## PDB1: 1pho\_A

## PDB2: 2y0l\_A

## row number: 0

1pho\_A 000 DGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFGLRP 096

2y0l\_A 000 HFDLGGLDYKLTD-QLTASYHYSNLQD-------------VYRQHFVGLLHSWPIGPGELTSDLRFARSTDSGSA-KAGGIDNKSLNGMFTYSLG-NHAF 084

1pho\_A 097 SLGYVLSKGKDIE----------------GIGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNK-LNINNDDIVAVGMTYQF 165

2y0l\_A 085 GAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWERNTELQYVF 174

## PDB1: 1pho\_A

## PDB2: 2y0l\_A

## row number: 1

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQN-----LQ-S-------RGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQ 082

2y0l\_A 000 DNKSLNGMFTYSLGN--HAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREW 098

1pho\_A 083 NFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYF 130

2y0l\_A 099 ERNTELQYVFQSGALKNLGIRWRNATFRSNF------TRDIDENRLIVSYTL 144

## PDB1: 1pho\_A

## PDB2: 2y0l\_A

## row number: 2

1pho\_A 000 DGFGTSLTYDFG--GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT----------G------GFANKTQNF 082

2y0l\_A 000 RQHFVGLLHSWPIGPGELTSDLRFARSTDSGSA----KAGGIDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSW 096

1pho\_A 083 EAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 165

2y0l\_A 097 QLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWERNTELQYVFQSGALKNLGIRWRNATFRSNF-----TRDIDENRLIVSYTL 182

## PDB1: 1pho\_A

## PDB2: 3jty\_A

## row number: 3

1pho\_A 000 GDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFGLR 096

3jty\_A 000 DRFNFQGAEYAFNDKRTQIALWNAQLKDI-------------YSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSA-RAGDMENRTWSGLFSAKYG-GNT 085

1pho\_A 097 PSLGYVLSKGKDIE------G-----I------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLD 145

3jty\_A 086 FYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 155

## PDB1: 1pho\_A

## PDB2: 3jty\_A

## row number: 4

1pho\_A 000 GFGTSLTYDFG--GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT-----------G------GFANKTQNF 081

3jty\_A 000 QQFINLIHSQPLGDWTLGANLGFFYGKEDGSA----RAGDMENRTWSGLFSAKYGGNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSW 096

1pho\_A 082 EAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYF----NKNMSAFVDYKINQLDS 144

3jty\_A 097 QVRHDYNFAALGVPGLTLMNRYISGSNVHTAT-VSDGKEWGRESEVAYTVQSGTLKNLNLKWRNSTMRRDF 166

## PDB1: 1pho\_A

## PDB2: 3sy7\_A

## row number: 5

1pho\_A 000 DGFGTSLTYDFG---GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPI-------------T------G----- 073

3sy7\_A 000 RQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKA----KAGDISNTTWSLAAAYTLDAHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYS 096

1pho\_A 074 -GFANKTQNFEAVAQYQFD----FGLRPSLGYVLSKGKDIEG------------IGDEDLVNYIDVGATYYF----NKNMSAFVDYKINQLDS 145

3sy7\_A 097 DFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDIDGTKMSDNNVGYKNYGYGEDGKHHETNLEAKYVVQSGPAKDLSFRