 C

ATOM 151 O PRO A 22 11.395 9.035 -9.712 1.00 94.14 O

ATOM 152 CG PRO A 22 10.975 8.231 -5.984 1.00 94.14 C

ATOM 153 CD PRO A 22 9.493 8.309 -5.754 1.00 94.14 C

ATOM 154 N TRP A 23 9.309 8.169 -9.401 1.00 96.14 N

ATOM 155 CA TRP A 23 9.372 7.479 -10.685 1.00 96.14 C

ATOM 156 C TRP A 23 7.997 7.430 -11.344 1.00 96.14 C

ATOM 157 CB TRP A 23 9.918 6.059 -10.507 1.00 96.14 C

ATOM 158 O TRP A 23 6.986 7.740 -10.710 1.00 96.14 O

ATOM 159 CG TRP A 23 9.063 5.182 -9.643 1.00 96.14 C

ATOM 160 CD1 TRP A 23 8.008 4.408 -10.042 1.00 96.14 C

ATOM 161 CD2 TRP A 23 9.188 4.992 -8.231 1.00 96.14 C

ATOM 162 CE2 TRP A 23 8.175 4.089 -7.839 1.00 96.14 C

ATOM 163 CE3 TRP A 23 10.059 5.499 -7.257 1.00 96.14 C

ATOM 164 NE1 TRP A 23 7.470 3.748 -8.962 1.00 96.14 N

ATOM 165 CH2 TRP A 23 8.876 4.191 -5.581 1.00 96.14 C

ATOM 166 CZ2 TRP A 23 8.010 3.680 -6.513 1.00 96.14 C

ATOM 167 CZ3 TRP A 23 9.893 5.091 -5.938 1.00 96.14 C

ATOM 168 N SER A 24 8.008 7.086 -12.621 1.00 96.44 N

ATOM 169 CA SER A 24 6.815 6.795 -13.410 1.00 96.44 C

ATOM 170 C SER A 24 7.026 5.577 -14.303 1.00 96.44 C

ATOM 171 CB SER A 24 6.429 8.003 -14.265 1.00 96.44 C

ATOM 172 O SER A 24 7.605 5.687 -15.385 1.00 96.44 O

ATOM 173 OG SER A 24 5.222 7.759 -14.965 1.00 96.44 O

ATOM 174 N ALA A 25 6.722 4.479 -13.805 1.00 97.17 N

ATOM 175 CA ALA A 25 6.809 3.239 -14.572 1.00 97.17 C

ATOM 176 C ALA A 25 5.485 2.927 -15.263 1.00 97.17 C

ATOM 177 CB ALA A 25 7.219 2.080 -13.666 1.00 97.17 C

ATOM 178 O ALA A 25 4.457 2.762 -14.603 1.00 97.17 O

ATOM 179 N LYS A 26 5.558 2.878 -16.622 1.00 97.35 N

ATOM 180 CA LYS A 26 4.338 2.643 -17.389 1.00 97.35 C

ATOM 181 C LYS A 26 3.722 1.291 -17.042 1.00 97.35 C

ATOM 182 CB LYS A 26 4.623 2.720 -18.890 1.00 97.35 C

ATOM 183 O LYS A 26 4.426 0.281 -16.977 1.00 97.35 O

ATOM 184 CG LYS A 26 4.891 4.129 -19.398 1.00 97.35 C

ATOM 185 CD LYS A 26 5.042 4.157 -20.913 1.00 97.35 C

ATOM 186 CE LYS A 26 5.312 5.566 -21.423 1.00 97.35 C

ATOM 187 NZ LYS A 26 5.540 5.588 -22.898 1.00 97.35 N

ATOM 188 N GLY A 27 2.384 1.284 -16.647 1.00 96.56 N

ATOM 189 CA GLY A 27 1.670 0.035 -16.435 1.00 96.56 C

ATOM 190 C GLY A 27 1.599 -0.371 -14.975 1.00 96.56 C

ATOM 191 O GLY A 27 0.749 -1.177 -14.590 1.00 96.56 O

ATOM 192 N GLU A 28 2.477 0.127 -14.076 1.00 96.82 N

ATOM 193 CA GLU A 28 2.508 -0.257 -12.668 1.00 96.82 C

ATOM 194 C GLU A 28 1.252 0.212 -11.940 1.00 96.82 C

ATOM 195 CB GLU A 28 3.755 0.309 -11.983 1.00 96.82 C

ATOM 196 O GLU A 28 0.707 -0.510 -11.102 1.00 96.82 O

ATOM 197 CG GLU A 28 3.997 -0.248 -10.588 1.00 96.82 C

ATOM 198 CD GLU A 28 3.235 0.497 -9.504 1.00 96.82 C

ATOM 199 OE1 GLU A 28 2.755 -0.150 -8.545 1.00 96.82 O

ATOM 200 OE2 GLU A 28 3.115 1.737 -9.614 1.00 96.82 O

ATOM 201 N GLN A 29 0.853 1.381 -12.211 1.00 95.37 N

ATOM 202 CA GLN A 29 -0.342 1.925 -11.573 1.00 95.37 C

ATOM 203 C GLN A 29 -1.586 1.138 -11.973 1.00 95.37 C

ATOM 204 CB GLN A 29 -0.517 3.402 -11.931 1.00 95.37 C

ATOM 205 O GLN A 29 -2.587 1.141 -11.253 1.00 95.37 O

ATOM 206 CG GLN A 29 0.471 4.326 -11.232 1.00 95.37 C

ATOM 207 CD GLN A 29 0.297 5.780 -11.630 1.00 95.37 C

ATOM 208 NE2 GLN A 29 1.182 6.639 -11.137 1.00 95.37 N

ATOM 209 OE1 GLN A 29 -0.625 6.127 -12.375 1.00 95.37 O

ATOM 210 N LEU A 30 -1.588 0.501 -13.168 1.00 96.49 N

ATOM 211 CA LEU A 30 -2.690 -0.367 -13.568 1.00 96.49 C

ATOM 212 C LEU A 30 -2.807 -1.563 -12.630 1.00 96.49 C

ATOM 213 CB LEU A 30 -2.497 -0.849 -15.008 1.00 96.49 C

ATOM 214 O LEU A 30 -3.913 -2.027 -12.343 1.00 96.49 O

ATOM 215 CG LEU A 30 -2.603 0.217 -16.100 1.00 96.49 C

ATOM 216 CD1 LEU A 30 -2.233 -0.375 -17.456 1.00 96.49 C

ATOM 217 CD2 LEU A 30 -4.008 0.809 -16.134 1.00 96.49 C

ATOM 218 N LEU A 31 -1.659 -2.065 -12.172 1.00 96.79 N

ATOM 219 CA LEU A 31 -1.674 -3.125 -11.170 1.00 96.79 C

ATOM 220 C LEU A 31 -2.307 -2.637 -9.872 1.00 96.79 C

ATOM 221 CB LEU A 31 -0.253 -3.629 -10.901 1.00 96.79 C

ATOM 222 O LEU A 31 -3.113 -3.346 -9.264 1.00 96.79 O

ATOM 223 CG LEU A 31 0.425 -4.386 -12.044 1.00 96.79 C

ATOM 224 CD1 LEU A 31 1.906 -4.587 -11.740 1.00 96.79 C

ATOM 225 CD2 LEU A 31 -0.264 -5.725 -12.282 1.00 96.79 C

ATOM 226 N PHE A 32 -1.876 -1.414 -9.530 1.00 96.75 N

ATOM 227 CA PHE A 32 -2.437 -0.811 -8.326 1.00 96.75 C

ATOM 228 C PHE A 32 -3.950 -0.671 -8.444 1.00 96.75 C

ATOM 229 CB PHE A 32 -1.802 0.558 -8.063 1.00 96.75 C

ATOM 230 O PHE A 32 -4.685 -1.028 -7.521 1.00 96.75 O

ATOM 231 CG PHE A 32 -2.264 1.206 -6.786 1.00 96.75 C

ATOM 232 CD1 PHE A 32 -3.150 2.276 -6.814 1.00 96.75 C

ATOM 233 CD2 PHE A 32 -1.812 0.746 -5.556 1.00 96.75 C

ATOM 234 CE1 PHE A 32 -3.580 2.878 -5.634 1.00 96.75 C

ATOM 235 CE2 PHE A 32 -2.237 1.342 -4.372 1.00 96.75 C

ATOM 236 CZ PHE A 32 -3.120 2.409 -4.413 1.00 96.75 C

ATOM 237 N LYS A 33 -4.425 -0.201 -9.531 1.00 96.90 N

ATOM 238 CA LYS A 33 -5.858 -0.064 -9.778 1.00 96.90 C

ATOM 239 C LYS A 33 -6.557 -1.419 -9.723 1.00 96.90 C

ATOM 240 CB LYS A 33 -6.109 0.602 -11.132 1.00 96.90 C

ATOM 241 O LYS A 33 -7.606 -1.557 -9.091 1.00 96.90 O

ATOM 242 CG LYS A 33 -7.581 0.805 -11.458 1.00 96.90 C

ATOM 243 CD LYS A 33 -7.765 1.518 -12.792 1.00 96.90 C

ATOM 244 CE LYS A 33 -9.238 1.693 -13.135 1.00 96.90 C

ATOM 245 NZ LYS A 33 -9.423 2.440 -14.415 1.00 96.90 N

ATOM 246 N ALA A 34 -6.033 -2.377 -10.334 1.00 96.74 N

ATOM 247 CA ALA A 34 -6.624 -3.711 -10.404 1.00 96.74 C

ATOM 248 C ALA A 34 -6.804 -4.305 -9.010 1.00 96.74 C

ATOM 249 CB ALA A 34 -5.761 -4.631 -11.264 1.00 96.74 C

ATOM 250 O ALA A 34 -7.830 -4.925 -8.720 1.00 96.74 O

ATOM 251 N ILE A 35 -5.940 -4.008 -8.152 1.00 96.08 N

ATOM 252 CA ILE A 35 -5.924 -4.628 -6.831 1.00 96.08 C

ATOM 253 C ILE A 35 -6.767 -3.801 -5.863 1.00 96.08 C

ATOM 254 CB ILE A 35 -4.483 -4.777 -6.294 1.00 96.08 C

ATOM 255 O ILE A 35 -7.449 -4.353 -4.997 1.00 96.08 O

ATOM 256 CG1 ILE A 35 -3.686 -5.752 -7.169 1.00 96.08 C

ATOM 257 CG2 ILE A 35 -4.497 -5.238 -4.834 1.00 96.08 C

ATOM 258 CD1 ILE A 35 -2.191 -5.760 -6.882 1.00 96.08 C

ATOM 259 N THR A 36 -6.810 -2.531 -6.072 1.00 97.40 N

ATOM 260 CA THR A 36 -7.421 -1.672 -5.064 1.00 97.40 C

ATOM 261 C THR A 36 -8.824 -1.250 -5.492 1.00 97.40 C

ATOM 262 CB THR A 36 -6.563 -0.420 -4.803 1.00 97.40 C

ATOM 263 O THR A 36 -9.557 -0.635 -4.715 1.00 97.40 O

ATOM 264 CG2 THR A 36 -5.162 -0.802 -4.336 1.00 97.40 C

ATOM 265 OG1 THR A 36 -6.461 0.343 -6.011 1.00 97.40 O

ATOM 266 N TYR A 37 -9.184 -1.579 -6.720 1.00 96.93 N

ATOM 267 CA TYR A 37 -10.491 -1.195 -7.242 1.00 96.93 C

ATOM 268 C TYR A 37 -11.610 -1.734 -6.360 1.00 96.93 C

ATOM 269 CB TYR A 37 -10.667 -1.701 -8.677 1.00 96.93 C

ATOM 270 O TYR A 37 -11.612 -2.914 -6.000 1.00 96.93 O

ATOM 271 CG TYR A 37 -11.905 -1.172 -9.359 1.00 96.93 C

ATOM 272 CD1 TYR A 37 -13.082 -1.918 -9.387 1.00 96.93 C

ATOM 273 CD2 TYR A 37 -11.902 0.074 -9.977 1.00 96.93 C

ATOM 274 CE1 TYR A 37 -14.225 -1.436 -10.016 1.00 96.93 C

ATOM 275 CE2 TYR A 37 -13.039 0.566 -10.609 1.00 96.93 C

ATOM 276 OH TYR A 37 -15.323 0.288 -11.247 1.00 96.93 O

ATOM 277 CZ TYR A 37 -14.194 -0.194 -10.623 1.00 96.93 C

ATOM 278 N ASN A 38 -12.593 -0.850 -5.896 1.00 96.35 N

ATOM 279 CA ASN A 38 -13.768 -1.133 -5.079 1.00 96.35 C

ATOM 280 C ASN A 38 -13.380 -1.711 -3.721 1.00 96.35 C

ATOM 281 CB ASN A 38 -14.715 -2.086 -5.811 1.00 96.35 C

ATOM 282 O ASN A 38 -14.143 -2.475 -3.126 1.00 96.35 O

ATOM 283 CG ASN A 38 -16.138 -2.006 -5.295 1.00 96.35 C

ATOM 284 ND2 ASN A 38 -16.866 -3.113 -5.387 1.00 96.35 N

ATOM 285 OD1 ASN A 38 -16.581 -0.958 -4.818 1.00 96.35 O

ATOM 286 N GLN A 39 -12.156 -1.401 -3.298 1.00 97.77 N

ATOM 287 CA GLN A 39 -11.676 -1.885 -2.008 1.00 97.77 C

ATOM 288 C GLN A 39 -11.509 -0.737 -1.017 1.00 97.77 C

ATOM 289 CB GLN A 39 -10.352 -2.633 -2.174 1.00 97.77 C

ATOM 290 O GLN A 39 -11.483 0.431 -1.410 1.00 97.77 O

ATOM 291 CG GLN A 39 -10.429 -3.815 -3.130 1.00 97.77 C

ATOM 292 CD GLN A 39 -11.304 -4.938 -2.606 1.00 97.77 C

ATOM 293 NE2 GLN A 39 -11.996 -5.622 -3.511 1.00 97.77 N

ATOM 294 OE1 GLN A 39 -11.358 -5.189 -1.398 1.00 97.77 O

ATOM 295 N TRP A 40 -11.289 -1.186 0.333 1.00 98.25 N

ATOM 296 CA TRP A 40 -10.884 -0.244 1.371 1.00 98.25 C

ATOM 297 C TRP A 40 -9.364 -0.139 1.449 1.00 98.25 C

ATOM 298 CB TRP A 40 -11.449 -0.665 2.731 1.00 98.25 C

ATOM 299 O TRP A 40 -8.669 -1.155 1.521 1.00 98.25 O

ATOM 300 CG TRP A 40 -12.906 -0.359 2.906 1.00 98.25 C

ATOM 301 CD1 TRP A 40 -13.962 -1.169 2.592 1.00 98.25 C

ATOM 302 CD2 TRP A 40 -13.468 0.847 3.432 1.00 98.25 C

ATOM 303 CE2 TRP A 40 -14.873 0.698 3.409 1.00 98.25 C

ATOM 304 CE3 TRP A 40 -12.920 2.040 3.923 1.00 98.25 C

ATOM 305 NE1 TRP A 40 -15.147 -0.539 2.893 1.00 98.25 N

ATOM 306 CH2 TRP A 40 -15.175 2.856 4.334 1.00 98.25 C

ATOM 307 CZ2 TRP A 40 -15.737 1.699 3.859 1.00 98.25 C

ATOM 308 CZ3 TRP A 40 -13.782 3.035 4.370 1.00 98.25 C

ATOM 309 N LEU A 41 -8.937 1.143 1.385 1.00 98.51 N

ATOM 310 CA LEU A 41 -7.507 1.403 1.515 1.00 98.51 C

ATOM 311 C LEU A 41 -7.192 2.051 2.859 1.00 98.51 C

ATOM 312 CB LEU A 41 -7.019 2.300 0.375 1.00 98.51 C

ATOM 313 O LEU A 41 -7.829 3.035 3.242 1.00 98.51 O

ATOM 314 CG LEU A 41 -6.777 1.616 -0.971 1.00 98.51 C

ATOM 315 CD1 LEU A 41 -8.072 1.005 -1.496 1.00 98.51 C

ATOM 316 CD2 LEU A 41 -6.200 2.605 -1.978 1.00 98.51 C

ATOM 317 N LEU A 42 -6.267 1.455 3.543 1.00 98.51 N

ATOM 318 CA LEU A 42 -5.738 2.067 4.758 1.00 98.51 C

ATOM 319 C LEU A 42 -4.469 2.858 4.460 1.00 98.51 C

ATOM 320 CB LEU A 42 -5.451 0.998 5.815 1.00 98.51 C

ATOM 321 O LEU A 42 -3.461 2.287 4.037 1.00 98.51 O

ATOM 322 CG LEU A 42 -4.960 1.503 7.173 1.00 98.51 C

ATOM 323 CD1 LEU A 42 -6.076 2.246 7.898 1.00 98.51 C

ATOM 324 CD2 LEU A 42 -4.444 0.344 8.019 1.00 98.51 C

ATOM 325 N VAL A 43 -4.493 4.125 4.709 1.00 98.16 N

ATOM 326 CA VAL A 43 -3.378 5.002 4.366 1.00 98.16 C

ATOM 327 C VAL A 43 -3.160 6.021 5.482 1.00 98.16 C

ATOM 328 CB VAL A 43 -3.617 5.726 3.023 1.00 98.16 C

ATOM 329 O VAL A 43 -4.061 6.273 6.286 1.00 98.16 O

ATOM 330 CG1 VAL A 43 -3.691 4.722 1.874 1.00 98.16 C

ATOM 331 CG2 VAL A 43 -4.894 6.563 3.088 1.00 98.16 C

ATOM 332 N GLY A 44 -1.928 6.559 5.542 1.00 97.28 N

ATOM 333 CA GLY A 44 -1.703 7.738 6.363 1.00 97.28 C

ATOM 334 C GLY A 44 -2.198 9.018 5.717 1.00 97.28 C

ATOM 335 O GLY A 44 -2.382 9.074 4.499 1.00 97.28 O

ATOM 336 N ARG A 45 -2.325 10.041 6.478 1.00 96.53 N

ATOM 337 CA ARG A 45 -2.887 11.303 6.007 1.00 96.53 C

ATOM 338 C ARG A 45 -2.032 11.903 4.897 1.00 96.53 C

ATOM 339 CB ARG A 45 -3.019 12.297 7.163 1.00 96.53 C

ATOM 340 O ARG A 45 -2.554 12.324 3.862 1.00 96.53 O

ATOM 341 CG ARG A 45 -3.605 13.640 6.756 1.00 96.53 C

ATOM 342 CD ARG A 45 -3.268 14.731 7.764 1.00 96.53 C

ATOM 343 NE ARG A 45 -1.826 14.869 7.946 1.00 96.53 N

ATOM 344 NH1 ARG A 45 -1.954 16.870 9.093 1.00 96.53 N

ATOM 345 NH2 ARG A 45 0.086 15.909 8.682 1.00 96.53 N

ATOM 346 CZ ARG A 45 -1.235 15.882 8.573 1.00 96.53 C

ATOM 347 N LYS A 46 -0.740 11.911 5.052 1.00 94.65 N

ATOM 348 CA LYS A 46 0.153 12.526 4.074 1.00 94.65 C

ATOM 349 C LYS A 46 0.078 11.803 2.732 1.00 94.65 C

ATOM 350 CB LYS A 46 1.593 12.529 4.588 1.00 94.65 C

ATOM 351 O LYS A 46 0.088 12.440 1.676 1.00 94.65 O

ATOM 352 CG LYS A 46 1.836 13.491 5.741 1.00 94.65 C

ATOM 353 CD LYS A 46 3.294 13.479 6.182 1.00 94.65 C

ATOM 354 CE LYS A 46 3.531 14.414 7.360 1.00 94.65 C

ATOM 355 NZ LYS A 46 4.948 14.363 7.831 1.00 94.65 N

ATOM 356 N THR A 47 0.029 10.513 2.800 1.00 94.88 N

ATOM 357 CA THR A 47 -0.089 9.733 1.573 1.00 94.88 C

ATOM 358 C THR A 47 -1.411 10.028 0.869 1.00 94.88 C

ATOM 359 CB THR A 47 0.018 8.224 1.858 1.00 94.88 C

ATOM 360 O THR A 47 -1.447 10.195 -0.351 1.00 94.88 O

ATOM 361 CG2 THR A 47 -0.123 7.411 0.575 1.00 94.88 C

ATOM 362 OG1 THR A 47 1.293 7.945 2.449 1.00 94.88 O

ATOM 363 N PHE A 48 -2.452 10.061 1.624 1.00 96.72 N

ATOM 364 CA PHE A 48 -3.764 10.346 1.056 1.00 96.72 C

ATOM 365 C PHE A 48 -3.784 11.723 0.404 1.00 96.72 C

ATOM 366 CB PHE A 48 -4.848 10.260 2.135 1.00 96.72 C

ATOM 367 O PHE A 48 -4.302 11.884 -0.703 1.00 96.72 O

ATOM 368 CG PHE A 48 -6.243 10.480 1.613 1.00 96.72 C

ATOM 369 CD1 PHE A 48 -6.904 11.681 1.840 1.00 96.72 C

ATOM 370 CD2 PHE A 48 -6.893 9.484 0.895 1.00 96.72 C

ATOM 371 CE1 PHE A 48 -8.194 11.887 1.358 1.00 96.72 C

ATOM 372 CE2 PHE A 48 -8.182 9.683 0.411 1.00 96.72 C

ATOM 373 CZ PHE A 48 -8.832 10.884 0.644 1.00 96.72 C

ATOM 374 N GLU A 49 -3.234 12.726 1.092 1.00 94.69 N

ATOM 375 CA GLU A 49 -3.200 14.090 0.572 1.00 94.69 C

ATOM 376 C GLU A 49 -2.408 14.164 -0.731 1.00 94.69 C

ATOM 377 CB GLU A 49 -2.601 15.046 1.607 1.00 94.69 C

ATOM 378 O GLU A 49 -2.799 14.872 -1.661 1.00 94.69 O

ATOM 379 CG GLU A 49 -3.522 15.336 2.782 1.00 94.69 C

ATOM 380 CD GLU A 49 -2.930 16.316 3.782 1.00 94.69 C

ATOM 381 OE1 GLU A 49 -3.698 17.071 4.420 1.00 94.69 O

ATOM 382 OE2 GLU A 49 -1.687 16.330 3.927 1.00 94.69 O

ATOM 383 N SER A 50 -1.349 13.401 -0.815 1.00 92.80 N

ATOM 384 CA SER A 50 -0.501 13.408 -2.003 1.00 92.80 C

ATOM 385 C SER A 50 -1.177 12.697 -3.170 1.00 92.80 C

ATOM 386 CB SER A 50 0.846 12.748 -1.704 1.00 92.80 C

ATOM 387 O SER A 50 -1.119 13.167 -4.308 1.00 92.80 O

ATOM 388 OG SER A 50 0.691 11.352 -1.516 1.00 92.80 O

ATOM 389 N MET A 51 -1.747 11.583 -2.923 1.00 91.95 N

ATOM 390 CA MET A 51 -2.329 10.714 -3.942 1.00 91.95 C

ATOM 391 C MET A 51 -3.705 11.216 -4.365 1.00 91.95 C

ATOM 392 CB MET A 51 -2.432 9.277 -3.428 1.00 91.95 C

ATOM 393 O MET A 51 -4.048 11.177 -5.548 1.00 91.95 O

ATOM 394 CG MET A 51 -3.003 8.302 -4.444 1.00 91.95 C

ATOM 395 SD MET A 51 -3.061 6.580 -3.812 1.00 91.95 S

ATOM 396 CE MET A 51 -3.920 6.846 -2.237 1.00 91.95 C

ATOM 397 N GLY A 52 -4.455 11.781 -3.396 1.00 92.53 N

ATOM 398 CA GLY A 52 -5.852 12.119 -3.619 1.00 92.53 C

ATOM 399 C GLY A 52 -6.758 10.903 -3.674 1.00 92.53 C

ATOM 400 O GLY A 52 -6.283 9.766 -3.632 1.00 92.53 O

ATOM 401 N ALA A 53 -8.062 11.236 -3.754 1.00 93.90 N

ATOM 402 CA ALA A 53 -9.045 10.158 -3.837 1.00 93.90 C

ATOM 403 C ALA A 53 -9.133 9.604 -5.256 1.00 93.90 C

ATOM 404 CB ALA A 53 -10.414 10.650 -3.375 1.00 93.90 C

ATOM 405 O ALA A 53 -9.372 10.351 -6.207 1.00 93.90 O

ATOM 406 N LEU A 54 -8.843 8.317 -5.340 1.00 94.96 N

ATOM 407 CA LEU A 54 -8.940 7.642 -6.630 1.00 94.96 C

ATOM 408 C LEU A 54 -10.332 7.055 -6.832 1.00 94.96 C

ATOM 409 CB LEU A 54 -7.886 6.536 -6.736 1.00 94.96 C

ATOM 410 O LEU A 54 -10.970 6.612 -5.874 1.00 94.96 O

ATOM 411 CG LEU A 54 -6.429 6.970 -6.574 1.00 94.96 C

ATOM 412 CD1 LEU A 54 -5.519 5.749 -6.487 1.00 94.96 C

ATOM 413 CD2 LEU A 54 -6.009 7.876 -7.726 1.00 94.96 C

ATOM 414 N PRO A 55 -10.918 7.155 -8.038 1.00 94.79 N

ATOM 415 CA PRO A 55 -12.286 6.694 -8.288 1.00 94.79 C

ATOM 416 C PRO A 55 -12.501 5.237 -7.884 1.00 94.79 C

ATOM 417 CB PRO A 55 -12.446 6.870 -9.800 1.00 94.79 C

ATOM 418 O PRO A 55 -11.621 4.398 -8.093 1.00 94.79 O

ATOM 419 CG PRO A 55 -11.401 7.868 -10.182 1.00 94.79 C

ATOM 420 CD PRO A 55 -10.249 7.741 -9.226 1.00 94.79 C

ATOM 421 N ASN A 56 -13.660 5.042 -7.223 1.00 96.24 N

ATOM 422 CA ASN A 56 -14.161 3.709 -6.904 1.00 96.24 C

ATOM 423 C ASN A 56 -13.259 2.997 -5.899 1.00 96.24 C

ATOM 424 CB ASN A 56 -14.303 2.871 -8.176 1.00 96.24 C

ATOM 425 O ASN A 56 -13.079 1.780 -5.974 1.00 96.24 O

ATOM 426 CG ASN A 56 -15.345 3.426 -9.128 1.00 96.24 C

ATOM 427 ND2 ASN A 56 -14.941 3.680 -10.367 1.00 96.24 N

ATOM 428 OD1 ASN A 56 -16.503 3.626 -8.752 1.00 96.24 O

ATOM 429 N ARG A 57 -12.734 3.834 -5.012 1.00 97.63 N

ATOM 430 CA ARG A 57 -11.980 3.362 -3.855 1.00 97.63 C

ATOM 431 C ARG A 57 -12.445 4.054 -2.578 1.00 97.63 C

ATOM 432 CB ARG A 57 -10.481 3.591 -4.060 1.00 97.63 C

ATOM 433 O ARG A 57 -12.900 5.199 -2.618 1.00 97.63 O

ATOM 434 CG ARG A 57 -9.876 2.751 -5.173 1.00 97.63 C

ATOM 435 CD ARG A 57 -8.737 3.479 -5.873 1.00 97.63 C

ATOM 436 NE ARG A 57 -8.394 2.847 -7.144 1.00 97.63 N

ATOM 437 NH1 ARG A 57 -6.843 4.445 -7.757 1.00 97.63 N

ATOM 438 NH2 ARG A 57 -7.267 2.665 -9.137 1.00 97.63 N

ATOM 439 CZ ARG A 57 -7.502 3.321 -8.010 1.00 97.63 C

ATOM 440 N LYS A 58 -12.353 3.292 -1.557 1.00 98.13 N

ATOM 441 CA LYS A 58 -12.696 3.794 -0.230 1.00 98.13 C

ATOM 442 C LYS A 58 -11.459 3.889 0.658 1.00 98.13 C

ATOM 443 CB LYS A 58 -13.746 2.898 0.429 1.00 98.13 C

ATOM 444 O LYS A 58 -10.540 3.075 0.541 1.00 98.13 O

ATOM 445 CG LYS A 58 -15.036 2.769 -0.368 1.00 98.13 C

ATOM 446 CD LYS A 58 -15.965 1.725 0.239 1.00 98.13 C

ATOM 447 CE LYS A 58 -17.158 1.444 -0.666 1.00 98.13 C

ATOM 448 NZ LYS A 58 -17.963 0.285 -0.176 1.00 98.13 N

ATOM 449 N TYR A 59 -11.498 4.874 1.581 1.00 98.50 N

ATOM 450 CA TYR A 59 -10.281 5.140 2.338 1.00 98.50 C

ATOM 451 C TYR A 59 -10.561 5.151 3.836 1.00 98.50 C

ATOM 452 CB TYR A 59 -9.664 6.477 1.914 1.00 98.50 C

ATOM 453 O TYR A 59 -11.554 5.730 4.284 1.00 98.50 O

ATOM 454 CG TYR A 59 -9.176 6.494 0.485 1.00 98.50 C

ATOM 455 CD1 TYR A 59 -7.845 6.218 0.180 1.00 98.50 C

ATOM 456 CD2 TYR A 59 -10.044 6.786 -0.561 1.00 98.50 C

ATOM 457 CE1 TYR A 59 -7.391 6.235 -1.134 1.00 98.50 C

ATOM 458 CE2 TYR A 59 -9.601 6.805 -1.879 1.00 98.50 C

ATOM 459 OH TYR A 59 -7.830 6.545 -3.459 1.00 98.50 O

ATOM 460 CZ TYR A 59 -8.274 6.528 -2.156 1.00 98.50 C

ATOM 461 N ALA A 60 -9.677 4.502 4.558 1.00 98.31 N

ATOM 462 CA ALA A 60 -9.461 4.736 5.984 1.00 98.31 C

ATOM 463 C ALA A 60 -8.155 5.487 6.225 1.00 98.31 C

ATOM 464 CB ALA A 60 -9.460 3.414 6.747 1.00 98.31 C

ATOM 465 O ALA A 60 -7.069 4.925 6.060 1.00 98.31 O

ATOM 466 N VAL A 61 -8.336 6.771 6.539 1.00 98.29 N

ATOM 467 CA VAL A 61 -7.169 7.628 6.717 1.00 98.29 C

ATOM 468 C VAL A 61 -6.818 7.723 8.200 1.00 98.29 C

ATOM 469 CB VAL A 61 -7.408 9.040 6.135 1.00 98.29 C

ATOM 470 O VAL A 61 -7.673 8.046 9.028 1.00 98.29 O

ATOM 471 CG1 VAL A 61 -6.184 9.928 6.352 1.00 98.29 C

ATOM 472 CG2 VAL A 61 -7.752 8.953 4.650 1.00 98.29 C

ATOM 473 N VAL A 62 -5.527 7.417 8.521 1.00 98.11 N

ATOM 474 CA VAL A 62 -5.073 7.462 9.908 1.00 98.11 C

ATOM 475 C VAL A 62 -4.268 8.737 10.147 1.00 98.11 C

ATOM 476 CB VAL A 62 -4.226 6.221 10.268 1.00 98.11 C

ATOM 477 O VAL A 62 -3.297 9.008 9.437 1.00 98.11 O

ATOM 478 CG1 VAL A 62 -3.728 6.306 11.709 1.00 98.11 C

ATOM 479 CG2 VAL A 62 -5.035 4.943 10.054 1.00 98.11 C

ATOM 480 N THR A 63 -4.697 9.468 11.182 1.00 96.90 N

ATOM 481 CA THR A 63 -3.995 10.702 11.517 1.00 96.90 C

ATOM 482 C THR A 63 -4.304 11.128 12.949 1.00 96.90 C

ATOM 483 CB THR A 63 -4.371 11.839 10.549 1.00 96.90 C

ATOM 484 O THR A 63 -5.398 10.871 13.457 1.00 96.90 O

ATOM 485 CG2 THR A 63 -5.864 12.141 10.607 1.00 96.90 C

ATOM 486 OG1 THR A 63 -3.641 13.021 10.902 1.00 96.90 O

ATOM 487 N ARG A 64 -3.353 11.762 13.613 1.00 93.25 N

ATOM 488 CA ARG A 64 -3.559 12.328 14.942 1.00 93.25 C

ATOM 489 C ARG A 64 -3.939 13.803 14.856 1.00 93.25 C

ATOM 490 CB ARG A 64 -2.304 12.159 15.800 1.00 93.25 C

ATOM 491 O ARG A 64 -4.322 14.410 15.858 1.00 93.25 O

ATOM 492 CG ARG A 64 -1.955 10.711 16.104 1.00 93.25 C

ATOM 493 CD ARG A 64 -0.666 10.597 16.906 1.00 93.25 C

ATOM 494 NE ARG A 64 -0.860 10.997 18.296 1.00 93.25 N

ATOM 495 NH1 ARG A 64 0.879 9.720 19.122 1.00 93.25 N

ATOM 496 NH2 ARG A 64 -0.384 11.000 20.543 1.00 93.25 N

ATOM 497 CZ ARG A 64 -0.121 10.572 19.318 1.00 93.25 C

ATOM 498 N SER A 65 -3.918 14.340 13.648 1.00 92.71 N

ATOM 499 CA SER A 65 -4.232 15.746 13.418 1.00 92.71 C

ATOM 500 C SER A 65 -5.727 15.949 13.194 1.00 92.71 C

ATOM 501 CB SER A 65 -3.452 16.281 12.216 1.00 92.71 C

ATOM 502 O SER A 65 -6.479 14.980 13.069 1.00 92.71 O

ATOM 503 OG SER A 65 -3.891 15.666 11.017 1.00 92.71 O

ATOM 504 N SER A 66 -6.217 17.158 13.228 1.00 90.54 N

ATOM 505 CA SER A 66 -7.622 17.525 13.077 1.00 90.54 C

ATOM 506 C SER A 66 -8.071 17.406 11.625 1.00 90.54 C

ATOM 507 CB SER A 66 -7.860 18.950 13.578 1.00 90.54 C

ATOM 508 O SER A 66 -9.148 17.884 11.262 1.00 90.54 O

ATOM 509 OG SER A 66 -7.030 19.871 12.891 1.00 90.54 O

ATOM 510 N PHE A 67 -7.629 16.540 10.854 1.00 93.43 N

ATOM 511 CA PHE A 67 -8.008 16.294 9.467 1.00 93.43 C

ATOM 512 C PHE A 67 -9.401 15.682 9.387 1.00 93.43 C

ATOM 513 CB PHE A 67 -6.990 15.374 8.786 1.00 93.43 C

ATOM 514 O PHE A 67 -9.728 14.768 10.147 1.00 93.43 O

ATOM 515 CG PHE A 67 -7.354 15.007 7.373 1.00 93.43 C

ATOM 516 CD1 PHE A 67 -8.029 13.823 7.099 1.00 93.43 C

ATOM 517 CD2 PHE A 67 -7.023 15.846 6.317 1.00 93.43 C

ATOM 518 CE1 PHE A 67 -8.367 13.481 5.792 1.00 93.43 C

ATOM 519 CE2 PHE A 67 -7.358 15.511 5.008 1.00 93.43 C

ATOM 520 CZ PHE A 67 -8.029 14.327 4.748 1.00 93.43 C

ATOM 521 N THR A 68 -10.203 16.283 8.435 1.00 93.15 N

ATOM 522 CA THR A 68 -11.534 15.735 8.200 1.00 93.15 C

ATOM 523 C THR A 68 -11.825 15.641 6.705 1.00 93.15 C

ATOM 524 CB THR A 68 -12.619 16.588 8.884 1.00 93.15 C

ATOM 525 O THR A 68 -11.185 16.321 5.900 1.00 93.15 O

ATOM 526 CG2 THR A 68 -12.384 16.673 10.389 1.00 93.15 C

ATOM 527 OG1 THR A 68 -12.596 17.910 8.333 1.00 93.15 O

ATOM 528 N SER A 69 -12.711 14.763 6.322 1.00 93.24 N

ATOM 529 CA SER A 69 -13.137 14.595 4.936 1.00 93.24 C

ATOM 530 C SER A 69 -14.658 14.601 4.821 1.00 93.24 C

ATOM 531 CB SER A 69 -12.579 13.293 4.358 1.00 93.24 C

ATOM 532 O SER A 69 -15.350 14.001 5.646 1.00 93.24 O

ATOM 533 OG SER A 69 -13.009 13.112 3.020 1.00 93.24 O

ATOM 534 N SER A 70 -15.211 15.368 3.851 1.00 93.33 N

ATOM 535 CA SER A 70 -16.648 15.382 3.597 1.00 93.33 C

ATOM 536 C SER A 70 -17.045 14.286 2.614 1.00 93.33 C

ATOM 537 CB SER A 70 -17.085 16.745 3.059 1.00 93.33 C

ATOM 538 O SER A 70 -18.233 14.075 2.358 1.00 93.33 O

ATOM 539 OG SER A 70 -16.381 17.066 1.872 1.00 93.33 O

ATOM 540 N ASP A 71 -16.037 13.597 2.100 1.00 95.04 N

ATOM 541 CA ASP A 71 -16.230 12.487 1.172 1.00 95.04 C

ATOM 542 C ASP A 71 -16.696 11.232 1.906 1.00 95.04 C

ATOM 543 CB ASP A 71 -14.939 12.198 0.403 1.00 95.04 C

ATOM 544 O ASP A 71 -16.021 10.755 2.821 1.00 95.04 O

ATOM 545 CG ASP A 71 -15.135 11.216 -0.738 1.00 95.04 C

ATOM 546 OD1 ASP A 71 -16.079 10.398 -0.683 1.00 95.04 O

ATOM 547 OD2 ASP A 71 -14.337 11.257 -1.699 1.00 95.04 O

ATOM 548 N GLU A 72 -17.831 10.661 1.479 1.00 94.43 N

ATOM 549 CA GLU A 72 -18.417 9.514 2.164 1.00 94.43 C

ATOM 550 C GLU A 72 -17.542 8.273 2.010 1.00 94.43 C

ATOM 551 CB GLU A 72 -19.826 9.233 1.635 1.00 94.43 C

ATOM 552 O GLU A 72 -17.690 7.306 2.761 1.00 94.43 O

ATOM 553 CG GLU A 72 -19.865 8.855 0.162 1.00 94.43 C

ATOM 554 CD GLU A 72 -21.273 8.613 -0.358 1.00 94.43 C

ATOM 555 OE1 GLU A 72 -21.460 8.538 -1.594 1.00 94.43 O

ATOM 556 OE2 GLU A 72 -22.198 8.500 0.477 1.00 94.43 O

ATOM 557 N ASN A 73 -16.676 8.356 1.045 1.00 96.66 N

ATOM 558 CA ASN A 73 -15.796 7.218 0.797 1.00 96.66 C

ATOM 559 C ASN A 73 -14.490 7.339 1.578 1.00 96.66 C

ATOM 560 CB ASN A 73 -15.509 7.077 -0.699 1.00 96.66 C

ATOM 561 O ASN A 73 -13.598 6.501 1.437 1.00 96.66 O

ATOM 562 CG ASN A 73 -16.737 6.680 -1.494 1.00 96.66 C

ATOM 563 ND2 ASN A 73 -16.893 7.264 -2.676 1.00 96.66 N

ATOM 564 OD1 ASN A 73 -17.540 5.855 -1.050 1.00 96.66 O

ATOM 565 N VAL A 74 -14.417 8.385 2.426 1.00 97.98 N

ATOM 566 CA VAL A 74 -13.218 8.596 3.230 1.00 97.98 C

ATOM 567 C VAL A 74 -13.592 8.658 4.709 1.00 97.98 C

ATOM 568 CB VAL A 74 -12.475 9.885 2.814 1.00 97.98 C

ATOM 569 O VAL A 74 -14.338 9.544 5.131 1.00 97.98 O

ATOM 570 CG1 VAL A 74 -11.221 10.084 3.663 1.00 97.98 C

ATOM 571 CG2 VAL A 74 -12.116 9.838 1.330 1.00 97.98 C

ATOM 572 N LEU A 75 -13.042 7.683 5.414 1.00 97.99 N

ATOM 573 CA LEU A 75 -13.181 7.679 6.866 1.00 97.99 C

ATOM 574 C LEU A 75 -11.856 8.016 7.541 1.00 97.99 C

ATOM 575 CB LEU A 75 -13.683 6.316 7.353 1.00 97.99 C

ATOM 576 O LEU A 75 -10.805 7.507 7.144 1.00 97.99 O

ATOM 577 CG LEU A 75 -15.020 5.842 6.780 1.00 97.99 C

ATOM 578 CD1 LEU A 75 -15.389 4.479 7.356 1.00 97.99 C

ATOM 579 CD2 LEU A 75 -16.116 6.863 7.066 1.00 97.99 C

ATOM 580 N VAL A 76 -11.903 8.825 8.601 1.00 98.13 N

ATOM 581 CA VAL A 76 -10.688 9.272 9.273 1.00 98.13 C

ATOM 582 C VAL A 76 -10.644 8.709 10.691 1.00 98.13 C

ATOM 583 CB VAL A 76 -10.593 10.814 9.308 1.00 98.13 C

ATOM 584 O VAL A 76 -11.628 8.792 11.429 1.00 98.13 O

ATOM 585 CG1 VAL A 76 -9.284 11.261 9.955 1.00 98.13 C

ATOM 586 CG2 VAL A 76 -10.719 11.388 7.898 1.00 98.13 C

ATOM 587 N PHE A 77 -9.446 8.190 11.055 1.00 98.04 N

ATOM 588 CA PHE A 77 -9.276 7.558 12.358 1.00 98.04 C

ATOM 589 C PHE A 77 -8.028 8.083 13.056 1.00 98.04 C

ATOM 590 CB PHE A 77 -9.193 6.035 12.211 1.00 98.04 C

ATOM 591 O PHE A 77 -7.035 8.409 12.402 1.00 98.04 O

ATOM 592 CG PHE A 77 -10.420 5.417 11.596 1.00 98.04 C

ATOM 593 CD1 PHE A 77 -11.480 5.002 12.393 1.00 98.04 C

ATOM 594 CD2 PHE A 77 -10.513 5.251 10.221 1.00 98.04 C

ATOM 595 CE1 PHE A 77 -12.617 4.429 11.827 1.00 98.04 C

ATOM 596 CE2 PHE A 77 -11.646 4.680 9.647 1.00 98.04 C

ATOM 597 CZ PHE A 77 -12.696 4.269 10.452 1.00 98.04 C

ATOM 598 N PRO A 78 -8.045 8.083 14.372 1.00 97.24 N

ATOM 599 CA PRO A 78 -6.919 8.622 15.137 1.00 97.24 C

ATOM 600 C PRO A 78 -5.783 7.615 15.306 1.00 97.24 C

ATOM 601 CB PRO A 78 -7.545 8.970 16.490 1.00 97.24 C

ATOM 602 O PRO A 78 -4.672 7.990 15.688 1.00 97.24 O

ATOM 603 CG PRO A 78 -8.711 8.043 16.620 1.00 97.24 C

ATOM 604 CD PRO A 78 -9.289 7.808 15.254 1.00 97.24 C

ATOM 605 N SER A 79 -6.096 6.307 14.929 1.00 97.37 N

ATOM 606 CA SER A 79 -5.072 5.274 15.044 1.00 97.37 C

ATOM 607 C SER A 79 -5.365 4.099 14.117 1.00 97.37 C

ATOM 608 CB SER A 79 -4.967 4.782 16.488 1.00 97.37 C

ATOM 609 O SER A 79 -6.506 3.909 13.690 1.00 97.37 O

ATOM 610 OG SER A 79 -6.120 4.044 16.852 1.00 97.37 O

ATOM 611 N ILE A 80 -4.325 3.330 13.910 1.00 97.75 N

ATOM 612 CA ILE A 80 -4.432 2.135 13.081 1.00 97.75 C

ATOM 613 C ILE A 80 -5.416 1.154 13.714 1.00 97.75 C

ATOM 614 CB ILE A 80 -3.056 1.460 12.882 1.00 97.75 C

ATOM 615 O ILE A 80 -6.271 0.592 13.025 1.00 97.75 O

ATOM 616 CG1 ILE A 80 -2.158 2.330 11.995 1.00 97.75 C

ATOM 617 CG2 ILE A 80 -3.222 0.059 12.286 1.00 97.75 C

ATOM 618 CD1 ILE A 80 -0.709 1.867 11.938 1.00 97.75 C

ATOM 619 N ASP A 81 -5.359 1.036 15.000 1.00 97.53 N

ATOM 620 CA ASP A 81 -6.209 0.094 15.721 1.00 97.53 C

ATOM 621 C ASP A 81 -7.685 0.454 15.563 1.00 97.53 C

ATOM 622 CB ASP A 81 -5.833 0.057 17.204 1.00 97.53 C

ATOM 623 O ASP A 81 -8.517 -0.417 15.298 1.00 97.53 O

ATOM 624 CG ASP A 81 -4.550 -0.711 17.471 1.00 97.53 C

ATOM 625 OD1 ASP A 81 -4.088 -1.455 16.580 1.00 97.53 O

ATOM 626 OD2 ASP A 81 -3.999 -0.573 18.584 1.00 97.53 O

ATOM 627 N GLU A 82 -8.000 1.687 15.786 1.00 98.25 N

ATOM 628 CA GLU A 82 -9.383 2.128 15.636 1.00 98.25 C

ATOM 629 C GLU A 82 -9.873 1.933 14.204 1.00 98.25 C

ATOM 630 CB GLU A 82 -9.527 3.596 16.046 1.00 98.25 C

ATOM 631 O GLU A 82 -11.017 1.532 13.983 1.00 98.25 O

ATOM 632 CG GLU A 82 -9.397 3.832 17.544 1.00 98.25 C

ATOM 633 CD GLU A 82 -9.766 5.247 17.962 1.00 98.25 C

ATOM 634 OE1 GLU A 82 -9.148 5.779 18.912 1.00 98.25 O

ATOM 635 OE2 GLU A 82 -10.680 5.827 17.336 1.00 98.25 O

ATOM 636 N ALA A 83 -9.022 2.234 13.242 1.00 98.15 N

ATOM 637 CA ALA A 83 -9.373 2.029 11.839 1.00 98.15 C

ATOM 638 C ALA A 83 -9.685 0.562 11.560 1.00 98.15 C

ATOM 639 CB ALA A 83 -8.244 2.512 10.932 1.00 98.15 C

ATOM 640 O ALA A 83 -10.734 0.240 10.996 1.00 98.15 O

ATOM 641 N LEU A 84 -8.816 -0.297 11.966 1.00 98.07 N

ATOM 642 CA LEU A 84 -8.976 -1.722 11.696 1.00 98.07 C

ATOM 643 C LEU A 84 -10.209 -2.274 12.404 1.00 98.07 C

ATOM 644 CB LEU A 84 -7.731 -2.494 12.138 1.00 98.07 C

ATOM 645 O LEU A 84 -10.934 -3.099 11.843 1.00 98.07 O

ATOM 646 CG LEU A 84 -6.459 -2.255 11.322 1.00 98.07 C

ATOM 647 CD1 LEU A 84 -5.302 -3.066 11.894 1.00 98.07 C

ATOM 648 CD2 LEU A 84 -6.691 -2.604 9.855 1.00 98.07 C

ATOM 649 N ASN A 85 -10.452 -1.916 13.682 1.00 98.04 N

ATOM 650 CA ASN A 85 -11.632 -2.357 14.418 1.00 98.04 C

ATOM 651 C ASN A 85 -12.920 -1.975 13.694 1.00 98.04 C

ATOM 652 CB ASN A 85 -11.627 -1.781 15.835 1.00 98.04 C

ATOM 653 O ASN A 85 -13.846 -2.781 13.598 1.00 98.04 O

ATOM 654 CG ASN A 85 -10.646 -2.486 16.750 1.00 98.04 C

ATOM 655 ND2 ASN A 85 -10.238 -1.810 17.817 1.00 98.04 N

ATOM 656 OD1 ASN A 85 -10.256 -3.630 16.498 1.00 98.04 O

ATOM 657 N HIS A 86 -12.956 -0.762 13.232 1.00 98.27 N

ATOM 658 CA HIS A 86 -14.128 -0.310 12.492 1.00 98.27 C

ATOM 659 C HIS A 86 -14.273 -1.065 11.175 1.00 98.27 C

ATOM 660 CB HIS A 86 -14.049 1.195 12.228 1.00 98.27 C

ATOM 661 O HIS A 86 -15.370 -1.506 10.824 1.00 98.27 O

ATOM 662 CG HIS A 86 -15.212 1.731 11.457 1.00 98.27 C

ATOM 663 CD2 HIS A 86 -15.355 2.005 10.139 1.00 98.27 C

ATOM 664 ND1 HIS A 86 -16.414 2.053 12.051 1.00 98.27 N

ATOM 665 CE1 HIS A 86 -17.248 2.501 11.128 1.00 98.27 C

ATOM 666 NE2 HIS A 86 -16.630 2.483 9.959 1.00 98.27 N

ATOM 667 N LEU A 87 -13.188 -1.222 10.403 1.00 98.06 N

ATOM 668 CA LEU A 87 -13.210 -1.848 9.085 1.00 98.06 C

ATOM 669 C LEU A 87 -13.641 -3.307 9.183 1.00 98.06 C

ATOM 670 CB LEU A 87 -11.833 -1.753 8.423 1.00 98.06 C

ATOM 671 O LEU A 87 -14.251 -3.842 8.254 1.00 98.06 O

ATOM 672 CG LEU A 87 -11.413 -0.370 7.925 1.00 98.06 C

ATOM 673 CD1 LEU A 87 -9.946 -0.378 7.509 1.00 98.06 C

ATOM 674 CD2 LEU A 87 -12.300 0.073 6.765 1.00 98.06 C

ATOM 675 N LYS A 88 -13.342 -3.939 10.217 1.00 97.56 N

ATOM 676 CA LYS A 88 -13.759 -5.320 10.437 1.00 97.56 C

ATOM 677 C LYS A 88 -15.280 -5.446 10.416 1.00 97.56 C

ATOM 678 CB LYS A 88 -13.209 -5.843 11.765 1.00 97.56 C

ATOM 679 O LYS A 88 -15.816 -6.515 10.119 1.00 97.56 O

ATOM 680 CG LYS A 88 -11.727 -6.184 11.729 1.00 97.56 C

ATOM 681 CD LYS A 88 -11.239 -6.699 13.078 1.00 97.56 C

ATOM 682 CE LYS A 88 -9.746 -6.996 13.057 1.00 97.56 C

ATOM 683 NZ LYS A 88 -9.253 -7.452 14.391 1.00 97.56 N

ATOM 684 N THR A 89 -15.997 -4.380 10.717 1.00 97.59 N

ATOM 685 CA THR A 89 -17.454 -4.405 10.789 1.00 97.59 C

ATOM 686 C THR A 89 -18.068 -4.125 9.421 1.00 97.59 C

ATOM 687 CB THR A 89 -17.980 -3.380 11.811 1.00 97.59 C

ATOM 688 O THR A 89 -19.249 -4.398 9.197 1.00 97.59 O

ATOM 689 CG2 THR A 89 -17.242 -3.499 13.140 1.00 97.59 C

ATOM 690 OG1 THR A 89 -17.795 -2.058 11.291 1.00 97.59 O

ATOM 691 N ILE A 90 -17.337 -3.647 8.426 1.00 97.12 N

ATOM 692 CA ILE A 90 -18.021 -3.158 7.233 1.00 97.12 C

ATOM 693 C ILE A 90 -17.409 -3.797 5.989 1.00 97.12 C

ATOM 694 CB ILE A 90 -17.952 -1.617 7.134 1.00 97.12 C

ATOM 695 O ILE A 90 -17.949 -3.669 4.888 1.00 97.12 O

ATOM 696 CG1 ILE A 90 -16.494 -1.151 7.062 1.00 97.12 C

ATOM 697 CG2 ILE A 90 -18.678 -0.967 8.316 1.00 97.12 C

ATOM 698 CD1 ILE A 90 -16.331 0.329 6.746 1.00 97.12 C

ATOM 699 N THR A 91 -16.278 -4.495 6.141 1.00 97.31 N

ATOM 700 CA THR A 91 -15.691 -5.111 4.957 1.00 97.31 C

ATOM 701 C THR A 91 -14.921 -6.375 5.330 1.00 97.31 C

ATOM 702 CB THR A 91 -14.754 -4.133 4.225 1.00 97.31 C

ATOM 703 O THR A 91 -14.487 -6.529 6.473 1.00 97.31 O

ATOM 704 CG2 THR A 91 -13.552 -3.771 5.090 1.00 97.31 C

ATOM 705 OG1 THR A 91 -14.291 -4.741 3.013 1.00 97.31 O

ATOM 706 N ASP A 92 -14.617 -7.258 4.422 1.00 96.79 N

ATOM 707 CA ASP A 92 -13.890 -8.506 4.631 1.00 96.79 C

ATOM 708 C ASP A 92 -12.455 -8.398 4.121 1.00 96.79 C

ATOM 709 CB ASP A 92 -14.608 -9.667 3.939 1.00 96.79 C

ATOM 710 O ASP A 92 -11.638 -9.290 4.358 1.00 96.79 O

ATOM 711 CG ASP A 92 -15.927 -10.027 4.601 1.00 96.79 C

ATOM 712 OD1 ASP A 92 -16.047 -9.889 5.837 1.00 96.79 O

ATOM 713 OD2 ASP A 92 -16.853 -10.457 3.880 1.00 96.79 O

ATOM 714 N HIS A 93 -12.152 -7.165 3.462 1.00 97.80 N

ATOM 715 CA HIS A 93 -10.831 -7.023 2.861 1.00 97.80 C

ATOM 716 C HIS A 93 -10.348 -5.578 2.926 1.00 97.80 C

ATOM 717 CB HIS A 93 -10.848 -7.506 1.410 1.00 97.80 C

ATOM 718 O HIS A 93 -11.073 -4.659 2.536 1.00 97.80 O

ATOM 719 CG HIS A 93 -9.494 -7.550 0.777 1.00 97.80 C

ATOM 720 CD2 HIS A 93 -8.258 -7.631 1.324 1.00 97.80 C

ATOM 721 ND1 HIS A 93 -9.309 -7.506 -0.588 1.00 97.80 N

ATOM 722 CE1 HIS A 93 -8.014 -7.560 -0.853 1.00 97.80 C

ATOM 723 NE2 HIS A 93 -7.355 -7.636 0.290 1.00 97.80 N

ATOM 724 N VAL A 94 -9.104 -5.482 3.387 1.00 98.37 N

ATOM 725 CA VAL A 94 -8.450 -4.180 3.463 1.00 98.37 C

ATOM 726 C VAL A 94 -7.073 -4.254 2.807 1.00 98.37 C

ATOM 727 CB VAL A 94 -8.320 -3.694 4.924 1.00 98.37 C

ATOM 728 O VAL A 94 -6.334 -5.220 3.009 1.00 98.37 O

ATOM 729 CG1 VAL A 94 -7.489 -2.414 4.995 1.00 98.37 C

ATOM 730 CG2 VAL A 94 -9.701 -3.474 5.538 1.00 98.37 C

ATOM 731 N ILE A 95 -6.814 -3.147 2.059 1.00 98.50 N

ATOM 732 CA ILE A 95 -5.497 -3.062 1.437 1.00 98.50 C

ATOM 733 C ILE A 95 -4.704 -1.917 2.062 1.00 98.50 C

ATOM 734 CB ILE A 95 -5.606 -2.867 -0.092 1.00 98.50 C

ATOM 735 O ILE A 95 -5.078 -0.749 1.928 1.00 98.50 O

ATOM 736 CG1 ILE A 95 -6.458 -3.980 -0.713 1.00 98.50 C

ATOM 737 CG2 ILE A 95 -4.214 -2.822 -0.731 1.00 98.50 C

ATOM 738 CD1 ILE A 95 -6.730 -3.795 -2.200 1.00 98.50 C

ATOM 739 N VAL A 96 -3.612 -2.278 2.730 1.00 98.41 N

ATOM 740 CA VAL A 96 -2.708 -1.265 3.263 1.00 98.41 C

ATOM 741 C VAL A 96 -1.915 -0.629 2.124 1.00 98.41 C

ATOM 742 CB VAL A 96 -1.745 -1.859 4.316 1.00 98.41 C

ATOM 743 O VAL A 96 -1.186 -1.318 1.406 1.00 98.41 O

ATOM 744 CG1 VAL A 96 -0.818 -0.780 4.871 1.00 98.41 C

ATOM 745 CG2 VAL A 96 -2.533 -2.524 5.443 1.00 98.41 C

ATOM 746 N SER A 97 -2.045 0.651 1.892 1.00 96.34 N

ATOM 747 CA SER A 97 -1.579 1.242 0.642 1.00 96.34 C

ATOM 748 C SER A 97 -0.716 2.472 0.901 1.00 96.34 C

ATOM 749 CB SER A 97 -2.765 1.619 -0.248 1.00 96.34 C

ATOM 750 O SER A 97 -0.434 3.244 -0.018 1.00 96.34 O

ATOM 751 OG SER A 97 -3.485 0.464 -0.641 1.00 96.34 O

ATOM 752 N GLY A 98 -0.206 2.455 2.116 1.00 88.52 N

ATOM 753 CA GLY A 98 0.938 3.352 2.151 1.00 88.52 C

ATOM 754 C GLY A 98 0.948 4.258 3.368 1.00 88.52 C

ATOM 755 O GLY A 98 -0.037 4.328 4.105 1.00 88.52 O

ATOM 756 N GLY A 99 1.955 4.992 3.426 1.00 88.33 N

ATOM 757 CA GLY A 99 2.951 5.728 4.188 1.00 88.33 C

ATOM 758 C GLY A 99 3.955 4.829 4.883 1.00 88.33 C

ATOM 759 O GLY A 99 3.609 3.736 5.337 1.00 88.33 O

ATOM 760 N GLY A 100 5.167 5.205 4.791 1.00 92.41 N

ATOM 761 CA GLY A 100 6.236 4.425 5.394 1.00 92.41 C

ATOM 762 C GLY A 100 5.900 3.933 6.790 1.00 92.41 C

ATOM 763 O GLY A 100 6.142 2.770 7.119 1.00 92.41 O

ATOM 764 N GLU A 101 5.255 4.742 7.579 1.00 94.40 N

ATOM 765 CA GLU A 101 4.915 4.407 8.959 1.00 94.40 C

ATOM 766 C GLU A 101 3.796 3.370 9.016 1.00 94.40 C

ATOM 767 CB GLU A 101 4.508 5.663 9.733 1.00 94.40 C

ATOM 768 O GLU A 101 3.817 2.472 9.860 1.00 94.40 O

ATOM 769 CG GLU A 101 5.658 6.624 9.995 1.00 94.40 C

ATOM 770 CD GLU A 101 5.257 7.827 10.833 1.00 94.40 C

ATOM 771 OE1 GLU A 101 6.152 8.537 11.344 1.00 94.40 O

ATOM 772 OE2 GLU A 101 4.036 8.060 10.982 1.00 94.40 O

ATOM 773 N ILE A 102 2.814 3.554 8.164 1.00 97.27 N

ATOM 774 CA ILE A 102 1.711 2.601 8.101 1.00 97.27 C

ATOM 775 C ILE A 102 2.240 1.226 7.700 1.00 97.27 C

ATOM 776 CB ILE A 102 0.619 3.065 7.112 1.00 97.27 C

ATOM 777 O ILE A 102 1.912 0.219 8.332 1.00 97.27 O

ATOM 778 CG1 ILE A 102 -0.006 4.382 7.585 1.00 97.27 C

ATOM 779 CG2 ILE A 102 -0.450 1.981 6.941 1.00 97.27 C

ATOM 780 CD1 ILE A 102 -0.739 4.277 8.915 1.00 97.27 C

ATOM 781 N TYR A 103 3.129 1.232 6.669 1.00 97.76 N

ATOM 782 CA TYR A 103 3.728 -0.029 6.247 1.00 97.76 C

ATOM 783 C TYR A 103 4.496 -0.678 7.392 1.00 97.76 C

ATOM 784 CB TYR A 103 4.660 0.192 5.052 1.00 97.76 C

ATOM 785 O TYR A 103 4.343 -1.874 7.652 1.00 97.76 O

ATOM 786 CG TYR A 103 3.934 0.504 3.765 1.00 97.76 C

ATOM 787 CD1 TYR A 103 2.691 -0.061 3.489 1.00 97.76 C

ATOM 788 CD2 TYR A 103 4.490 1.363 2.824 1.00 97.76 C

ATOM 789 CE1 TYR A 103 2.020 0.222 2.305 1.00 97.76 C

ATOM 790 CE2 TYR A 103 3.828 1.653 1.635 1.00 97.76 C

ATOM 791 OH TYR A 103 1.934 1.363 0.211 1.00 97.76 O

ATOM 792 CZ TYR A 103 2.595 1.079 1.386 1.00 97.76 C

ATOM 793 N LYS A 104 5.327 0.080 8.005 1.00 97.07 N

ATOM 794 CA LYS A 104 6.173 -0.418 9.086 1.00 97.07 C

ATOM 795 C LYS A 104 5.334 -1.031 10.203 1.00 97.07 C

ATOM 796 CB LYS A 104 7.047 0.706 9.645 1.00 97.07 C

ATOM 797 O LYS A 104 5.703 -2.062 10.770 1.00 97.07 O

ATOM 798 CG LYS A 104 8.069 0.243 10.673 1.00 97.07 C

ATOM 799 CD LYS A 104 8.959 1.390 11.132 1.00 97.07 C

ATOM 800 CE LYS A 104 9.964 0.934 12.182 1.00 97.07 C

ATOM 801 NZ LYS A 104 10.841 2.055 12.633 1.00 97.07 N

ATOM 802 N SER A 105 4.218 -0.504 10.492 1.00 96.93 N

ATOM 803 CA SER A 105 3.375 -0.904 11.615 1.00 96.93 C

ATOM 804 C SER A 105 2.588 -2.169 11.293 1.00 96.93 C

ATOM 805 CB SER A 105 2.413 0.224 11.991 1.00 96.93 C

ATOM 806 O SER A 105 2.256 -2.946 12.190 1.00 96.93 O

ATOM 807 OG SER A 105 3.122 1.339 12.504 1.00 96.93 O

ATOM 808 N LEU A 106 2.372 -2.399 9.975 1.00 97.44 N

ATOM 809 CA LEU A 106 1.383 -3.429 9.679 1.00 97.44 C

ATOM 810 C LEU A 106 2.015 -4.586 8.912 1.00 97.44 C

ATOM 811 CB LEU A 106 0.222 -2.841 8.872 1.00 97.44 C

ATOM 812 O LEU A 106 1.396 -5.640 8.748 1.00 97.44 O

ATOM 813 CG LEU A 106 -0.747 -1.939 9.638 1.00 97.44 C

ATOM 814 CD1 LEU A 106 -1.693 -1.235 8.670 1.00 97.44 C

ATOM 815 CD2 LEU A 106 -1.530 -2.746 10.668 1.00 97.44 C

ATOM 816 N ILE A 107 3.252 -4.429 8.457 1.00 97.03 N

ATOM 817 CA ILE A 107 3.850 -5.397 7.543 1.00 97.03 C

ATOM 818 C ILE A 107 3.846 -6.783 8.185 1.00 97.03 C

ATOM 819 CB ILE A 107 5.289 -4.991 7.153 1.00 97.03 C

ATOM 820 O ILE A 107 3.693 -7.793 7.494 1.00 97.03 O

ATOM 821 CG1 ILE A 107 5.816 -5.900 6.037 1.00 97.03 C

ATOM 822 CG2 ILE A 107 6.212 -5.031 8.374 1.00 97.03 C

ATOM 823 CD1 ILE A 107 7.032 -5.344 5.308 1.00 97.03 C

ATOM 824 N ASP A 108 3.937 -6.912 9.519 1.00 95.44 N

ATOM 825 CA ASP A 108 3.969 -8.202 10.201 1.00 95.44 C

ATOM 826 C ASP A 108 2.558 -8.738 10.431 1.00 95.44 C

ATOM 827 CB ASP A 108 4.711 -8.085 11.534 1.00 95.44 C

ATOM 828 O ASP A 108 2.383 -9.897 10.812 1.00 95.44 O

ATOM 829 CG ASP A 108 6.212 -7.927 11.366 1.00 95.44 C

ATOM 830 OD1 ASP A 108 6.787 -8.523 10.430 1.00 95.44 O

ATOM 831 OD2 ASP A 108 6.826 -7.203 12.179 1.00 95.44 O

ATOM 832 N LYS A 109 1.566 -7.949 10.221 1.00 95.54 N

ATOM 833 CA LYS A 109 0.196 -8.326 10.557 1.00 95.54 C

ATOM 834 C LYS A 109 -0.601 -8.679 9.304 1.00 95.54 C

ATOM 835 CB LYS A 109 -0.500 -7.199 11.320 1.00 95.54 C

ATOM 836 O LYS A 109 -1.721 -9.184 9.396 1.00 95.54 O

ATOM 837 CG LYS A 109 0.119 -6.895 12.677 1.00 95.54 C

ATOM 838 CD LYS A 109 -0.646 -5.799 13.408 1.00 95.54 C

ATOM 839 CE LYS A 109 -0.046 -5.516 14.778 1.00 95.54 C

ATOM 840 NZ LYS A 109 -0.860 -4.526 15.545 1.00 95.54 N

ATOM 841 N VAL A 110 -0.010 -8.404 8.127 1.00 97.57 N

ATOM 842 CA VAL A 110 -0.777 -8.610 6.903 1.00 97.57 C

ATOM 843 C VAL A 110 -0.690 -10.074 6.478 1.00 97.57 C

ATOM 844 CB VAL A 110 -0.282 -7.693 5.762 1.00 97.57 C

ATOM 845 O VAL A 110 0.248 -10.781 6.854 1.00 97.57 O

ATOM 846 CG1 VAL A 110 -0.454 -6.222 6.139 1.00 97.57 C

ATOM 847 CG2 VAL A 110 1.178 -7.996 5.431 1.00 97.57 C

ATOM 848 N ASP A 111 -1.685 -10.524 5.687 1.00 97.25 N

ATOM 849 CA ASP A 111 -1.782 -11.896 5.199 1.00 97.25 C

ATOM 850 C ASP A 111 -1.050 -12.059 3.869 1.00 97.25 C

ATOM 851 CB ASP A 111 -3.247 -12.309 5.047 1.00 97.25 C

ATOM 852 O ASP A 111 -0.482 -13.118 3.593 1.00 97.25 O

ATOM 853 CG ASP A 111 -4.039 -12.172 6.335 1.00 97.25 C

ATOM 854 OD1 ASP A 111 -3.758 -12.907 7.306 1.00 97.25 O

ATOM 855 OD2 ASP A 111 -4.955 -11.322 6.379 1.00 97.25 O

ATOM 856 N THR A 112 -1.092 -10.980 3.016 1.00 98.02 N

ATOM 857 CA THR A 112 -0.552 -11.018 1.662 1.00 98.02 C

ATOM 858 C THR A 112 0.166 -9.713 1.328 1.00 98.02 C

ATOM 859 CB THR A 112 -1.662 -11.276 0.625 1.00 98.02 C

ATOM 860 O THR A 112 -0.301 -8.632 1.691 1.00 98.02 O

ATOM 861 CG2 THR A 112 -1.084 -11.390 -0.782 1.00 98.02 C

ATOM 862 OG1 THR A 112 -2.339 -12.495 0.952 1.00 98.02 O

ATOM 863 N LEU A 113 1.333 -9.879 0.678 1.00 98.41 N

ATOM 864 CA LEU A 113 2.058 -8.727 0.153 1.00 98.41 C

ATOM 865 C LEU A 113 2.018 -8.709 -1.372 1.00 98.41 C

ATOM 866 CB LEU A 113 3.510 -8.742 0.637 1.00 98.41 C

ATOM 867 O LEU A 113 2.335 -9.711 -2.017 1.00 98.41 O

ATOM 868 CG LEU A 113 3.721 -8.721 2.151 1.00 98.41 C

ATOM 869 CD1 LEU A 113 5.182 -8.999 2.488 1.00 98.41 C

ATOM 870 CD2 LEU A 113 3.278 -7.383 2.734 1.00 98.41 C

ATOM 871 N HIS A 114 1.543 -7.568 -1.926 1.00 98.44 N

ATOM 872 CA HIS A 114 1.704 -7.262 -3.343 1.00 98.44 C

ATOM 873 C HIS A 114 2.820 -6.247 -3.564 1.00 98.44 C

ATOM 874 CB HIS A 114 0.393 -6.737 -3.930 1.00 98.44 C

ATOM 875 O HIS A 114 2.659 -5.064 -3.256 1.00 98.44 O

ATOM 876 CG HIS A 114 -0.727 -7.727 -3.877 1.00 98.44 C

ATOM 877 CD2 HIS A 114 -1.609 -8.020 -2.892 1.00 98.44 C

ATOM 878 ND1 HIS A 114 -1.038 -8.556 -4.933 1.00 98.44 N

ATOM 879 CE1 HIS A 114 -2.066 -9.319 -4.598 1.00 98.44 C

ATOM 880 NE2 HIS A 114 -2.431 -9.013 -3.365 1.00 98.44 N

ATOM 881 N ILE A 115 3.942 -6.779 -4.150 1.00 98.41 N

ATOM 882 CA ILE A 115 5.125 -5.929 -4.230 1.00 98.41 C

ATOM 883 C ILE A 115 5.545 -5.763 -5.689 1.00 98.41 C

ATOM 884 CB ILE A 115 6.292 -6.506 -3.398 1.00 98.41 C

ATOM 885 O ILE A 115 5.766 -6.751 -6.393 1.00 98.41 O

ATOM 886 CG1 ILE A 115 5.861 -6.708 -1.941 1.00 98.41 C

ATOM 887 CG2 ILE A 115 7.519 -5.593 -3.484 1.00 98.41 C

ATOM 888 CD1 ILE A 115 5.435 -5.427 -1.238 1.00 98.41 C

ATOM 889 N SER A 116 5.578 -4.508 -6.106 1.00 98.35 N

ATOM 890 CA SER A 116 6.238 -4.155 -7.358 1.00 98.35 C

ATOM 891 C SER A 116 7.635 -3.595 -7.109 1.00 98.35 C

ATOM 892 CB SER A 116 5.403 -3.136 -8.136 1.00 98.35 C

ATOM 893 O SER A 116 7.790 -2.578 -6.429 1.00 98.35 O

ATOM 894 OG SER A 116 4.153 -3.690 -8.508 1.00 98.35 O

ATOM 895 N THR A 117 8.619 -4.313 -7.607 1.00 98.34 N

ATOM 896 CA THR A 117 9.981 -3.799 -7.511 1.00 98.34 C

ATOM 897 C THR A 117 10.373 -3.063 -8.789 1.00 98.34 C

ATOM 898 CB THR A 117 10.988 -4.932 -7.238 1.00 98.34 C

ATOM 899 O THR A 117 10.521 -3.680 -9.846 1.00 98.34 O

ATOM 900 CG2 THR A 117 12.397 -4.381 -7.044 1.00 98.34 C

ATOM 901 OG1 THR A 117 10.595 -5.638 -6.055 1.00 98.34 O

ATOM 902 N ILE A 118 10.541 -1.716 -8.654 1.00 98.37 N

ATOM 903 CA ILE A 118 10.869 -0.838 -9.772 1.00 98.37 C

ATOM 904 C ILE A 118 12.374 -0.869 -10.028 1.00 98.37 C

ATOM 905 CB ILE A 118 10.399 0.611 -9.510 1.00 98.37 C

ATOM 906 O ILE A 118 13.170 -0.631 -9.117 1.00 98.37 O

ATOM 907 CG1 ILE A 118 8.930 0.625 -9.073 1.00 98.37 C

ATOM 908 CG2 ILE A 118 10.610 1.480 -10.753 1.00 98.37 C

ATOM 909 CD1 ILE A 118 7.979 -0.011 -10.078 1.00 98.37 C

ATOM 910 N ASP A 119 12.816 -1.135 -11.221 1.00 98.13 N

ATOM 911 CA ASP A 119 14.222 -1.360 -11.540 1.00 98.13 C

ATOM 912 C ASP A 119 14.970 -0.037 -11.690 1.00 98.13 C

ATOM 913 CB ASP A 119 14.357 -2.188 -12.820 1.00 98.13 C

ATOM 914 O ASP A 119 15.434 0.299 -12.781 1.00 98.13 O

ATOM 915 CG ASP A 119 15.773 -2.681 -13.061 1.00 98.13 C

ATOM 916 OD1 ASP A 119 16.599 -2.645 -12.124 1.00 98.13 O

ATOM 917 OD2 ASP A 119 16.065 -3.107 -14.199 1.00 98.13 O

ATOM 918 N ILE A 120 15.023 0.712 -10.609 1.00 98.13 N

ATOM 919 CA ILE A 120 15.735 1.982 -10.509 1.00 98.13 C

ATOM 920 C ILE A 120 16.186 2.208 -9.067 1.00 98.13 C

ATOM 921 CB ILE A 120 14.858 3.160 -10.987 1.00 98.13 C

ATOM 922 O ILE A 120 15.745 1.504 -8.155 1.00 98.13 O

ATOM 923 CG1 ILE A 120 13.613 3.293 -10.102 1.00 98.13 C

ATOM 924 CG2 ILE A 120 14.468 2.982 -12.457 1.00 98.13 C

ATOM 925 CD1 ILE A 120 12.843 4.591 -10.307 1.00 98.13 C

ATOM 926 N GLU A 121 16.997 3.196 -8.804 1.00 98.11 N

ATOM 927 CA GLU A 121 17.484 3.604 -7.490 1.00 98.11 C

ATOM 928 C GLU A 121 17.414 5.119 -7.322 1.00 98.11 C

ATOM 929 CB GLU A 121 18.919 3.116 -7.273 1.00 98.11 C

ATOM 930 O GLU A 121 18.444 5.797 -7.319 1.00 98.11 O

ATOM 931 CG GLU A 121 19.059 1.601 -7.271 1.00 98.11 C

ATOM 932 CD GLU A 121 20.478 1.131 -6.993 1.00 98.11 C

ATOM 933 OE1 GLU A 121 20.675 -0.075 -6.719 1.00 98.11 O

ATOM 934 OE2 GLU A 121 21.400 1.975 -7.049 1.00 98.11 O

ATOM 935 N PRO A 122 16.304 5.705 -7.197 1.00 97.53 N

ATOM 936 CA PRO A 122 16.133 7.154 -7.070 1.00 97.53 C

ATOM 937 C PRO A 122 16.519 7.675 -5.687 1.00 97.53 C

ATOM 938 CB PRO A 122 14.639 7.357 -7.333 1.00 97.53 C

ATOM 939 O PRO A 122 16.669 6.890 -4.747 1.00 97.53 O

ATOM 940 CG PRO A 122 13.983 6.138 -6.770 1.00 97.53 C

ATOM 941 CD PRO A 122 14.861 4.952 -7.051 1.00 97.53 C

ATOM 942 N GLU A 123 16.707 8.964 -5.625 1.00 97.38 N

ATOM 943 CA GLU A 123 16.744 9.632 -4.328 1.00 97.38 C

ATOM 944 C GLU A 123 15.361 9.666 -3.685 1.00 97.38 C

ATOM 945 CB GLU A 123 17.293 11.054 -4.471 1.00 97.38 C

ATOM 946 O GLU A 123 14.352 9.817 -4.378 1.00 97.38 O

ATOM 947 CG GLU A 123 18.748 11.110 -4.915 1.00 97.38 C

ATOM 948 CD GLU A 123 19.311 12.522 -4.947 1.00 97.38 C

ATOM 949 OE1 GLU A 123 20.531 12.683 -5.176 1.00 97.38 O

ATOM 950 OE2 GLU A 123 18.526 13.474 -4.740 1.00 97.38 O

ATOM 951 N GLY A 124 15.416 9.501 -2.278 1.00 96.38 N

ATOM 952 CA GLY A 124 14.142 9.565 -1.580 1.00 96.38 C

ATOM 953 C GLY A 124 14.285 9.507 -0.071 1.00 96.38 C

ATOM 954 O GLY A 124 15.346 9.149 0.445 1.00 96.38 O

ATOM 955 N ASP A 125 13.072 9.842 0.591 1.00 95.96 N

ATOM 956 CA ASP A 125 13.164 9.924 2.045 1.00 95.96 C

ATOM 957 C ASP A 125 12.128 9.023 2.713 1.00 95.96 C

ATOM 958 CB ASP A 125 12.984 11.370 2.513 1.00 95.96 C

ATOM 959 O ASP A 125 12.013 9.004 3.941 1.00 95.96 O

ATOM 960 CG ASP A 125 11.680 11.988 2.040 1.00 95.96 C

ATOM 961 OD1 ASP A 125 10.919 11.320 1.308 1.00 95.96 O

ATOM 962 OD2 ASP A 125 11.413 13.155 2.401 1.00 95.96 O

ATOM 963 N VAL A 126 11.414 8.372 1.923 1.00 95.16 N

ATOM 964 CA VAL A 126 10.448 7.420 2.462 1.00 95.16 C

ATOM 965 C VAL A 126 10.808 6.007 2.010 1.00 95.16 C

ATOM 966 CB VAL A 126 9.006 7.768 2.027 1.00 95.16 C

ATOM 967 O VAL A 126 10.918 5.740 0.811 1.00 95.16 O

ATOM 968 CG1 VAL A 126 8.000 6.833 2.696 1.00 95.16 C

ATOM 969 CG2 VAL A 126 8.687 9.225 2.356 1.00 95.16 C

ATOM 970 N TYR A 127 10.869 5.090 2.977 1.00 96.91 N

ATOM 971 CA TYR A 127 11.355 3.750 2.668 1.00 96.91 C

ATOM 972 C TYR A 127 10.333 2.693 3.067 1.00 96.91 C

ATOM 973 CB TYR A 127 12.686 3.484 3.377 1.00 96.91 C

ATOM 974 O TYR A 127 9.613 2.859 4.055 1.00 96.91 O

ATOM 975 CG TYR A 127 13.805 4.393 2.930 1.00 96.91 C

ATOM 976 CD1 TYR A 127 14.701 3.994 1.941 1.00 96.91 C

ATOM 977 CD2 TYR A 127 13.969 5.653 3.496 1.00 96.91 C

ATOM 978 CE1 TYR A 127 15.735 4.828 1.528 1.00 96.91 C

ATOM 979 CE2 TYR A 127 14.998 6.496 3.090 1.00 96.91 C

ATOM 980 OH TYR A 127 16.896 6.905 1.701 1.00 96.91 O

ATOM 981 CZ TYR A 127 15.875 6.075 2.106 1.00 96.91 C

ATOM 982 N PHE A 128 10.377 1.670 2.285 1.00 97.51 N

ATOM 983 CA PHE A 128 9.588 0.487 2.610 1.00 97.51 C

ATOM 984 C PHE A 128 10.299 -0.368 3.652 1.00 97.51 C

ATOM 985 CB PHE A 128 9.312 -0.340 1.351 1.00 97.51 C

ATOM 986 O PHE A 128 11.521 -0.523 3.606 1.00 97.51 O

ATOM 987 CG PHE A 128 8.300 -1.435 1.553 1.00 97.51 C

ATOM 988 CD1 PHE A 128 8.706 -2.754 1.717 1.00 97.51 C

ATOM 989 CD2 PHE A 128 6.942 -1.145 1.579 1.00 97.51 C

ATOM 990 CE1 PHE A 128 7.771 -3.770 1.905 1.00 97.51 C

ATOM 991 CE2 PHE A 128 6.002 -2.155 1.766 1.00 97.51 C

ATOM 992 CZ PHE A 128 6.419 -3.467 1.928 1.00 97.51 C

ATOM 993 N PRO A 129 9.506 -0.896 4.639 1.00 97.05 N

ATOM 994 CA PRO A 129 10.135 -1.752 5.647 1.00 97.05 C

ATOM 995 C PRO A 129 10.613 -3.084 5.075 1.00 97.05 C

ATOM 996 CB PRO A 129 9.020 -1.966 6.674 1.00 97.05 C

ATOM 997 O PRO A 129 10.189 -3.480 3.985 1.00 97.05 O

ATOM 998 CG PRO A 129 7.754 -1.892 5.883 1.00 97.05 C

ATOM 999 CD PRO A 129 7.924 -0.859 4.806 1.00 97.05 C

ATOM 1000 N GLU A 130 11.544 -3.732 5.742 1.00 95.83 N

ATOM 1001 CA GLU A 130 12.018 -5.054 5.342 1.00 95.83 C

ATOM 1002 C GLU A 130 10.893 -6.083 5.395 1.00 95.83 C

ATOM 1003 CB GLU A 130 13.181 -5.500 6.231 1.00 95.83 C

ATOM 1004 O GLU A 130 10.096 -6.092 6.336 1.00 95.83 O

ATOM 1005 CG GLU A 130 13.859 -6.779 5.762 1.00 95.83 C

ATOM 1006 CD GLU A 130 15.014 -7.208 6.652 1.00 95.83 C

ATOM 1007 OE1 GLU A 130 15.638 -8.257 6.374 1.00 95.83 O

ATOM 1008 OE2 GLU A 130 15.298 -6.488 7.636 1.00 95.83 O

ATOM 1009 N ILE A 131 10.794 -6.880 4.333 1.00 96.67 N

ATOM 1010 CA ILE A 131 9.816 -7.963 4.306 1.00 96.67 C

ATOM 1011 C ILE A 131 10.241 -9.066 5.274 1.00 96.67 C

ATOM 1012 CB ILE A 131 9.647 -8.536 2.882 1.00 96.67 C

ATOM 1013 O ILE A 131 11.355 -9.587 5.181 1.00 96.67 O

ATOM 1014 CG1 ILE A 131 9.136 -7.451 1.927 1.00 96.67 C

ATOM 1015 CG2 ILE A 131 8.704 -9.743 2.894 1.00 96.67 C

ATOM 1016 CD1 ILE A 131 9.078 -7.886 0.469 1.00 96.67 C

ATOM 1017 N PRO A 132 9.381 -9.400 6.284 1.00 96.29 N

ATOM 1018 CA PRO A 132 9.691 -10.433 7.274 1.00 96.29 C

ATOM 1019 C PRO A 132 10.039 -11.777 6.636 1.00 96.29 C

ATOM 1020 CB PRO A 132 8.402 -10.535 8.093 1.00 96.29 C

ATOM 1021 O PRO A 132 9.497 -12.123 5.584 1.00 96.29 O

ATOM 1022 CG PRO A 132 7.726 -9.215 7.906 1.00 96.29 C

ATOM 1023 CD PRO A 132 8.013 -8.725 6.516 1.00 96.29 C

ATOM 1024 N SER A 133 10.889 -12.497 7.267 1.00 96.04 N

ATOM 1025 CA SER A 133 11.370 -13.778 6.761 1.00 96.04 C

ATOM 1026 C SER A 133 10.244 -14.805 6.694 1.00 96.04 C

ATOM 1027 CB SER A 133 12.504 -14.310 7.639 1.00 96.04 C

ATOM 1028 O SER A 133 10.366 -15.824 6.012 1.00 96.04 O

ATOM 1029 OG SER A 133 12.070 -14.470 8.978 1.00 96.04 O

ATOM 1030 N SER A 134 9.136 -14.537 7.444 1.00 95.80 N

ATOM 1031 CA SER A 134 7.980 -15.427 7.438 1.00 95.80 C

ATOM 1032 C SER A 134 7.265 -15.397 6.091 1.00 95.80 C

ATOM 1033 CB SER A 134 7.003 -15.044 8.551 1.00 95.80 C

ATOM 1034 O SER A 134 6.428 -16.256 5.807 1.00 95.80 O

ATOM 1035 OG SER A 134 6.581 -13.699 8.409 1.00 95.80 O

ATOM 1036 N PHE A 135 7.556 -14.509 5.216 1.00 97.61 N

ATOM 1037 CA PHE A 135 6.939 -14.382 3.901 1.00 97.61 C

ATOM 1038 C PHE A 135 7.792 -15.060 2.836 1.00 97.61 C

ATOM 1039 CB PHE A 135 6.728 -12.907 3.545 1.00 97.61 C

ATOM 1040 O PHE A 135 9.023 -15.025 2.903 1.00 97.61 O

ATOM 1041 CG PHE A 135 5.523 -12.290 4.203 1.00 97.61 C

ATOM 1042 CD1 PHE A 135 4.271 -12.370 3.606 1.00 97.61 C

ATOM 1043 CD2 PHE A 135 5.644 -11.629 5.418 1.00 97.61 C

ATOM 1044 CE1 PHE A 135 3.154 -11.800 4.213 1.00 97.61 C

ATOM 1045 CE2 PHE A 135 4.532 -11.056 6.030 1.00 97.61 C

ATOM 1046 CZ PHE A 135 3.289 -11.142 5.425 1.00 97.61 C

ATOM 1047 N ARG A 136 7.148 -15.638 1.909 1.00 97.05 N

ATOM 1048 CA ARG A 136 7.813 -16.196 0.736 1.00 97.05 C

ATOM 1049 C ARG A 136 7.057 -15.845 -0.541 1.00 97.05 C

ATOM 1050 CB ARG A 136 7.946 -17.715 0.865 1.00 97.05 C

ATOM 1051 O ARG A 136 5.826 -15.776 -0.541 1.00 97.05 O

ATOM 1052 CG ARG A 136 6.615 -18.448 0.910 1.00 97.05 C

ATOM 1053 CD ARG A 136 6.803 -19.950 1.077 1.00 97.05 C

ATOM 1054 NE ARG A 136 5.528 -20.660 1.042 1.00 97.05 N

ATOM 1055 NH1 ARG A 136 6.083 -22.161 2.708 1.00 97.05 N

ATOM 1056 NH2 ARG A 136 4.025 -22.267 1.704 1.00 97.05 N

ATOM 1057 CZ ARG A 136 5.215 -21.694 1.818 1.00 97.05 C

ATOM 1058 N PRO A 137 7.817 -15.596 -1.605 1.00 97.32 N

ATOM 1059 CA PRO A 137 7.138 -15.302 -2.869 1.00 97.32 C

ATOM 1060 C PRO A 137 6.419 -16.518 -3.448 1.00 97.32 C

ATOM 1061 CB PRO A 137 8.279 -14.854 -3.786 1.00 97.32 C

ATOM 1062 O PRO A 137 6.999 -17.604 -3.526 1.00 97.32 O

ATOM 1063 CG PRO A 137 9.498 -15.518 -3.232 1.00 97.32 C

ATOM 1064 CD PRO A 137 9.332 -15.656 -1.746 1.00 97.32 C

ATOM 1065 N VAL A 138 5.178 -16.416 -3.817 1.00 97.96 N

ATOM 1066 CA VAL A 138 4.402 -17.532 -4.348 1.00 97.96 C

ATOM 1067 C VAL A 138 4.043 -17.264 -5.808 1.00 97.96 C

ATOM 1068 CB VAL A 138 3.121 -17.778 -3.520 1.00 97.96 C

ATOM 1069 O VAL A 138 3.545 -18.152 -6.504 1.00 97.96 O

ATOM 1070 CG1 VAL A 138 3.472 -18.230 -2.103 1.00 97.96 C

ATOM 1071 CG2 VAL A 138 2.260 -16.517 -3.484 1.00 97.96 C

ATOM 1072 N PHE A 139 4.336 -16.012 -6.287 1.00 98.27 N

ATOM 1073 CA PHE A 139 4.105 -15.572 -7.657 1.00 98.27 C

ATOM 1074 C PHE A 139 5.068 -14.453 -8.036 1.00 98.27 C

ATOM 1075 CB PHE A 139 2.658 -15.102 -7.835 1.00 98.27 C

ATOM 1076 O PHE A 139 5.394 -13.600 -7.208 1.00 98.27 O

ATOM 1077 CG PHE A 139 2.362 -14.552 -9.205 1.00 98.27 C

ATOM 1078 CD1 PHE A 139 2.484 -13.192 -9.464 1.00 98.27 C

ATOM 1079 CD2 PHE A 139 1.962 -15.395 -10.233 1.00 98.27 C

ATOM 1080 CE1 PHE A 139 2.211 -12.680 -10.731 1.00 98.27 C

ATOM 1081 CE2 PHE A 139 1.688 -14.891 -11.501 1.00 98.27 C

ATOM 1082 CZ PHE A 139 1.812 -13.533 -11.747 1.00 98.27 C

ATOM 1083 N SER A 140 5.415 -14.512 -9.361 1.00 98.16 N

ATOM 1084 CA SER A 140 6.258 -13.442 -9.885 1.00 98.16 C

ATOM 1085 C SER A 140 6.017 -13.228 -11.376 1.00 98.16 C

ATOM 1086 CB SER A 140 7.735 -13.752 -9.638 1.00 98.16 C

ATOM 1087 O SER A 140 5.891 -14.192 -12.134 1.00 98.16 O

ATOM 1088 OG SER A 140 8.554 -12.688 -10.091 1.00 98.16 O

ATOM 1089 N GLN A 141 6.008 -12.024 -11.690 1.00 98.07 N

ATOM 1090 CA GLN A 141 5.881 -11.654 -13.096 1.00 98.07 C

ATOM 1091 C GLN A 141 6.714 -10.418 -13.418 1.00 98.07 C

ATOM 1092 CB GLN A 141 4.415 -11.407 -13.456 1.00 98.07 C

ATOM 1093 O GLN A 141 6.599 -9.392 -12.743 1.00 98.07 O

ATOM 1094 CG GLN A 141 4.185 -11.112 -14.932 1.00 98.07 C

ATOM 1095 CD GLN A 141 2.715 -11.103 -15.306 1.00 98.07 C

ATOM 1096 NE2 GLN A 141 2.434 -11.093 -16.605 1.00 98.07 N

ATOM 1097 OE1 GLN A 141 1.838 -11.105 -14.436 1.00 98.07 O

ATOM 1098 N ASP A 142 7.437 -10.553 -14.557 1.00 98.31 N

ATOM 1099 CA ASP A 142 8.271 -9.435 -14.987 1.00 98.31 C

ATOM 1100 C ASP A 142 7.579 -8.621 -16.078 1.00 98.31 C

ATOM 1101 CB ASP A 142 9.627 -9.938 -15.485 1.00 98.31 C

ATOM 1102 O ASP A 142 6.911 -9.183 -16.949 1.00 98.31 O

ATOM 1103 CG ASP A 142 10.476 -10.545 -14.382 1.00 98.31 C

ATOM 1104 OD1 ASP A 142 10.335 -10.137 -13.209 1.00 98.31 O

ATOM 1105 OD2 ASP A 142 11.295 -11.438 -14.689 1.00 98.31 O

ATOM 1106 N PHE A 143 7.777 -7.296 -16.025 1.00 98.09 N

ATOM 1107 CA PHE A 143 7.199 -6.383 -17.004 1.00 98.09 C

ATOM 1108 C PHE A 143 8.283 -5.537 -17.661 1.00 98.09 C

ATOM 1109 CB PHE A 143 6.155 -5.477 -16.344 1.00 98.09 C

ATOM 1110 O PHE A 143 9.106 -4.929 -16.974 1.00 98.09 O

ATOM 1111 CG PHE A 143 4.954 -6.217 -15.820 1.00 98.09 C

ATOM 1112 CD1 PHE A 143 3.798 -6.324 -16.583 1.00 98.09 C

ATOM 1113 CD2 PHE A 143 4.981 -6.806 -14.563 1.00 98.09 C

ATOM 1114 CE1 PHE A 143 2.685 -7.008 -16.101 1.00 98.09 C

ATOM 1115 CE2 PHE A 143 3.872 -7.491 -14.073 1.00 98.09 C

ATOM 1116 CZ PHE A 143 2.725 -7.590 -14.844 1.00 98.09 C

ATOM 1117 N VAL A 144 8.333 -5.637 -18.986 1.00 97.96 N

ATOM 1118 CA VAL A 144 9.184 -4.727 -19.746 1.00 97.96 C

ATOM 1119 C VAL A 144 8.417 -3.444 -20.060 1.00 97.96 C

ATOM 1120 CB VAL A 144 9.689 -5.379 -21.052 1.00 97.96 C

ATOM 1121 O VAL A 144 7.345 -3.487 -20.667 1.00 97.96 O

ATOM 1122 CG1 VAL A 144 10.551 -4.400 -21.846 1.00 97.96 C

ATOM 1123 CG2 VAL A 144 10.471 -6.655 -20.743 1.00 97.96 C

ATOM 1124 N SER A 145 8.857 -2.252 -19.685 1.00 96.13 N

ATOM 1125 CA SER A 145 8.266 -0.927 -19.839 1.00 96.13 C

ATOM 1126 C SER A 145 9.342 0.146 -19.969 1.00 96.13 C

ATOM 1127 CB SER A 145 7.354 -0.605 -18.655 1.00 96.13 C

ATOM 1128 O SER A 145 10.491 -0.156 -20.298 1.00 96.13 O

ATOM 1129 OG SER A 145 6.789 0.688 -18.792 1.00 96.13 O

ATOM 1130 N ASN A 146 8.934 1.417 -19.886 1.00 97.55 N

ATOM 1131 CA ASN A 146 9.922 2.490 -19.883 1.00 97.55 C

ATOM 1132 C ASN A 146 10.866 2.380 -18.689 1.00 97.55 C

ATOM 1133 CB ASN A 146 9.232 3.856 -19.890 1.00 97.55 C

ATOM 1134 O ASN A 146 12.016 2.815 -18.759 1.00 97.55 O

ATOM 1135 CG ASN A 146 8.307 4.049 -18.705 1.00 97.55 C

ATOM 1136 ND2 ASN A 146 8.474 5.159 -17.996 1.00 97.55 N

ATOM 1137 OD1 ASN A 146 7.449 3.206 -18.427 1.00 97.55 O

ATOM 1138 N ILE A 147 10.395 1.855 -17.558 1.00 97.79 N

ATOM 1139 CA ILE A 147 11.139 1.374 -16.399 1.00 97.79 C

ATOM 1140 C ILE A 147 10.677 -0.037 -16.039 1.00 97.79 C

ATOM 1141 CB ILE A 147 10.970 2.318 -15.187 1.00 97.79 C

ATOM 1142 O ILE A 147 9.511 -0.246 -15.694 1.00 97.79 O

ATOM 1143 CG1 ILE A 147 11.349 3.752 -15.572 1.00 97.79 C

ATOM 1144 CG2 ILE A 147 11.808 1.829 -14.002 1.00 97.79 C

ATOM 1145 CD1 ILE A 147 11.050 4.782 -14.491 1.00 97.79 C

ATOM 1146 N ASN A 148 11.567 -0.991 -16.248 1.00 98.30 N

ATOM 1147 CA ASN A 148 11.204 -2.371 -15.943 1.00 98.30 C

ATOM 1148 C ASN A 148 10.829 -2.540 -14.474 1.00 98.30 C

ATOM 1149 CB ASN A 148 12.346 -3.320 -16.312 1.00 98.30 C

ATOM 1150 O ASN A 148 11.337 -1.822 -13.612 1.00 98.30 O

ATOM 1151 CG ASN A 148 12.651 -3.318 -17.797 1.00 98.30 C

ATOM 1152 ND2 ASN A 148 13.838 -3.790 -18.160 1.00 98.30 N

ATOM 1153 OD1 ASN A 148 11.826 -2.895 -18.612 1.00 98.30 O

ATOM 1154 N TYR A 149 9.923 -3.398 -14.233 1.00 98.54 N

ATOM 1155 CA TYR A 149 9.595 -3.733 -12.852 1.00 98.54 C

ATOM 1156 C TYR A 149 9.116 -5.175 -12.740 1.00 98.54 C

ATOM 1157 CB TYR A 149 8.524 -2.783 -12.308 1.00 98.54 C

ATOM 1158 O TYR A 149 8.740 -5.791 -13.740 1.00 98.54 O

ATOM 1159 CG TYR A 149 7.240 -2.797 -13.102 1.00 98.54 C

ATOM 1160 CD1 TYR A 149 7.087 -1.993 -14.229 1.00 98.54 C

ATOM 1161 CD2 TYR A 149 6.178 -3.613 -12.726 1.00 98.54 C

ATOM 1162 CE1 TYR A 149 5.905 -2.001 -14.963 1.00 98.54 C

ATOM 1163 CE2 TYR A 149 4.992 -3.629 -13.453 1.00 98.54 C

ATOM 1164 OH TYR A 149 3.693 -2.833 -15.291 1.00 98.54 O

ATOM 1165 CZ TYR A 149 4.865 -2.821 -14.568 1.00 98.54 C

ATOM 1166 N SER A 150 9.228 -5.781 -11.551 1.00 98.43 N

ATOM 1167 CA SER A 150 8.778 -7.125 -11.202 1.00 98.43 C

ATOM 1168 C SER A 150 7.667 -7.082 -10.159 1.00 98.43 C

ATOM 1169 CB SER A 150 9.946 -7.963 -10.681 1.00 98.43 C

ATOM 1170 O SER A 150 7.817 -6.453 -9.109 1.00 98.43 O

ATOM 1171 OG SER A 150 9.519 -9.276 -10.360 1.00 98.43 O

ATOM 1172 N TYR A 151 6.590 -7.676 -10.556 1.00 98.50 N

ATOM 1173 CA TYR A 151 5.488 -7.809 -9.611 1.00 98.50 C

ATOM 1174 C TYR A 151 5.527 -9.165 -8.915 1.00 98.50 C

ATOM 1175 CB TYR A 151 4.144 -7.627 -10.322 1.00 98.50 C

ATOM 1176 O TYR A 151 5.593 -10.206 -9.573 1.00 98.50 O

ATOM 1177 CG TYR A 151 2.949 -7.895 -9.440 1.00 98.50 C

ATOM 1178 CD1 TYR A 151 2.099 -8.969 -9.692 1.00 98.50 C

ATOM 1179 CD2 TYR A 151 2.666 -7.074 -8.353 1.00 98.50 C

ATOM 1180 CE1 TYR A 151 0.995 -9.219 -8.883 1.00 98.50 C

ATOM 1181 CE2 TYR A 151 1.565 -7.314 -7.537 1.00 98.50 C

ATOM 1182 OH TYR A 151 -0.354 -8.630 -7.006 1.00 98.50 O

ATOM 1183 CZ TYR A 151 0.737 -8.388 -7.810 1.00 98.50 C

ATOM 1184 N GLN A 152 5.440 -9.140 -7.572 1.00 98.47 N

ATOM 1185 CA GLN A 152 5.471 -10.367 -6.783 1.00 98.47 C

ATOM 1186 C GLN A 152 4.327 -10.400 -5.773 1.00 98.47 C

ATOM 1187 CB GLN A 152 6.812 -10.508 -6.061 1.00 98.47 C

ATOM 1188 O GLN A 152 3.921 -9.358 -5.253 1.00 98.47 O

ATOM 1189 CG GLN A 152 8.005 -10.628 -7.000 1.00 98.47 C

ATOM 1190 CD GLN A 152 9.333 -10.612 -6.266 1.00 98.47 C

ATOM 1191 NE2 GLN A 152 10.085 -11.702 -6.377 1.00 98.47 N

ATOM 1192 OE1 GLN A 152 9.681 -9.628 -5.606 1.00 98.47 O

ATOM 1193 N ILE A 153 3.779 -11.662 -5.526 1.00 98.47 N

ATOM 1194 CA ILE A 153 2.885 -11.936 -4.407 1.00 98.47 C

ATOM 1195 C ILE A 153 3.608 -12.787 -3.366 1.00 98.47 C

ATOM 1196 CB ILE A 153 1.593 -12.643 -4.874 1.00 98.47 C

ATOM 1197 O ILE A 153 4.193 -13.821 -3.698 1.00 98.47 O

ATOM 1198 CG1 ILE A 153 0.857 -11.782 -5.908 1.00 98.47 C

ATOM 1199 CG2 ILE A 153 0.688 -12.959 -3.680 1.00 98.47 C

ATOM 1200 CD1 ILE A 153 -0.342 -12.470 -6.546 1.00 98.47 C

ATOM 1201 N TRP A 154 3.565 -12.216 -2.119 1.00 98.31 N

ATOM 1202 CA TRP A 154 4.193 -12.914 -1.003 1.00 98.31 C

ATOM 1203 C TRP A 154 3.147 -13.394 -0.003 1.00 98.31 C

ATOM 1204 CB TRP A 154 5.208 -12.006 -0.303 1.00 98.31 C

ATOM 1205 O TRP A 154 2.166 -12.695 0.262 1.00 98.31 O

ATOM 1206 CG TRP A 154 6.306 -11.516 -1.199 1.00 98.31 C

ATOM 1207 CD1 TRP A 154 6.195 -10.614 -2.221 1.00 98.31 C

ATOM 1208 CD2 TRP A 154 7.682 -11.905 -1.155 1.00 98.31 C

ATOM 1209 CE2 TRP A 154 8.350 -11.199 -2.180 1.00 98.31 C

ATOM 1210 CE3 TRP A 154 8.417 -12.784 -0.347 1.00 98.31 C

ATOM 1211 NE1 TRP A 154 7.421 -10.419 -2.815 1.00 98.31 N

ATOM 1212 CH2 TRP A 154 10.413 -12.210 -1.613 1.00 98.31 C

ATOM 1213 CZ2 TRP A 154 9.718 -11.345 -2.418 1.00 98.31 C

ATOM 1214 CZ3 TRP A 154 9.779 -12.927 -0.586 1.00 98.31 C

ATOM 1215 N GLN A 155 3.294 -14.612 0.556 1.00 96.11 N

ATOM 1216 CA GLN A 155 2.400 -15.162 1.569 1.00 96.11 C

ATOM 1217 C GLN A 155 3.185 -15.699 2.763 1.00 96.11 C

ATOM 1218 CB GLN A 155 1.528 -16.269 0.973 1.00 96.11 C

ATOM 1219 O GLN A 155 4.333 -16.122 2.617 1.00 96.11 O

ATOM 1220 CG GLN A 155 0.519 -15.772 -0.053 1.00 96.11 C

ATOM 1221 CD GLN A 155 -0.412 -16.867 -0.539 1.00 96.11 C

ATOM 1222 NE2 GLN A 155 -1.565 -16.473 -1.068 1.00 96.11 N

ATOM 1223 OE1 GLN A 155 -0.096 -18.057 -0.440 1.00 96.11 O

ATOM 1224 N LYS A 156 2.512 -15.618 3.908 1.00 91.96 N

ATOM 1225 CA LYS A 156 3.128 -16.198 5.098 1.00 91.96 C

ATOM 1226 C LYS A 156 3.305 -17.706 4.945 1.00 91.96 C

ATOM 1227 CB LYS A 156 2.290 -15.892 6.340 1.00 91.96 C

ATOM 1228 O LYS A 156 2.417 -18.392 4.435 1.00 91.96 O

ATOM 1229 CG LYS A 156 2.362 -14.441 6.794 1.00 91.96 C

ATOM 1230 CD LYS A 156 1.573 -14.217 8.077 1.00 91.96 C

ATOM 1231 CE LYS A 156 1.626 -12.761 8.520 1.00 91.96 C

ATOM 1232 NZ LYS A 156 0.819 -12.528 9.754 1.00 91.96 N

ATOM 1233 N GLY A 157 4.486 -18.309 5.021 1.00 79.73 N

ATOM 1234 CA GLY A 157 4.800 -19.729 4.990 1.00 79.73 C

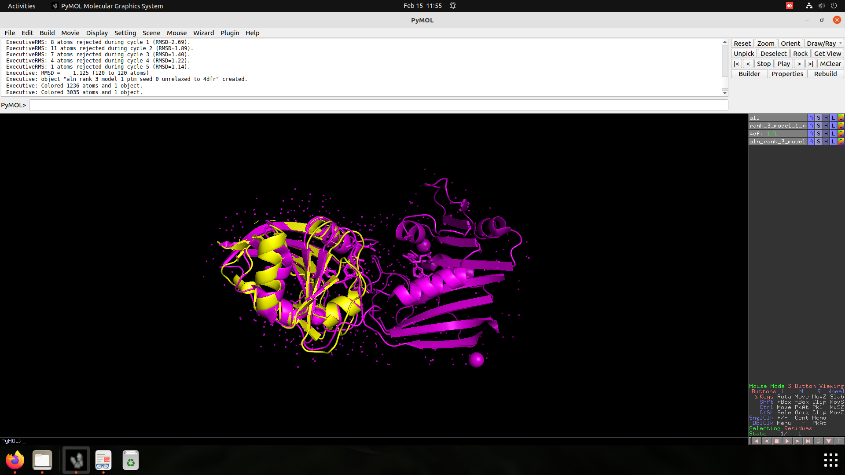
ATOM 1235 C GLY A 157 4.241 -20.490 6.177 1.00 79.73 C

ATOM 1236 O GLY A 157 3.821 -19.886 7.166 1.00 79.73 O

TER 1237 GLY A 157

ENDMDL

END



**RMSD = 1.125**

MODEL 2 – RANK4 :



MODEL 1

ATOM 1 N MET A 1 -3.803 -3.431 18.092 1.00 94.33 N

ATOM 2 CA MET A 1 -3.889 -3.756 16.671 1.00 94.33 C

ATOM 3 C MET A 1 -2.705 -3.173 15.907 1.00 94.33 C

ATOM 4 CB MET A 1 -5.201 -3.237 16.079 1.00 94.33 C

ATOM 5 O MET A 1 -2.429 -1.975 16.001 1.00 94.33 O

ATOM 6 CG MET A 1 -5.375 -3.555 14.603 1.00 94.33 C

ATOM 7 SD MET A 1 -6.905 -2.824 13.902 1.00 94.33 S

ATOM 8 CE MET A 1 -6.421 -1.077 13.830 1.00 94.33 C

ATOM 9 N LYS A 2 -1.931 -4.009 15.221 1.00 96.30 N

ATOM 10 CA LYS A 2 -0.805 -3.588 14.392 1.00 96.30 C

ATOM 11 C LYS A 2 -1.286 -3.003 13.067 1.00 96.30 C

ATOM 12 CB LYS A 2 0.140 -4.763 14.134 1.00 96.30 C

ATOM 13 O LYS A 2 -2.148 -3.583 12.403 1.00 96.30 O

ATOM 14 CG LYS A 2 1.376 -4.397 13.326 1.00 96.30 C

ATOM 15 CD LYS A 2 2.301 -5.594 13.147 1.00 96.30 C

ATOM 16 CE LYS A 2 3.531 -5.233 12.324 1.00 96.30 C

ATOM 17 NZ LYS A 2 4.446 -6.401 12.154 1.00 96.30 N

ATOM 18 N LEU A 3 -0.712 -1.795 12.746 1.00 97.69 N

ATOM 19 CA LEU A 3 -1.045 -1.149 11.482 1.00 97.69 C

ATOM 20 C LEU A 3 0.182 -1.049 10.582 1.00 97.69 C

ATOM 21 CB LEU A 3 -1.626 0.246 11.730 1.00 97.69 C

ATOM 22 O LEU A 3 1.188 -0.446 10.961 1.00 97.69 O

ATOM 23 CG LEU A 3 -2.338 0.904 10.547 1.00 97.69 C

ATOM 24 CD1 LEU A 3 -3.514 0.047 10.093 1.00 97.69 C

ATOM 25 CD2 LEU A 3 -2.804 2.308 10.917 1.00 97.69 C

ATOM 26 N SER A 4 0.067 -1.719 9.427 1.00 98.16 N

ATOM 27 CA SER A 4 1.107 -1.659 8.406 1.00 98.16 C

ATOM 28 C SER A 4 0.601 -0.974 7.140 1.00 98.16 C

ATOM 29 CB SER A 4 1.611 -3.063 8.069 1.00 98.16 C

ATOM 30 O SER A 4 -0.606 -0.918 6.900 1.00 98.16 O

ATOM 31 OG SER A 4 2.155 -3.691 9.217 1.00 98.16 O

ATOM 32 N LEU A 5 1.557 -0.356 6.469 1.00 98.47 N

ATOM 33 CA LEU A 5 1.260 0.288 5.194 1.00 98.47 C

ATOM 34 C LEU A 5 2.133 -0.283 4.081 1.00 98.47 C

ATOM 35 CB LEU A 5 1.467 1.801 5.296 1.00 98.47 C

ATOM 36 O LEU A 5 3.349 -0.408 4.243 1.00 98.47 O

ATOM 37 CG LEU A 5 1.051 2.626 4.077 1.00 98.47 C

ATOM 38 CD1 LEU A 5 0.654 4.036 4.502 1.00 98.47 C

ATOM 39 CD2 LEU A 5 2.177 2.669 3.050 1.00 98.47 C

ATOM 40 N MET A 6 1.429 -0.660 3.024 1.00 97.89 N

ATOM 41 CA MET A 6 2.174 -1.193 1.887 1.00 97.89 C

ATOM 42 C MET A 6 1.904 -0.377 0.628 1.00 97.89 C

ATOM 43 CB MET A 6 1.814 -2.660 1.647 1.00 97.89 C

ATOM 44 O MET A 6 0.750 -0.082 0.310 1.00 97.89 O

ATOM 45 CG MET A 6 2.591 -3.305 0.511 1.00 97.89 C

ATOM 46 SD MET A 6 2.359 -5.124 0.444 1.00 97.89 S

ATOM 47 CE MET A 6 3.413 -5.528 -0.977 1.00 97.89 C

ATOM 48 N ALA A 7 3.011 -0.021 -0.104 1.00 97.59 N

ATOM 49 CA ALA A 7 2.865 0.762 -1.328 1.00 97.59 C

ATOM 50 C ALA A 7 4.006 0.476 -2.301 1.00 97.59 C

ATOM 51 CB ALA A 7 2.809 2.253 -1.003 1.00 97.59 C

ATOM 52 O ALA A 7 5.122 0.158 -1.883 1.00 97.59 O

ATOM 53 N ALA A 8 3.687 0.483 -3.611 1.00 97.24 N

ATOM 54 CA ALA A 8 4.678 0.578 -4.680 1.00 97.24 C

ATOM 55 C ALA A 8 4.767 2.003 -5.219 1.00 97.24 C

ATOM 56 CB ALA A 8 4.339 -0.394 -5.807 1.00 97.24 C

ATOM 57 O ALA A 8 3.756 2.586 -5.621 1.00 97.24 O

ATOM 58 N ILE A 9 6.044 2.512 -5.179 1.00 97.87 N

ATOM 59 CA ILE A 9 6.288 3.908 -5.524 1.00 97.87 C

ATOM 60 C ILE A 9 7.310 3.989 -6.656 1.00 97.87 C

ATOM 61 CB ILE A 9 6.778 4.715 -4.301 1.00 97.87 C

ATOM 62 O ILE A 9 8.346 3.321 -6.615 1.00 97.87 O

ATOM 63 CG1 ILE A 9 5.872 4.456 -3.092 1.00 97.87 C

ATOM 64 CG2 ILE A 9 6.839 6.210 -4.630 1.00 97.87 C

ATOM 65 CD1 ILE A 9 6.438 4.965 -1.774 1.00 97.87 C

ATOM 66 N SER A 10 6.878 4.771 -7.682 1.00 98.14 N

ATOM 67 CA SER A 10 7.880 5.003 -8.716 1.00 98.14 C

ATOM 68 C SER A 10 9.008 5.893 -8.203 1.00 98.14 C

ATOM 69 CB SER A 10 7.240 5.639 -9.951 1.00 98.14 C

ATOM 70 O SER A 10 8.893 6.494 -7.133 1.00 98.14 O

ATOM 71 OG SER A 10 6.882 6.986 -9.695 1.00 98.14 O

ATOM 72 N LYS A 11 10.083 6.054 -8.995 1.00 97.21 N

ATOM 73 CA LYS A 11 11.251 6.844 -8.618 1.00 97.21 C

ATOM 74 C LYS A 11 10.877 8.308 -8.401 1.00 97.21 C

ATOM 75 CB LYS A 11 12.341 6.734 -9.686 1.00 97.21 C

ATOM 76 O LYS A 11 11.479 8.991 -7.569 1.00 97.21 O

ATOM 77 CG LYS A 11 13.719 7.170 -9.210 1.00 97.21 C

ATOM 78 CD LYS A 11 14.780 6.930 -10.277 1.00 97.21 C

ATOM 79 CE LYS A 11 16.146 7.434 -9.831 1.00 97.21 C

ATOM 80 NZ LYS A 11 17.209 7.107 -10.827 1.00 97.21 N

ATOM 81 N ASN A 12 9.876 8.703 -9.169 1.00 97.61 N

ATOM 82 CA ASN A 12 9.487 10.105 -9.056 1.00 97.61 C

ATOM 83 C ASN A 12 8.282 10.279 -8.136 1.00 97.61 C

ATOM 84 CB ASN A 12 9.191 10.693 -10.437 1.00 97.61 C

ATOM 85 O ASN A 12 7.633 11.327 -8.148 1.00 97.61 O

ATOM 86 CG ASN A 12 8.051 9.984 -11.142 1.00 97.61 C

ATOM 87 ND2 ASN A 12 7.427 10.666 -12.094 1.00 97.61 N

ATOM 88 OD1 ASN A 12 7.735 8.832 -10.833 1.00 97.61 O

ATOM 89 N GLY A 13 7.926 9.226 -7.338 1.00 97.31 N

ATOM 90 CA GLY A 13 6.938 9.357 -6.279 1.00 97.31 C

ATOM 91 C GLY A 13 5.526 9.049 -6.739 1.00 97.31 C

ATOM 92 O GLY A 13 4.582 9.113 -5.948 1.00 97.31 O

ATOM 93 N VAL A 14 5.342 8.681 -7.986 1.00 97.73 N

ATOM 94 CA VAL A 14 4.024 8.417 -8.554 1.00 97.73 C

ATOM 95 C VAL A 14 3.542 7.035 -8.119 1.00 97.73 C

ATOM 96 CB VAL A 14 4.041 8.515 -10.096 1.00 97.73 C

ATOM 97 O VAL A 14 4.312 6.071 -8.125 1.00 97.73 O

ATOM 98 CG1 VAL A 14 2.755 7.940 -10.687 1.00 97.73 C

ATOM 99 CG2 VAL A 14 4.233 9.966 -10.535 1.00 97.73 C

ATOM 100 N ILE A 15 2.211 6.936 -7.790 1.00 96.51 N

ATOM 101 CA ILE A 15 1.654 5.634 -7.437 1.00 96.51 C

ATOM 102 C ILE A 15 0.409 5.361 -8.279 1.00 96.51 C

ATOM 103 CB ILE A 15 1.312 5.555 -5.933 1.00 96.51 C

ATOM 104 O ILE A 15 -0.166 4.272 -8.212 1.00 96.51 O

ATOM 105 CG1 ILE A 15 0.269 6.618 -5.565 1.00 96.51 C

ATOM 106 CG2 ILE A 15 2.576 5.711 -5.083 1.00 96.51 C

ATOM 107 CD1 ILE A 15 -0.303 6.465 -4.163 1.00 96.51 C

ATOM 108 N GLY A 16 0.033 6.302 -9.027 1.00 94.96 N

ATOM 109 CA GLY A 16 -1.162 6.096 -9.830 1.00 94.96 C

ATOM 110 C GLY A 16 -1.360 7.163 -10.890 1.00 94.96 C

ATOM 111 O GLY A 16 -0.816 8.264 -10.780 1.00 94.96 O

ATOM 112 N ASN A 17 -2.028 6.887 -11.927 1.00 93.80 N

ATOM 113 CA ASN A 17 -2.537 7.723 -13.009 1.00 93.80 C

ATOM 114 C ASN A 17 -4.001 7.417 -13.312 1.00 93.80 C

ATOM 115 CB ASN A 17 -1.686 7.547 -14.269 1.00 93.80 C

ATOM 116 O ASN A 17 -4.304 6.488 -14.063 1.00 93.80 O

ATOM 117 CG ASN A 17 -2.046 8.537 -15.359 1.00 93.80 C

ATOM 118 ND2 ASN A 17 -1.672 8.221 -16.594 1.00 93.80 N

ATOM 119 OD1 ASN A 17 -2.655 9.577 -15.095 1.00 93.80 O

ATOM 120 N GLY A 18 -4.903 8.305 -12.803 1.00 89.00 N

ATOM 121 CA GLY A 18 -6.304 7.920 -12.833 1.00 89.00 C

ATOM 122 C GLY A 18 -6.586 6.634 -12.080 1.00 89.00 C

ATOM 123 O GLY A 18 -6.186 6.485 -10.923 1.00 89.00 O

ATOM 124 N PRO A 19 -7.276 5.650 -12.765 1.00 84.01 N

ATOM 125 CA PRO A 19 -7.601 4.396 -12.080 1.00 84.01 C

ATOM 126 C PRO A 19 -6.497 3.349 -12.211 1.00 84.01 C

ATOM 127 CB PRO A 19 -8.879 3.932 -12.782 1.00 84.01 C

ATOM 128 O PRO A 19 -6.582 2.278 -11.606 1.00 84.01 O

ATOM 129 CG PRO A 19 -8.784 4.498 -14.162 1.00 84.01 C

ATOM 130 CD PRO A 19 -8.081 5.822 -14.087 1.00 84.01 C

ATOM 131 N ASP A 20 -5.384 3.796 -12.886 1.00 89.42 N

ATOM 132 CA ASP A 20 -4.425 2.762 -13.262 1.00 89.42 C

ATOM 133 C ASP A 20 -3.107 2.937 -12.511 1.00 89.42 C

ATOM 134 CB ASP A 20 -4.177 2.782 -14.772 1.00 89.42 C

ATOM 135 O ASP A 20 -2.766 4.046 -12.094 1.00 89.42 O

ATOM 136 CG ASP A 20 -5.426 2.484 -15.582 1.00 89.42 C

ATOM 137 OD1 ASP A 20 -6.175 1.549 -15.226 1.00 89.42 O

ATOM 138 OD2 ASP A 20 -5.662 3.189 -16.587 1.00 89.42 O

ATOM 139 N ILE A 21 -2.404 1.817 -12.380 1.00 92.46 N

ATOM 140 CA ILE A 21 -0.987 1.796 -12.037 1.00 92.46 C

ATOM 141 C ILE A 21 -0.146 1.878 -13.309 1.00 92.46 C

ATOM 142 CB ILE A 21 -0.619 0.529 -11.232 1.00 92.46 C

ATOM 143 O ILE A 21 -0.248 1.015 -14.184 1.00 92.46 O

ATOM 144 CG1 ILE A 21 -1.446 0.457 -9.943 1.00 92.46 C

ATOM 145 CG2 ILE A 21 0.881 0.502 -10.922 1.00 92.46 C

ATOM 146 CD1 ILE A 21 -1.284 -0.849 -9.176 1.00 92.46 C

ATOM 147 N PRO A 22 0.678 2.944 -13.500 1.00 94.36 N

ATOM 148 CA PRO A 22 1.315 3.292 -14.772 1.00 94.36 C

ATOM 149 C PRO A 22 2.512 2.400 -15.096 1.00 94.36 C

ATOM 150 CB PRO A 22 1.756 4.742 -14.561 1.00 94.36 C

ATOM 151 O PRO A 22 3.264 2.685 -16.032 1.00 94.36 O

ATOM 152 CG PRO A 22 1.960 4.869 -13.086 1.00 94.36 C

ATOM 153 CD PRO A 22 0.996 3.950 -12.391 1.00 94.36 C

ATOM 154 N TRP A 23 2.694 1.328 -14.349 1.00 95.78 N

ATOM 155 CA TRP A 23 3.790 0.412 -14.644 1.00 95.78 C

ATOM 156 C TRP A 23 3.379 -1.032 -14.379 1.00 95.78 C

ATOM 157 CB TRP A 23 5.026 0.765 -13.812 1.00 95.78 C

ATOM 158 O TRP A 23 2.309 -1.287 -13.822 1.00 95.78 O

ATOM 159 CG TRP A 23 4.809 0.675 -12.331 1.00 95.78 C

ATOM 160 CD1 TRP A 23 4.908 -0.443 -11.551 1.00 95.78 C

ATOM 161 CD2 TRP A 23 4.452 1.748 -11.454 1.00 95.78 C

ATOM 162 CE2 TRP A 23 4.351 1.207 -10.153 1.00 95.78 C

ATOM 163 CE3 TRP A 23 4.208 3.115 -11.642 1.00 95.78 C

ATOM 164 NE1 TRP A 23 4.633 -0.129 -10.239 1.00 95.78 N

ATOM 165 CH2 TRP A 23 3.783 3.322 -9.255 1.00 95.78 C

ATOM 166 CZ2 TRP A 23 4.016 1.988 -9.044 1.00 95.78 C

ATOM 167 CZ3 TRP A 23 3.875 3.890 -10.537 1.00 95.78 C

ATOM 168 N SER A 24 4.215 -1.945 -14.897 1.00 96.05 N

ATOM 169 CA SER A 24 4.121 -3.373 -14.613 1.00 96.05 C

ATOM 170 C SER A 24 5.494 -3.969 -14.317 1.00 96.05 C

ATOM 171 CB SER A 24 3.477 -4.113 -15.786 1.00 96.05 C

ATOM 172 O SER A 24 6.249 -4.289 -15.237 1.00 96.05 O

ATOM 173 OG SER A 24 3.315 -5.488 -15.485 1.00 96.05 O

ATOM 174 N ALA A 25 5.798 -4.043 -13.074 1.00 96.80 N

ATOM 175 CA ALA A 25 7.061 -4.632 -12.638 1.00 96.80 C

ATOM 176 C ALA A 25 6.876 -6.093 -12.239 1.00 96.80 C

ATOM 177 CB ALA A 25 7.646 -3.836 -11.474 1.00 96.80 C

ATOM 178 O ALA A 25 6.234 -6.391 -11.229 1.00 96.80 O

ATOM 179 N LYS A 26 7.526 -6.959 -13.004 1.00 96.43 N

ATOM 180 CA LYS A 26 7.376 -8.395 -12.786 1.00 96.43 C

ATOM 181 C LYS A 26 7.926 -8.805 -11.422 1.00 96.43 C

ATOM 182 CB LYS A 26 8.080 -9.182 -13.892 1.00 96.43 C

ATOM 183 O LYS A 26 9.024 -8.394 -11.041 1.00 96.43 O

ATOM 184 CG LYS A 26 7.803 -10.678 -13.860 1.00 96.43 C

ATOM 185 CD LYS A 26 8.466 -11.395 -15.030 1.00 96.43 C

ATOM 186 CE LYS A 26 8.251 -12.900 -14.959 1.00 96.43 C

ATOM 187 NZ LYS A 26 8.866 -13.604 -16.124 1.00 96.43 N

ATOM 188 N GLY A 27 7.112 -9.521 -10.636 1.00 96.26 N

ATOM 189 CA GLY A 27 7.552 -10.056 -9.358 1.00 96.26 C

ATOM 190 C GLY A 27 7.091 -9.227 -8.173 1.00 96.26 C

ATOM 191 O GLY A 27 6.943 -9.747 -7.065 1.00 96.26 O

ATOM 192 N GLU A 28 6.839 -7.935 -8.422 1.00 96.40 N

ATOM 193 CA GLU A 28 6.475 -7.051 -7.319 1.00 96.40 C

ATOM 194 C GLU A 28 5.123 -7.438 -6.724 1.00 96.40 C

ATOM 195 CB GLU A 28 6.446 -5.593 -7.784 1.00 96.40 C

ATOM 196 O GLU A 28 4.931 -7.369 -5.509 1.00 96.40 O

ATOM 197 CG GLU A 28 6.288 -4.588 -6.652 1.00 96.40 C

ATOM 198 CD GLU A 28 4.838 -4.348 -6.262 1.00 96.40 C

ATOM 199 OE1 GLU A 28 4.570 -4.056 -5.074 1.00 96.40 O

ATOM 200 OE2 GLU A 28 3.964 -4.453 -7.150 1.00 96.40 O

ATOM 201 N GLN A 29 4.265 -7.857 -7.571 1.00 94.05 N

ATOM 202 CA GLN A 29 2.941 -8.248 -7.098 1.00 94.05 C

ATOM 203 C GLN A 29 3.023 -9.467 -6.182 1.00 94.05 C

ATOM 204 CB GLN A 29 2.013 -8.539 -8.277 1.00 94.05 C

ATOM 205 O GLN A 29 2.133 -9.693 -5.360 1.00 94.05 O

ATOM 206 CG GLN A 29 2.498 -9.666 -9.179 1.00 94.05 C

ATOM 207 CD GLN A 29 1.730 -9.746 -10.485 1.00 94.05 C

ATOM 208 NE2 GLN A 29 1.508 -10.963 -10.969 1.00 94.05 N

ATOM 209 OE1 GLN A 29 1.338 -8.722 -11.053 1.00 94.05 O

ATOM 210 N LEU A 30 4.062 -10.293 -6.322 1.00 95.70 N

ATOM 211 CA LEU A 30 4.257 -11.438 -5.439 1.00 95.70 C

ATOM 212 C LEU A 30 4.564 -10.981 -4.017 1.00 95.70 C

ATOM 213 CB LEU A 30 5.389 -12.329 -5.957 1.00 95.70 C

ATOM 214 O LEU A 30 4.166 -11.636 -3.050 1.00 95.70 O

ATOM 215 CG LEU A 30 5.131 -13.052 -7.280 1.00 95.70 C

ATOM 216 CD1 LEU A 30 6.390 -13.780 -7.740 1.00 95.70 C

ATOM 217 CD2 LEU A 30 3.966 -14.025 -7.139 1.00 95.70 C

ATOM 218 N LEU A 31 5.299 -9.859 -3.938 1.00 95.90 N

ATOM 219 CA LEU A 31 5.545 -9.281 -2.622 1.00 95.90 C

ATOM 220 C LEU A 31 4.242 -8.824 -1.976 1.00 95.90 C

ATOM 221 CB LEU A 31 6.517 -8.102 -2.727 1.00 95.90 C

ATOM 222 O LEU A 31 3.994 -9.105 -0.801 1.00 95.90 O

ATOM 223 CG LEU A 31 7.960 -8.444 -3.102 1.00 95.90 C

ATOM 224 CD1 LEU A 31 8.732 -7.176 -3.451 1.00 95.90 C

ATOM 225 CD2 LEU A 31 8.644 -9.197 -1.965 1.00 95.90 C

ATOM 226 N PHE A 32 3.421 -8.188 -2.818 1.00 95.55 N

ATOM 227 CA PHE A 32 2.129 -7.720 -2.330 1.00 95.55 C

ATOM 228 C PHE A 32 1.272 -8.888 -1.859 1.00 95.55 C

ATOM 229 CB PHE A 32 1.393 -6.935 -3.420 1.00 95.55 C

ATOM 230 O PHE A 32 0.697 -8.844 -0.769 1.00 95.55 O

ATOM 231 CG PHE A 32 0.087 -6.343 -2.965 1.00 95.55 C

ATOM 232 CD1 PHE A 32 -1.117 -6.973 -3.256 1.00 95.55 C

ATOM 233 CD2 PHE A 32 0.062 -5.155 -2.245 1.00 95.55 C

ATOM 234 CE1 PHE A 32 -2.328 -6.427 -2.836 1.00 95.55 C

ATOM 235 CE2 PHE A 32 -1.144 -4.604 -1.822 1.00 95.55 C

ATOM 236 CZ PHE A 32 -2.338 -5.241 -2.119 1.00 95.55 C

ATOM 237 N LYS A 33 1.247 -9.890 -2.605 1.00 96.15 N

ATOM 238 CA LYS A 33 0.482 -11.082 -2.249 1.00 96.15 C

ATOM 239 C LYS A 33 0.987 -11.690 -0.944 1.00 96.15 C

ATOM 240 CB LYS A 33 0.551 -12.118 -3.372 1.00 96.15 C

ATOM 241 O LYS A 33 0.195 -12.025 -0.062 1.00 96.15 O

ATOM 242 CG LYS A 33 -0.226 -13.395 -3.085 1.00 96.15 C

ATOM 243 CD LYS A 33 -0.146 -14.372 -4.250 1.00 96.15 C

ATOM 244 CE LYS A 33 -0.879 -15.671 -3.943 1.00 96.15 C

ATOM 245 NZ LYS A 33 -0.831 -16.620 -5.095 1.00 96.15 N

ATOM 246 N ALA A 34 2.216 -11.825 -0.842 1.00 96.39 N

ATOM 247 CA ALA A 34 2.823 -12.450 0.330 1.00 96.39 C

ATOM 248 C ALA A 34 2.489 -11.673 1.600 1.00 96.39 C

ATOM 249 CB ALA A 34 4.336 -12.554 0.155 1.00 96.39 C

ATOM 250 O ALA A 34 2.137 -12.266 2.623 1.00 96.39 O

ATOM 251 N ILE A 35 2.471 -10.465 1.522 1.00 95.90 N

ATOM 252 CA ILE A 35 2.306 -9.619 2.700 1.00 95.90 C

ATOM 253 C ILE A 35 0.823 -9.493 3.042 1.00 95.90 C

ATOM 254 CB ILE A 35 2.927 -8.221 2.483 1.00 95.90 C

ATOM 255 O ILE A 35 0.455 -9.421 4.216 1.00 95.90 O

ATOM 256 CG1 ILE A 35 4.443 -8.335 2.284 1.00 95.90 C

ATOM 257 CG2 ILE A 35 2.597 -7.296 3.658 1.00 95.90 C

ATOM 258 CD1 ILE A 35 5.183 -8.913 3.482 1.00 95.90 C

ATOM 259 N THR A 36 -0.011 -9.542 2.052 1.00 97.06 N

ATOM 260 CA THR A 36 -1.415 -9.226 2.289 1.00 97.06 C

ATOM 261 C THR A 36 -2.248 -10.502 2.383 1.00 97.06 C

ATOM 262 CB THR A 36 -1.980 -8.322 1.178 1.00 97.06 C

ATOM 263 O THR A 36 -3.441 -10.449 2.687 1.00 97.06 O

ATOM 264 CG2 THR A 36 -1.194 -7.019 1.077 1.00 97.06 C

ATOM 265 OG1 THR A 36 -1.904 -9.011 -0.076 1.00 97.06 O

ATOM 266 N TYR A 37 -1.648 -11.612 2.138 1.00 96.77 N

ATOM 267 CA TYR A 37 -2.355 -12.888 2.127 1.00 96.77 C

ATOM 268 C TYR A 37 -3.044 -13.141 3.463 1.00 96.77 C

ATOM 269 CB TYR A 37 -1.391 -14.035 1.812 1.00 96.77 C

ATOM 270 O TYR A 37 -2.419 -13.035 4.521 1.00 96.77 O

ATOM 271 CG TYR A 37 -2.078 -15.356 1.565 1.00 96.77 C

ATOM 272 CD1 TYR A 37 -2.239 -16.282 2.594 1.00 96.77 C

ATOM 273 CD2 TYR A 37 -2.567 -15.681 0.305 1.00 96.77 C

ATOM 274 CE1 TYR A 37 -2.870 -17.502 2.371 1.00 96.77 C

ATOM 275 CE2 TYR A 37 -3.200 -16.898 0.071 1.00 96.77 C

ATOM 276 OH TYR A 37 -3.972 -19.005 0.883 1.00 96.77 O

ATOM 277 CZ TYR A 37 -3.347 -17.800 1.109 1.00 96.77 C

ATOM 278 N ASN A 38 -4.383 -13.371 3.462 1.00 95.72 N

ATOM 279 CA ASN A 38 -5.248 -13.707 4.588 1.00 95.72 C

ATOM 280 C ASN A 38 -5.310 -12.572 5.606 1.00 95.72 C

ATOM 281 CB ASN A 38 -4.776 -14.998 5.261 1.00 95.72 C

ATOM 282 O ASN A 38 -5.496 -12.813 6.800 1.00 95.72 O

ATOM 283 CG ASN A 38 -5.926 -15.855 5.752 1.00 95.72 C

ATOM 284 ND2 ASN A 38 -5.632 -16.781 6.656 1.00 95.72 N

ATOM 285 OD1 ASN A 38 -7.070 -15.686 5.321 1.00 95.72 O

ATOM 286 N GLN A 39 -5.051 -11.373 5.097 1.00 97.31 N

ATOM 287 CA GLN A 39 -5.086 -10.209 5.976 1.00 97.31 C

ATOM 288 C GLN A 39 -6.257 -9.293 5.629 1.00 97.31 C

ATOM 289 CB GLN A 39 -3.771 -9.433 5.893 1.00 97.31 C

ATOM 290 O GLN A 39 -6.881 -9.447 4.577 1.00 97.31 O

ATOM 291 CG GLN A 39 -2.545 -10.261 6.255 1.00 97.31 C

ATOM 292 CD GLN A 39 -2.531 -10.685 7.711 1.00 97.31 C

ATOM 293 NE2 GLN A 39 -2.089 -11.911 7.968 1.00 97.31 N

ATOM 294 OE1 GLN A 39 -2.914 -9.916 8.599 1.00 97.31 O

ATOM 295 N TRP A 40 -6.488 -8.319 6.658 1.00 98.01 N

ATOM 296 CA TRP A 40 -7.432 -7.236 6.405 1.00 98.01 C

ATOM 297 C TRP A 40 -6.743 -6.062 5.717 1.00 98.01 C

ATOM 298 CB TRP A 40 -8.079 -6.769 7.712 1.00 98.01 C

ATOM 299 O TRP A 40 -5.711 -5.578 6.188 1.00 98.01 O

ATOM 300 CG TRP A 40 -9.216 -7.632 8.170 1.00 98.01 C

ATOM 301 CD1 TRP A 40 -9.154 -8.682 9.043 1.00 98.01 C

ATOM 302 CD2 TRP A 40 -10.587 -7.520 7.774 1.00 98.01 C

ATOM 303 CE2 TRP A 40 -11.301 -8.536 8.447 1.00 98.01 C

ATOM 304 CE3 TRP A 40 -11.281 -6.657 6.915 1.00 98.01 C

ATOM 305 NE1 TRP A 40 -10.405 -9.230 9.214 1.00 98.01 N

ATOM 306 CH2 TRP A 40 -13.332 -7.855 7.440 1.00 98.01 C

ATOM 307 CZ2 TRP A 40 -12.677 -8.712 8.287 1.00 98.01 C

ATOM 308 CZ3 TRP A 40 -12.651 -6.835 6.757 1.00 98.01 C

ATOM 309 N LEU A 41 -7.330 -5.702 4.541 1.00 98.39 N

ATOM 310 CA LEU A 41 -6.812 -4.551 3.810 1.00 98.39 C

ATOM 311 C LEU A 41 -7.730 -3.344 3.976 1.00 98.39 C

ATOM 312 CB LEU A 41 -6.654 -4.886 2.325 1.00 98.39 C

ATOM 313 O LEU A 41 -8.942 -3.449 3.773 1.00 98.39 O

ATOM 314 CG LEU A 41 -5.415 -5.696 1.941 1.00 98.39 C

ATOM 315 CD1 LEU A 41 -5.407 -7.032 2.675 1.00 98.39 C

ATOM 316 CD2 LEU A 41 -5.361 -5.909 0.432 1.00 98.39 C

ATOM 317 N LEU A 42 -7.125 -2.244 4.389 1.00 98.46 N

ATOM 318 CA LEU A 42 -7.837 -0.972 4.407 1.00 98.46 C

ATOM 319 C LEU A 42 -7.553 -0.171 3.140 1.00 98.46 C

ATOM 320 CB LEU A 42 -7.444 -0.154 5.640 1.00 98.46 C

ATOM 321 O LEU A 42 -6.406 0.202 2.881 1.00 98.46 O

ATOM 322 CG LEU A 42 -8.126 1.206 5.798 1.00 98.46 C

ATOM 323 CD1 LEU A 42 -9.612 1.023 6.090 1.00 98.46 C

ATOM 324 CD2 LEU A 42 -7.454 2.016 6.901 1.00 98.46 C

ATOM 325 N VAL A 43 -8.608 0.111 2.387 1.00 97.94 N

ATOM 326 CA VAL A 43 -8.423 0.761 1.094 1.00 97.94 C

ATOM 327 C VAL A 43 -9.538 1.779 0.862 1.00 97.94 C

ATOM 328 CB VAL A 43 -8.392 -0.267 -0.059 1.00 97.94 C

ATOM 329 O VAL A 43 -10.587 1.716 1.507 1.00 97.94 O

ATOM 330 CG1 VAL A 43 -7.194 -1.204 0.085 1.00 97.94 C

ATOM 331 CG2 VAL A 43 -9.695 -1.063 -0.098 1.00 97.94 C

ATOM 332 N GLY A 44 -9.192 2.780 -0.017 1.00 97.17 N

ATOM 333 CA GLY A 44 -10.254 3.633 -0.527 1.00 97.17 C

ATOM 334 C GLY A 44 -11.092 2.964 -1.600 1.00 97.17 C

ATOM 335 O GLY A 44 -10.655 1.995 -2.223 1.00 97.17 O

ATOM 336 N ARG A 45 -12.260 3.527 -1.912 1.00 95.71 N

ATOM 337 CA ARG A 45 -13.213 2.936 -2.845 1.00 95.71 C

ATOM 338 C ARG A 45 -12.627 2.857 -4.251 1.00 95.71 C

ATOM 339 CB ARG A 45 -14.515 3.740 -2.865 1.00 95.71 C

ATOM 340 O ARG A 45 -12.693 1.809 -4.898 1.00 95.71 O

ATOM 341 CG ARG A 45 -15.560 3.198 -3.827 1.00 95.71 C

ATOM 342 CD ARG A 45 -16.563 4.268 -4.233 1.00 95.71 C

ATOM 343 NE ARG A 45 -15.922 5.361 -4.958 1.00 95.71 N

ATOM 344 NH1 ARG A 45 -16.674 4.698 -7.039 1.00 95.71 N

ATOM 345 NH2 ARG A 45 -15.367 6.569 -6.831 1.00 95.71 N

ATOM 346 CZ ARG A 45 -15.989 5.540 -6.275 1.00 95.71 C

ATOM 347 N LYS A 46 -11.995 3.897 -4.685 1.00 93.75 N

ATOM 348 CA LYS A 46 -11.473 3.939 -6.048 1.00 93.75 C

ATOM 349 C LYS A 46 -10.377 2.897 -6.249 1.00 93.75 C

ATOM 350 CB LYS A 46 -10.937 5.333 -6.375 1.00 93.75 C

ATOM 351 O LYS A 46 -10.309 2.254 -7.298 1.00 93.75 O

ATOM 352 CG LYS A 46 -12.017 6.399 -6.497 1.00 93.75 C

ATOM 353 CD LYS A 46 -11.426 7.753 -6.866 1.00 93.75 C

ATOM 354 CE LYS A 46 -12.504 8.824 -6.971 1.00 93.75 C

ATOM 355 NZ LYS A 46 -11.926 10.160 -7.307 1.00 93.75 N

ATOM 356 N THR A 47 -9.534 2.751 -5.249 1.00 93.61 N

ATOM 357 CA THR A 47 -8.487 1.738 -5.316 1.00 93.61 C

ATOM 358 C THR A 47 -9.092 0.337 -5.366 1.00 93.61 C

ATOM 359 CB THR A 47 -7.530 1.843 -4.114 1.00 93.61 C

ATOM 360 O THR A 47 -8.671 -0.498 -6.170 1.00 93.61 O

ATOM 361 CG2 THR A 47 -6.438 0.781 -4.186 1.00 93.61 C

ATOM 362 OG1 THR A 47 -6.919 3.140 -4.110 1.00 93.61 O

ATOM 363 N PHE A 48 -10.069 0.147 -4.550 1.00 95.53 N

ATOM 364 CA PHE A 48 -10.731 -1.151 -4.513 1.00 95.53 C

ATOM 365 C PHE A 48 -11.363 -1.476 -5.861 1.00 95.53 C

ATOM 366 CB PHE A 48 -11.797 -1.182 -3.413 1.00 95.53 C

ATOM 367 O PHE A 48 -11.220 -2.591 -6.367 1.00 95.53 O

ATOM 368 CG PHE A 48 -12.535 -2.490 -3.319 1.00 95.53 C

ATOM 369 CD1 PHE A 48 -13.846 -2.597 -3.764 1.00 95.53 C

ATOM 370 CD2 PHE A 48 -11.916 -3.612 -2.784 1.00 95.53 C

ATOM 371 CE1 PHE A 48 -14.532 -3.807 -3.679 1.00 95.53 C

ATOM 372 CE2 PHE A 48 -12.595 -4.824 -2.695 1.00 95.53 C

ATOM 373 CZ PHE A 48 -13.903 -4.919 -3.142 1.00 95.53 C

ATOM 374 N GLU A 49 -12.013 -0.534 -6.455 1.00 93.30 N

ATOM 375 CA GLU A 49 -12.670 -0.737 -7.742 1.00 93.30 C

ATOM 376 C GLU A 49 -11.651 -1.016 -8.844 1.00 93.30 C

ATOM 377 CB GLU A 49 -13.522 0.481 -8.109 1.00 93.30 C

ATOM 378 O GLU A 49 -11.895 -1.838 -9.729 1.00 93.30 O

ATOM 379 CG GLU A 49 -14.793 0.613 -7.284 1.00 93.30 C

ATOM 380 CD GLU A 49 -15.661 1.790 -7.702 1.00 93.30 C

ATOM 381 OE1 GLU A 49 -16.903 1.643 -7.744 1.00 93.30 O

ATOM 382 OE2 GLU A 49 -15.093 2.866 -7.991 1.00 93.30 O

ATOM 383 N SER A 50 -10.536 -0.376 -8.756 1.00 91.18 N

ATOM 384 CA SER A 50 -9.497 -0.540 -9.768 1.00 91.18 C

ATOM 385 C SER A 50 -8.804 -1.892 -9.635 1.00 91.18 C

ATOM 386 CB SER A 50 -8.465 0.584 -9.665 1.00 91.18 C

ATOM 387 O SER A 50 -8.553 -2.568 -10.635 1.00 91.18 O

ATOM 388 OG SER A 50 -7.412 0.386 -10.592 1.00 91.18 O

ATOM 389 N MET A 51 -8.490 -2.271 -8.481 1.00 90.12 N

ATOM 390 CA MET A 51 -7.735 -3.489 -8.200 1.00 90.12 C

ATOM 391 C MET A 51 -8.649 -4.710 -8.212 1.00 90.12 C

ATOM 392 CB MET A 51 -7.023 -3.382 -6.851 1.00 90.12 C

ATOM 393 O MET A 51 -8.272 -5.768 -8.720 1.00 90.12 O

ATOM 394 CG MET A 51 -6.201 -4.610 -6.492 1.00 90.12 C

ATOM 395 SD MET A 51 -5.450 -4.489 -4.822 1.00 90.12 S

ATOM 396 CE MET A 51 -6.944 -4.286 -3.813 1.00 90.12 C

ATOM 397 N GLY A 52 -9.853 -4.527 -7.761 1.00 89.82 N

ATOM 398 CA GLY A 52 -10.732 -5.659 -7.517 1.00 89.82 C

ATOM 399 C GLY A 52 -10.335 -6.471 -6.299 1.00 89.82 C

ATOM 400 O GLY A 52 -9.288 -6.225 -5.696 1.00 89.82 O

ATOM 401 N ALA A 53 -11.343 -7.345 -5.933 1.00 91.83 N

ATOM 402 CA ALA A 53 -11.107 -8.214 -4.783 1.00 91.83 C

ATOM 403 C ALA A 53 -10.142 -9.342 -5.138 1.00 91.83 C

ATOM 404 CB ALA A 53 -12.425 -8.788 -4.269 1.00 91.83 C

ATOM 405 O ALA A 53 -10.395 -10.115 -6.065 1.00 91.83 O

ATOM 406 N LEU A 54 -9.020 -9.363 -4.459 1.00 93.57 N

ATOM 407 CA LEU A 54 -8.032 -10.422 -4.637 1.00 93.57 C

ATOM 408 C LEU A 54 -8.336 -11.606 -3.725 1.00 93.57 C

ATOM 409 CB LEU A 54 -6.623 -9.894 -4.355 1.00 93.57 C

ATOM 410 O LEU A 54 -8.781 -11.423 -2.589 1.00 93.57 O

ATOM 411 CG LEU A 54 -6.168 -8.696 -5.190 1.00 93.57 C

ATOM 412 CD1 LEU A 54 -4.829 -8.174 -4.681 1.00 93.57 C

ATOM 413 CD2 LEU A 54 -6.075 -9.076 -6.664 1.00 93.57 C

ATOM 414 N PRO A 55 -8.164 -12.841 -4.217 1.00 94.13 N

ATOM 415 CA PRO A 55 -8.523 -14.028 -3.437 1.00 94.13 C

ATOM 416 C PRO A 55 -7.774 -14.110 -2.109 1.00 94.13 C

ATOM 417 CB PRO A 55 -8.131 -15.187 -4.357 1.00 94.13 C

ATOM 418 O PRO A 55 -6.617 -13.693 -2.022 1.00 94.13 O

ATOM 419 CG PRO A 55 -7.113 -14.608 -5.287 1.00 94.13 C

ATOM 420 CD PRO A 55 -7.386 -13.139 -5.438 1.00 94.13 C

ATOM 421 N ASN A 56 -8.492 -14.504 -1.078 1.00 95.82 N

ATOM 422 CA ASN A 56 -7.948 -14.848 0.231 1.00 95.82 C

ATOM 423 C ASN A 56 -7.500 -13.606 0.996 1.00 95.82 C

ATOM 424 CB ASN A 56 -6.784 -15.831 0.087 1.00 95.82 C

ATOM 425 O ASN A 56 -6.490 -13.637 1.701 1.00 95.82 O

ATOM 426 CG ASN A 56 -7.215 -17.167 -0.485 1.00 95.82 C

ATOM 427 ND2 ASN A 56 -6.585 -17.575 -1.580 1.00 95.82 N

ATOM 428 OD1 ASN A 56 -8.108 -17.827 0.054 1.00 95.82 O

ATOM 429 N ARG A 57 -8.314 -12.590 0.704 1.00 97.04 N

ATOM 430 CA ARG A 57 -8.145 -11.338 1.435 1.00 97.04 C

ATOM 431 C ARG A 57 -9.495 -10.749 1.832 1.00 97.04 C

ATOM 432 CB ARG A 57 -7.359 -10.327 0.597 1.00 97.04 C

ATOM 433 O ARG A 57 -10.515 -11.046 1.207 1.00 97.04 O

ATOM 434 CG ARG A 57 -5.889 -10.679 0.427 1.00 97.04 C

ATOM 435 CD ARG A 57 -5.285 -10.000 -0.794 1.00 97.04 C

ATOM 436 NE ARG A 57 -3.874 -10.341 -0.957 1.00 97.04 N

ATOM 437 NH1 ARG A 57 -4.197 -11.666 -2.822 1.00 97.04 N

ATOM 438 NH2 ARG A 57 -2.088 -11.369 -1.972 1.00 97.04 N

ATOM 439 CZ ARG A 57 -3.390 -11.125 -1.917 1.00 97.04 C

ATOM 440 N LYS A 58 -9.401 -10.025 2.916 1.00 97.78 N

ATOM 441 CA LYS A 58 -10.566 -9.271 3.368 1.00 97.78 C

ATOM 442 C LYS A 58 -10.336 -7.769 3.232 1.00 97.78 C

ATOM 443 CB LYS A 58 -10.902 -9.621 4.819 1.00 97.78 C

ATOM 444 O LYS A 58 -9.198 -7.301 3.307 1.00 97.78 O

ATOM 445 CG LYS A 58 -11.198 -11.096 5.048 1.00 97.78 C

ATOM 446 CD LYS A 58 -11.311 -11.419 6.532 1.00 97.78 C

ATOM 447 CE LYS A 58 -11.444 -12.917 6.771 1.00 97.78 C

ATOM 448 NZ LYS A 58 -11.491 -13.245 8.227 1.00 97.78 N

ATOM 449 N TYR A 59 -11.508 -7.044 3.014 1.00 98.39 N

ATOM 450 CA TYR A 59 -11.362 -5.627 2.702 1.00 98.39 C

ATOM 451 C TYR A 59 -12.231 -4.774 3.618 1.00 98.39 C

ATOM 452 CB TYR A 59 -11.726 -5.359 1.239 1.00 98.39 C

ATOM 453 O TYR A 59 -13.398 -5.095 3.853 1.00 98.39 O

ATOM 454 CG TYR A 59 -10.820 -6.051 0.250 1.00 98.39 C

ATOM 455 CD1 TYR A 59 -9.724 -5.390 -0.301 1.00 98.39 C

ATOM 456 CD2 TYR A 59 -11.057 -7.366 -0.135 1.00 98.39 C

ATOM 457 CE1 TYR A 59 -8.887 -6.024 -1.214 1.00 98.39 C

ATOM 458 CE2 TYR A 59 -10.227 -8.009 -1.047 1.00 98.39 C

ATOM 459 OH TYR A 59 -8.320 -7.963 -2.483 1.00 98.39 O

ATOM 460 CZ TYR A 59 -9.146 -7.331 -1.580 1.00 98.39 C

ATOM 461 N ALA A 60 -11.591 -3.715 4.107 1.00 98.20 N

ATOM 462 CA ALA A 60 -12.292 -2.560 4.662 1.00 98.20 C

ATOM 463 C ALA A 60 -12.213 -1.364 3.716 1.00 98.20 C

ATOM 464 CB ALA A 60 -11.717 -2.193 6.028 1.00 98.20 C

ATOM 465 O ALA A 60 -11.164 -0.725 3.600 1.00 98.20 O

ATOM 466 N VAL A 61 -13.337 -1.148 3.045 1.00 98.27 N

ATOM 467 CA VAL A 61 -13.380 -0.095 2.036 1.00 98.27 C

ATOM 468 C VAL A 61 -13.970 1.177 2.641 1.00 98.27 C

ATOM 469 CB VAL A 61 -14.199 -0.527 0.799 1.00 98.27 C

ATOM 470 O VAL A 61 -15.068 1.154 3.201 1.00 98.27 O

ATOM 471 CG1 VAL A 61 -14.254 0.599 -0.232 1.00 98.27 C

ATOM 472 CG2 VAL A 61 -13.605 -1.792 0.181 1.00 98.27 C

ATOM 473 N VAL A 62 -13.184 2.292 2.512 1.00 98.05 N

ATOM 474 CA VAL A 62 -13.643 3.578 3.027 1.00 98.05 C

ATOM 475 C VAL A 62 -14.171 4.436 1.880 1.00 98.05 C

ATOM 476 CB VAL A 62 -12.516 4.324 3.776 1.00 98.05 C

ATOM 477 O VAL A 62 -13.469 4.661 0.891 1.00 98.05 O

ATOM 478 CG1 VAL A 62 -12.995 5.697 4.243 1.00 98.05 C

ATOM 479 CG2 VAL A 62 -12.024 3.495 4.961 1.00 98.05 C

ATOM 480 N THR A 63 -15.382 4.895 2.092 1.00 96.65 N

ATOM 481 CA THR A 63 -16.000 5.716 1.057 1.00 96.65 C

ATOM 482 C THR A 63 -17.002 6.692 1.668 1.00 96.65 C

ATOM 483 CB THR A 63 -16.706 4.845 0.001 1.00 96.65 C

ATOM 484 O THR A 63 -17.602 6.406 2.706 1.00 96.65 O

ATOM 485 CG2 THR A 63 -17.789 3.980 0.637 1.00 96.65 C

ATOM 486 OG1 THR A 63 -17.306 5.694 -0.985 1.00 96.65 O

ATOM 487 N ARG A 64 -17.190 7.886 1.035 1.00 92.94 N

ATOM 488 CA ARG A 64 -18.219 8.848 1.416 1.00 92.94 C

ATOM 489 C ARG A 64 -19.444 8.723 0.516 1.00 92.94 C

ATOM 490 CB ARG A 64 -17.670 10.275 1.359 1.00 92.94 C

ATOM 491 O ARG A 64 -20.459 9.385 0.745 1.00 92.94 O

ATOM 492 CG ARG A 64 -16.574 10.554 2.375 1.00 92.94 C

ATOM 493 CD ARG A 64 -16.013 11.962 2.227 1.00 92.94 C

ATOM 494 NE ARG A 64 -14.995 12.245 3.234 1.00 92.94 N

ATOM 495 NH1 ARG A 64 -13.322 12.708 1.710 1.00 92.94 N

ATOM 496 NH2 ARG A 64 -12.895 12.827 3.959 1.00 92.94 N

ATOM 497 CZ ARG A 64 -13.739 12.593 2.965 1.00 92.94 C

ATOM 498 N SER A 65 -19.413 7.845 -0.408 1.00 92.85 N

ATOM 499 CA SER A 65 -20.503 7.646 -1.358 1.00 92.85 C

ATOM 500 C SER A 65 -21.435 6.528 -0.904 1.00 92.85 C

ATOM 501 CB SER A 65 -19.951 7.328 -2.749 1.00 92.85 C

ATOM 502 O SER A 65 -21.228 5.932 0.155 1.00 92.85 O

ATOM 503 OG SER A 65 -19.393 6.026 -2.782 1.00 92.85 O

ATOM 504 N SER A 66 -22.496 6.306 -1.618 1.00 91.25 N

ATOM 505 CA SER A 66 -23.485 5.276 -1.318 1.00 91.25 C

ATOM 506 C SER A 66 -23.011 3.902 -1.779 1.00 91.25 C

ATOM 507 CB SER A 66 -24.824 5.610 -1.977 1.00 91.25 C

ATOM 508 O SER A 66 -23.808 2.967 -1.885 1.00 91.25 O

ATOM 509 OG SER A 66 -24.667 5.788 -3.374 1.00 91.25 O

ATOM 510 N PHE A 67 -21.789 3.675 -1.923 1.00 93.10 N

ATOM 511 CA PHE A 67 -21.202 2.412 -2.357 1.00 93.10 C

ATOM 512 C PHE A 67 -21.516 1.300 -1.364 1.00 93.10 C

ATOM 513 CB PHE A 67 -19.686 2.552 -2.527 1.00 93.10 C

ATOM 514 O PHE A 67 -21.430 1.501 -0.151 1.00 93.10 O

ATOM 515 CG PHE A 67 -18.993 1.263 -2.873 1.00 93.10 C

ATOM 516 CD1 PHE A 67 -18.347 0.520 -1.892 1.00 93.10 C

ATOM 517 CD2 PHE A 67 -18.986 0.793 -4.180 1.00 93.10 C

ATOM 518 CE1 PHE A 67 -17.704 -0.675 -2.209 1.00 93.10 C

ATOM 519 CE2 PHE A 67 -18.346 -0.400 -4.505 1.00 93.10 C

ATOM 520 CZ PHE A 67 -17.704 -1.131 -3.518 1.00 93.10 C

ATOM 521 N THR A 68 -21.896 0.101 -1.933 1.00 93.39 N

ATOM 522 CA THR A 68 -22.152 -1.079 -1.114 1.00 93.39 C

ATOM 523 C THR A 68 -21.576 -2.330 -1.772 1.00 93.39 C

ATOM 524 CB THR A 68 -23.659 -1.272 -0.868 1.00 93.39 C

ATOM 525 O THR A 68 -21.279 -2.327 -2.968 1.00 93.39 O

ATOM 526 CG2 THR A 68 -24.259 -0.066 -0.153 1.00 93.39 C

ATOM 527 OG1 THR A 68 -24.324 -1.447 -2.125 1.00 93.39 O

ATOM 528 N SER A 69 -21.307 -3.322 -0.966 1.00 92.93 N

ATOM 529 CA SER A 69 -20.806 -4.609 -1.438 1.00 92.93 C

ATOM 530 C SER A 69 -21.607 -5.764 -0.848 1.00 92.93 C

ATOM 531 CB SER A 69 -19.327 -4.770 -1.085 1.00 92.93 C

ATOM 532 O SER A 69 -21.984 -5.730 0.325 1.00 92.93 O

ATOM 533 OG SER A 69 -18.851 -6.045 -1.481 1.00 92.93 O

ATOM 534 N SER A 70 -21.903 -6.775 -1.724 1.00 93.07 N

ATOM 535 CA SER A 70 -22.586 -7.976 -1.255 1.00 93.07 C

ATOM 536 C SER A 70 -21.590 -9.061 -0.859 1.00 93.07 C

ATOM 537 CB SER A 70 -23.533 -8.510 -2.331 1.00 93.07 C

ATOM 538 O SER A 70 -21.981 -10.122 -0.369 1.00 93.07 O

ATOM 539 OG SER A 70 -22.829 -8.776 -3.532 1.00 93.07 O

ATOM 540 N ASP A 71 -20.339 -8.795 -1.056 1.00 94.41 N

ATOM 541 CA ASP A 71 -19.254 -9.712 -0.718 1.00 94.41 C

ATOM 542 C ASP A 71 -18.982 -9.710 0.785 1.00 94.41 C

ATOM 543 CB ASP A 71 -17.982 -9.344 -1.484 1.00 94.41 C

ATOM 544 O ASP A 71 -18.683 -8.665 1.366 1.00 94.41 O

ATOM 545 CG ASP A 71 -16.878 -10.375 -1.330 1.00 94.41 C

ATOM 546 OD1 ASP A 71 -16.842 -11.080 -0.299 1.00 94.41 O

ATOM 547 OD2 ASP A 71 -16.034 -10.480 -2.246 1.00 94.41 O

ATOM 548 N GLU A 72 -19.002 -10.928 1.405 1.00 93.20 N

ATOM 549 CA GLU A 72 -18.856 -11.039 2.854 1.00 93.20 C

ATOM 550 C GLU A 72 -17.446 -10.661 3.297 1.00 93.20 C

ATOM 551 CB GLU A 72 -19.192 -12.458 3.321 1.00 93.20 C

ATOM 552 O GLU A 72 -17.219 -10.351 4.468 1.00 93.20 O

ATOM 553 CG GLU A 72 -18.280 -13.529 2.739 1.00 93.20 C

ATOM 554 CD GLU A 72 -18.648 -14.936 3.182 1.00 93.20 C

ATOM 555 OE1 GLU A 72 -17.957 -15.899 2.780 1.00 93.20 O

ATOM 556 OE2 GLU A 72 -19.635 -15.076 3.938 1.00 93.20 O

ATOM 557 N ASN A 73 -16.556 -10.699 2.330 1.00 96.11 N

ATOM 558 CA ASN A 73 -15.177 -10.366 2.673 1.00 96.11 C

ATOM 559 C ASN A 73 -14.890 -8.882 2.461 1.00 96.11 C

ATOM 560 CB ASN A 73 -14.201 -11.217 1.858 1.00 96.11 C

ATOM 561 O ASN A 73 -13.747 -8.442 2.593 1.00 96.11 O

ATOM 562 CG ASN A 73 -14.232 -12.680 2.253 1.00 96.11 C

ATOM 563 ND2 ASN A 73 -14.169 -13.563 1.263 1.00 96.11 N

ATOM 564 OD1 ASN A 73 -14.313 -13.015 3.437 1.00 96.11 O

ATOM 565 N VAL A 74 -15.948 -8.111 2.125 1.00 97.72 N

ATOM 566 CA VAL A 74 -15.807 -6.675 1.907 1.00 97.72 C

ATOM 567 C VAL A 74 -16.750 -5.916 2.837 1.00 97.72 C

ATOM 568 CB VAL A 74 -16.088 -6.294 0.436 1.00 97.72 C

ATOM 569 O VAL A 74 -17.973 -6.040 2.728 1.00 97.72 O

ATOM 570 CG1 VAL A 74 -15.926 -4.790 0.228 1.00 97.72 C

ATOM 571 CG2 VAL A 74 -15.163 -7.070 -0.501 1.00 97.72 C

ATOM 572 N LEU A 75 -16.103 -5.169 3.728 1.00 97.91 N

ATOM 573 CA LEU A 75 -16.856 -4.271 4.596 1.00 97.91 C

ATOM 574 C LEU A 75 -16.682 -2.820 4.160 1.00 97.91 C

ATOM 575 CB LEU A 75 -16.412 -4.435 6.052 1.00 97.91 C

ATOM 576 O LEU A 75 -15.567 -2.386 3.865 1.00 97.91 O

ATOM 577 CG LEU A 75 -16.504 -5.846 6.634 1.00 97.91 C

ATOM 578 CD1 LEU A 75 -16.020 -5.856 8.080 1.00 97.91 C

ATOM 579 CD2 LEU A 75 -17.932 -6.372 6.540 1.00 97.91 C

ATOM 580 N VAL A 76 -17.796 -2.024 4.172 1.00 98.05 N

ATOM 581 CA VAL A 76 -17.757 -0.640 3.711 1.00 98.05 C

ATOM 582 C VAL A 76 -17.995 0.304 4.887 1.00 98.05 C

ATOM 583 CB VAL A 76 -18.800 -0.382 2.601 1.00 98.05 C

ATOM 584 O VAL A 76 -18.940 0.119 5.658 1.00 98.05 O

ATOM 585 CG1 VAL A 76 -18.725 1.064 2.115 1.00 98.05 C

ATOM 586 CG2 VAL A 76 -18.591 -1.351 1.438 1.00 98.05 C

ATOM 587 N PHE A 77 -17.109 1.308 4.962 1.00 98.06 N

ATOM 588 CA PHE A 77 -17.177 2.263 6.061 1.00 98.06 C

ATOM 589 C PHE A 77 -17.206 3.693 5.535 1.00 98.06 C

ATOM 590 CB PHE A 77 -15.990 2.078 7.011 1.00 98.06 C

ATOM 591 O PHE A 77 -16.641 3.983 4.479 1.00 98.06 O

ATOM 592 CG PHE A 77 -15.900 0.700 7.610 1.00 98.06 C

ATOM 593 CD1 PHE A 77 -16.538 0.405 8.809 1.00 98.06 C

ATOM 594 CD2 PHE A 77 -15.178 -0.301 6.973 1.00 98.06 C

ATOM 595 CE1 PHE A 77 -16.457 -0.870 9.365 1.00 98.06 C

ATOM 596 CE2 PHE A 77 -15.093 -1.577 7.522 1.00 98.06 C

ATOM 597 CZ PHE A 77 -15.732 -1.859 8.719 1.00 98.06 C

ATOM 598 N PRO A 78 -17.831 4.620 6.278 1.00 97.29 N

ATOM 599 CA PRO A 78 -17.933 6.009 5.823 1.00 97.29 C

ATOM 600 C PRO A 78 -16.681 6.825 6.136 1.00 97.29 C

ATOM 601 CB PRO A 78 -19.141 6.545 6.596 1.00 97.29 C

ATOM 602 O PRO A 78 -16.509 7.926 5.605 1.00 97.29 O

ATOM 603 CG PRO A 78 -19.197 5.716 7.839 1.00 97.29 C

ATOM 604 CD PRO A 78 -18.757 4.320 7.502 1.00 97.29 C

ATOM 605 N SER A 79 -15.837 6.245 7.022 1.00 97.15 N

ATOM 606 CA SER A 79 -14.626 6.970 7.393 1.00 97.15 C

ATOM 607 C SER A 79 -13.533 6.017 7.862 1.00 97.15 C

ATOM 608 CB SER A 79 -14.928 7.993 8.489 1.00 97.15 C

ATOM 609 O SER A 79 -13.814 4.874 8.229 1.00 97.15 O

ATOM 610 OG SER A 79 -15.209 7.345 9.718 1.00 97.15 O

ATOM 611 N ILE A 80 -12.316 6.522 7.908 1.00 97.67 N

ATOM 612 CA ILE A 80 -11.155 5.765 8.363 1.00 97.67 C

ATOM 613 C ILE A 80 -11.316 5.412 9.840 1.00 97.67 C

ATOM 614 CB ILE A 80 -9.844 6.553 8.141 1.00 97.67 C

ATOM 615 O ILE A 80 -11.069 4.273 10.243 1.00 97.67 O

ATOM 616 CG1 ILE A 80 -9.532 6.658 6.644 1.00 97.67 C

ATOM 617 CG2 ILE A 80 -8.685 5.897 8.898 1.00 97.67 C

ATOM 618 CD1 ILE A 80 -8.390 7.610 6.315 1.00 97.67 C

ATOM 619 N ASP A 81 -11.808 6.320 10.574 1.00 97.54 N

ATOM 620 CA ASP A 81 -11.981 6.114 12.008 1.00 97.54 C

ATOM 621 C ASP A 81 -12.960 4.975 12.286 1.00 97.54 C

ATOM 622 CB ASP A 81 -12.465 7.400 12.681 1.00 97.54 C

ATOM 623 O ASP A 81 -12.689 4.104 13.115 1.00 97.54 O

ATOM 624 CG ASP A 81 -11.372 8.445 12.820 1.00 97.54 C

ATOM 625 OD1 ASP A 81 -10.180 8.105 12.662 1.00 97.54 O

ATOM 626 OD2 ASP A 81 -11.706 9.618 13.092 1.00 97.54 O

ATOM 627 N GLU A 82 -14.051 4.987 11.648 1.00 98.12 N

ATOM 628 CA GLU A 82 -15.038 3.927 11.832 1.00 98.12 C

ATOM 629 C GLU A 82 -14.485 2.575 11.391 1.00 98.12 C

ATOM 630 CB GLU A 82 -16.321 4.247 11.061 1.00 98.12 C

ATOM 631 O GLU A 82 -14.728 1.557 12.042 1.00 98.12 O

ATOM 632 CG GLU A 82 -17.123 5.397 11.652 1.00 98.12 C

ATOM 633 CD GLU A 82 -18.489 5.570 11.006 1.00 98.12 C

ATOM 634 OE1 GLU A 82 -19.042 6.692 11.047 1.00 98.12 O

ATOM 635 OE2 GLU A 82 -19.011 4.575 10.455 1.00 98.12 O

ATOM 636 N ALA A 83 -13.761 2.620 10.297 1.00 98.20 N

ATOM 637 CA ALA A 83 -13.143 1.387 9.817 1.00 98.20 C

ATOM 638 C ALA A 83 -12.169 0.824 10.849 1.00 98.20 C

ATOM 639 CB ALA A 83 -12.425 1.633 8.492 1.00 98.20 C

ATOM 640 O ALA A 83 -12.253 -0.351 11.214 1.00 98.20 O

ATOM 641 N LEU A 84 -11.346 1.635 11.356 1.00 98.06 N

ATOM 642 CA LEU A 84 -10.327 1.194 12.303 1.00 98.06 C

ATOM 643 C LEU A 84 -10.963 0.734 13.610 1.00 98.06 C

ATOM 644 CB LEU A 84 -9.325 2.319 12.576 1.00 98.06 C

ATOM 645 O LEU A 84 -10.527 -0.256 14.203 1.00 98.06 O

ATOM 646 CG LEU A 84 -8.387 2.686 11.425 1.00 98.06 C

ATOM 647 CD1 LEU A 84 -7.477 3.841 11.831 1.00 98.06 C

ATOM 648 CD2 LEU A 84 -7.564 1.475 10.999 1.00 98.06 C

ATOM 649 N ASN A 85 -11.925 1.433 14.123 1.00 97.91 N

ATOM 650 CA ASN A 85 -12.618 1.038 15.344 1.00 97.91 C

ATOM 651 C ASN A 85 -13.237 -0.351 15.214 1.00 97.91 C

ATOM 652 CB ASN A 85 -13.692 2.065 15.709 1.00 97.91 C

ATOM 653 O ASN A 85 -13.136 -1.169 16.130 1.00 97.91 O

ATOM 654 CG ASN A 85 -13.109 3.339 16.288 1.00 97.91 C

ATOM 655 ND2 ASN A 85 -13.871 4.424 16.223 1.00 97.91 N

ATOM 656 OD1 ASN A 85 -11.981 3.348 16.790 1.00 97.91 O

ATOM 657 N HIS A 86 -13.833 -0.588 14.109 1.00 98.14 N

ATOM 658 CA HIS A 86 -14.430 -1.897 13.869 1.00 98.14 C

ATOM 659 C HIS A 86 -13.360 -2.978 13.751 1.00 98.14 C

ATOM 660 CB HIS A 86 -15.290 -1.870 12.604 1.00 98.14 C

ATOM 661 O HIS A 86 -13.476 -4.042 14.363 1.00 98.14 O

ATOM 662 CG HIS A 86 -15.919 -3.187 12.277 1.00 98.14 C

ATOM 663 CD2 HIS A 86 -15.553 -4.154 11.403 1.00 98.14 C

ATOM 664 ND1 HIS A 86 -17.074 -3.631 12.883 1.00 98.14 N

ATOM 665 CE1 HIS A 86 -17.391 -4.819 12.396 1.00 98.14 C

ATOM 666 NE2 HIS A 86 -16.484 -5.159 11.496 1.00 98.14 N

ATOM 667 N LEU A 87 -12.307 -2.686 12.980 1.00 97.99 N

ATOM 668 CA LEU A 87 -11.264 -3.670 12.714 1.00 97.99 C

ATOM 669 C LEU A 87 -10.537 -4.052 13.999 1.00 97.99 C

ATOM 670 CB LEU A 87 -10.263 -3.128 11.690 1.00 97.99 C

ATOM 671 O LEU A 87 -10.079 -5.188 14.145 1.00 97.99 O

ATOM 672 CG LEU A 87 -10.753 -3.044 10.243 1.00 97.99 C

ATOM 673 CD1 LEU A 87 -9.724 -2.326 9.377 1.00 97.99 C

ATOM 674 CD2 LEU A 87 -11.043 -4.437 9.694 1.00 97.99 C

ATOM 675 N LYS A 88 -10.431 -3.171 14.845 1.00 97.36 N

ATOM 676 CA LYS A 88 -9.794 -3.447 16.129 1.00 97.36 C

ATOM 677 C LYS A 88 -10.512 -4.572 16.869 1.00 97.36 C

ATOM 678 CB LYS A 88 -9.764 -2.187 16.995 1.00 97.36 C

ATOM 679 O LYS A 88 -9.913 -5.259 17.698 1.00 97.36 O

ATOM 680 CG LYS A 88 -8.710 -1.172 16.575 1.00 97.36 C

ATOM 681 CD LYS A 88 -8.736 0.062 17.467 1.00 97.36 C

ATOM 682 CE LYS A 88 -7.728 1.107 17.007 1.00 97.36 C

ATOM 683 NZ LYS A 88 -7.758 2.324 17.871 1.00 97.36 N

ATOM 684 N THR A 89 -11.777 -4.798 16.585 1.00 97.62 N

ATOM 685 CA THR A 89 -12.585 -5.793 17.282 1.00 97.62 C

ATOM 686 C THR A 89 -12.474 -7.154 16.601 1.00 97.62 C

ATOM 687 CB THR A 89 -14.064 -5.367 17.346 1.00 97.62 C

ATOM 688 O THR A 89 -12.816 -8.180 17.192 1.00 97.62 O

ATOM 689 CG2 THR A 89 -14.202 -3.938 17.860 1.00 97.62 C

ATOM 690 OG1 THR A 89 -14.635 -5.449 16.035 1.00 97.62 O

ATOM 691 N ILE A 90 -11.927 -7.252 15.401 1.00 96.94 N

ATOM 692 CA ILE A 90 -12.052 -8.529 14.708 1.00 96.94 C

ATOM 693 C ILE A 90 -10.677 -9.000 14.241 1.00 96.94 C

ATOM 694 CB ILE A 90 -13.020 -8.429 13.509 1.00 96.94 C

ATOM 695 O ILE A 90 -10.532 -10.120 13.745 1.00 96.94 O

ATOM 696 CG1 ILE A 90 -12.520 -7.385 12.504 1.00 96.94 C

ATOM 697 CG2 ILE A 90 -14.437 -8.096 13.985 1.00 96.94 C

ATOM 698 CD1 ILE A 90 -13.306 -7.354 11.200 1.00 96.94 C

ATOM 699 N THR A 91 -9.690 -8.128 14.362 1.00 97.17 N

ATOM 700 CA THR A 91 -8.363 -8.556 13.932 1.00 97.17 C

ATOM 701 C THR A 91 -7.278 -7.811 14.704 1.00 97.17 C

ATOM 702 CB THR A 91 -8.167 -8.334 12.421 1.00 97.17 C

ATOM 703 O THR A 91 -7.532 -6.747 15.272 1.00 97.17 O

ATOM 704 CG2 THR A 91 -8.179 -6.848 12.078 1.00 97.17 C

ATOM 705 OG1 THR A 91 -6.911 -8.895 12.021 1.00 97.17 O

ATOM 706 N ASP A 92 -6.050 -8.308 14.704 1.00 96.70 N

ATOM 707 CA ASP A 92 -4.921 -7.685 15.387 1.00 96.70 C

ATOM 708 C ASP A 92 -3.967 -7.032 14.389 1.00 96.70 C

ATOM 709 CB ASP A 92 -4.171 -8.717 16.234 1.00 96.70 C

ATOM 710 O ASP A 92 -2.996 -6.383 14.784 1.00 96.70 O

ATOM 711 CG ASP A 92 -4.989 -9.229 17.406 1.00 96.70 C

ATOM 712 OD1 ASP A 92 -5.851 -8.483 17.921 1.00 96.70 O

ATOM 713 OD2 ASP A 92 -4.768 -10.387 17.821 1.00 96.70 O

ATOM 714 N HIS A 93 -4.335 -7.224 13.045 1.00 97.68 N

ATOM 715 CA HIS A 93 -3.416 -6.700 12.041 1.00 97.68 C

ATOM 716 C HIS A 93 -4.171 -6.178 10.822 1.00 97.68 C

ATOM 717 CB HIS A 93 -2.415 -7.776 11.617 1.00 97.68 C

ATOM 718 O HIS A 93 -5.002 -6.887 10.251 1.00 97.68 O

ATOM 719 CG HIS A 93 -1.330 -7.267 10.722 1.00 97.68 C

ATOM 720 CD2 HIS A 93 -0.835 -6.019 10.546 1.00 97.68 C

ATOM 721 ND1 HIS A 93 -0.622 -8.087 9.870 1.00 97.68 N

ATOM 722 CE1 HIS A 93 0.265 -7.364 9.208 1.00 97.68 C

ATOM 723 NE2 HIS A 93 0.156 -6.106 9.599 1.00 97.68 N

ATOM 724 N VAL A 94 -3.801 -4.939 10.467 1.00 98.23 N

ATOM 725 CA VAL A 94 -4.385 -4.302 9.291 1.00 98.23 C

ATOM 726 C VAL A 94 -3.275 -3.771 8.386 1.00 98.23 C

ATOM 727 CB VAL A 94 -5.346 -3.157 9.683 1.00 98.23 C

ATOM 728 O VAL A 94 -2.294 -3.199 8.867 1.00 98.23 O

ATOM 729 CG1 VAL A 94 -5.789 -2.377 8.447 1.00 98.23 C

ATOM 730 CG2 VAL A 94 -6.556 -3.711 10.432 1.00 98.23 C

ATOM 731 N ILE A 95 -3.551 -4.022 7.095 1.00 98.39 N

ATOM 732 CA ILE A 95 -2.611 -3.491 6.114 1.00 98.39 C

ATOM 733 C ILE A 95 -3.286 -2.396 5.291 1.00 98.39 C

ATOM 734 CB ILE A 95 -2.073 -4.604 5.186 1.00 98.39 C

ATOM 735 O ILE A 95 -4.213 -2.669 4.525 1.00 98.39 O

ATOM 736 CG1 ILE A 95 -1.462 -5.740 6.014 1.00 98.39 C

ATOM 737 CG2 ILE A 95 -1.052 -4.036 4.197 1.00 98.39 C

ATOM 738 CD1 ILE A 95 -0.970 -6.917 5.182 1.00 98.39 C

ATOM 739 N VAL A 96 -2.742 -1.128 5.425 1.00 98.36 N

ATOM 740 CA VAL A 96 -3.224 -0.016 4.613 1.00 98.36 C

ATOM 741 C VAL A 96 -2.699 -0.152 3.186 1.00 98.36 C

ATOM 742 CB VAL A 96 -2.802 1.346 5.209 1.00 98.36 C

ATOM 743 O VAL A 96 -1.486 -0.171 2.963 1.00 98.36 O

ATOM 744 CG1 VAL A 96 -3.324 2.496 4.350 1.00 98.36 C

ATOM 745 CG2 VAL A 96 -3.302 1.478 6.646 1.00 98.36 C

ATOM 746 N SER A 97 -3.589 -0.302 2.227 1.00 96.85 N

ATOM 747 CA SER A 97 -3.159 -0.665 0.880 1.00 96.85 C

ATOM 748 C SER A 97 -3.678 0.330 -0.153 1.00 96.85 C

ATOM 749 CB SER A 97 -3.636 -2.075 0.527 1.00 96.85 C

ATOM 750 O SER A 97 -3.866 -0.020 -1.319 1.00 96.85 O

ATOM 751 OG SER A 97 -3.052 -3.035 1.390 1.00 96.85 O

ATOM 752 N GLY A 98 -3.925 1.615 0.321 1.00 91.76 N

ATOM 753 CA GLY A 98 -4.266 2.672 -0.618 1.00 91.76 C

ATOM 754 C GLY A 98 -5.718 3.103 -0.529 1.00 91.76 C

ATOM 755 O GLY A 98 -6.506 2.502 0.204 1.00 91.76 O

ATOM 756 N GLY A 99 -6.015 4.297 -1.318 1.00 91.21 N

ATOM 757 CA GLY A 99 -5.165 5.046 -2.230 1.00 91.21 C

ATOM 758 C GLY A 99 -4.506 6.248 -1.580 1.00 91.21 C

ATOM 759 O GLY A 99 -4.287 6.262 -0.366 1.00 91.21 O

ATOM 760 N GLY A 100 -4.046 7.223 -2.498 1.00 91.66 N

ATOM 761 CA GLY A 100 -3.303 8.409 -2.103 1.00 91.66 C

ATOM 762 C GLY A 100 -3.861 9.076 -0.860 1.00 91.66 C

ATOM 763 O GLY A 100 -3.112 9.409 0.061 1.00 91.66 O

ATOM 764 N GLU A 101 -5.203 9.227 -0.781 1.00 93.99 N

ATOM 765 CA GLU A 101 -5.835 9.896 0.352 1.00 93.99 C

ATOM 766 C GLU A 101 -5.722 9.057 1.622 1.00 93.99 C

ATOM 767 CB GLU A 101 -7.306 10.194 0.048 1.00 93.99 C

ATOM 768 O GLU A 101 -5.493 9.593 2.708 1.00 93.99 O

ATOM 769 CG GLU A 101 -7.509 11.272 -1.007 1.00 93.99 C

ATOM 770 CD GLU A 101 -8.974 11.565 -1.289 1.00 93.99 C

ATOM 771 OE1 GLU A 101 -9.282 12.142 -2.357 1.00 93.99 O

ATOM 772 OE2 GLU A 101 -9.820 11.217 -0.436 1.00 93.99 O

ATOM 773 N ILE A 102 -5.944 7.764 1.467 1.00 97.15 N

ATOM 774 CA ILE A 102 -5.833 6.855 2.602 1.00 97.15 C

ATOM 775 C ILE A 102 -4.397 6.850 3.122 1.00 97.15 C

ATOM 776 CB ILE A 102 -6.270 5.422 2.224 1.00 97.15 C

ATOM 777 O ILE A 102 -4.166 6.971 4.327 1.00 97.15 O

ATOM 778 CG1 ILE A 102 -7.754 5.401 1.838 1.00 97.15 C

ATOM 779 CG2 ILE A 102 -5.990 4.450 3.374 1.00 97.15 C

ATOM 780 CD1 ILE A 102 -8.692 5.816 2.963 1.00 97.15 C

ATOM 781 N TYR A 103 -3.465 6.817 2.179 1.00 97.59 N

ATOM 782 CA TYR A 103 -2.062 6.849 2.577 1.00 97.59 C

ATOM 783 C TYR A 103 -1.740 8.127 3.341 1.00 97.59 C

ATOM 784 CB TYR A 103 -1.152 6.731 1.350 1.00 97.59 C

ATOM 785 O TYR A 103 -1.119 8.082 4.406 1.00 97.59 O

ATOM 786 CG TYR A 103 -1.144 5.355 0.730 1.00 97.59 C

ATOM 787 CD1 TYR A 103 -1.248 4.213 1.521 1.00 97.59 C

ATOM 788 CD2 TYR A 103 -1.030 5.193 -0.646 1.00 97.59 C

ATOM 789 CE1 TYR A 103 -1.239 2.942 0.955 1.00 97.59 C

ATOM 790 CE2 TYR A 103 -1.020 3.928 -1.224 1.00 97.59 C

ATOM 791 OH TYR A 103 -1.116 1.555 -0.982 1.00 97.59 O

ATOM 792 CZ TYR A 103 -1.125 2.810 -0.416 1.00 97.59 C

ATOM 793 N LYS A 104 -2.111 9.197 2.803 1.00 96.99 N

ATOM 794 CA LYS A 104 -1.825 10.496 3.404 1.00 96.99 C

ATOM 795 C LYS A 104 -2.381 10.580 4.822 1.00 96.99 C

ATOM 796 CB LYS A 104 -2.403 11.624 2.547 1.00 96.99 C

ATOM 797 O LYS A 104 -1.722 11.103 5.723 1.00 96.99 O

ATOM 798 CG LYS A 104 -2.029 13.019 3.025 1.00 96.99 C

ATOM 799 CD LYS A 104 -2.580 14.094 2.098 1.00 96.99 C

ATOM 800 CE LYS A 104 -2.244 15.492 2.599 1.00 96.99 C

ATOM 801 NZ LYS A 104 -2.769 16.550 1.685 1.00 96.99 N

ATOM 802 N SER A 105 -3.495 10.043 5.045 1.00 96.87 N

ATOM 803 CA SER A 105 -4.205 10.154 6.315 1.00 96.87 C

ATOM 804 C SER A 105 -3.606 9.225 7.366 1.00 96.87 C

ATOM 805 CB SER A 105 -5.689 9.837 6.129 1.00 96.87 C

ATOM 806 O SER A 105 -3.633 9.531 8.560 1.00 96.87 O

ATOM 807 OG SER A 105 -6.319 10.825 5.331 1.00 96.87 O

ATOM 808 N LEU A 106 -2.981 8.121 6.922 1.00 97.60 N

ATOM 809 CA LEU A 106 -2.670 7.090 7.906 1.00 97.60 C

ATOM 810 C LEU A 106 -1.162 6.906 8.043 1.00 97.60 C

ATOM 811 CB LEU A 106 -3.324 5.762 7.516 1.00 97.60 C

ATOM 812 O LEU A 106 -0.693 6.269 8.989 1.00 97.60 O

ATOM 813 CG LEU A 106 -4.834 5.659 7.738 1.00 97.60 C

ATOM 814 CD1 LEU A 106 -5.376 4.380 7.109 1.00 97.60 C

ATOM 815 CD2 LEU A 106 -5.161 5.710 9.226 1.00 97.60 C

ATOM 816 N ILE A 107 -0.369 7.513 7.169 1.00 97.71 N

ATOM 817 CA ILE A 107 1.060 7.226 7.115 1.00 97.71 C

ATOM 818 C ILE A 107 1.700 7.537 8.466 1.00 97.71 C

ATOM 819 CB ILE A 107 1.757 8.031 5.994 1.00 97.71 C

ATOM 820 O ILE A 107 2.617 6.836 8.901 1.00 97.71 O

ATOM 821 CG1 ILE A 107 3.199 7.546 5.806 1.00 97.71 C

ATOM 822 CG2 ILE A 107 1.719 9.530 6.303 1.00 97.71 C

ATOM 823 CD1 ILE A 107 3.841 8.005 4.504 1.00 97.71 C

ATOM 824 N ASP A 108 1.191 8.532 9.208 1.00 96.28 N

ATOM 825 CA ASP A 108 1.783 8.923 10.484 1.00 96.28 C

ATOM 826 C ASP A 108 1.290 8.026 11.616 1.00 96.28 C

ATOM 827 CB ASP A 108 1.466 10.387 10.796 1.00 96.28 C

ATOM 828 O ASP A 108 1.811 8.083 12.732 1.00 96.28 O

ATOM 829 CG ASP A 108 2.250 11.361 9.934 1.00 96.28 C

ATOM 830 OD1 ASP A 108 3.414 11.067 9.587 1.00 96.28 O

ATOM 831 OD2 ASP A 108 1.700 12.433 9.602 1.00 96.28 O

ATOM 832 N LYS A 109 0.327 7.167 11.335 1.00 96.25 N

ATOM 833 CA LYS A 109 -0.293 6.377 12.395 1.00 96.25 C

ATOM 834 C LYS A 109 0.125 4.912 12.305 1.00 96.25 C

ATOM 835 CB LYS A 109 -1.817 6.492 12.328 1.00 96.25 C

ATOM 836 O LYS A 109 -0.196 4.114 13.188 1.00 96.25 O

ATOM 837 CG LYS A 109 -2.345 7.891 12.607 1.00 96.25 C

ATOM 838 CD LYS A 109 -3.867 7.933 12.565 1.00 96.25 C

ATOM 839 CE LYS A 109 -4.397 9.335 12.835 1.00 96.25 C

ATOM 840 NZ LYS A 109 -5.890 9.366 12.871 1.00 96.25 N

ATOM 841 N VAL A 110 0.813 4.589 11.201 1.00 97.85 N

ATOM 842 CA VAL A 110 1.152 3.181 11.021 1.00 97.85 C

ATOM 843 C VAL A 110 2.465 2.870 11.737 1.00 97.85 C

ATOM 844 CB VAL A 110 1.259 2.809 9.525 1.00 97.85 C

ATOM 845 O VAL A 110 3.231 3.779 12.065 1.00 97.85 O

ATOM 846 CG1 VAL A 110 -0.073 3.039 8.815 1.00 97.85 C

ATOM 847 CG2 VAL A 110 2.372 3.613 8.855 1.00 97.85 C

ATOM 848 N ASP A 111 2.691 1.561 12.021 1.00 97.47 N

ATOM 849 CA ASP A 111 3.863 1.081 12.747 1.00 97.47 C

ATOM 850 C ASP A 111 4.976 0.672 11.784 1.00 97.47 C

ATOM 851 CB ASP A 111 3.490 -0.096 13.650 1.00 97.47 C

ATOM 852 O ASP A 111 6.159 0.840 12.087 1.00 97.47 O

ATOM 853 CG ASP A 111 2.379 0.238 14.631 1.00 97.47 C

ATOM 854 OD1 ASP A 111 2.566 1.135 15.480 1.00 97.47 O

ATOM 855 OD2 ASP A 111 1.310 -0.404 14.555 1.00 97.47 O

ATOM 856 N THR A 112 4.568 0.136 10.611 1.00 98.22 N

ATOM 857 CA THR A 112 5.502 -0.425 9.641 1.00 98.22 C

ATOM 858 C THR A 112 5.122 -0.009 8.222 1.00 98.22 C

ATOM 859 CB THR A 112 5.547 -1.962 9.733 1.00 98.22 C

ATOM 860 O THR A 112 3.940 0.031 7.876 1.00 98.22 O

ATOM 861 CG2 THR A 112 6.595 -2.539 8.789 1.00 98.22 C

ATOM 862 OG1 THR A 112 5.867 -2.344 11.077 1.00 98.22 O

ATOM 863 N LEU A 113 6.179 0.341 7.493 1.00 98.54 N

ATOM 864 CA LEU A 113 6.004 0.605 6.069 1.00 98.54 C

ATOM 865 C LEU A 113 6.681 -0.473 5.229 1.00 98.54 C

ATOM 866 CB LEU A 113 6.569 1.981 5.705 1.00 98.54 C

ATOM 867 O LEU A 113 7.846 -0.803 5.458 1.00 98.54 O

ATOM 868 CG LEU A 113 6.032 3.168 6.507 1.00 98.54 C

ATOM 869 CD1 LEU A 113 6.760 4.448 6.111 1.00 98.54 C

ATOM 870 CD2 LEU A 113 4.528 3.316 6.300 1.00 98.54 C

ATOM 871 N HIS A 114 5.904 -1.102 4.311 1.00 98.46 N

ATOM 872 CA HIS A 114 6.433 -1.928 3.232 1.00 98.46 C

ATOM 873 C HIS A 114 6.424 -1.174 1.906 1.00 98.46 C

ATOM 874 CB HIS A 114 5.628 -3.223 3.105 1.00 98.46 C

ATOM 875 O HIS A 114 5.367 -0.993 1.297 1.00 98.46 O

ATOM 876 CG HIS A 114 5.629 -4.054 4.348 1.00 98.46 C

ATOM 877 CD2 HIS A 114 4.845 -4.005 5.451 1.00 98.46 C

ATOM 878 ND1 HIS A 114 6.523 -5.082 4.555 1.00 98.46 N

ATOM 879 CE1 HIS A 114 6.287 -5.632 5.735 1.00 98.46 C

ATOM 880 NE2 HIS A 114 5.274 -4.996 6.298 1.00 98.46 N

ATOM 881 N ILE A 115 7.688 -0.814 1.493 1.00 98.37 N

ATOM 882 CA ILE A 115 7.766 0.083 0.345 1.00 98.37 C

ATOM 883 C ILE A 115 8.576 -0.575 -0.770 1.00 98.37 C

ATOM 884 CB ILE A 115 8.391 1.442 0.731 1.00 98.37 C

ATOM 885 O ILE A 115 9.709 -1.008 -0.551 1.00 98.37 O

ATOM 886 CG1 ILE A 115 7.591 2.095 1.863 1.00 98.37 C

ATOM 887 CG2 ILE A 115 8.470 2.366 -0.488 1.00 98.37 C

ATOM 888 CD1 ILE A 115 6.142 2.394 1.505 1.00 98.37 C

ATOM 889 N SER A 116 7.933 -0.693 -1.912 1.00 98.19 N

ATOM 890 CA SER A 116 8.658 -1.019 -3.136 1.00 98.19 C

ATOM 891 C SER A 116 8.884 0.224 -3.991 1.00 98.19 C

ATOM 892 CB SER A 116 7.901 -2.073 -3.944 1.00 98.19 C

ATOM 893 O SER A 116 7.929 0.900 -4.378 1.00 98.19 O

ATOM 894 OG SER A 116 7.807 -3.289 -3.222 1.00 98.19 O

ATOM 895 N THR A 117 10.167 0.537 -4.213 1.00 98.31 N

ATOM 896 CA THR A 117 10.496 1.622 -5.131 1.00 98.31 C

ATOM 897 C THR A 117 10.801 1.079 -6.524 1.00 98.31 C

ATOM 898 CB THR A 117 11.697 2.440 -4.621 1.00 98.31 C

ATOM 899 O THR A 117 11.774 0.346 -6.711 1.00 98.31 O

ATOM 900 CG2 THR A 117 11.980 3.629 -5.533 1.00 98.31 C

ATOM 901 OG1 THR A 117 11.415 2.921 -3.301 1.00 98.31 O

ATOM 902 N ILE A 118 9.930 1.460 -7.432 1.00 98.43 N

ATOM 903 CA ILE A 118 10.021 0.986 -8.809 1.00 98.43 C

ATOM 904 C ILE A 118 10.957 1.892 -9.605 1.00 98.43 C

ATOM 905 CB ILE A 118 8.630 0.929 -9.480 1.00 98.43 C

ATOM 906 O ILE A 118 10.763 3.109 -9.651 1.00 98.43 O

ATOM 907 CG1 ILE A 118 7.625 0.220 -8.566 1.00 98.43 C

ATOM 908 CG2 ILE A 118 8.717 0.235 -10.843 1.00 98.43 C

ATOM 909 CD1 ILE A 118 8.029 -1.197 -8.183 1.00 98.43 C

ATOM 910 N ASP A 119 11.950 1.345 -10.267 1.00 98.27 N

ATOM 911 CA ASP A 119 12.990 2.119 -10.938 1.00 98.27 C

ATOM 912 C ASP A 119 12.507 2.626 -12.296 1.00 98.27 C

ATOM 913 CB ASP A 119 14.257 1.280 -11.111 1.00 98.27 C

ATOM 914 O ASP A 119 13.012 2.203 -13.338 1.00 98.27 O

ATOM 915 CG ASP A 119 15.451 2.097 -11.573 1.00 98.27 C

ATOM 916 OD1 ASP A 119 15.399 3.345 -11.508 1.00 98.27 O

ATOM 917 OD2 ASP A 119 16.451 1.489 -12.011 1.00 98.27 O

ATOM 918 N ILE A 120 11.534 3.492 -12.251 1.00 98.21 N

ATOM 919 CA ILE A 120 10.986 4.169 -13.421 1.00 98.21 C

ATOM 920 C ILE A 120 10.402 5.519 -13.010 1.00 98.21 C

ATOM 921 CB ILE A 120 9.909 3.309 -14.119 1.00 98.21 C

ATOM 922 O ILE A 120 10.159 5.763 -11.826 1.00 98.21 O

ATOM 923 CG1 ILE A 120 9.526 3.925 -15.469 1.00 98.21 C

ATOM 924 CG2 ILE A 120 8.678 3.152 -13.220 1.00 98.21 C

ATOM 925 CD1 ILE A 120 8.687 3.010 -16.351 1.00 98.21 C

ATOM 926 N GLU A 121 10.183 6.444 -13.919 1.00 98.24 N

ATOM 927 CA GLU A 121 9.577 7.756 -13.710 1.00 98.24 C

ATOM 928 C GLU A 121 8.406 7.980 -14.663 1.00 98.24 C

ATOM 929 CB GLU A 121 10.619 8.864 -13.886 1.00 98.24 C

ATOM 930 O GLU A 121 8.517 8.751 -15.620 1.00 98.24 O

ATOM 931 CG GLU A 121 11.749 8.812 -12.869 1.00 98.24 C

ATOM 932 CD GLU A 121 12.746 9.950 -13.022 1.00 98.24 C

ATOM 933 OE1 GLU A 121 13.553 10.179 -12.092 1.00 98.24 O

ATOM 934 OE2 GLU A 121 12.719 10.618 -14.079 1.00 98.24 O

ATOM 935 N PRO A 122 7.292 7.394 -14.406 1.00 97.60 N

ATOM 936 CA PRO A 122 6.119 7.530 -15.274 1.00 97.60 C

ATOM 937 C PRO A 122 5.350 8.826 -15.027 1.00 97.60 C

ATOM 938 CB PRO A 122 5.268 6.312 -14.910 1.00 97.60 C

ATOM 939 O PRO A 122 5.589 9.509 -14.027 1.00 97.60 O

ATOM 940 CG PRO A 122 5.514 6.095 -13.452 1.00 97.60 C

ATOM 941 CD PRO A 122 6.953 6.408 -13.160 1.00 97.60 C

ATOM 942 N GLU A 123 4.505 9.181 -15.991 1.00 97.21 N

ATOM 943 CA GLU A 123 3.501 10.212 -15.747 1.00 97.21 C

ATOM 944 C GLU A 123 2.399 9.702 -14.823 1.00 97.21 C

ATOM 945 CB GLU A 123 2.897 10.698 -17.068 1.00 97.21 C

ATOM 946 O GLU A 123 2.015 8.532 -14.893 1.00 97.21 O

ATOM 947 CG GLU A 123 3.889 11.418 -17.969 1.00 97.21 C

ATOM 948 CD GLU A 123 3.254 11.980 -19.231 1.00 97.21 C

ATOM 949 OE1 GLU A 123 3.947 12.690 -19.995 1.00 97.21 O

ATOM 950 OE2 GLU A 123 2.054 11.709 -19.458 1.00 97.21 O

ATOM 951 N GLY A 124 1.972 10.598 -13.884 1.00 96.09 N

ATOM 952 CA GLY A 124 0.890 10.213 -12.992 1.00 96.09 C

ATOM 953 C GLY A 124 0.343 11.374 -12.182 1.00 96.09 C

ATOM 954 O GLY A 124 0.929 12.459 -12.169 1.00 96.09 O

ATOM 955 N ASP A 125 -0.893 11.111 -11.584 1.00 95.52 N

ATOM 956 CA ASP A 125 -1.542 12.218 -10.888 1.00 95.52 C

ATOM 957 C ASP A 125 -1.784 11.877 -9.419 1.00 95.52 C

ATOM 958 CB ASP A 125 -2.864 12.578 -11.569 1.00 95.52 C

ATOM 959 O ASP A 125 -2.436 12.636 -8.700 1.00 95.52 O

ATOM 960 CG ASP A 125 -3.822 11.404 -11.664 1.00 95.52 C

ATOM 961 OD1 ASP A 125 -3.476 10.295 -11.202 1.00 95.52 O

ATOM 962 OD2 ASP A 125 -4.933 11.588 -12.207 1.00 95.52 O

ATOM 963 N VAL A 126 -1.308 10.728 -9.058 1.00 95.53 N

ATOM 964 CA VAL A 126 -1.417 10.339 -7.656 1.00 95.53 C

ATOM 965 C VAL A 126 -0.026 10.078 -7.082 1.00 95.53 C

ATOM 966 CB VAL A 126 -2.308 9.088 -7.482 1.00 95.53 C

ATOM 967 O VAL A 126 0.748 9.299 -7.643 1.00 95.53 O

ATOM 968 CG1 VAL A 126 -2.505 8.768 -6.001 1.00 95.53 C

ATOM 969 CG2 VAL A 126 -3.656 9.294 -8.171 1.00 95.53 C

ATOM 970 N TYR A 127 0.263 10.705 -5.925 1.00 96.71 N

ATOM 971 CA TYR A 127 1.597 10.615 -5.342 1.00 96.71 C

ATOM 972 C TYR A 127 1.537 10.043 -3.930 1.00 96.71 C

ATOM 973 CB TYR A 127 2.268 11.992 -5.319 1.00 96.71 C

ATOM 974 O TYR A 127 0.563 10.260 -3.206 1.00 96.71 O

ATOM 975 CG TYR A 127 2.512 12.570 -6.692 1.00 96.71 C

ATOM 976 CD1 TYR A 127 3.739 12.403 -7.331 1.00 96.71 C

ATOM 977 CD2 TYR A 127 1.519 13.285 -7.351 1.00 96.71 C

ATOM 978 CE1 TYR A 127 3.970 12.936 -8.595 1.00 96.71 C

ATOM 979 CE2 TYR A 127 1.738 13.823 -8.615 1.00 96.71 C

ATOM 980 OH TYR A 127 3.187 14.173 -10.479 1.00 96.71 O

ATOM 981 CZ TYR A 127 2.965 13.643 -9.228 1.00 96.71 C

ATOM 982 N PHE A 128 2.554 9.333 -3.681 1.00 97.43 N

ATOM 983 CA PHE A 128 2.738 8.834 -2.324 1.00 97.43 C

ATOM 984 C PHE A 128 3.186 9.953 -1.391 1.00 97.43 C

ATOM 985 CB PHE A 128 3.761 7.693 -2.303 1.00 97.43 C

ATOM 986 O PHE A 128 4.009 10.790 -1.768 1.00 97.43 O

ATOM 987 CG PHE A 128 3.784 6.922 -1.010 1.00 97.43 C

ATOM 988 CD1 PHE A 128 4.797 7.124 -0.082 1.00 97.43 C

ATOM 989 CD2 PHE A 128 2.790 5.994 -0.724 1.00 97.43 C

ATOM 990 CE1 PHE A 128 4.821 6.412 1.115 1.00 97.43 C

ATOM 991 CE2 PHE A 128 2.807 5.279 0.469 1.00 97.43 C

ATOM 992 CZ PHE A 128 3.824 5.488 1.387 1.00 97.43 C

ATOM 993 N PRO A 129 2.593 9.995 -0.176 1.00 97.35 N

ATOM 994 CA PRO A 129 3.026 11.038 0.756 1.00 97.35 C

ATOM 995 C PRO A 129 4.458 10.835 1.247 1.00 97.35 C

ATOM 996 CB PRO A 129 2.030 10.914 1.912 1.00 97.35 C

ATOM 997 O PRO A 129 5.000 9.732 1.138 1.00 97.35 O

ATOM 998 CG PRO A 129 1.613 9.479 1.904 1.00 97.35 C

ATOM 999 CD PRO A 129 1.587 8.997 0.482 1.00 97.35 C

ATOM 1000 N GLU A 130 5.046 11.920 1.717 1.00 96.39 N

ATOM 1001 CA GLU A 130 6.397 11.860 2.267 1.00 96.39 C

ATOM 1002 C GLU A 130 6.454 10.952 3.492 1.00 96.39 C

ATOM 1003 CB GLU A 130 6.893 13.263 2.628 1.00 96.39 C

ATOM 1004 O GLU A 130 5.566 10.996 4.346 1.00 96.39 O

ATOM 1005 CG GLU A 130 8.358 13.310 3.039 1.00 96.39 C

ATOM 1006 CD GLU A 130 8.837 14.708 3.393 1.00 96.39 C

ATOM 1007 OE1 GLU A 130 10.034 14.875 3.721 1.00 96.39 O

ATOM 1008 OE2 GLU A 130 8.009 15.645 3.343 1.00 96.39 O

ATOM 1009 N ILE A 131 7.451 10.053 3.528 1.00 97.28 N

ATOM 1010 CA ILE A 131 7.668 9.208 4.697 1.00 97.28 C

ATOM 1011 C ILE A 131 8.162 10.060 5.864 1.00 97.28 C

ATOM 1012 CB ILE A 131 8.674 8.075 4.397 1.00 97.28 C

ATOM 1013 O ILE A 131 9.159 10.774 5.741 1.00 97.28 O

ATOM 1014 CG1 ILE A 131 8.140 7.168 3.282 1.00 97.28 C

ATOM 1015 CG2 ILE A 131 8.972 7.268 5.664 1.00 97.28 C

ATOM 1016 CD1 ILE A 131 9.123 6.095 2.833 1.00 97.28 C

ATOM 1017 N PRO A 132 7.472 10.028 7.022 1.00 97.43 N

ATOM 1018 CA PRO A 132 7.863 10.812 8.196 1.00 97.43 C

ATOM 1019 C PRO A 132 9.278 10.494 8.675 1.00 97.43 C

ATOM 1020 CB PRO A 132 6.827 10.410 9.249 1.00 97.43 C

ATOM 1021 O PRO A 132 9.747 9.364 8.517 1.00 97.43 O

ATOM 1022 CG PRO A 132 5.640 9.954 8.463 1.00 97.43 C

ATOM 1023 CD PRO A 132 6.127 9.254 7.227 1.00 97.43 C

ATOM 1024 N SER A 133 9.878 11.468 9.242 1.00 96.93 N

ATOM 1025 CA SER A 133 11.255 11.344 9.709 1.00 96.93 C

ATOM 1026 C SER A 133 11.360 10.356 10.866 1.00 96.93 C

ATOM 1027 CB SER A 133 11.799 12.706 10.140 1.00 96.93 C

ATOM 1028 O SER A 133 12.449 9.873 11.180 1.00 96.93 O

ATOM 1029 OG SER A 133 10.991 13.272 11.157 1.00 96.93 O

ATOM 1030 N SER A 134 10.213 10.064 11.490 1.00 97.04 N

ATOM 1031 CA SER A 134 10.177 9.118 12.600 1.00 97.04 C

ATOM 1032 C SER A 134 10.435 7.693 12.122 1.00 97.04 C

ATOM 1033 CB SER A 134 8.830 9.187 13.320 1.00 97.04 C

ATOM 1034 O SER A 134 10.634 6.786 12.933 1.00 97.04 O

ATOM 1035 OG SER A 134 7.765 8.939 12.418 1.00 97.04 O

ATOM 1036 N PHE A 135 10.479 7.431 10.868 1.00 98.20 N

ATOM 1037 CA PHE A 135 10.710 6.103 10.314 1.00 98.20 C

ATOM 1038 C PHE A 135 12.168 5.933 9.904 1.00 98.20 C

ATOM 1039 CB PHE A 135 9.794 5.853 9.112 1.00 98.20 C

ATOM 1040 O PHE A 135 12.815 6.893 9.480 1.00 98.20 O

ATOM 1041 CG PHE A 135 8.378 5.512 9.488 1.00 98.20 C

ATOM 1042 CD1 PHE A 135 7.986 4.189 9.649 1.00 98.20 C

ATOM 1043 CD2 PHE A 135 7.437 6.516 9.681 1.00 98.20 C

ATOM 1044 CE1 PHE A 135 6.675 3.870 9.998 1.00 98.20 C

ATOM 1045 CE2 PHE A 135 6.126 6.205 10.030 1.00 98.20 C

ATOM 1046 CZ PHE A 135 5.747 4.882 10.186 1.00 98.20 C

ATOM 1047 N ARG A 136 12.637 4.727 10.033 1.00 97.76 N

ATOM 1048 CA ARG A 136 13.960 4.358 9.540 1.00 97.76 C

ATOM 1049 C ARG A 136 13.926 3.002 8.844 1.00 97.76 C

ATOM 1050 CB ARG A 136 14.974 4.334 10.686 1.00 97.76 C

ATOM 1051 O ARG A 136 13.194 2.102 9.262 1.00 97.76 O

ATOM 1052 CG ARG A 136 14.673 3.293 11.753 1.00 97.76 C

ATOM 1053 CD ARG A 136 15.680 3.346 12.893 1.00 97.76 C

ATOM 1054 NE ARG A 136 15.436 2.296 13.878 1.00 97.76 N

ATOM 1055 NH1 ARG A 136 17.029 3.042 15.375 1.00 97.76 N

ATOM 1056 NH2 ARG A 136 15.780 1.181 15.856 1.00 97.76 N

ATOM 1057 CZ ARG A 136 16.082 2.176 15.034 1.00 97.76 C

ATOM 1058 N PRO A 137 14.714 2.898 7.784 1.00 97.77 N

ATOM 1059 CA PRO A 137 14.758 1.601 7.105 1.00 97.77 C

ATOM 1060 C PRO A 137 15.460 0.526 7.932 1.00 97.77 C

ATOM 1061 CB PRO A 137 15.539 1.900 5.823 1.00 97.77 C

ATOM 1062 O PRO A 137 16.535 0.770 8.485 1.00 97.77 O

ATOM 1063 CG PRO A 137 16.404 3.069 6.166 1.00 97.77 C

ATOM 1064 CD PRO A 137 15.684 3.915 7.177 1.00 97.77 C

ATOM 1065 N VAL A 138 14.844 -0.635 8.017 1.00 98.17 N

ATOM 1066 CA VAL A 138 15.427 -1.698 8.829 1.00 98.17 C

ATOM 1067 C VAL A 138 15.719 -2.915 7.954 1.00 98.17 C

ATOM 1068 CB VAL A 138 14.498 -2.093 9.999 1.00 98.17 C

ATOM 1069 O VAL A 138 16.320 -3.888 8.414 1.00 98.17 O

ATOM 1070 CG1 VAL A 138 14.375 -0.947 11.001 1.00 98.17 C

ATOM 1071 CG2 VAL A 138 13.122 -2.498 9.474 1.00 98.17 C

ATOM 1072 N PHE A 139 15.274 -2.838 6.674 1.00 98.34 N

ATOM 1073 CA PHE A 139 15.484 -3.901 5.698 1.00 98.34 C

ATOM 1074 C PHE A 139 15.423 -3.352 4.278 1.00 98.34 C

ATOM 1075 CB PHE A 139 14.443 -5.010 5.877 1.00 98.34 C

ATOM 1076 O PHE A 139 14.663 -2.422 3.998 1.00 98.34 O

ATOM 1077 CG PHE A 139 14.549 -6.112 4.858 1.00 98.34 C

ATOM 1078 CD1 PHE A 139 13.825 -6.055 3.673 1.00 98.34 C

ATOM 1079 CD2 PHE A 139 15.373 -7.207 5.085 1.00 98.34 C

ATOM 1080 CE1 PHE A 139 13.921 -7.074 2.728 1.00 98.34 C

ATOM 1081 CE2 PHE A 139 15.475 -8.229 4.145 1.00 98.34 C

ATOM 1082 CZ PHE A 139 14.747 -8.161 2.968 1.00 98.34 C

ATOM 1083 N SER A 140 16.300 -3.972 3.445 1.00 98.24 N

ATOM 1084 CA SER A 140 16.272 -3.625 2.028 1.00 98.24 C

ATOM 1085 C SER A 140 16.713 -4.801 1.162 1.00 98.24 C

ATOM 1086 CB SER A 140 17.167 -2.416 1.754 1.00 98.24 C

ATOM 1087 O SER A 140 17.657 -5.515 1.509 1.00 98.24 O

ATOM 1088 OG SER A 140 17.106 -2.045 0.387 1.00 98.24 O

ATOM 1089 N GLN A 141 15.999 -4.950 0.103 1.00 98.25 N

ATOM 1090 CA GLN A 141 16.350 -5.963 -0.886 1.00 98.25 C

ATOM 1091 C GLN A 141 16.080 -5.465 -2.303 1.00 98.25 C

ATOM 1092 CB GLN A 141 15.578 -7.257 -0.628 1.00 98.25 C

ATOM 1093 O GLN A 141 14.969 -5.030 -2.612 1.00 98.25 O

ATOM 1094 CG GLN A 141 15.923 -8.383 -1.593 1.00 98.25 C

ATOM 1095 CD GLN A 141 15.369 -9.725 -1.153 1.00 98.25 C

ATOM 1096 NE2 GLN A 141 15.712 -10.778 -1.887 1.00 98.25 N

ATOM 1097 OE1 GLN A 141 14.640 -9.815 -0.160 1.00 98.25 O

ATOM 1098 N ASP A 142 17.096 -5.676 -3.170 1.00 98.32 N

ATOM 1099 CA ASP A 142 16.965 -5.272 -4.566 1.00 98.32 C

ATOM 1100 C ASP A 142 16.567 -6.456 -5.445 1.00 98.32 C

ATOM 1101 CB ASP A 142 18.273 -4.659 -5.072 1.00 98.32 C

ATOM 1102 O ASP A 142 16.989 -7.587 -5.201 1.00 98.32 O

ATOM 1103 CG ASP A 142 18.617 -3.349 -4.385 1.00 98.32 C

ATOM 1104 OD1 ASP A 142 17.695 -2.628 -3.948 1.00 98.32 O

ATOM 1105 OD2 ASP A 142 19.823 -3.033 -4.283 1.00 98.32 O

ATOM 1106 N PHE A 143 15.743 -6.157 -6.446 1.00 98.16 N

ATOM 1107 CA PHE A 143 15.298 -7.170 -7.397 1.00 98.16 C

ATOM 1108 C PHE A 143 15.613 -6.746 -8.826 1.00 98.16 C

ATOM 1109 CB PHE A 143 13.795 -7.427 -7.245 1.00 98.16 C

ATOM 1110 O PHE A 143 15.378 -5.597 -9.205 1.00 98.16 O

ATOM 1111 CG PHE A 143 13.407 -7.983 -5.902 1.00 98.16 C

ATOM 1112 CD1 PHE A 143 13.273 -9.353 -5.714 1.00 98.16 C

ATOM 1113 CD2 PHE A 143 13.178 -7.135 -4.826 1.00 98.16 C

ATOM 1114 CE1 PHE A 143 12.914 -9.871 -4.471 1.00 98.16 C

ATOM 1115 CE2 PHE A 143 12.818 -7.645 -3.582 1.00 98.16 C

ATOM 1116 CZ PHE A 143 12.686 -9.013 -3.407 1.00 98.16 C

ATOM 1117 N VAL A 144 16.244 -7.676 -9.523 1.00 97.99 N

ATOM 1118 CA VAL A 144 16.433 -7.493 -10.958 1.00 97.99 C

ATOM 1119 C VAL A 144 15.266 -8.121 -11.718 1.00 97.99 C

ATOM 1120 CB VAL A 144 17.770 -8.102 -11.437 1.00 97.99 C

ATOM 1121 O VAL A 144 14.999 -9.317 -11.578 1.00 97.99 O

ATOM 1122 CG1 VAL A 144 17.937 -7.922 -12.944 1.00 97.99 C

ATOM 1123 CG2 VAL A 144 18.942 -7.471 -10.687 1.00 97.99 C

ATOM 1124 N SER A 145 14.528 -7.372 -12.586 1.00 96.26 N

ATOM 1125 CA SER A 145 13.348 -7.764 -13.348 1.00 96.26 C

ATOM 1126 C SER A 145 13.218 -6.943 -14.627 1.00 96.26 C

ATOM 1127 CB SER A 145 12.085 -7.606 -12.501 1.00 96.26 C

ATOM 1128 O SER A 145 14.203 -6.384 -15.114 1.00 96.26 O

ATOM 1129 OG SER A 145 10.944 -8.061 -13.208 1.00 96.26 O

ATOM 1130 N ASN A 146 12.048 -7.046 -15.222 1.00 97.82 N

ATOM 1131 CA ASN A 146 11.841 -6.200 -16.393 1.00 97.82 C

ATOM 1132 C ASN A 146 11.933 -4.719 -16.037 1.00 97.82 C

ATOM 1133 CB ASN A 146 10.491 -6.507 -17.045 1.00 97.82 C

ATOM 1134 O ASN A 146 12.319 -3.899 -16.871 1.00 97.82 O

ATOM 1135 CG ASN A 146 9.324 -6.286 -16.103 1.00 97.82 C

ATOM 1136 ND2 ASN A 146 8.307 -5.574 -16.575 1.00 97.82 N

ATOM 1137 OD1 ASN A 146 9.336 -6.750 -14.960 1.00 97.82 O

ATOM 1138 N ILE A 147 11.505 -4.387 -14.896 1.00 97.93 N

ATOM 1139 CA ILE A 147 11.757 -3.116 -14.226 1.00 97.93 C

ATOM 1140 C ILE A 147 12.330 -3.372 -12.833 1.00 97.93 C

ATOM 1141 CB ILE A 147 10.472 -2.264 -14.128 1.00 97.93 C

ATOM 1142 O ILE A 147 11.685 -4.008 -11.997 1.00 97.93 O

ATOM 1143 CG1 ILE A 147 9.853 -2.069 -15.517 1.00 97.93 C

ATOM 1144 CG2 ILE A 147 10.768 -0.915 -13.466 1.00 97.93 C

ATOM 1145 CD1 ILE A 147 8.503 -1.366 -15.500 1.00 97.93 C

ATOM 1146 N ASN A 148 13.570 -2.926 -12.676 1.00 98.42 N

ATOM 1147 CA ASN A 148 14.191 -3.137 -11.373 1.00 98.42 C

ATOM 1148 C ASN A 148 13.418 -2.431 -10.263 1.00 98.42 C

ATOM 1149 CB ASN A 148 15.646 -2.666 -11.389 1.00 98.42 C

ATOM 1150 O ASN A 148 12.776 -1.407 -10.502 1.00 98.42 O

ATOM 1151 CG ASN A 148 16.505 -3.454 -12.359 1.00 98.42 C

ATOM 1152 ND2 ASN A 148 17.669 -2.912 -12.695 1.00 98.42 N

ATOM 1153 OD1 ASN A 148 16.124 -4.541 -12.802 1.00 98.42 O

ATOM 1154 N TYR A 149 13.350 -3.090 -9.129 1.00 98.54 N

ATOM 1155 CA TYR A 149 12.746 -2.420 -7.982 1.00 98.54 C

ATOM 1156 C TYR A 149 13.422 -2.846 -6.684 1.00 98.54 C

ATOM 1157 CB TYR A 149 11.246 -2.721 -7.913 1.00 98.54 C

ATOM 1158 O TYR A 149 14.141 -3.848 -6.651 1.00 98.54 O

ATOM 1159 CG TYR A 149 10.926 -4.193 -7.820 1.00 98.54 C

ATOM 1160 CD1 TYR A 149 10.818 -4.976 -8.967 1.00 98.54 C

ATOM 1161 CD2 TYR A 149 10.729 -4.803 -6.586 1.00 98.54 C

ATOM 1162 CE1 TYR A 149 10.521 -6.333 -8.886 1.00 98.54 C

ATOM 1163 CE2 TYR A 149 10.431 -6.159 -6.493 1.00 98.54 C

ATOM 1164 OH TYR A 149 10.036 -8.257 -7.561 1.00 98.54 O

ATOM 1165 CZ TYR A 149 10.330 -6.914 -7.647 1.00 98.54 C

ATOM 1166 N SER A 150 13.326 -2.014 -5.643 1.00 98.38 N

ATOM 1167 CA SER A 150 13.846 -2.243 -4.299 1.00 98.38 C

ATOM 1168 C SER A 150 12.718 -2.313 -3.274 1.00 98.38 C

ATOM 1169 CB SER A 150 14.832 -1.141 -3.909 1.00 98.38 C

ATOM 1170 O SER A 150 11.839 -1.450 -3.251 1.00 98.38 O

ATOM 1171 OG SER A 150 15.355 -1.370 -2.612 1.00 98.38 O

ATOM 1172 N TYR A 151 12.761 -3.376 -2.594 1.00 98.50 N

ATOM 1173 CA TYR A 151 11.817 -3.531 -1.494 1.00 98.50 C

ATOM 1174 C TYR A 151 12.455 -3.135 -0.168 1.00 98.50 C

ATOM 1175 CB TYR A 151 11.310 -4.974 -1.419 1.00 98.50 C

ATOM 1176 O TYR A 151 13.540 -3.613 0.173 1.00 98.50 O

ATOM 1177 CG TYR A 151 10.481 -5.264 -0.192 1.00 98.50 C

ATOM 1178 CD1 TYR A 151 10.922 -6.166 0.774 1.00 98.50 C

ATOM 1179 CD2 TYR A 151 9.255 -4.637 0.005 1.00 98.50 C

ATOM 1180 CE1 TYR A 151 10.161 -6.437 1.906 1.00 98.50 C

ATOM 1181 CE2 TYR A 151 8.485 -4.901 1.133 1.00 98.50 C

ATOM 1182 OH TYR A 151 8.188 -6.066 3.196 1.00 98.50 O

ATOM 1183 CZ TYR A 151 8.946 -5.801 2.077 1.00 98.50 C

ATOM 1184 N GLN A 152 11.746 -2.284 0.608 1.00 98.51 N

ATOM 1185 CA GLN A 152 12.249 -1.827 1.899 1.00 98.51 C

ATOM 1186 C GLN A 152 11.181 -1.953 2.982 1.00 98.51 C

ATOM 1187 CB GLN A 152 12.733 -0.379 1.805 1.00 98.51 C

ATOM 1188 O GLN A 152 9.989 -1.806 2.705 1.00 98.51 O

ATOM 1189 CG GLN A 152 13.907 -0.183 0.855 1.00 98.51 C

ATOM 1190 CD GLN A 152 14.276 1.277 0.671 1.00 98.51 C

ATOM 1191 NE2 GLN A 152 15.457 1.654 1.150 1.00 98.51 N

ATOM 1192 OE1 GLN A 152 13.508 2.058 0.102 1.00 98.51 O

ATOM 1193 N ILE A 153 11.643 -2.294 4.213 1.00 98.56 N

ATOM 1194 CA ILE A 153 10.820 -2.208 5.415 1.00 98.56 C

ATOM 1195 C ILE A 153 11.315 -1.065 6.299 1.00 98.56 C

ATOM 1196 CB ILE A 153 10.828 -3.537 6.202 1.00 98.56 C

ATOM 1197 O ILE A 153 12.508 -0.974 6.596 1.00 98.56 O

ATOM 1198 CG1 ILE A 153 10.333 -4.686 5.316 1.00 98.56 C

ATOM 1199 CG2 ILE A 153 9.978 -3.419 7.471 1.00 98.56 C

ATOM 1200 CD1 ILE A 153 10.463 -6.062 5.955 1.00 98.56 C

ATOM 1201 N TRP A 154 10.317 -0.181 6.608 1.00 98.53 N

ATOM 1202 CA TRP A 154 10.603 0.933 7.507 1.00 98.53 C

ATOM 1203 C TRP A 154 9.876 0.761 8.836 1.00 98.53 C

ATOM 1204 CB TRP A 154 10.202 2.262 6.860 1.00 98.53 C

ATOM 1205 O TRP A 154 8.724 0.322 8.869 1.00 98.53 O

ATOM 1206 CG TRP A 154 10.918 2.555 5.576 1.00 98.53 C

ATOM 1207 CD1 TRP A 154 10.744 1.928 4.374 1.00 98.53 C

ATOM 1208 CD2 TRP A 154 11.927 3.548 5.369 1.00 98.53 C

ATOM 1209 CE2 TRP A 154 12.320 3.468 4.014 1.00 98.53 C

ATOM 1210 CE3 TRP A 154 12.537 4.500 6.197 1.00 98.53 C

ATOM 1211 NE1 TRP A 154 11.584 2.473 3.430 1.00 98.53 N

ATOM 1212 CH2 TRP A 154 13.878 5.226 4.302 1.00 98.53 C

ATOM 1213 CZ2 TRP A 154 13.297 4.304 3.470 1.00 98.53 C

ATOM 1214 CZ3 TRP A 154 13.509 5.331 5.653 1.00 98.53 C

ATOM 1215 N GLN A 155 10.607 1.074 9.945 1.00 97.63 N

ATOM 1216 CA GLN A 155 10.011 0.973 11.273 1.00 97.63 C

ATOM 1217 C GLN A 155 9.968 2.334 11.962 1.00 97.63 C

ATOM 1218 CB GLN A 155 10.783 -0.028 12.134 1.00 97.63 C

ATOM 1219 O GLN A 155 10.919 3.113 11.867 1.00 97.63 O

ATOM 1220 CG GLN A 155 10.551 -1.482 11.745 1.00 97.63 C

ATOM 1221 CD GLN A 155 11.094 -2.458 12.772 1.00 97.63 C

ATOM 1222 NE2 GLN A 155 10.898 -3.748 12.525 1.00 97.63 N

ATOM 1223 OE1 GLN A 155 11.686 -2.055 13.779 1.00 97.63 O

ATOM 1224 N LYS A 156 8.810 2.503 12.509 1.00 94.60 N

ATOM 1225 CA LYS A 156 8.663 3.730 13.286 1.00 94.60 C

ATOM 1226 C LYS A 156 9.516 3.686 14.551 1.00 94.60 C

ATOM 1227 CB LYS A 156 7.196 3.962 13.652 1.00 94.60 C

ATOM 1228 O LYS A 156 9.509 2.689 15.276 1.00 94.60 O

ATOM 1229 CG LYS A 156 6.900 5.362 14.169 1.00 94.60 C

ATOM 1230 CD LYS A 156 5.404 5.590 14.340 1.00 94.60 C

ATOM 1231 CE LYS A 156 5.099 7.030 14.732 1.00 94.60 C

ATOM 1232 NZ LYS A 156 3.629 7.274 14.843 1.00 94.60 N

ATOM 1233 N GLY A 157 10.546 4.620 14.843 1.00 84.26 N

ATOM 1234 CA GLY A 157 11.383 4.721 16.028 1.00 84.26 C

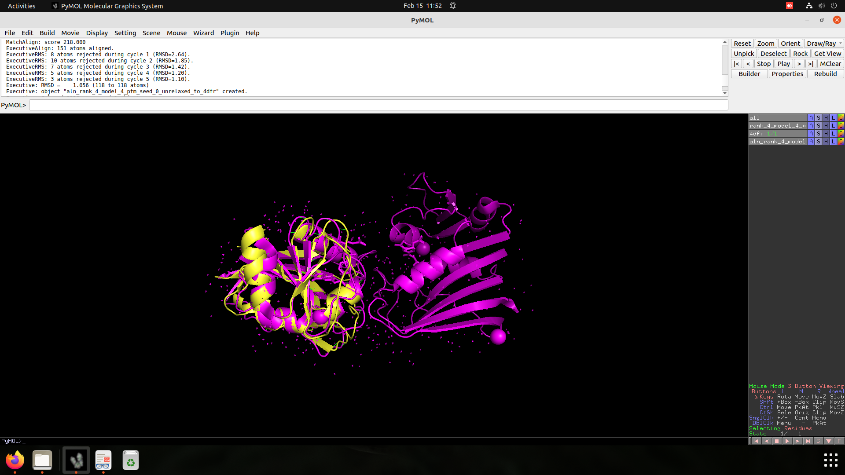
ATOM 1235 C GLY A 157 10.719 5.473 17.165 1.00 84.26 C

ATOM 1236 O GLY A 157 9.709 6.151 16.962 1.00 84.26 O

TER 1237 GLY A 157

ENDMDL

END



**RMSD = 1.056**

MODEL 2 – RANK5 :

****

MODEL 1

ATOM 1 N MET A 1 -7.629 4.422 -16.662 1.00 95.48 N

ATOM 2 CA MET A 1 -7.103 3.482 -15.676 1.00 95.48 C

ATOM 3 C MET A 1 -7.457 3.924 -14.260 1.00 95.48 C

ATOM 4 CB MET A 1 -5.586 3.346 -15.818 1.00 95.48 C

ATOM 5 O MET A 1 -7.212 5.072 -13.885 1.00 95.48 O

ATOM 6 CG MET A 1 -4.968 2.344 -14.855 1.00 95.48 C

ATOM 7 SD MET A 1 -3.141 2.258 -15.008 1.00 95.48 S

ATOM 8 CE MET A 1 -2.682 3.848 -14.265 1.00 95.48 C

ATOM 9 N LYS A 2 -8.118 3.095 -13.463 1.00 96.76 N

ATOM 10 CA LYS A 2 -8.458 3.346 -12.065 1.00 96.76 C

ATOM 11 C LYS A 2 -7.252 3.123 -11.157 1.00 96.76 C

ATOM 12 CB LYS A 2 -9.618 2.450 -11.626 1.00 96.76 C

ATOM 13 O LYS A 2 -6.527 2.138 -11.310 1.00 96.76 O

ATOM 14 CG LYS A 2 -10.126 2.740 -10.222 1.00 96.76 C

ATOM 15 CD LYS A 2 -11.328 1.872 -9.872 1.00 96.76 C

ATOM 16 CE LYS A 2 -11.819 2.140 -8.456 1.00 96.76 C

ATOM 17 NZ LYS A 2 -13.016 1.312 -8.119 1.00 96.76 N

ATOM 18 N LEU A 3 -7.081 4.093 -10.193 1.00 97.73 N

ATOM 19 CA LEU A 3 -5.995 3.976 -9.226 1.00 97.73 C

ATOM 20 C LEU A 3 -6.541 3.887 -7.805 1.00 97.73 C

ATOM 21 CB LEU A 3 -5.041 5.167 -9.345 1.00 97.73 C

ATOM 22 O LEU A 3 -7.228 4.800 -7.341 1.00 97.73 O

ATOM 23 CG LEU A 3 -3.675 5.011 -8.674 1.00 97.73 C

ATOM 24 CD1 LEU A 3 -2.926 3.823 -9.266 1.00 97.73 C

ATOM 25 CD2 LEU A 3 -2.858 6.291 -8.819 1.00 97.73 C

ATOM 26 N SER A 4 -6.230 2.740 -7.203 1.00 98.28 N

ATOM 27 CA SER A 4 -6.600 2.532 -5.807 1.00 98.28 C

ATOM 28 C SER A 4 -5.366 2.411 -4.920 1.00 98.28 C

ATOM 29 CB SER A 4 -7.467 1.280 -5.662 1.00 98.28 C

ATOM 30 O SER A 4 -4.280 2.080 -5.400 1.00 98.28 O

ATOM 31 OG SER A 4 -8.661 1.406 -6.414 1.00 98.28 O

ATOM 32 N LEU A 5 -5.628 2.782 -3.688 1.00 98.38 N

ATOM 33 CA LEU A 5 -4.576 2.672 -2.684 1.00 98.38 C

ATOM 34 C LEU A 5 -5.043 1.838 -1.496 1.00 98.38 C

ATOM 35 CB LEU A 5 -4.143 4.061 -2.208 1.00 98.38 C

ATOM 36 O LEU A 5 -6.145 2.044 -0.982 1.00 98.38 O

ATOM 37 CG LEU A 5 -2.943 4.110 -1.260 1.00 98.38 C

ATOM 38 CD1 LEU A 5 -2.215 5.443 -1.394 1.00 98.38 C

ATOM 39 CD2 LEU A 5 -3.389 3.880 0.180 1.00 98.38 C

ATOM 40 N MET A 6 -4.199 0.920 -1.147 1.00 98.09 N

ATOM 41 CA MET A 6 -4.544 0.081 -0.003 1.00 98.09 C

ATOM 42 C MET A 6 -3.437 0.110 1.046 1.00 98.09 C

ATOM 43 CB MET A 6 -4.802 -1.359 -0.450 1.00 98.09 C

ATOM 44 O MET A 6 -2.255 0.020 0.711 1.00 98.09 O

ATOM 45 CG MET A 6 -5.190 -2.293 0.685 1.00 98.09 C

ATOM 46 SD MET A 6 -5.759 -3.931 0.084 1.00 98.09 S

ATOM 47 CE MET A 6 -6.256 -4.693 1.654 1.00 98.09 C

ATOM 48 N ALA A 7 -3.851 0.250 2.338 1.00 97.77 N

ATOM 49 CA ALA A 7 -2.878 0.288 3.428 1.00 97.77 C

ATOM 50 C ALA A 7 -3.495 -0.211 4.731 1.00 97.77 C

ATOM 51 CB ALA A 7 -2.334 1.703 3.607 1.00 97.77 C

ATOM 52 O ALA A 7 -4.700 -0.067 4.950 1.00 97.77 O

ATOM 53 N ALA A 8 -2.672 -0.889 5.530 1.00 97.27 N

ATOM 54 CA ALA A 8 -2.955 -1.130 6.943 1.00 97.27 C

ATOM 55 C ALA A 8 -2.167 -0.171 7.831 1.00 97.27 C

ATOM 56 CB ALA A 8 -2.634 -2.576 7.310 1.00 97.27 C

ATOM 57 O ALA A 8 -0.937 -0.121 7.763 1.00 97.27 O

ATOM 58 N ILE A 9 -2.976 0.576 8.665 1.00 97.69 N

ATOM 59 CA ILE A 9 -2.365 1.633 9.465 1.00 97.69 C

ATOM 60 C ILE A 9 -2.709 1.428 10.939 1.00 97.69 C

ATOM 61 CB ILE A 9 -2.823 3.032 8.997 1.00 97.69 C

ATOM 62 O ILE A 9 -3.826 1.023 11.272 1.00 97.69 O

ATOM 63 CG1 ILE A 9 -4.337 3.188 9.179 1.00 97.69 C

ATOM 64 CG2 ILE A 9 -2.419 3.273 7.539 1.00 97.69 C

ATOM 65 CD1 ILE A 9 -4.858 4.584 8.867 1.00 97.69 C

ATOM 66 N SER A 10 -1.626 1.584 11.786 1.00 98.13 N

ATOM 67 CA SER A 10 -1.905 1.548 13.218 1.00 98.13 C

ATOM 68 C SER A 10 -2.597 2.827 13.678 1.00 98.13 C

ATOM 69 CB SER A 10 -0.614 1.344 14.011 1.00 98.13 C

ATOM 70 O SER A 10 -2.648 3.812 12.939 1.00 98.13 O

ATOM 71 OG SER A 10 0.215 2.490 13.928 1.00 98.13 O

ATOM 72 N LYS A 11 -3.045 2.915 14.938 1.00 97.44 N

ATOM 73 CA LYS A 11 -3.761 4.073 15.466 1.00 97.44 C

ATOM 74 C LYS A 11 -2.864 5.308 15.493 1.00 97.44 C

ATOM 75 CB LYS A 11 -4.294 3.782 16.869 1.00 97.44 C

ATOM 76 O LYS A 11 -3.344 6.434 15.354 1.00 97.44 O

ATOM 77 CG LYS A 11 -5.553 2.927 16.887 1.00 97.44 C

ATOM 78 CD LYS A 11 -6.177 2.882 18.276 1.00 97.44 C

ATOM 79 CE LYS A 11 -7.206 1.764 18.391 1.00 97.44 C

ATOM 80 NZ LYS A 11 -7.821 1.716 19.751 1.00 97.44 N

ATOM 81 N ASN A 12 -1.595 4.976 15.628 1.00 97.32 N

ATOM 82 CA ASN A 12 -0.670 6.101 15.710 1.00 97.32 C

ATOM 83 C ASN A 12 -0.024 6.395 14.359 1.00 97.32 C

ATOM 84 CB ASN A 12 0.405 5.837 16.766 1.00 97.32 C

ATOM 85 O ASN A 12 0.964 7.127 14.284 1.00 97.32 O

ATOM 86 CG ASN A 12 1.238 4.608 16.456 1.00 97.32 C

ATOM 87 ND2 ASN A 12 2.424 4.532 17.047 1.00 97.32 N

ATOM 88 OD1 ASN A 12 0.819 3.735 15.692 1.00 97.32 O

ATOM 89 N GLY A 13 -0.548 5.729 13.246 1.00 96.82 N

ATOM 90 CA GLY A 13 -0.155 6.085 11.892 1.00 96.82 C

ATOM 91 C GLY A 13 1.018 5.272 11.378 1.00 96.82 C

ATOM 92 O GLY A 13 1.483 5.484 10.256 1.00 96.82 O

ATOM 93 N VAL A 14 1.470 4.324 12.167 1.00 97.80 N

ATOM 94 CA VAL A 14 2.631 3.518 11.804 1.00 97.80 C

ATOM 95 C VAL A 14 2.218 2.437 10.808 1.00 97.80 C

ATOM 96 CB VAL A 14 3.287 2.876 13.046 1.00 97.80 C

ATOM 97 O VAL A 14 1.177 1.796 10.974 1.00 97.80 O

ATOM 98 CG1 VAL A 14 4.312 1.822 12.632 1.00 97.80 C

ATOM 99 CG2 VAL A 14 3.940 3.948 13.917 1.00 97.80 C

ATOM 100 N ILE A 15 3.130 2.234 9.803 1.00 96.41 N

ATOM 101 CA ILE A 15 2.837 1.181 8.838 1.00 96.41 C

ATOM 102 C ILE A 15 4.031 0.235 8.726 1.00 96.41 C

ATOM 103 CB ILE A 15 2.486 1.767 7.451 1.00 96.41 C

ATOM 104 O ILE A 15 3.939 -0.819 8.093 1.00 96.41 O

ATOM 105 CG1 ILE A 15 3.667 2.573 6.898 1.00 96.41 C

ATOM 106 CG2 ILE A 15 1.224 2.631 7.534 1.00 96.41 C

ATOM 107 CD1 ILE A 15 3.495 3.008 5.449 1.00 96.41 C

ATOM 108 N GLY A 16 5.067 0.618 9.339 1.00 94.64 N

ATOM 109 CA GLY A 16 6.245 -0.232 9.270 1.00 94.64 C

ATOM 110 C GLY A 16 7.342 0.189 10.230 1.00 94.64 C

ATOM 111 O GLY A 16 7.344 1.321 10.720 1.00 94.64 O

ATOM 112 N ASN A 17 8.228 -0.673 10.534 1.00 93.79 N

ATOM 113 CA ASN A 17 9.483 -0.524 11.264 1.00 93.79 C

ATOM 114 C ASN A 17 10.638 -1.207 10.539 1.00 93.79 C

ATOM 115 CB ASN A 17 9.346 -1.078 12.684 1.00 93.79 C

ATOM 116 O ASN A 17 10.857 -2.408 10.703 1.00 93.79 O

ATOM 117 CG ASN A 17 10.558 -0.782 13.546 1.00 93.79 C

ATOM 118 ND2 ASN A 17 10.726 -1.548 14.617 1.00 93.79 N

ATOM 119 OD1 ASN A 17 11.337 0.129 13.251 1.00 93.79 O

ATOM 120 N GLY A 18 11.367 -0.383 9.762 1.00 88.56 N

ATOM 121 CA GLY A 18 12.291 -1.000 8.824 1.00 88.56 C

ATOM 122 C GLY A 18 11.596 -1.822 7.755 1.00 88.56 C

ATOM 123 O GLY A 18 10.674 -1.339 7.095 1.00 88.56 O

ATOM 124 N PRO A 19 12.033 -3.144 7.631 1.00 85.36 N

ATOM 125 CA PRO A 19 11.426 -3.984 6.596 1.00 85.36 C

ATOM 126 C PRO A 19 10.194 -4.736 7.093 1.00 85.36 C

ATOM 127 CB PRO A 19 12.549 -4.958 6.230 1.00 85.36 C

ATOM 128 O PRO A 19 9.529 -5.423 6.314 1.00 85.36 O

ATOM 129 CG PRO A 19 13.364 -5.088 7.476 1.00 85.36 C

ATOM 130 CD PRO A 19 13.332 -3.775 8.205 1.00 85.36 C

ATOM 131 N ASP A 20 9.905 -4.438 8.386 1.00 89.31 N

ATOM 132 CA ASP A 20 8.897 -5.300 8.994 1.00 89.31 C

ATOM 133 C ASP A 20 7.594 -4.539 9.230 1.00 89.31 C

ATOM 134 CB ASP A 20 9.412 -5.883 10.311 1.00 89.31 C

ATOM 135 O ASP A 20 7.605 -3.320 9.412 1.00 89.31 O

ATOM 136 CG ASP A 20 10.663 -6.726 10.138 1.00 89.31 C

ATOM 137 OD1 ASP A 20 10.704 -7.576 9.222 1.00 89.31 O

ATOM 138 OD2 ASP A 20 11.615 -6.541 10.926 1.00 89.31 O

ATOM 139 N ILE A 21 6.498 -5.273 9.226 1.00 92.02 N

ATOM 140 CA ILE A 21 5.214 -4.834 9.762 1.00 92.02 C

ATOM 141 C ILE A 21 5.095 -5.253 11.225 1.00 92.02 C

ATOM 142 CB ILE A 21 4.035 -5.405 8.942 1.00 92.02 C

ATOM 143 O ILE A 21 5.167 -6.442 11.545 1.00 92.02 O

ATOM 144 CG1 ILE A 21 4.105 -4.914 7.492 1.00 92.02 C

ATOM 145 CG2 ILE A 21 2.698 -5.027 9.585 1.00 92.02 C

ATOM 146 CD1 ILE A 21 3.073 -5.552 6.572 1.00 92.02 C

ATOM 147 N PRO A 22 4.987 -4.307 12.155 1.00 93.02 N

ATOM 148 CA PRO A 22 5.144 -4.543 13.592 1.00 93.02 C

ATOM 149 C PRO A 22 3.926 -5.222 14.214 1.00 93.02 C

ATOM 150 CB PRO A 22 5.335 -3.135 14.162 1.00 93.02 C

ATOM 151 O PRO A 22 3.811 -5.288 15.441 1.00 93.02 O

ATOM 152 CG PRO A 22 4.596 -2.239 13.221 1.00 93.02 C

ATOM 153 CD PRO A 22 4.666 -2.831 11.843 1.00 93.02 C

ATOM 154 N TRP A 23 3.056 -5.706 13.331 1.00 95.58 N

ATOM 155 CA TRP A 23 1.893 -6.392 13.883 1.00 95.58 C

ATOM 156 C TRP A 23 1.465 -7.548 12.985 1.00 95.58 C

ATOM 157 CB TRP A 23 0.728 -5.415 14.067 1.00 95.58 C

ATOM 158 O TRP A 23 1.957 -7.685 11.862 1.00 95.58 O

ATOM 159 CG TRP A 23 0.242 -4.799 12.790 1.00 95.58 C

ATOM 160 CD1 TRP A 23 -0.701 -5.303 11.938 1.00 95.58 C

ATOM 161 CD2 TRP A 23 0.680 -3.563 12.217 1.00 95.58 C

ATOM 162 CE2 TRP A 23 -0.041 -3.380 11.016 1.00 95.58 C

ATOM 163 CE3 TRP A 23 1.613 -2.591 12.603 1.00 95.58 C

ATOM 164 NE1 TRP A 23 -0.876 -4.455 10.870 1.00 95.58 N

ATOM 165 CH2 TRP A 23 1.060 -1.327 10.599 1.00 95.58 C

ATOM 166 CZ2 TRP A 23 0.142 -2.263 10.198 1.00 95.58 C

ATOM 167 CZ3 TRP A 23 1.794 -1.480 11.787 1.00 95.58 C

ATOM 168 N SER A 24 0.639 -8.406 13.589 1.00 96.02 N

ATOM 169 CA SER A 24 -0.048 -9.475 12.872 1.00 96.02 C

ATOM 170 C SER A 24 -1.510 -9.575 13.296 1.00 96.02 C

ATOM 171 CB SER A 24 0.652 -10.815 13.107 1.00 96.02 C

ATOM 172 O SER A 24 -1.820 -10.147 14.343 1.00 96.02 O

ATOM 173 OG SER A 24 0.038 -11.843 12.350 1.00 96.02 O

ATOM 174 N ALA A 25 -2.357 -8.942 12.512 1.00 96.96 N

ATOM 175 CA ALA A 25 -3.794 -8.999 12.763 1.00 96.96 C

ATOM 176 C ALA A 25 -4.456 -10.082 11.917 1.00 96.96 C

ATOM 177 CB ALA A 25 -4.438 -7.643 12.483 1.00 96.96 C

ATOM 178 O ALA A 25 -4.465 -10.000 10.686 1.00 96.96 O

ATOM 179 N LYS A 26 -5.037 -11.067 12.601 1.00 96.95 N

ATOM 180 CA LYS A 26 -5.650 -12.184 11.888 1.00 96.95 C

ATOM 181 C LYS A 26 -6.800 -11.707 11.004 1.00 96.95 C

ATOM 182 CB LYS A 26 -6.150 -13.241 12.874 1.00 96.95 C

ATOM 183 O LYS A 26 -7.633 -10.909 11.437 1.00 96.95 O

ATOM 184 CG LYS A 26 -5.042 -14.064 13.513 1.00 96.95 C

ATOM 185 CD LYS A 26 -5.606 -15.181 14.383 1.00 96.95 C

ATOM 186 CE LYS A 26 -4.498 -16.003 15.027 1.00 96.95 C

ATOM 187 NZ LYS A 26 -5.045 -17.053 15.937 1.00 96.95 N

ATOM 188 N GLY A 27 -6.776 -12.091 9.755 1.00 96.32 N

ATOM 189 CA GLY A 27 -7.861 -11.778 8.840 1.00 96.32 C

ATOM 190 C GLY A 27 -7.566 -10.584 7.950 1.00 96.32 C

ATOM 191 O GLY A 27 -8.088 -10.489 6.838 1.00 96.32 O

ATOM 192 N GLU A 28 -6.692 -9.686 8.373 1.00 96.97 N

ATOM 193 CA GLU A 28 -6.415 -8.470 7.615 1.00 96.97 C

ATOM 194 C GLU A 28 -5.708 -8.788 6.301 1.00 96.97 C

ATOM 195 CB GLU A 28 -5.570 -7.499 8.445 1.00 96.97 C

ATOM 196 O GLU A 28 -6.006 -8.185 5.268 1.00 96.97 O

ATOM 197 CG GLU A 28 -5.461 -6.107 7.841 1.00 96.97 C

ATOM 198 CD GLU A 28 -4.344 -5.982 6.818 1.00 96.97 C

ATOM 199 OE1 GLU A 28 -4.460 -5.148 5.891 1.00 96.97 O

ATOM 200 OE2 GLU A 28 -3.345 -6.726 6.943 1.00 96.97 O

ATOM 201 N GLN A 29 -4.839 -9.716 6.361 1.00 94.05 N

ATOM 202 CA GLN A 29 -4.122 -10.112 5.154 1.00 94.05 C

ATOM 203 C GLN A 29 -5.067 -10.736 4.132 1.00 94.05 C

ATOM 204 CB GLN A 29 -2.996 -11.090 5.494 1.00 94.05 C

ATOM 205 O GLN A 29 -4.804 -10.696 2.929 1.00 94.05 O

ATOM 206 CG GLN A 29 -1.805 -10.440 6.187 1.00 94.05 C

ATOM 207 CD GLN A 29 -0.723 -11.439 6.551 1.00 94.05 C

ATOM 208 NE2 GLN A 29 0.274 -10.984 7.303 1.00 94.05 N

ATOM 209 OE1 GLN A 29 -0.782 -12.609 6.162 1.00 94.05 O

ATOM 210 N LEU A 30 -6.159 -11.359 4.613 1.00 96.01 N

ATOM 211 CA LEU A 30 -7.161 -11.906 3.705 1.00 96.01 C

ATOM 212 C LEU A 30 -7.855 -10.793 2.927 1.00 96.01 C

ATOM 213 CB LEU A 30 -8.196 -12.726 4.479 1.00 96.01 C

ATOM 214 O LEU A 30 -8.174 -10.960 1.747 1.00 96.01 O

ATOM 215 CG LEU A 30 -7.697 -14.027 5.110 1.00 96.01 C

ATOM 216 CD1 LEU A 30 -8.794 -14.658 5.960 1.00 96.01 C

ATOM 217 CD2 LEU A 30 -7.224 -14.996 4.032 1.00 96.01 C

ATOM 218 N LEU A 31 -8.060 -9.675 3.626 1.00 96.53 N

ATOM 219 CA LEU A 31 -8.605 -8.514 2.931 1.00 96.53 C

ATOM 220 C LEU A 31 -7.656 -8.042 1.834 1.00 96.53 C

ATOM 221 CB LEU A 31 -8.870 -7.374 3.918 1.00 96.53 C

ATOM 222 O LEU A 31 -8.086 -7.772 0.710 1.00 96.53 O

ATOM 223 CG LEU A 31 -10.041 -7.570 4.882 1.00 96.53 C

ATOM 224 CD1 LEU A 31 -9.993 -6.527 5.994 1.00 96.53 C

ATOM 225 CD2 LEU A 31 -11.368 -7.500 4.134 1.00 96.53 C

ATOM 226 N PHE A 32 -6.388 -8.007 2.188 1.00 96.20 N

ATOM 227 CA PHE A 32 -5.373 -7.606 1.222 1.00 96.20 C

ATOM 228 C PHE A 32 -5.365 -8.546 0.022 1.00 96.20 C

ATOM 229 CB PHE A 32 -3.988 -7.577 1.875 1.00 96.20 C

ATOM 230 O PHE A 32 -5.353 -8.097 -1.125 1.00 96.20 O

ATOM 231 CG PHE A 32 -2.893 -7.106 0.957 1.00 96.20 C

ATOM 232 CD1 PHE A 32 -2.051 -8.017 0.331 1.00 96.20 C

ATOM 233 CD2 PHE A 32 -2.705 -5.750 0.720 1.00 96.20 C

ATOM 234 CE1 PHE A 32 -1.036 -7.583 -0.519 1.00 96.20 C

ATOM 235 CE2 PHE A 32 -1.693 -5.309 -0.128 1.00 96.20 C

ATOM 236 CZ PHE A 32 -0.860 -6.227 -0.746 1.00 96.20 C

ATOM 237 N LYS A 33 -5.434 -9.762 0.293 1.00 96.34 N

ATOM 238 CA LYS A 33 -5.466 -10.758 -0.774 1.00 96.34 C

ATOM 239 C LYS A 33 -6.693 -10.574 -1.662 1.00 96.34 C

ATOM 240 CB LYS A 33 -5.450 -12.171 -0.190 1.00 96.34 C

ATOM 241 O LYS A 33 -6.582 -10.564 -2.890 1.00 96.34 O

ATOM 242 CG LYS A 33 -5.470 -13.275 -1.237 1.00 96.34 C

ATOM 243 CD LYS A 33 -5.403 -14.655 -0.597 1.00 96.34 C

ATOM 244 CE LYS A 33 -5.465 -15.761 -1.641 1.00 96.34 C

ATOM 245 NZ LYS A 33 -5.362 -17.116 -1.021 1.00 96.34 N

ATOM 246 N ALA A 34 -7.755 -10.442 -1.066 1.00 96.73 N

ATOM 247 CA ALA A 34 -9.013 -10.328 -1.799 1.00 96.73 C

ATOM 248 C ALA A 34 -9.001 -9.114 -2.724 1.00 96.73 C

ATOM 249 CB ALA A 34 -10.189 -10.241 -0.828 1.00 96.73 C

ATOM 250 O ALA A 34 -9.410 -9.206 -3.884 1.00 96.73 O

ATOM 251 N ILE A 35 -8.438 -8.114 -2.293 1.00 96.49 N

ATOM 252 CA ILE A 35 -8.477 -6.856 -3.032 1.00 96.49 C

ATOM 253 C ILE A 35 -7.392 -6.856 -4.107 1.00 96.49 C

ATOM 254 CB ILE A 35 -8.301 -5.643 -2.092 1.00 96.49 C

ATOM 255 O ILE A 35 -7.583 -6.299 -5.191 1.00 96.49 O

ATOM 256 CG1 ILE A 35 -9.495 -5.528 -1.139 1.00 96.49 C

ATOM 257 CG2 ILE A 35 -8.120 -4.355 -2.901 1.00 96.49 C

ATOM 258 CD1 ILE A 35 -9.265 -4.581 0.031 1.00 96.49 C

ATOM 259 N THR A 36 -6.347 -7.501 -3.829 1.00 97.31 N

ATOM 260 CA THR A 36 -5.207 -7.379 -4.732 1.00 97.31 C

ATOM 261 C THR A 36 -5.111 -8.596 -5.648 1.00 97.31 C

ATOM 262 CB THR A 36 -3.891 -7.216 -3.950 1.00 97.31 C

ATOM 263 O THR A 36 -4.265 -8.638 -6.544 1.00 97.31 O

ATOM 264 CG2 THR A 36 -3.922 -5.968 -3.073 1.00 97.31 C

ATOM 265 OG1 THR A 36 -3.689 -8.366 -3.119 1.00 97.31 O

ATOM 266 N TYR A 37 -5.940 -9.538 -5.453 1.00 96.87 N

ATOM 267 CA TYR A 37 -5.930 -10.759 -6.251 1.00 96.87 C

ATOM 268 C TYR A 37 -6.108 -10.445 -7.731 1.00 96.87 C

ATOM 269 CB TYR A 37 -7.033 -11.715 -5.784 1.00 96.87 C

ATOM 270 O TYR A 37 -7.008 -9.691 -8.109 1.00 96.87 O

ATOM 271 CG TYR A 37 -7.006 -13.056 -6.476 1.00 96.87 C

ATOM 272 CD1 TYR A 37 -7.848 -13.322 -7.554 1.00 96.87 C

ATOM 273 CD2 TYR A 37 -6.141 -14.059 -6.054 1.00 96.87 C

ATOM 274 CE1 TYR A 37 -7.829 -14.557 -8.194 1.00 96.87 C

ATOM 275 CE2 TYR A 37 -6.113 -15.298 -6.687 1.00 96.87 C

ATOM 276 OH TYR A 37 -6.935 -16.761 -8.384 1.00 96.87 O

ATOM 277 CZ TYR A 37 -6.959 -15.537 -7.754 1.00 96.87 C

ATOM 278 N ASN A 38 -5.158 -10.931 -8.638 1.00 96.34 N

ATOM 279 CA ASN A 38 -5.145 -10.796 -10.090 1.00 96.34 C

ATOM 280 C ASN A 38 -5.067 -9.332 -10.516 1.00 96.34 C

ATOM 281 CB ASN A 38 -6.379 -11.462 -10.703 1.00 96.34 C

ATOM 282 O ASN A 38 -5.608 -8.955 -11.557 1.00 96.34 O

ATOM 283 CG ASN A 38 -6.192 -12.951 -10.918 1.00 96.34 C

ATOM 284 ND2 ASN A 38 -7.291 -13.658 -11.151 1.00 96.34 N

ATOM 285 OD1 ASN A 38 -5.070 -13.461 -10.874 1.00 96.34 O

ATOM 286 N GLN A 39 -4.465 -8.558 -9.602 1.00 97.78 N

ATOM 287 CA GLN A 39 -4.312 -7.138 -9.901 1.00 97.78 C

ATOM 288 C GLN A 39 -2.841 -6.765 -10.063 1.00 97.78 C

ATOM 289 CB GLN A 39 -4.951 -6.286 -8.804 1.00 97.78 C

ATOM 290 O GLN A 39 -1.955 -7.536 -9.688 1.00 97.78 O

ATOM 291 CG GLN A 39 -6.440 -6.546 -8.613 1.00 97.78 C

ATOM 292 CD GLN A 39 -7.270 -6.107 -9.804 1.00 97.78 C

ATOM 293 NE2 GLN A 39 -8.329 -6.854 -10.096 1.00 97.78 N

ATOM 294 OE1 GLN A 39 -6.962 -5.104 -10.457 1.00 97.78 O

ATOM 295 N TRP A 40 -2.687 -5.461 -10.632 1.00 98.30 N

ATOM 296 CA TRP A 40 -1.366 -4.843 -10.660 1.00 98.30 C

ATOM 297 C TRP A 40 -1.120 -4.026 -9.396 1.00 98.30 C

ATOM 298 CB TRP A 40 -1.215 -3.952 -11.896 1.00 98.30 C

ATOM 299 O TRP A 40 -1.945 -3.192 -9.018 1.00 98.30 O

ATOM 300 CG TRP A 40 -0.920 -4.706 -13.158 1.00 98.30 C

ATOM 301 CD1 TRP A 40 -1.827 -5.272 -14.010 1.00 98.30 C

ATOM 302 CD2 TRP A 40 0.372 -4.980 -13.707 1.00 98.30 C

ATOM 303 CE2 TRP A 40 0.173 -5.717 -14.896 1.00 98.30 C

ATOM 304 CE3 TRP A 40 1.680 -4.674 -13.310 1.00 98.30 C

ATOM 305 NE1 TRP A 40 -1.176 -5.882 -15.058 1.00 98.30 N

ATOM 306 CH2 TRP A 40 2.506 -5.839 -15.279 1.00 98.30 C

ATOM 307 CZ2 TRP A 40 1.236 -6.152 -15.691 1.00 98.30 C

ATOM 308 CZ3 TRP A 40 2.737 -5.108 -14.103 1.00 98.30 C

ATOM 309 N LEU A 41 0.055 -4.380 -8.788 1.00 98.54 N

ATOM 310 CA LEU A 41 0.449 -3.618 -7.608 1.00 98.54 C

ATOM 311 C LEU A 41 1.623 -2.697 -7.922 1.00 98.54 C

ATOM 312 CB LEU A 41 0.818 -4.561 -6.459 1.00 98.54 C

ATOM 313 O LEU A 41 2.601 -3.121 -8.543 1.00 98.54 O

ATOM 314 CG LEU A 41 -0.338 -5.325 -5.811 1.00 98.54 C

ATOM 315 CD1 LEU A 41 -1.040 -6.200 -6.844 1.00 98.54 C

ATOM 316 CD2 LEU A 41 0.166 -6.167 -4.644 1.00 98.54 C

ATOM 317 N LEU A 42 1.444 -1.452 -7.518 1.00 98.55 N

ATOM 318 CA LEU A 42 2.553 -0.508 -7.584 1.00 98.55 C

ATOM 319 C LEU A 42 3.206 -0.339 -6.216 1.00 98.55 C

ATOM 320 CB LEU A 42 2.072 0.850 -8.104 1.00 98.55 C

ATOM 321 O LEU A 42 2.565 0.128 -5.271 1.00 98.55 O

ATOM 322 CG LEU A 42 3.157 1.884 -8.406 1.00 98.55 C

ATOM 323 CD1 LEU A 42 2.704 2.817 -9.523 1.00 98.55 C

ATOM 324 CD2 LEU A 42 3.506 2.675 -7.150 1.00 98.55 C

ATOM 325 N VAL A 43 4.453 -0.697 -6.150 1.00 98.05 N

ATOM 326 CA VAL A 43 5.164 -0.666 -4.875 1.00 98.05 C

ATOM 327 C VAL A 43 6.575 -0.120 -5.083 1.00 98.05 C

ATOM 328 CB VAL A 43 5.225 -2.067 -4.226 1.00 98.05 C

ATOM 329 O VAL A 43 7.076 -0.090 -6.209 1.00 98.05 O

ATOM 330 CG1 VAL A 43 3.821 -2.573 -3.900 1.00 98.05 C

ATOM 331 CG2 VAL A 43 5.950 -3.049 -5.144 1.00 98.05 C

ATOM 332 N GLY A 44 7.141 0.398 -3.963 1.00 97.11 N

ATOM 333 CA GLY A 44 8.571 0.660 -3.981 1.00 97.11 C

ATOM 334 C GLY A 44 9.409 -0.596 -3.831 1.00 97.11 C

ATOM 335 O GLY A 44 8.911 -1.632 -3.385 1.00 97.11 O

ATOM 336 N ARG A 45 10.713 -0.482 -4.130 1.00 96.25 N

ATOM 337 CA ARG A 45 11.615 -1.629 -4.143 1.00 96.25 C

ATOM 338 C ARG A 45 11.735 -2.245 -2.753 1.00 96.25 C

ATOM 339 CB ARG A 45 12.997 -1.222 -4.657 1.00 96.25 C

ATOM 340 O ARG A 45 11.626 -3.463 -2.596 1.00 96.25 O

ATOM 341 CG ARG A 45 14.011 -2.356 -4.663 1.00 96.25 C

ATOM 342 CD ARG A 45 15.433 -1.839 -4.824 1.00 96.25 C

ATOM 343 NE ARG A 45 15.869 -1.084 -3.652 1.00 96.25 N

ATOM 344 NH1 ARG A 45 17.934 -2.108 -3.503 1.00 96.25 N

ATOM 345 NH2 ARG A 45 17.340 -0.491 -1.991 1.00 96.25 N

ATOM 346 CZ ARG A 45 17.047 -1.230 -3.051 1.00 96.25 C

ATOM 347 N LYS A 46 11.866 -1.483 -1.751 1.00 94.07 N

ATOM 348 CA LYS A 46 12.058 -2.002 -0.400 1.00 94.07 C

ATOM 349 C LYS A 46 10.827 -2.769 0.075 1.00 94.07 C

ATOM 350 CB LYS A 46 12.375 -0.865 0.572 1.00 94.07 C

ATOM 351 O LYS A 46 10.950 -3.816 0.713 1.00 94.07 O

ATOM 352 CG LYS A 46 13.742 -0.232 0.360 1.00 94.07 C

ATOM 353 CD LYS A 46 14.014 0.867 1.379 1.00 94.07 C

ATOM 354 CE LYS A 46 15.373 1.515 1.155 1.00 94.07 C

ATOM 355 NZ LYS A 46 15.617 2.636 2.111 1.00 94.07 N

ATOM 356 N THR A 47 9.732 -2.235 -0.248 1.00 94.56 N

ATOM 357 CA THR A 47 8.497 -2.924 0.110 1.00 94.56 C

ATOM 358 C THR A 47 8.393 -4.261 -0.618 1.00 94.56 C

ATOM 359 CB THR A 47 7.263 -2.062 -0.214 1.00 94.56 C

ATOM 360 O THR A 47 8.047 -5.278 -0.013 1.00 94.56 O

ATOM 361 CG2 THR A 47 5.973 -2.791 0.146 1.00 94.56 C

ATOM 362 OG1 THR A 47 7.332 -0.840 0.530 1.00 94.56 O

ATOM 363 N PHE A 48 8.714 -4.221 -1.834 1.00 96.31 N

ATOM 364 CA PHE A 48 8.653 -5.443 -2.627 1.00 96.31 C

ATOM 365 C PHE A 48 9.611 -6.493 -2.078 1.00 96.31 C

ATOM 366 CB PHE A 48 8.978 -5.150 -4.095 1.00 96.31 C

ATOM 367 O PHE A 48 9.249 -7.664 -1.946 1.00 96.31 O

ATOM 368 CG PHE A 48 8.886 -6.356 -4.989 1.00 96.31 C

ATOM 369 CD1 PHE A 48 10.035 -6.964 -5.481 1.00 96.31 C

ATOM 370 CD2 PHE A 48 7.650 -6.883 -5.339 1.00 96.31 C

ATOM 371 CE1 PHE A 48 9.953 -8.081 -6.309 1.00 96.31 C

ATOM 372 CE2 PHE A 48 7.559 -7.999 -6.166 1.00 96.31 C

ATOM 373 CZ PHE A 48 8.712 -8.596 -6.651 1.00 96.31 C

ATOM 374 N GLU A 49 10.806 -6.109 -1.734 1.00 94.01 N

ATOM 375 CA GLU A 49 11.815 -7.028 -1.217 1.00 94.01 C

ATOM 376 C GLU A 49 11.376 -7.641 0.110 1.00 94.01 C

ATOM 377 CB GLU A 49 13.158 -6.312 -1.047 1.00 94.01 C

ATOM 378 O GLU A 49 11.604 -8.827 0.358 1.00 94.01 O

ATOM 379 CG GLU A 49 13.872 -6.025 -2.359 1.00 94.01 C

ATOM 380 CD GLU A 49 15.227 -5.360 -2.172 1.00 94.01 C

ATOM 381 OE1 GLU A 49 16.122 -5.554 -3.026 1.00 94.01 O

ATOM 382 OE2 GLU A 49 15.394 -4.639 -1.163 1.00 94.01 O

ATOM 383 N SER A 50 10.705 -6.864 0.868 1.00 91.98 N

ATOM 384 CA SER A 50 10.256 -7.340 2.172 1.00 91.98 C

ATOM 385 C SER A 50 9.065 -8.282 2.037 1.00 91.98 C

ATOM 386 CB SER A 50 9.884 -6.162 3.074 1.00 91.98 C

ATOM 387 O SER A 50 9.006 -9.317 2.704 1.00 91.98 O

ATOM 388 OG SER A 50 9.287 -6.618 4.276 1.00 91.98 O

ATOM 389 N MET A 51 8.152 -7.905 1.212 1.00 91.27 N

ATOM 390 CA MET A 51 6.897 -8.631 1.039 1.00 91.27 C

ATOM 391 C MET A 51 7.095 -9.855 0.150 1.00 91.27 C

ATOM 392 CB MET A 51 5.825 -7.719 0.441 1.00 91.27 C

ATOM 393 O MET A 51 6.575 -10.932 0.446 1.00 91.27 O

ATOM 394 CG MET A 51 4.473 -8.393 0.269 1.00 91.27 C

ATOM 395 SD MET A 51 3.195 -7.248 -0.381 1.00 91.27 S

ATOM 396 CE MET A 51 3.951 -6.791 -1.966 1.00 91.27 C

ATOM 397 N GLY A 52 7.944 -9.741 -0.838 1.00 91.97 N

ATOM 398 CA GLY A 52 8.068 -10.758 -1.870 1.00 91.97 C

ATOM 399 C GLY A 52 6.892 -10.781 -2.829 1.00 91.97 C

ATOM 400 O GLY A 52 5.907 -10.068 -2.629 1.00 91.97 O

ATOM 401 N ALA A 53 7.094 -11.649 -3.863 1.00 93.59 N

ATOM 402 CA ALA A 53 6.019 -11.786 -4.842 1.00 93.59 C

ATOM 403 C ALA A 53 4.934 -12.733 -4.336 1.00 93.59 C

ATOM 404 CB ALA A 53 6.573 -12.282 -6.176 1.00 93.59 C

ATOM 405 O ALA A 53 5.212 -13.891 -4.015 1.00 93.59 O

ATOM 406 N LEU A 54 3.740 -12.159 -4.233 1.00 94.56 N

ATOM 407 CA LEU A 54 2.597 -12.964 -3.816 1.00 94.56 C

ATOM 408 C LEU A 54 1.909 -13.596 -5.021 1.00 94.56 C

ATOM 409 CB LEU A 54 1.596 -12.109 -3.033 1.00 94.56 C

ATOM 410 O LEU A 54 1.903 -13.020 -6.111 1.00 94.56 O

ATOM 411 CG LEU A 54 2.133 -11.412 -1.782 1.00 94.56 C

ATOM 412 CD1 LEU A 54 1.093 -10.444 -1.228 1.00 94.56 C

ATOM 413 CD2 LEU A 54 2.531 -12.439 -0.727 1.00 94.56 C

ATOM 414 N PRO A 55 1.463 -14.837 -4.915 1.00 94.65 N

ATOM 415 CA PRO A 55 0.859 -15.534 -6.053 1.00 94.65 C

ATOM 416 C PRO A 55 -0.318 -14.770 -6.656 1.00 94.65 C

ATOM 417 CB PRO A 55 0.397 -16.862 -5.449 1.00 94.65 C

ATOM 418 O PRO A 55 -1.070 -14.116 -5.929 1.00 94.65 O

ATOM 419 CG PRO A 55 0.251 -16.587 -3.988 1.00 94.65 C

ATOM 420 CD PRO A 55 1.187 -15.473 -3.616 1.00 94.65 C

ATOM 421 N ASN A 56 -0.365 -14.800 -7.971 1.00 96.40 N

ATOM 422 CA ASN A 56 -1.505 -14.322 -8.746 1.00 96.40 C

ATOM 423 C ASN A 56 -1.651 -12.806 -8.651 1.00 96.40 C

ATOM 424 CB ASN A 56 -2.792 -15.009 -8.287 1.00 96.40 C

ATOM 425 O ASN A 56 -2.767 -12.284 -8.653 1.00 96.40 O

ATOM 426 CG ASN A 56 -2.776 -16.505 -8.532 1.00 96.40 C

ATOM 427 ND2 ASN A 56 -2.994 -17.282 -7.478 1.00 96.40 N

ATOM 428 OD1 ASN A 56 -2.568 -16.959 -9.661 1.00 96.40 O

ATOM 429 N ARG A 57 -0.448 -12.219 -8.522 1.00 97.53 N

ATOM 430 CA ARG A 57 -0.341 -10.765 -8.577 1.00 97.53 C

ATOM 431 C ARG A 57 0.810 -10.335 -9.481 1.00 97.53 C

ATOM 432 CB ARG A 57 -0.149 -10.186 -7.174 1.00 97.53 C

ATOM 433 O ARG A 57 1.766 -11.087 -9.678 1.00 97.53 O

ATOM 434 CG ARG A 57 -1.352 -10.371 -6.262 1.00 97.53 C

ATOM 435 CD ARG A 57 -0.966 -10.269 -4.793 1.00 97.53 C

ATOM 436 NE ARG A 57 -2.116 -10.479 -3.918 1.00 97.53 N

ATOM 437 NH1 ARG A 57 -1.178 -12.247 -2.765 1.00 97.53 N

ATOM 438 NH2 ARG A 57 -3.285 -11.517 -2.236 1.00 97.53 N

ATOM 439 CZ ARG A 57 -2.190 -11.414 -2.975 1.00 97.53 C

ATOM 440 N LYS A 58 0.590 -9.213 -10.021 1.00 98.17 N

ATOM 441 CA LYS A 58 1.641 -8.593 -10.823 1.00 98.17 C

ATOM 442 C LYS A 58 2.153 -7.315 -10.164 1.00 98.17 C

ATOM 443 CB LYS A 58 1.132 -8.288 -12.233 1.00 98.17 C

ATOM 444 O LYS A 58 1.432 -6.675 -9.396 1.00 98.17 O

ATOM 445 CG LYS A 58 0.678 -9.517 -13.006 1.00 98.17 C

ATOM 446 CD LYS A 58 0.099 -9.141 -14.364 1.00 98.17 C

ATOM 447 CE LYS A 58 -0.426 -10.362 -15.107 1.00 98.17 C

ATOM 448 NZ LYS A 58 -1.229 -9.978 -16.306 1.00 98.17 N

ATOM 449 N TYR A 59 3.446 -6.992 -10.498 1.00 98.52 N

ATOM 450 CA TYR A 59 4.058 -5.890 -9.764 1.00 98.52 C

ATOM 451 C TYR A 59 4.707 -4.894 -10.718 1.00 98.52 C

ATOM 452 CB TYR A 59 5.099 -6.417 -8.772 1.00 98.52 C

ATOM 453 O TYR A 59 5.393 -5.287 -11.664 1.00 98.52 O

ATOM 454 CG TYR A 59 4.508 -7.240 -7.653 1.00 98.52 C

ATOM 455 CD1 TYR A 59 4.208 -6.663 -6.421 1.00 98.52 C

ATOM 456 CD2 TYR A 59 4.250 -8.596 -7.825 1.00 98.52 C

ATOM 457 CE1 TYR A 59 3.665 -7.419 -5.386 1.00 98.52 C

ATOM 458 CE2 TYR A 59 3.708 -9.361 -6.798 1.00 98.52 C

ATOM 459 OH TYR A 59 2.882 -9.516 -4.563 1.00 98.52 O

ATOM 460 CZ TYR A 59 3.419 -8.764 -5.584 1.00 98.52 C

ATOM 461 N ALA A 60 4.434 -3.663 -10.425 1.00 98.29 N

ATOM 462 CA ALA A 60 5.250 -2.548 -10.898 1.00 98.29 C

ATOM 463 C ALA A 60 6.110 -1.981 -9.772 1.00 98.29 C

ATOM 464 CB ALA A 60 4.365 -1.454 -11.490 1.00 98.29 C

ATOM 465 O ALA A 60 5.606 -1.284 -8.888 1.00 98.29 O

ATOM 466 N VAL A 61 7.393 -2.325 -9.867 1.00 98.36 N

ATOM 467 CA VAL A 61 8.314 -1.913 -8.813 1.00 98.36 C

ATOM 468 C VAL A 61 9.051 -0.645 -9.237 1.00 98.36 C

ATOM 469 CB VAL A 61 9.326 -3.031 -8.474 1.00 98.36 C

ATOM 470 O VAL A 61 9.644 -0.597 -10.318 1.00 98.36 O

ATOM 471 CG1 VAL A 61 10.295 -2.570 -7.387 1.00 98.36 C

ATOM 472 CG2 VAL A 61 8.594 -4.299 -8.040 1.00 98.36 C

ATOM 473 N VAL A 62 8.978 0.374 -8.329 1.00 98.04 N

ATOM 474 CA VAL A 62 9.634 1.644 -8.623 1.00 98.04 C

ATOM 475 C VAL A 62 10.915 1.766 -7.802 1.00 98.04 C

ATOM 476 CB VAL A 62 8.702 2.843 -8.338 1.00 98.04 C

ATOM 477 O VAL A 62 10.897 1.591 -6.581 1.00 98.04 O

ATOM 478 CG1 VAL A 62 9.424 4.163 -8.604 1.00 98.04 C

ATOM 479 CG2 VAL A 62 7.433 2.745 -9.184 1.00 98.04 C

ATOM 480 N THR A 63 11.992 2.067 -8.549 1.00 96.72 N

ATOM 481 CA THR A 63 13.281 2.228 -7.885 1.00 96.72 C

ATOM 482 C THR A 63 14.223 3.079 -8.732 1.00 96.72 C

ATOM 483 CB THR A 63 13.936 0.865 -7.597 1.00 96.72 C

ATOM 484 O THR A 63 14.100 3.118 -9.958 1.00 96.72 O

ATOM 485 CG2 THR A 63 14.181 0.089 -8.887 1.00 96.72 C

ATOM 486 OG1 THR A 63 15.188 1.073 -6.933 1.00 96.72 O

ATOM 487 N ARG A 64 15.137 3.774 -8.074 1.00 92.66 N

ATOM 488 CA ARG A 64 16.173 4.536 -8.764 1.00 92.66 C

ATOM 489 C ARG A 64 17.473 3.743 -8.846 1.00 92.66 C

ATOM 490 CB ARG A 64 16.417 5.872 -8.060 1.00 92.66 C

ATOM 491 O ARG A 64 18.427 4.171 -9.498 1.00 92.66 O

ATOM 492 CG ARG A 64 15.221 6.810 -8.086 1.00 92.66 C

ATOM 493 CD ARG A 64 15.491 8.091 -7.309 1.00 92.66 C

ATOM 494 NE ARG A 64 14.357 9.009 -7.372 1.00 92.66 N

ATOM 495 NH1 ARG A 64 14.327 9.455 -5.105 1.00 92.66 N

ATOM 496 NH2 ARG A 64 12.799 10.450 -6.495 1.00 92.66 N

ATOM 497 CZ ARG A 64 13.830 9.636 -6.324 1.00 92.66 C

ATOM 498 N SER A 65 17.495 2.581 -8.316 1.00 93.04 N

ATOM 499 CA SER A 65 18.680 1.728 -8.318 1.00 93.04 C

ATOM 500 C SER A 65 18.683 0.790 -9.520 1.00 93.04 C

ATOM 501 CB SER A 65 18.757 0.914 -7.025 1.00 93.04 C

ATOM 502 O SER A 65 17.747 0.796 -10.322 1.00 93.04 O

ATOM 503 OG SER A 65 17.752 -0.086 -7.000 1.00 93.04 O

ATOM 504 N SER A 66 19.766 0.082 -9.742 1.00 91.26 N

ATOM 505 CA SER A 66 19.912 -0.842 -10.862 1.00 91.26 C

ATOM 506 C SER A 66 19.213 -2.168 -10.579 1.00 91.26 C

ATOM 507 CB SER A 66 21.390 -1.090 -11.164 1.00 91.26 C

ATOM 508 O SER A 66 19.462 -3.165 -11.260 1.00 91.26 O

ATOM 509 OG SER A 66 22.062 -1.585 -10.018 1.00 91.26 O

ATOM 510 N PHE A 67 18.184 -2.206 -9.844 1.00 93.69 N

ATOM 511 CA PHE A 67 17.415 -3.394 -9.494 1.00 93.69 C

ATOM 512 C PHE A 67 16.693 -3.951 -10.715 1.00 93.69 C

ATOM 513 CB PHE A 67 16.405 -3.076 -8.387 1.00 93.69 C

ATOM 514 O PHE A 67 16.130 -3.195 -11.509 1.00 93.69 O

ATOM 515 CG PHE A 67 15.504 -4.230 -8.037 1.00 93.69 C

ATOM 516 CD1 PHE A 67 14.232 -4.328 -8.588 1.00 93.69 C

ATOM 517 CD2 PHE A 67 15.929 -5.216 -7.157 1.00 93.69 C

ATOM 518 CE1 PHE A 67 13.396 -5.395 -8.266 1.00 93.69 C

ATOM 519 CE2 PHE A 67 15.100 -6.285 -6.830 1.00 93.69 C

ATOM 520 CZ PHE A 67 13.833 -6.372 -7.385 1.00 93.69 C

ATOM 521 N THR A 68 16.786 -5.334 -10.797 1.00 93.18 N

ATOM 522 CA THR A 68 16.058 -6.010 -11.865 1.00 93.18 C

ATOM 523 C THR A 68 15.387 -7.277 -11.344 1.00 93.18 C

ATOM 524 CB THR A 68 16.989 -6.364 -13.038 1.00 93.18 C

ATOM 525 O THR A 68 15.736 -7.775 -10.271 1.00 93.18 O

ATOM 526 CG2 THR A 68 17.633 -5.113 -13.627 1.00 93.18 C

ATOM 527 OG1 THR A 68 18.020 -7.244 -12.574 1.00 93.18 O

ATOM 528 N SER A 69 14.319 -7.682 -12.029 1.00 93.11 N

ATOM 529 CA SER A 69 13.618 -8.910 -11.668 1.00 93.11 C

ATOM 530 C SER A 69 13.542 -9.871 -12.850 1.00 93.11 C

ATOM 531 CB SER A 69 12.209 -8.596 -11.164 1.00 93.11 C

ATOM 532 O SER A 69 13.347 -9.445 -13.991 1.00 93.11 O

ATOM 533 OG SER A 69 11.506 -9.789 -10.860 1.00 93.11 O

ATOM 534 N SER A 70 13.785 -11.176 -12.596 1.00 93.73 N

ATOM 535 CA SER A 70 13.655 -12.189 -13.639 1.00 93.73 C

ATOM 536 C SER A 70 12.231 -12.730 -13.711 1.00 93.73 C

ATOM 537 CB SER A 70 14.634 -13.338 -13.395 1.00 93.73 C

ATOM 538 O SER A 70 11.906 -13.519 -14.600 1.00 93.73 O

ATOM 539 OG SER A 70 14.429 -13.911 -12.115 1.00 93.73 O

ATOM 540 N ASP A 71 11.404 -12.309 -12.820 1.00 94.91 N

ATOM 541 CA ASP A 71 10.000 -12.703 -12.757 1.00 94.91 C

ATOM 542 C ASP A 71 9.174 -11.963 -13.807 1.00 94.91 C

ATOM 543 CB ASP A 71 9.432 -12.442 -11.360 1.00 94.91 C

ATOM 544 O ASP A 71 9.153 -10.731 -13.833 1.00 94.91 O

ATOM 545 CG ASP A 71 8.049 -13.037 -11.162 1.00 94.91 C

ATOM 546 OD1 ASP A 71 7.325 -13.246 -12.160 1.00 94.91 O

ATOM 547 OD2 ASP A 71 7.678 -13.298 -9.997 1.00 94.91 O

ATOM 548 N GLU A 72 8.447 -12.725 -14.590 1.00 94.37 N

ATOM 549 CA GLU A 72 7.695 -12.128 -15.689 1.00 94.37 C

ATOM 550 C GLU A 72 6.523 -11.299 -15.171 1.00 94.37 C

ATOM 551 CB GLU A 72 7.190 -13.210 -16.647 1.00 94.37 C

ATOM 552 O GLU A 72 5.976 -10.466 -15.897 1.00 94.37 O

ATOM 553 CG GLU A 72 6.238 -14.206 -16.001 1.00 94.37 C

ATOM 554 CD GLU A 72 5.771 -15.295 -16.954 1.00 94.37 C

ATOM 555 OE1 GLU A 72 5.082 -16.239 -16.507 1.00 94.37 O

ATOM 556 OE2 GLU A 72 6.099 -15.204 -18.158 1.00 94.37 O

ATOM 557 N ASN A 73 6.201 -11.557 -13.921 1.00 96.85 N

ATOM 558 CA ASN A 73 5.080 -10.829 -13.337 1.00 96.85 C

ATOM 559 C ASN A 73 5.547 -9.571 -12.609 1.00 96.85 C

ATOM 560 CB ASN A 73 4.291 -11.731 -12.385 1.00 96.85 C

ATOM 561 O ASN A 73 4.749 -8.889 -11.964 1.00 96.85 O

ATOM 562 CG ASN A 73 3.581 -12.860 -13.104 1.00 96.85 C

ATOM 563 ND2 ASN A 73 3.608 -14.049 -12.515 1.00 96.85 N

ATOM 564 OD1 ASN A 73 3.012 -12.665 -14.182 1.00 96.85 O

ATOM 565 N VAL A 74 6.830 -9.266 -12.762 1.00 98.13 N

ATOM 566 CA VAL A 74 7.391 -8.088 -12.108 1.00 98.13 C

ATOM 567 C VAL A 74 8.056 -7.188 -13.147 1.00 98.13 C

ATOM 568 CB VAL A 74 8.407 -8.478 -11.012 1.00 98.13 C

ATOM 569 O VAL A 74 8.979 -7.613 -13.846 1.00 98.13 O

ATOM 570 CG1 VAL A 74 8.966 -7.233 -10.325 1.00 98.13 C

ATOM 571 CG2 VAL A 74 7.757 -9.409 -9.990 1.00 98.13 C

ATOM 572 N LEU A 75 7.505 -5.975 -13.138 1.00 98.22 N

ATOM 573 CA LEU A 75 8.122 -4.948 -13.969 1.00 98.22 C

ATOM 574 C LEU A 75 8.769 -3.868 -13.109 1.00 98.22 C

ATOM 575 CB LEU A 75 7.085 -4.320 -14.904 1.00 98.22 C

ATOM 576 O LEU A 75 8.184 -3.425 -12.117 1.00 98.22 O

ATOM 577 CG LEU A 75 6.357 -5.276 -15.849 1.00 98.22 C

ATOM 578 CD1 LEU A 75 5.373 -4.508 -16.726 1.00 98.22 C

ATOM 579 CD2 LEU A 75 7.356 -6.046 -16.706 1.00 98.22 C

ATOM 580 N VAL A 76 9.972 -3.425 -13.525 1.00 98.25 N

ATOM 581 CA VAL A 76 10.713 -2.439 -12.746 1.00 98.25 C

ATOM 582 C VAL A 76 10.798 -1.126 -13.520 1.00 98.25 C

ATOM 583 CB VAL A 76 12.131 -2.943 -12.394 1.00 98.25 C

ATOM 584 O VAL A 76 11.118 -1.120 -14.711 1.00 98.25 O

ATOM 585 CG1 VAL A 76 12.863 -1.929 -11.518 1.00 98.25 C

ATOM 586 CG2 VAL A 76 12.056 -4.301 -11.697 1.00 98.25 C

ATOM 587 N PHE A 77 10.531 -0.049 -12.756 1.00 98.07 N

ATOM 588 CA PHE A 77 10.513 1.269 -13.379 1.00 98.07 C

ATOM 589 C PHE A 77 11.363 2.254 -12.585 1.00 98.07 C

ATOM 590 CB PHE A 77 9.078 1.791 -13.497 1.00 98.07 C

ATOM 591 O PHE A 77 11.492 2.129 -11.366 1.00 98.07 O

ATOM 592 CG PHE A 77 8.177 0.908 -14.318 1.00 98.07 C

ATOM 593 CD1 PHE A 77 8.078 1.081 -15.693 1.00 98.07 C

ATOM 594 CD2 PHE A 77 7.429 -0.094 -13.715 1.00 98.07 C

ATOM 595 CE1 PHE A 77 7.245 0.266 -16.456 1.00 98.07 C

ATOM 596 CE2 PHE A 77 6.594 -0.912 -14.471 1.00 98.07 C

ATOM 597 CZ PHE A 77 6.503 -0.730 -15.841 1.00 98.07 C

ATOM 598 N PRO A 78 11.893 3.237 -13.272 1.00 97.35 N

ATOM 599 CA PRO A 78 12.768 4.201 -12.599 1.00 97.35 C

ATOM 600 C PRO A 78 11.990 5.308 -11.892 1.00 97.35 C

ATOM 601 CB PRO A 78 13.611 4.770 -13.743 1.00 97.35 C

ATOM 602 O PRO A 78 12.564 6.061 -11.100 1.00 97.35 O

ATOM 603 CG PRO A 78 12.744 4.647 -14.954 1.00 97.35 C

ATOM 604 CD PRO A 78 11.920 3.398 -14.826 1.00 97.35 C

ATOM 605 N SER A 79 10.655 5.374 -12.217 1.00 97.24 N

ATOM 606 CA SER A 79 9.839 6.404 -11.583 1.00 97.24 C

ATOM 607 C SER A 79 8.364 6.017 -11.583 1.00 97.24 C

ATOM 608 CB SER A 79 10.021 7.746 -12.293 1.00 97.24 C

ATOM 609 O SER A 79 7.941 5.158 -12.360 1.00 97.24 O

ATOM 610 OG SER A 79 9.434 7.717 -13.583 1.00 97.24 O

ATOM 611 N ILE A 80 7.633 6.695 -10.746 1.00 97.57 N

ATOM 612 CA ILE A 80 6.194 6.482 -10.634 1.00 97.57 C

ATOM 613 C ILE A 80 5.516 6.836 -11.955 1.00 97.57 C

ATOM 614 CB ILE A 80 5.588 7.314 -9.481 1.00 97.57 C

ATOM 615 O ILE A 80 4.669 6.086 -12.446 1.00 97.57 O

ATOM 616 CG1 ILE A 80 6.042 6.758 -8.126 1.00 97.57 C

ATOM 617 CG2 ILE A 80 4.060 7.338 -9.578 1.00 97.57 C

ATOM 618 CD1 ILE A 80 5.716 7.663 -6.946 1.00 97.57 C

ATOM 619 N ASP A 81 5.939 7.890 -12.544 1.00 97.26 N

ATOM 620 CA ASP A 81 5.338 8.362 -13.787 1.00 97.26 C

ATOM 621 C ASP A 81 5.510 7.335 -14.904 1.00 97.26 C

ATOM 622 CB ASP A 81 5.949 9.701 -14.205 1.00 97.26 C

ATOM 623 O ASP A 81 4.557 7.029 -15.625 1.00 97.26 O

ATOM 624 CG ASP A 81 5.465 10.864 -13.357 1.00 97.26 C

ATOM 625 OD1 ASP A 81 4.413 10.739 -12.693 1.00 97.26 O

ATOM 626 OD2 ASP A 81 6.140 11.916 -13.354 1.00 97.26 O

ATOM 627 N GLU A 82 6.710 6.862 -15.031 1.00 98.23 N

ATOM 628 CA GLU A 82 6.965 5.859 -16.061 1.00 98.23 C

ATOM 629 C GLU A 82 6.152 4.592 -15.812 1.00 98.23 C

ATOM 630 CB GLU A 82 8.457 5.523 -16.126 1.00 98.23 C

ATOM 631 O GLU A 82 5.621 3.994 -16.750 1.00 98.23 O

ATOM 632 CG GLU A 82 9.312 6.631 -16.723 1.00 98.23 C

ATOM 633 CD GLU A 82 10.760 6.221 -16.941 1.00 98.23 C

ATOM 634 OE1 GLU A 82 11.658 7.087 -16.842 1.00 98.23 O

ATOM 635 OE2 GLU A 82 10.997 5.023 -17.215 1.00 98.23 O

ATOM 636 N ALA A 83 6.063 4.214 -14.566 1.00 98.12 N

ATOM 637 CA ALA A 83 5.271 3.039 -14.214 1.00 98.12 C

ATOM 638 C ALA A 83 3.807 3.228 -14.598 1.00 98.12 C

ATOM 639 CB ALA A 83 5.393 2.743 -12.721 1.00 98.12 C

ATOM 640 O ALA A 83 3.224 2.384 -15.282 1.00 98.12 O

ATOM 641 N LEU A 84 3.253 4.341 -14.223 1.00 97.92 N

ATOM 642 CA LEU A 84 1.838 4.595 -14.470 1.00 97.92 C

ATOM 643 C LEU A 84 1.559 4.707 -15.965 1.00 97.92 C

ATOM 644 CB LEU A 84 1.390 5.874 -13.757 1.00 97.92 C

ATOM 645 O LEU A 84 0.540 4.210 -16.449 1.00 97.92 O

ATOM 646 CG LEU A 84 1.351 5.820 -12.229 1.00 97.92 C

ATOM 647 CD1 LEU A 84 0.920 7.169 -11.663 1.00 97.92 C

ATOM 648 CD2 LEU A 84 0.415 4.712 -11.757 1.00 97.92 C

ATOM 649 N ASN A 85 2.401 5.376 -16.742 1.00 98.08 N

ATOM 650 CA ASN A 85 2.232 5.498 -18.186 1.00 98.08 C

ATOM 651 C ASN A 85 2.204 4.131 -18.864 1.00 98.08 C

ATOM 652 CB ASN A 85 3.340 6.366 -18.785 1.00 98.08 C

ATOM 653 O ASN A 85 1.374 3.885 -19.741 1.00 98.08 O

ATOM 654 CG ASN A 85 3.143 7.842 -18.502 1.00 98.08 C

ATOM 655 ND2 ASN A 85 4.230 8.604 -18.541 1.00 98.08 N

ATOM 656 OD1 ASN A 85 2.023 8.295 -18.249 1.00 98.08 O

ATOM 657 N HIS A 86 3.096 3.316 -18.432 1.00 98.36 N

ATOM 658 CA HIS A 86 3.132 1.971 -18.997 1.00 98.36 C

ATOM 659 C HIS A 86 1.889 1.178 -18.608 1.00 98.36 C

ATOM 660 CB HIS A 86 4.391 1.232 -18.540 1.00 98.36 C

ATOM 661 O HIS A 86 1.271 0.529 -19.456 1.00 98.36 O

ATOM 662 CG HIS A 86 4.496 -0.161 -19.075 1.00 98.36 C

ATOM 663 CD2 HIS A 86 4.201 -1.355 -18.509 1.00 98.36 C

ATOM 664 ND1 HIS A 86 4.958 -0.438 -20.344 1.00 98.36 N

ATOM 665 CE1 HIS A 86 4.941 -1.746 -20.536 1.00 98.36 C

ATOM 666 NE2 HIS A 86 4.486 -2.326 -19.438 1.00 98.36 N

ATOM 667 N LEU A 87 1.493 1.236 -17.351 1.00 97.99 N

ATOM 668 CA LEU A 87 0.386 0.438 -16.833 1.00 97.99 C

ATOM 669 C LEU A 87 -0.931 0.848 -17.484 1.00 97.99 C

ATOM 670 CB LEU A 87 0.285 0.584 -15.313 1.00 97.99 C

ATOM 671 O LEU A 87 -1.830 0.021 -17.650 1.00 97.99 O

ATOM 672 CG LEU A 87 1.366 -0.120 -14.490 1.00 97.99 C

ATOM 673 CD1 LEU A 87 1.261 0.282 -13.023 1.00 97.99 C

ATOM 674 CD2 LEU A 87 1.255 -1.633 -14.645 1.00 97.99 C

ATOM 675 N LYS A 88 -1.046 2.037 -17.865 1.00 97.45 N

ATOM 676 CA LYS A 88 -2.250 2.510 -18.541 1.00 97.45 C

ATOM 677 C LYS A 88 -2.490 1.743 -19.839 1.00 97.45 C

ATOM 678 CB LYS A 88 -2.150 4.009 -18.830 1.00 97.45 C

ATOM 679 O LYS A 88 -3.627 1.641 -20.304 1.00 97.45 O

ATOM 680 CG LYS A 88 -2.366 4.890 -17.608 1.00 97.45 C

ATOM 681 CD LYS A 88 -2.245 6.368 -17.957 1.00 97.45 C

ATOM 682 CE LYS A 88 -2.400 7.248 -16.724 1.00 97.45 C

ATOM 683 NZ LYS A 88 -2.232 8.696 -17.052 1.00 97.45 N

ATOM 684 N THR A 89 -1.471 1.196 -20.406 1.00 97.76 N

ATOM 685 CA THR A 89 -1.571 0.517 -21.693 1.00 97.76 C

ATOM 686 C THR A 89 -1.886 -0.964 -21.500 1.00 97.76 C

ATOM 687 CB THR A 89 -0.272 0.666 -22.506 1.00 97.76 C

ATOM 688 O THR A 89 -2.313 -1.641 -22.438 1.00 97.76 O

ATOM 689 CG2 THR A 89 0.170 2.124 -22.574 1.00 97.76 C

ATOM 690 OG1 THR A 89 0.763 -0.108 -21.888 1.00 97.76 O

ATOM 691 N ILE A 90 -1.820 -1.512 -20.279 1.00 97.32 N

ATOM 692 CA ILE A 90 -1.895 -2.967 -20.197 1.00 97.32 C

ATOM 693 C ILE A 90 -2.933 -3.372 -19.154 1.00 97.32 C

ATOM 694 CB ILE A 90 -0.521 -3.585 -19.854 1.00 97.32 C

ATOM 695 O ILE A 90 -3.256 -4.554 -19.016 1.00 97.32 O

ATOM 696 CG1 ILE A 90 -0.024 -3.065 -18.500 1.00 97.32 C

ATOM 697 CG2 ILE A 90 0.496 -3.290 -20.961 1.00 97.32 C

ATOM 698 CD1 ILE A 90 1.215 -3.780 -17.980 1.00 97.32 C

ATOM 699 N THR A 91 -3.413 -2.332 -18.389 1.00 97.38 N

ATOM 700 CA THR A 91 -4.423 -2.686 -17.398 1.00 97.38 C

ATOM 701 C THR A 91 -5.378 -1.520 -17.159 1.00 97.38 C

ATOM 702 CB THR A 91 -3.775 -3.105 -16.065 1.00 97.38 C

ATOM 703 O THR A 91 -5.049 -0.370 -17.459 1.00 97.38 O

ATOM 704 CG2 THR A 91 -2.995 -1.950 -15.447 1.00 97.38 C

ATOM 705 OG1 THR A 91 -4.799 -3.518 -15.152 1.00 97.38 O

ATOM 706 N ASP A 92 -6.497 -1.750 -16.569 1.00 96.92 N

ATOM 707 CA ASP A 92 -7.498 -0.727 -16.284 1.00 96.92 C

ATOM 708 C ASP A 92 -7.513 -0.373 -14.798 1.00 96.92 C

ATOM 709 CB ASP A 92 -8.885 -1.194 -16.728 1.00 96.92 C

ATOM 710 O ASP A 92 -8.170 0.587 -14.391 1.00 96.92 O

ATOM 711 CG ASP A 92 -9.019 -1.305 -18.236 1.00 96.92 C

ATOM 712 OD1 ASP A 92 -8.451 -0.461 -18.963 1.00 96.92 O

ATOM 713 OD2 ASP A 92 -9.701 -2.243 -18.703 1.00 96.92 O

ATOM 714 N HIS A 93 -6.628 -1.203 -14.001 1.00 97.93 N

ATOM 715 CA HIS A 93 -6.683 -0.991 -12.559 1.00 97.93 C

ATOM 716 C HIS A 93 -5.332 -1.270 -11.909 1.00 97.93 C

ATOM 717 CB HIS A 93 -7.762 -1.875 -11.929 1.00 97.93 C

ATOM 718 O HIS A 93 -4.720 -2.310 -12.162 1.00 97.93 O

ATOM 719 CG HIS A 93 -7.972 -1.617 -10.471 1.00 97.93 C

ATOM 720 CD2 HIS A 93 -7.747 -0.512 -9.722 1.00 97.93 C

ATOM 721 ND1 HIS A 93 -8.472 -2.571 -9.611 1.00 97.93 N

ATOM 722 CE1 HIS A 93 -8.546 -2.061 -8.393 1.00 97.93 C

ATOM 723 NE2 HIS A 93 -8.112 -0.813 -8.433 1.00 97.93 N

ATOM 724 N VAL A 94 -4.984 -0.295 -11.080 1.00 98.44 N

ATOM 725 CA VAL A 94 -3.748 -0.426 -10.316 1.00 98.44 C

ATOM 726 C VAL A 94 -4.021 -0.147 -8.840 1.00 98.44 C

ATOM 727 CB VAL A 94 -2.651 0.525 -10.844 1.00 98.44 C

ATOM 728 O VAL A 94 -4.764 0.778 -8.503 1.00 98.44 O

ATOM 729 CG1 VAL A 94 -1.440 0.523 -9.912 1.00 98.44 C

ATOM 730 CG2 VAL A 94 -2.239 0.129 -12.261 1.00 98.44 C

ATOM 731 N ILE A 95 -3.335 -1.025 -8.064 1.00 98.59 N

ATOM 732 CA ILE A 95 -3.445 -0.815 -6.625 1.00 98.59 C

ATOM 733 C ILE A 95 -2.084 -0.422 -6.055 1.00 98.59 C

ATOM 734 CB ILE A 95 -3.983 -2.075 -5.910 1.00 98.59 C

ATOM 735 O ILE A 95 -1.130 -1.200 -6.116 1.00 98.59 O

ATOM 736 CG1 ILE A 95 -5.321 -2.506 -6.520 1.00 98.59 C

ATOM 737 CG2 ILE A 95 -4.123 -1.823 -4.405 1.00 98.59 C

ATOM 738 CD1 ILE A 95 -5.846 -3.832 -5.988 1.00 98.59 C

ATOM 739 N VAL A 96 -2.076 0.784 -5.475 1.00 98.49 N

ATOM 740 CA VAL A 96 -0.868 1.237 -4.793 1.00 98.49 C

ATOM 741 C VAL A 96 -0.764 0.565 -3.426 1.00 98.49 C

ATOM 742 CB VAL A 96 -0.849 2.774 -4.633 1.00 98.49 C

ATOM 743 O VAL A 96 -1.658 0.703 -2.588 1.00 98.49 O

ATOM 744 CG1 VAL A 96 0.433 3.229 -3.939 1.00 98.49 C

ATOM 745 CG2 VAL A 96 -0.994 3.453 -5.994 1.00 98.49 C

ATOM 746 N SER A 97 0.332 -0.220 -3.168 1.00 95.90 N

ATOM 747 CA SER A 97 0.353 -1.083 -1.991 1.00 95.90 C

ATOM 748 C SER A 97 1.672 -0.957 -1.237 1.00 95.90 C

ATOM 749 CB SER A 97 0.121 -2.541 -2.391 1.00 95.90 C

ATOM 750 O SER A 97 2.116 -1.907 -0.589 1.00 95.90 O

ATOM 751 OG SER A 97 -1.169 -2.710 -2.952 1.00 95.90 O

ATOM 752 N GLY A 98 2.161 0.331 -1.408 1.00 85.25 N

ATOM 753 CA GLY A 98 3.134 0.494 -0.341 1.00 85.25 C

ATOM 754 C GLY A 98 4.427 1.137 -0.805 1.00 85.25 C

ATOM 755 O GLY A 98 4.707 1.185 -2.005 1.00 85.25 O

ATOM 756 N GLY A 99 5.196 1.614 0.068 1.00 87.15 N

ATOM 757 CA GLY A 99 6.203 2.333 0.833 1.00 87.15 C

ATOM 758 C GLY A 99 5.794 3.754 1.170 1.00 87.15 C

ATOM 759 O GLY A 99 4.897 4.315 0.537 1.00 87.15 O

ATOM 760 N GLY A 100 6.145 4.115 2.373 1.00 91.14 N

ATOM 761 CA GLY A 100 5.842 5.456 2.848 1.00 91.14 C

ATOM 762 C GLY A 100 5.981 6.516 1.771 1.00 91.14 C

ATOM 763 O GLY A 100 5.097 7.358 1.605 1.00 91.14 O

ATOM 764 N GLU A 101 7.006 6.405 0.969 1.00 93.95 N

ATOM 765 CA GLU A 101 7.275 7.396 -0.068 1.00 93.95 C

ATOM 766 C GLU A 101 6.293 7.262 -1.228 1.00 93.95 C

ATOM 767 CB GLU A 101 8.712 7.264 -0.578 1.00 93.95 C

ATOM 768 O GLU A 101 5.842 8.264 -1.786 1.00 93.95 O

ATOM 769 CG GLU A 101 9.765 7.698 0.431 1.00 93.95 C

ATOM 770 CD GLU A 101 11.186 7.579 -0.096 1.00 93.95 C

ATOM 771 OE1 GLU A 101 12.143 7.760 0.692 1.00 93.95 O

ATOM 772 OE2 GLU A 101 11.345 7.303 -1.306 1.00 93.95 O

ATOM 773 N ILE A 102 6.010 6.033 -1.587 1.00 97.01 N

ATOM 774 CA ILE A 102 5.052 5.781 -2.657 1.00 97.01 C

ATOM 775 C ILE A 102 3.674 6.298 -2.248 1.00 97.01 C

ATOM 776 CB ILE A 102 4.978 4.278 -3.008 1.00 97.01 C

ATOM 777 O ILE A 102 3.022 7.014 -3.011 1.00 97.01 O

ATOM 778 CG1 ILE A 102 6.304 3.805 -3.613 1.00 97.01 C

ATOM 779 CG2 ILE A 102 3.811 4.002 -3.961 1.00 97.01 C

ATOM 780 CD1 ILE A 102 6.639 4.450 -4.951 1.00 97.01 C

ATOM 781 N TYR A 103 3.340 6.007 -1.000 1.00 97.50 N

ATOM 782 CA TYR A 103 2.055 6.494 -0.513 1.00 97.50 C

ATOM 783 C TYR A 103 1.998 8.016 -0.551 1.00 97.50 C

ATOM 784 CB TYR A 103 1.797 5.998 0.913 1.00 97.50 C

ATOM 785 O TYR A 103 1.019 8.595 -1.028 1.00 97.50 O

ATOM 786 CG TYR A 103 1.464 4.528 0.993 1.00 97.50 C

ATOM 787 CD1 TYR A 103 0.706 3.910 0.001 1.00 97.50 C

ATOM 788 CD2 TYR A 103 1.906 3.754 2.061 1.00 97.50 C

ATOM 789 CE1 TYR A 103 0.395 2.556 0.072 1.00 97.50 C

ATOM 790 CE2 TYR A 103 1.601 2.399 2.142 1.00 97.50 C

ATOM 791 OH TYR A 103 0.541 0.469 1.219 1.00 97.50 O

ATOM 792 CZ TYR A 103 0.846 1.810 1.144 1.00 97.50 C

ATOM 793 N LYS A 104 2.961 8.613 -0.051 1.00 96.99 N

ATOM 794 CA LYS A 104 3.008 10.070 0.029 1.00 96.99 C

ATOM 795 C LYS A 104 2.875 10.701 -1.354 1.00 96.99 C

ATOM 796 CB LYS A 104 4.308 10.530 0.691 1.00 96.99 C

ATOM 797 O LYS A 104 2.187 11.711 -1.518 1.00 96.99 O

ATOM 798 CG LYS A 104 4.371 12.026 0.958 1.00 96.99 C

ATOM 799 CD LYS A 104 5.654 12.411 1.683 1.00 96.99 C

ATOM 800 CE LYS A 104 5.738 13.914 1.912 1.00 96.99 C

ATOM 801 NZ LYS A 104 6.993 14.296 2.627 1.00 96.99 N

ATOM 802 N SER A 105 3.421 10.113 -2.302 1.00 96.68 N

ATOM 803 CA SER A 105 3.484 10.670 -3.649 1.00 96.68 C

ATOM 804 C SER A 105 2.163 10.482 -4.388 1.00 96.68 C

ATOM 805 CB SER A 105 4.618 10.022 -4.445 1.00 96.68 C

ATOM 806 O SER A 105 1.799 11.298 -5.237 1.00 96.68 O

ATOM 807 OG SER A 105 5.878 10.362 -3.892 1.00 96.68 O

ATOM 808 N LEU A 106 1.404 9.448 -3.975 1.00 97.36 N

ATOM 809 CA LEU A 106 0.301 9.084 -4.857 1.00 97.36 C

ATOM 810 C LEU A 106 -1.041 9.291 -4.164 1.00 97.36 C

ATOM 811 CB LEU A 106 0.435 7.628 -5.311 1.00 97.36 C

ATOM 812 O LEU A 106 -2.092 9.241 -4.808 1.00 97.36 O

ATOM 813 CG LEU A 106 1.506 7.342 -6.365 1.00 97.36 C

ATOM 814 CD1 LEU A 106 1.721 5.839 -6.508 1.00 97.36 C

ATOM 815 CD2 LEU A 106 1.118 7.961 -7.703 1.00 97.36 C

ATOM 816 N ILE A 107 -1.046 9.581 -2.900 1.00 97.23 N

ATOM 817 CA ILE A 107 -2.275 9.594 -2.114 1.00 97.23 C

ATOM 818 C ILE A 107 -3.253 10.608 -2.703 1.00 97.23 C

ATOM 819 CB ILE A 107 -1.994 9.919 -0.630 1.00 97.23 C

ATOM 820 O ILE A 107 -4.469 10.400 -2.670 1.00 97.23 O

ATOM 821 CG1 ILE A 107 -3.257 9.704 0.212 1.00 97.23 C

ATOM 822 CG2 ILE A 107 -1.473 11.351 -0.480 1.00 97.23 C

ATOM 823 CD1 ILE A 107 -2.989 9.556 1.703 1.00 97.23 C

ATOM 824 N ASP A 108 -2.758 11.698 -3.319 1.00 95.40 N

ATOM 825 CA ASP A 108 -3.634 12.731 -3.862 1.00 95.40 C

ATOM 826 C ASP A 108 -4.079 12.385 -5.281 1.00 95.40 C

ATOM 827 CB ASP A 108 -2.934 14.091 -3.847 1.00 95.40 C

ATOM 828 O ASP A 108 -4.922 13.074 -5.858 1.00 95.40 O

ATOM 829 CG ASP A 108 -2.809 14.679 -2.452 1.00 95.40 C

ATOM 830 OD1 ASP A 108 -3.806 14.678 -1.698 1.00 95.40 O

ATOM 831 OD2 ASP A 108 -1.704 15.149 -2.105 1.00 95.40 O

ATOM 832 N LYS A 109 -3.539 11.366 -5.838 1.00 95.52 N

ATOM 833 CA LYS A 109 -3.805 11.059 -7.241 1.00 95.52 C

ATOM 834 C LYS A 109 -4.718 9.844 -7.374 1.00 95.52 C

ATOM 835 CB LYS A 109 -2.496 10.817 -7.995 1.00 95.52 C

ATOM 836 O LYS A 109 -5.184 9.529 -8.471 1.00 95.52 O

ATOM 837 CG LYS A 109 -1.592 12.037 -8.073 1.00 95.52 C

ATOM 838 CD LYS A 109 -0.316 11.739 -8.851 1.00 95.52 C

ATOM 839 CE LYS A 109 0.600 12.954 -8.912 1.00 95.52 C

ATOM 840 NZ LYS A 109 1.800 12.700 -9.765 1.00 95.52 N

ATOM 841 N VAL A 110 -4.963 9.172 -6.255 1.00 97.68 N

ATOM 842 CA VAL A 110 -5.741 7.941 -6.338 1.00 97.68 C

ATOM 843 C VAL A 110 -7.231 8.265 -6.260 1.00 97.68 C

ATOM 844 CB VAL A 110 -5.353 6.947 -5.219 1.00 97.68 C

ATOM 845 O VAL A 110 -7.615 9.343 -5.801 1.00 97.68 O

ATOM 846 CG1 VAL A 110 -3.881 6.555 -5.333 1.00 97.68 C

ATOM 847 CG2 VAL A 110 -5.645 7.550 -3.846 1.00 97.68 C

ATOM 848 N ASP A 111 -8.038 7.282 -6.736 1.00 97.21 N

ATOM 849 CA ASP A 111 -9.489 7.434 -6.786 1.00 97.21 C

ATOM 850 C ASP A 111 -10.143 6.888 -5.518 1.00 97.21 C

ATOM 851 CB ASP A 111 -10.061 6.730 -8.018 1.00 97.21 C

ATOM 852 O ASP A 111 -11.147 7.428 -5.049 1.00 97.21 O

ATOM 853 CG ASP A 111 -9.460 7.232 -9.319 1.00 97.21 C

ATOM 854 OD1 ASP A 111 -9.677 8.410 -9.677 1.00 97.21 O

ATOM 855 OD2 ASP A 111 -8.767 6.441 -9.995 1.00 97.21 O

ATOM 856 N THR A 112 -9.535 5.793 -4.985 1.00 98.20 N

ATOM 857 CA THR A 112 -10.112 5.066 -3.860 1.00 98.20 C

ATOM 858 C THR A 112 -9.031 4.671 -2.859 1.00 98.20 C

ATOM 859 CB THR A 112 -10.861 3.806 -4.335 1.00 98.20 C

ATOM 860 O THR A 112 -7.924 4.293 -3.250 1.00 98.20 O

ATOM 861 CG2 THR A 112 -11.530 3.091 -3.165 1.00 98.20 C

ATOM 862 OG1 THR A 112 -11.864 4.184 -5.286 1.00 98.20 O

ATOM 863 N LEU A 113 -9.427 4.837 -1.603 1.00 98.54 N

ATOM 864 CA LEU A 113 -8.570 4.348 -0.528 1.00 98.54 C

ATOM 865 C LEU A 113 -9.219 3.171 0.192 1.00 98.54 C

ATOM 866 CB LEU A 113 -8.269 5.469 0.470 1.00 98.54 C

ATOM 867 O LEU A 113 -10.376 3.255 0.611 1.00 98.54 O

ATOM 868 CG LEU A 113 -7.661 6.747 -0.109 1.00 98.54 C

ATOM 869 CD1 LEU A 113 -7.564 7.823 0.967 1.00 98.54 C

ATOM 870 CD2 LEU A 113 -6.289 6.462 -0.713 1.00 98.54 C

ATOM 871 N HIS A 114 -8.450 2.060 0.232 1.00 98.53 N

ATOM 872 CA HIS A 114 -8.767 0.953 1.126 1.00 98.53 C

ATOM 873 C HIS A 114 -7.878 0.972 2.365 1.00 98.53 C

ATOM 874 CB HIS A 114 -8.621 -0.384 0.396 1.00 98.53 C

ATOM 875 O HIS A 114 -6.696 0.630 2.291 1.00 98.53 O

ATOM 876 CG HIS A 114 -9.545 -0.534 -0.770 1.00 98.53 C

ATOM 877 CD2 HIS A 114 -9.384 -0.225 -2.078 1.00 98.53 C

ATOM 878 ND1 HIS A 114 -10.814 -1.060 -0.652 1.00 98.53 N

ATOM 879 CE1 HIS A 114 -11.393 -1.067 -1.840 1.00 98.53 C

ATOM 880 NE2 HIS A 114 -10.547 -0.566 -2.723 1.00 98.53 N

ATOM 881 N ILE A 115 -8.568 1.335 3.530 1.00 98.46 N

ATOM 882 CA ILE A 115 -7.751 1.543 4.720 1.00 98.46 C

ATOM 883 C ILE A 115 -8.206 0.599 5.830 1.00 98.46 C

ATOM 884 CB ILE A 115 -7.819 3.010 5.203 1.00 98.46 C

ATOM 885 O ILE A 115 -9.386 0.575 6.188 1.00 98.46 O

ATOM 886 CG1 ILE A 115 -7.400 3.962 4.077 1.00 98.46 C

ATOM 887 CG2 ILE A 115 -6.945 3.211 6.444 1.00 98.46 C

ATOM 888 CD1 ILE A 115 -5.965 3.770 3.606 1.00 98.46 C

ATOM 889 N SER A 116 -7.228 -0.229 6.263 1.00 98.40 N

ATOM 890 CA SER A 116 -7.403 -0.955 7.517 1.00 98.40 C

ATOM 891 C SER A 116 -6.717 -0.235 8.673 1.00 98.40 C

ATOM 892 CB SER A 116 -6.856 -2.377 7.393 1.00 98.40 C

ATOM 893 O SER A 116 -5.509 0.007 8.630 1.00 98.40 O

ATOM 894 OG SER A 116 -7.573 -3.109 6.413 1.00 98.40 O

ATOM 895 N THR A 117 -7.530 0.172 9.696 1.00 98.33 N

ATOM 896 CA THR A 117 -6.952 0.767 10.895 1.00 98.33 C

ATOM 897 C THR A 117 -6.819 -0.272 12.005 1.00 98.33 C

ATOM 898 CB THR A 117 -7.802 1.950 11.396 1.00 98.33 C

ATOM 899 O THR A 117 -7.821 -0.731 12.557 1.00 98.33 O

ATOM 900 CG2 THR A 117 -7.144 2.633 12.590 1.00 98.33 C

ATOM 901 OG1 THR A 117 -7.953 2.904 10.338 1.00 98.33 O

ATOM 902 N ILE A 118 -5.509 -0.592 12.299 1.00 98.45 N

ATOM 903 CA ILE A 118 -5.181 -1.596 13.305 1.00 98.45 C

ATOM 904 C ILE A 118 -5.249 -0.974 14.698 1.00 98.45 C

ATOM 905 CB ILE A 118 -3.783 -2.207 13.059 1.00 98.45 C

ATOM 906 O ILE A 118 -4.611 0.049 14.960 1.00 98.45 O

ATOM 907 CG1 ILE A 118 -3.652 -2.673 11.605 1.00 98.45 C

ATOM 908 CG2 ILE A 118 -3.519 -3.361 14.030 1.00 98.45 C

ATOM 909 CD1 ILE A 118 -4.694 -3.703 11.189 1.00 98.45 C

ATOM 910 N ASP A 119 -5.965 -1.572 15.608 1.00 98.15 N

ATOM 911 CA ASP A 119 -6.256 -0.959 16.901 1.00 98.15 C

ATOM 912 C ASP A 119 -5.108 -1.178 17.883 1.00 98.15 C

ATOM 913 CB ASP A 119 -7.557 -1.518 17.479 1.00 98.15 C

ATOM 914 O ASP A 119 -5.284 -1.826 18.917 1.00 98.15 O

ATOM 915 CG ASP A 119 -8.064 -0.726 18.672 1.00 98.15 C

ATOM 916 OD1 ASP A 119 -7.593 0.410 18.894 1.00 98.15 O

ATOM 917 OD2 ASP A 119 -8.940 -1.244 19.397 1.00 98.15 O

ATOM 918 N ILE A 120 -3.937 -0.688 17.515 1.00 98.16 N

ATOM 919 CA ILE A 120 -2.742 -0.719 18.351 1.00 98.16 C

ATOM 920 C ILE A 120 -1.883 0.512 18.070 1.00 98.16 C

ATOM 921 CB ILE A 120 -1.923 -2.009 18.117 1.00 98.16 C

ATOM 922 O ILE A 120 -2.136 1.247 17.113 1.00 98.16 O

ATOM 923 CG1 ILE A 120 -1.418 -2.066 16.671 1.00 98.16 C

ATOM 924 CG2 ILE A 120 -2.758 -3.247 18.456 1.00 98.16 C

ATOM 925 CD1 ILE A 120 -0.396 -3.165 16.415 1.00 98.16 C

ATOM 926 N GLU A 121 -0.864 0.781 18.865 1.00 98.14 N

ATOM 927 CA GLU A 121 0.090 1.877 18.718 1.00 98.14 C

ATOM 928 C GLU A 121 1.526 1.383 18.870 1.00 98.14 C

ATOM 929 CB GLU A 121 -0.197 2.981 19.739 1.00 98.14 C

ATOM 930 O GLU A 121 2.184 1.671 19.871 1.00 98.14 O

ATOM 931 CG GLU A 121 -1.557 3.641 19.564 1.00 98.14 C

ATOM 932 CD GLU A 121 -1.808 4.769 20.552 1.00 98.14 C

ATOM 933 OE1 GLU A 121 -2.755 5.561 20.342 1.00 98.14 O

ATOM 934 OE2 GLU A 121 -1.050 4.863 21.544 1.00 98.14 O

ATOM 935 N PRO A 122 2.058 0.693 17.947 1.00 97.33 N

ATOM 936 CA PRO A 122 3.415 0.145 18.019 1.00 97.33 C

ATOM 937 C PRO A 122 4.490 1.194 17.743 1.00 97.33 C

ATOM 938 CB PRO A 122 3.416 -0.936 16.936 1.00 97.33 C

ATOM 939 O PRO A 122 4.181 2.291 17.271 1.00 97.33 O

ATOM 940 CG PRO A 122 2.517 -0.407 15.866 1.00 97.33 C

ATOM 941 CD PRO A 122 1.375 0.319 16.518 1.00 97.33 C

ATOM 942 N GLU A 123 5.720 0.849 18.054 1.00 97.06 N

ATOM 943 CA GLU A 123 6.871 1.620 17.595 1.00 97.06 C

ATOM 944 C GLU A 123 7.152 1.365 16.117 1.00 97.06 C

ATOM 945 CB GLU A 123 8.110 1.287 18.431 1.00 97.06 C

ATOM 946 O GLU A 123 6.992 0.242 15.634 1.00 97.06 O

ATOM 947 CG GLU A 123 7.991 1.689 19.893 1.00 97.06 C

ATOM 948 CD GLU A 123 9.283 1.506 20.673 1.00 97.06 C

ATOM 949 OE1 GLU A 123 9.343 1.918 21.854 1.00 97.06 O

ATOM 950 OE2 GLU A 123 10.244 0.947 20.098 1.00 97.06 O

ATOM 951 N GLY A 124 7.509 2.485 15.371 1.00 95.52 N

ATOM 952 CA GLY A 124 7.824 2.334 13.960 1.00 95.52 C

ATOM 953 C GLY A 124 8.403 3.591 13.340 1.00 95.52 C

ATOM 954 O GLY A 124 8.360 4.664 13.945 1.00 95.52 O

ATOM 955 N ASP A 125 9.015 3.320 12.110 1.00 95.51 N

ATOM 956 CA ASP A 125 9.705 4.460 11.515 1.00 95.51 C

ATOM 957 C ASP A 125 9.131 4.793 10.140 1.00 95.51 C

ATOM 958 CB ASP A 125 11.206 4.181 11.406 1.00 95.51 C

ATOM 959 O ASP A 125 9.657 5.657 9.434 1.00 95.51 O

ATOM 960 CG ASP A 125 11.519 2.927 10.608 1.00 95.51 C

ATOM 961 OD1 ASP A 125 10.578 2.234 10.167 1.00 95.51 O

ATOM 962 OD2 ASP A 125 12.719 2.628 10.423 1.00 95.51 O

ATOM 963 N VAL A 126 8.132 4.087 9.820 1.00 95.10 N

ATOM 964 CA VAL A 126 7.463 4.376 8.556 1.00 95.10 C

ATOM 965 C VAL A 126 6.002 4.737 8.815 1.00 95.10 C

ATOM 966 CB VAL A 126 7.551 3.181 7.580 1.00 95.10 C

ATOM 967 O VAL A 126 5.271 3.974 9.451 1.00 95.10 O

ATOM 968 CG1 VAL A 126 6.943 3.543 6.226 1.00 95.10 C

ATOM 969 CG2 VAL A 126 9.002 2.733 7.416 1.00 95.10 C

ATOM 970 N TYR A 127 5.591 5.878 8.209 1.00 96.64 N

ATOM 971 CA TYR A 127 4.261 6.386 8.526 1.00 96.64 C

ATOM 972 C TYR A 127 3.437 6.585 7.259 1.00 96.64 C

ATOM 973 CB TYR A 127 4.359 7.705 9.298 1.00 96.64 C

ATOM 974 O TYR A 127 3.982 6.910 6.202 1.00 96.64 O

ATOM 975 CG TYR A 127 5.008 7.568 10.654 1.00 96.64 C

ATOM 976 CD1 TYR A 127 4.237 7.417 11.805 1.00 96.64 C

ATOM 977 CD2 TYR A 127 6.392 7.590 10.788 1.00 96.64 C

ATOM 978 CE1 TYR A 127 4.830 7.293 13.057 1.00 96.64 C

ATOM 979 CE2 TYR A 127 6.996 7.466 12.035 1.00 96.64 C

ATOM 980 OH TYR A 127 6.801 7.195 14.398 1.00 96.64 O

ATOM 981 CZ TYR A 127 6.208 7.318 13.161 1.00 96.64 C

ATOM 982 N PHE A 128 2.225 6.321 7.450 1.00 97.45 N

ATOM 983 CA PHE A 128 1.265 6.617 6.393 1.00 97.45 C

ATOM 984 C PHE A 128 0.967 8.110 6.335 1.00 97.45 C

ATOM 985 CB PHE A 128 -0.032 5.831 6.609 1.00 97.45 C

ATOM 986 O PHE A 128 0.888 8.774 7.370 1.00 97.45 O

ATOM 987 CG PHE A 128 -0.965 5.864 5.428 1.00 97.45 C

ATOM 988 CD1 PHE A 128 -2.094 6.676 5.439 1.00 97.45 C

ATOM 989 CD2 PHE A 128 -0.714 5.084 4.307 1.00 97.45 C

ATOM 990 CE1 PHE A 128 -2.959 6.708 4.348 1.00 97.45 C

ATOM 991 CE2 PHE A 128 -1.574 5.112 3.213 1.00 97.45 C

ATOM 992 CZ PHE A 128 -2.696 5.924 3.236 1.00 97.45 C

ATOM 993 N PRO A 129 0.882 8.643 5.096 1.00 97.22 N

ATOM 994 CA PRO A 129 0.570 10.070 4.991 1.00 97.22 C

ATOM 995 C PRO A 129 -0.856 10.397 5.428 1.00 97.22 C

ATOM 996 CB PRO A 129 0.765 10.364 3.501 1.00 97.22 C

ATOM 997 O PRO A 129 -1.694 9.497 5.535 1.00 97.22 O

ATOM 998 CG PRO A 129 0.451 9.075 2.813 1.00 97.22 C

ATOM 999 CD PRO A 129 0.913 7.943 3.685 1.00 97.22 C

ATOM 1000 N GLU A 130 -1.095 11.645 5.753 1.00 96.10 N

ATOM 1001 CA GLU A 130 -2.436 12.088 6.120 1.00 96.10 C

ATOM 1002 C GLU A 130 -3.406 11.938 4.951 1.00 96.10 C

ATOM 1003 CB GLU A 130 -2.411 13.542 6.599 1.00 96.10 C

ATOM 1004 O GLU A 130 -3.054 12.228 3.805 1.00 96.10 O

ATOM 1005 CG GLU A 130 -3.718 14.006 7.225 1.00 96.10 C

ATOM 1006 CD GLU A 130 -3.680 15.454 7.687 1.00 96.10 C

ATOM 1007 OE1 GLU A 130 -4.723 15.970 8.151 1.00 96.10 O

ATOM 1008 OE2 GLU A 130 -2.601 16.077 7.584 1.00 96.10 O

ATOM 1009 N ILE A 131 -4.550 11.385 5.258 1.00 96.74 N

ATOM 1010 CA ILE A 131 -5.595 11.293 4.245 1.00 96.74 C

ATOM 1011 C ILE A 131 -6.142 12.686 3.940 1.00 96.74 C

ATOM 1012 CB ILE A 131 -6.737 10.355 4.694 1.00 96.74 C

ATOM 1013 O ILE A 131 -6.561 13.408 4.848 1.00 96.74 O

ATOM 1014 CG1 ILE A 131 -6.203 8.937 4.928 1.00 96.74 C

ATOM 1015 CG2 ILE A 131 -7.869 10.350 3.663 1.00 96.74 C

ATOM 1016 CD1 ILE A 131 -7.234 7.973 5.500 1.00 96.74 C

ATOM 1017 N PRO A 132 -6.099 13.088 2.636 1.00 96.68 N

ATOM 1018 CA PRO A 132 -6.587 14.415 2.251 1.00 96.68 C

ATOM 1019 C PRO A 132 -8.051 14.636 2.624 1.00 96.68 C

ATOM 1020 CB PRO A 132 -6.401 14.431 0.731 1.00 96.68 C

ATOM 1021 O PRO A 132 -8.837 13.686 2.646 1.00 96.68 O

ATOM 1022 CG PRO A 132 -5.342 13.411 0.465 1.00 96.68 C

ATOM 1023 CD PRO A 132 -5.489 12.299 1.463 1.00 96.68 C

ATOM 1024 N SER A 133 -8.373 15.862 2.904 1.00 96.34 N

ATOM 1025 CA SER A 133 -9.713 16.230 3.348 1.00 96.34 C

ATOM 1026 C SER A 133 -10.746 15.988 2.252 1.00 96.34 C

ATOM 1027 CB SER A 133 -9.751 17.697 3.780 1.00 96.34 C

ATOM 1028 O SER A 133 -11.946 15.923 2.525 1.00 96.34 O

ATOM 1029 OG SER A 133 -9.335 18.543 2.722 1.00 96.34 O

ATOM 1030 N SER A 134 -10.229 15.867 1.006 1.00 95.83 N

ATOM 1031 CA SER A 134 -11.114 15.621 -0.128 1.00 95.83 C

ATOM 1032 C SER A 134 -11.710 14.218 -0.070 1.00 95.83 C

ATOM 1033 CB SER A 134 -10.361 15.809 -1.446 1.00 95.83 C

ATOM 1034 O SER A 134 -12.680 13.921 -0.771 1.00 95.83 O

ATOM 1035 OG SER A 134 -9.229 14.959 -1.505 1.00 95.83 O

ATOM 1036 N PHE A 135 -11.268 13.362 0.731 1.00 97.76 N

ATOM 1037 CA PHE A 135 -11.760 11.995 0.854 1.00 97.76 C

ATOM 1038 C PHE A 135 -12.780 11.887 1.981 1.00 97.76 C

ATOM 1039 CB PHE A 135 -10.601 11.025 1.100 1.00 97.76 C

ATOM 1040 O PHE A 135 -12.627 12.520 3.028 1.00 97.76 O

ATOM 1041 CG PHE A 135 -9.832 10.670 -0.144 1.00 97.76 C

ATOM 1042 CD1 PHE A 135 -10.215 9.591 -0.931 1.00 97.76 C

ATOM 1043 CD2 PHE A 135 -8.725 11.417 -0.527 1.00 97.76 C

ATOM 1044 CE1 PHE A 135 -9.505 9.261 -2.083 1.00 97.76 C

ATOM 1045 CE2 PHE A 135 -8.011 11.093 -1.676 1.00 97.76 C

ATOM 1046 CZ PHE A 135 -8.402 10.014 -2.453 1.00 97.76 C

ATOM 1047 N ARG A 136 -13.774 11.089 1.727 1.00 97.48 N

ATOM 1048 CA ARG A 136 -14.779 10.776 2.738 1.00 97.48 C

ATOM 1049 C ARG A 136 -15.041 9.275 2.803 1.00 97.48 C

ATOM 1050 CB ARG A 136 -16.083 11.523 2.450 1.00 97.48 C

ATOM 1051 O ARG A 136 -15.101 8.605 1.770 1.00 97.48 O

ATOM 1052 CG ARG A 136 -15.926 13.034 2.388 1.00 97.48 C

ATOM 1053 CD ARG A 136 -15.733 13.638 3.772 1.00 97.48 C

ATOM 1054 NE ARG A 136 -15.773 15.097 3.733 1.00 97.48 N

ATOM 1055 NH1 ARG A 136 -13.499 15.357 3.415 1.00 97.48 N

ATOM 1056 NH2 ARG A 136 -14.860 17.197 3.545 1.00 97.48 N

ATOM 1057 CZ ARG A 136 -14.711 15.880 3.565 1.00 97.48 C

ATOM 1058 N PRO A 137 -15.189 8.810 4.036 1.00 97.30 N

ATOM 1059 CA PRO A 137 -15.510 7.385 4.140 1.00 97.30 C

ATOM 1060 C PRO A 137 -16.894 7.050 3.587 1.00 97.30 C

ATOM 1061 CB PRO A 137 -15.444 7.117 5.646 1.00 97.30 C

ATOM 1062 O PRO A 137 -17.869 7.739 3.895 1.00 97.30 O

ATOM 1063 CG PRO A 137 -15.742 8.437 6.282 1.00 97.30 C

ATOM 1064 CD PRO A 137 -15.232 9.526 5.382 1.00 97.30 C

ATOM 1065 N VAL A 138 -16.936 6.049 2.777 1.00 98.23 N

ATOM 1066 CA VAL A 138 -18.215 5.675 2.182 1.00 98.23 C

ATOM 1067 C VAL A 138 -18.613 4.277 2.650 1.00 98.23 C

ATOM 1068 CB VAL A 138 -18.159 5.725 0.639 1.00 98.23 C

ATOM 1069 O VAL A 138 -19.723 3.816 2.375 1.00 98.23 O

ATOM 1070 CG1 VAL A 138 -17.971 7.160 0.151 1.00 98.23 C

ATOM 1071 CG2 VAL A 138 -17.038 4.828 0.117 1.00 98.23 C

ATOM 1072 N PHE A 139 -17.661 3.606 3.345 1.00 98.43 N

ATOM 1073 CA PHE A 139 -17.873 2.276 3.906 1.00 98.43 C

ATOM 1074 C PHE A 139 -16.972 2.048 5.113 1.00 98.43 C

ATOM 1075 CB PHE A 139 -17.617 1.198 2.848 1.00 98.43 C

ATOM 1076 O PHE A 139 -15.836 2.526 5.146 1.00 98.43 O

ATOM 1077 CG PHE A 139 -17.698 -0.207 3.382 1.00 98.43 C

ATOM 1078 CD1 PHE A 139 -16.552 -0.874 3.797 1.00 98.43 C

ATOM 1079 CD2 PHE A 139 -18.920 -0.860 3.468 1.00 98.43 C

ATOM 1080 CE1 PHE A 139 -16.624 -2.175 4.291 1.00 98.43 C

ATOM 1081 CE2 PHE A 139 -19.000 -2.159 3.961 1.00 98.43 C

ATOM 1082 CZ PHE A 139 -17.851 -2.815 4.371 1.00 98.43 C

ATOM 1083 N SER A 140 -17.611 1.265 6.035 1.00 98.14 N

ATOM 1084 CA SER A 140 -16.819 0.886 7.202 1.00 98.14 C

ATOM 1085 C SER A 140 -17.303 -0.433 7.794 1.00 98.14 C

ATOM 1086 CB SER A 140 -16.875 1.983 8.266 1.00 98.14 C

ATOM 1087 O SER A 140 -18.508 -0.681 7.869 1.00 98.14 O

ATOM 1088 OG SER A 140 -16.074 1.640 9.384 1.00 98.14 O

ATOM 1089 N GLN A 141 -16.303 -1.195 8.145 1.00 98.29 N

ATOM 1090 CA GLN A 141 -16.595 -2.451 8.828 1.00 98.29 C

ATOM 1091 C GLN A 141 -15.561 -2.740 9.913 1.00 98.29 C

ATOM 1092 CB GLN A 141 -16.644 -3.608 7.829 1.00 98.29 C

ATOM 1093 O GLN A 141 -14.356 -2.713 9.653 1.00 98.29 O

ATOM 1094 CG GLN A 141 -17.011 -4.946 8.455 1.00 98.29 C

ATOM 1095 CD GLN A 141 -17.280 -6.024 7.421 1.00 98.29 C

ATOM 1096 NE2 GLN A 141 -17.665 -7.208 7.886 1.00 98.29 N

ATOM 1097 OE1 GLN A 141 -17.145 -5.794 6.215 1.00 98.29 O

ATOM 1098 N ASP A 142 -16.154 -3.156 11.056 1.00 98.38 N

ATOM 1099 CA ASP A 142 -15.275 -3.496 12.171 1.00 98.38 C

ATOM 1100 C ASP A 142 -15.073 -5.006 12.272 1.00 98.38 C

ATOM 1101 CB ASP A 142 -15.841 -2.952 13.485 1.00 98.38 C

ATOM 1102 O ASP A 142 -15.997 -5.780 12.011 1.00 98.38 O

ATOM 1103 CG ASP A 142 -15.869 -1.434 13.535 1.00 98.38 C

ATOM 1104 OD1 ASP A 142 -15.003 -0.787 12.909 1.00 98.38 O

ATOM 1105 OD2 ASP A 142 -16.765 -0.881 14.210 1.00 98.38 O

ATOM 1106 N PHE A 143 -13.840 -5.368 12.656 1.00 98.07 N

ATOM 1107 CA PHE A 143 -13.491 -6.775 12.813 1.00 98.07 C

ATOM 1108 C PHE A 143 -12.942 -7.043 14.209 1.00 98.07 C

ATOM 1109 CB PHE A 143 -12.466 -7.197 11.756 1.00 98.07 C

ATOM 1110 O PHE A 143 -12.018 -6.363 14.660 1.00 98.07 O

ATOM 1111 CG PHE A 143 -12.991 -7.143 10.346 1.00 98.07 C

ATOM 1112 CD1 PHE A 143 -13.518 -8.278 9.742 1.00 98.07 C

ATOM 1113 CD2 PHE A 143 -12.957 -5.957 9.625 1.00 98.07 C

ATOM 1114 CE1 PHE A 143 -14.004 -8.231 8.438 1.00 98.07 C

ATOM 1115 CE2 PHE A 143 -13.441 -5.902 8.321 1.00 98.07 C

ATOM 1116 CZ PHE A 143 -13.963 -7.041 7.729 1.00 98.07 C

ATOM 1117 N VAL A 144 -13.600 -7.986 14.851 1.00 98.14 N

ATOM 1118 CA VAL A 144 -13.038 -8.488 16.100 1.00 98.14 C

ATOM 1119 C VAL A 144 -12.081 -9.643 15.809 1.00 98.14 C

ATOM 1120 CB VAL A 144 -14.144 -8.946 17.077 1.00 98.14 C

ATOM 1121 O VAL A 144 -12.463 -10.628 15.174 1.00 98.14 O

ATOM 1122 CG1 VAL A 144 -13.533 -9.505 18.361 1.00 98.14 C

ATOM 1123 CG2 VAL A 144 -15.089 -7.788 17.392 1.00 98.14 C

ATOM 1124 N SER A 145 -10.808 -9.571 16.228 1.00 95.97 N

ATOM 1125 CA SER A 145 -9.731 -10.521 15.975 1.00 95.97 C

ATOM 1126 C SER A 145 -8.734 -10.548 17.128 1.00 95.97 C

ATOM 1127 CB SER A 145 -9.007 -10.177 14.672 1.00 95.97 C

ATOM 1128 O SER A 145 -9.079 -10.209 18.262 1.00 95.97 O

ATOM 1129 OG SER A 145 -8.028 -11.156 14.367 1.00 95.97 O

ATOM 1130 N ASN A 146 -7.605 -11.222 16.859 1.00 97.77 N

ATOM 1131 CA ASN A 146 -6.558 -11.159 17.873 1.00 97.77 C

ATOM 1132 C ASN A 146 -6.085 -9.726 18.103 1.00 97.77 C

ATOM 1133 CB ASN A 146 -5.378 -12.051 17.483 1.00 97.77 C

ATOM 1134 O ASN A 146 -5.644 -9.382 19.200 1.00 97.77 O

ATOM 1135 CG ASN A 146 -4.767 -11.662 16.151 1.00 97.77 C

ATOM 1136 ND2 ASN A 146 -3.444 -11.554 16.114 1.00 97.77 N

ATOM 1137 OD1 ASN A 146 -5.478 -11.460 15.163 1.00 97.77 O

ATOM 1138 N ILE A 147 -6.103 -8.901 17.096 1.00 97.91 N

ATOM 1139 CA ILE A 147 -5.997 -7.446 17.113 1.00 97.91 C

ATOM 1140 C ILE A 147 -7.160 -6.835 16.335 1.00 97.91 C

ATOM 1141 CB ILE A 147 -4.650 -6.970 16.524 1.00 97.91 C

ATOM 1142 O ILE A 147 -7.293 -7.056 15.129 1.00 97.91 O

ATOM 1143 CG1 ILE A 147 -3.482 -7.646 17.251 1.00 97.91 C

ATOM 1144 CG2 ILE A 147 -4.535 -5.445 16.601 1.00 97.91 C

ATOM 1145 CD1 ILE A 147 -2.121 -7.371 16.626 1.00 97.91 C

ATOM 1146 N ASN A 148 -8.012 -6.137 17.056 1.00 98.49 N

ATOM 1147 CA ASN A 148 -9.165 -5.538 16.392 1.00 98.49 C

ATOM 1148 C ASN A 148 -8.738 -4.535 15.324 1.00 98.49 C

ATOM 1149 CB ASN A 148 -10.084 -4.867 17.414 1.00 98.49 C

ATOM 1150 O ASN A 148 -7.682 -3.912 15.439 1.00 98.49 O

ATOM 1151 CG ASN A 148 -10.669 -5.850 18.409 1.00 98.49 C

ATOM 1152 ND2 ASN A 148 -11.146 -5.339 19.538 1.00 98.49 N

ATOM 1153 OD1 ASN A 148 -10.690 -7.060 18.165 1.00 98.49 O

ATOM 1154 N TYR A 149 -9.480 -4.518 14.263 1.00 98.55 N

ATOM 1155 CA TYR A 149 -9.219 -3.502 13.250 1.00 98.55 C

ATOM 1156 C TYR A 149 -10.501 -3.117 12.521 1.00 98.55 C

ATOM 1157 CB TYR A 149 -8.177 -4.000 12.244 1.00 98.55 C

ATOM 1158 O TYR A 149 -11.513 -3.815 12.622 1.00 98.55 O

ATOM 1159 CG TYR A 149 -8.606 -5.232 11.484 1.00 98.55 C

ATOM 1160 CD1 TYR A 149 -8.424 -6.504 12.022 1.00 98.55 C

ATOM 1161 CD2 TYR A 149 -9.193 -5.126 10.228 1.00 98.55 C

ATOM 1162 CE1 TYR A 149 -8.816 -7.642 11.324 1.00 98.55 C

ATOM 1163 CE2 TYR A 149 -9.589 -6.257 9.522 1.00 98.55 C

ATOM 1164 OH TYR A 149 -9.787 -8.631 9.383 1.00 98.55 O

ATOM 1165 CZ TYR A 149 -9.397 -7.508 10.077 1.00 98.55 C

ATOM 1166 N SER A 150 -10.484 -1.939 11.906 1.00 98.44 N

ATOM 1167 CA SER A 150 -11.570 -1.416 11.083 1.00 98.44 C

ATOM 1168 C SER A 150 -11.131 -1.241 9.634 1.00 98.44 C

ATOM 1169 CB SER A 150 -12.069 -0.082 11.639 1.00 98.44 C

ATOM 1170 O SER A 150 -10.061 -0.690 9.366 1.00 98.44 O

ATOM 1171 OG SER A 150 -13.148 0.413 10.864 1.00 98.44 O

ATOM 1172 N TYR A 151 -11.944 -1.791 8.788 1.00 98.61 N

ATOM 1173 CA TYR A 151 -11.722 -1.589 7.360 1.00 98.61 C

ATOM 1174 C TYR A 151 -12.645 -0.507 6.812 1.00 98.61 C

ATOM 1175 CB TYR A 151 -11.937 -2.897 6.593 1.00 98.61 C

ATOM 1176 O TYR A 151 -13.858 -0.550 7.027 1.00 98.61 O

ATOM 1177 CG TYR A 151 -11.888 -2.736 5.093 1.00 98.61 C

ATOM 1178 CD1 TYR A 151 -13.038 -2.881 4.319 1.00 98.61 C

ATOM 1179 CD2 TYR A 151 -10.694 -2.438 4.446 1.00 98.61 C

ATOM 1180 CE1 TYR A 151 -12.997 -2.735 2.936 1.00 98.61 C

ATOM 1181 CE2 TYR A 151 -10.641 -2.290 3.064 1.00 98.61 C

ATOM 1182 OH TYR A 151 -11.751 -2.294 0.950 1.00 98.61 O

ATOM 1183 CZ TYR A 151 -11.797 -2.440 2.319 1.00 98.61 C

ATOM 1184 N GLN A 152 -12.014 0.435 6.078 1.00 98.58 N

ATOM 1185 CA GLN A 152 -12.783 1.539 5.513 1.00 98.58 C

ATOM 1186 C GLN A 152 -12.448 1.745 4.038 1.00 98.58 C

ATOM 1187 CB GLN A 152 -12.527 2.828 6.295 1.00 98.58 C

ATOM 1188 O GLN A 152 -11.320 1.489 3.611 1.00 98.58 O

ATOM 1189 CG GLN A 152 -12.950 2.756 7.756 1.00 98.58 C

ATOM 1190 CD GLN A 152 -12.527 3.977 8.551 1.00 98.58 C

ATOM 1191 NE2 GLN A 152 -13.503 4.735 9.038 1.00 98.58 N

ATOM 1192 OE1 GLN A 152 -11.332 4.236 8.726 1.00 98.58 O

ATOM 1193 N ILE A 153 -13.513 2.172 3.288 1.00 98.64 N

ATOM 1194 CA ILE A 153 -13.330 2.667 1.928 1.00 98.64 C

ATOM 1195 C ILE A 153 -13.619 4.166 1.881 1.00 98.64 C

ATOM 1196 CB ILE A 153 -14.235 1.915 0.926 1.00 98.64 C

ATOM 1197 O ILE A 153 -14.655 4.620 2.371 1.00 98.64 O

ATOM 1198 CG1 ILE A 153 -13.960 0.408 0.986 1.00 98.64 C

ATOM 1199 CG2 ILE A 153 -14.032 2.453 -0.493 1.00 98.64 C

ATOM 1200 CD1 ILE A 153 -14.917 -0.429 0.148 1.00 98.64 C

ATOM 1201 N TRP A 154 -12.572 4.850 1.313 1.00 98.40 N

ATOM 1202 CA TRP A 154 -12.698 6.297 1.171 1.00 98.40 C

ATOM 1203 C TRP A 154 -12.740 6.697 -0.300 1.00 98.40 C

ATOM 1204 CB TRP A 154 -11.539 7.009 1.874 1.00 98.40 C

ATOM 1205 O TRP A 154 -12.030 6.121 -1.128 1.00 98.40 O

ATOM 1206 CG TRP A 154 -11.436 6.705 3.338 1.00 98.40 C

ATOM 1207 CD1 TRP A 154 -11.059 5.521 3.909 1.00 98.40 C

ATOM 1208 CD2 TRP A 154 -11.718 7.599 4.419 1.00 98.40 C

ATOM 1209 CE2 TRP A 154 -11.491 6.890 5.619 1.00 98.40 C

ATOM 1210 CE3 TRP A 154 -12.141 8.934 4.488 1.00 98.40 C

ATOM 1211 NE1 TRP A 154 -11.090 5.626 5.281 1.00 98.40 N

ATOM 1212 CH2 TRP A 154 -12.086 8.779 6.915 1.00 98.40 C

ATOM 1213 CZ2 TRP A 154 -11.672 7.472 6.876 1.00 98.40 C

ATOM 1214 CZ3 TRP A 154 -12.321 9.511 5.740 1.00 98.40 C

ATOM 1215 N GLN A 155 -13.592 7.699 -0.660 1.00 96.71 N

ATOM 1216 CA GLN A 155 -13.680 8.215 -2.022 1.00 96.71 C

ATOM 1217 C GLN A 155 -13.652 9.741 -2.035 1.00 96.71 C

ATOM 1218 CB GLN A 155 -14.950 7.708 -2.707 1.00 96.71 C

ATOM 1219 O GLN A 155 -14.053 10.383 -1.062 1.00 96.71 O

ATOM 1220 CG GLN A 155 -14.931 6.215 -3.008 1.00 96.71 C

ATOM 1221 CD GLN A 155 -16.137 5.763 -3.811 1.00 96.71 C

ATOM 1222 NE2 GLN A 155 -16.015 4.616 -4.470 1.00 96.71 N

ATOM 1223 OE1 GLN A 155 -17.171 6.439 -3.837 1.00 96.71 O

ATOM 1224 N LYS A 156 -13.158 10.286 -3.163 1.00 91.79 N

ATOM 1225 CA LYS A 156 -13.162 11.738 -3.308 1.00 91.79 C

ATOM 1226 C LYS A 156 -14.586 12.280 -3.375 1.00 91.79 C

ATOM 1227 CB LYS A 156 -12.383 12.155 -4.557 1.00 91.79 C

ATOM 1228 O LYS A 156 -15.464 11.662 -3.982 1.00 91.79 O

ATOM 1229 CG LYS A 156 -10.875 12.001 -4.426 1.00 91.79 C

ATOM 1230 CD LYS A 156 -10.152 12.491 -5.674 1.00 91.79 C

ATOM 1231 CE LYS A 156 -8.643 12.339 -5.543 1.00 91.79 C

ATOM 1232 NZ LYS A 156 -7.932 12.784 -6.780 1.00 91.79 N

ATOM 1233 N GLY A 157 -14.994 13.192 -2.454 1.00 71.52 N

ATOM 1234 CA GLY A 157 -16.266 13.896 -2.491 1.00 71.52 C

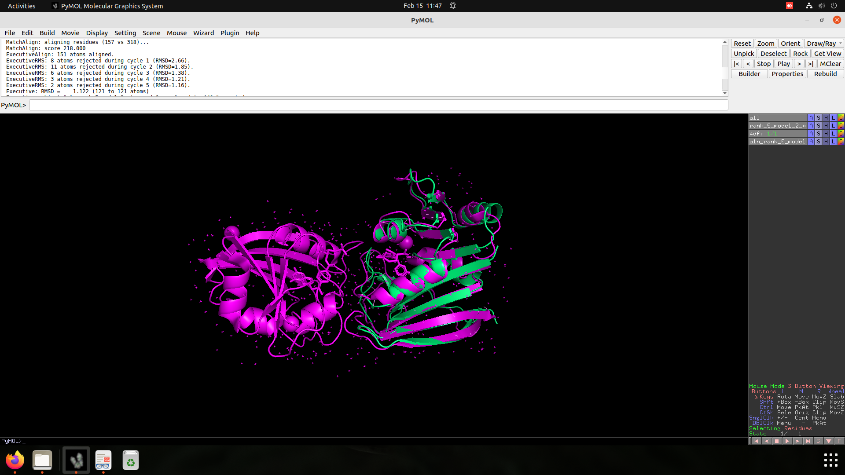
ATOM 1235 C GLY A 157 -16.410 14.804 -3.698 1.00 71.52 C

ATOM 1236 O GLY A 157 -15.417 15.156 -4.339 1.00 71.52 O

TER 1237 GLY A 157

ENDMDL

END



**RMSD = 1.122**

**Lowest RMSD obtained is *1.056***  **: Rank 4**

**Ans04 -** As we can see, efficiency of Google’s AlphaFold is very high. The speed and scalability with which AlphaFold predicts the structure of protein is astonishing. It uses a large amount of data to make use of deep learning algorithms for the prediction of protein structure.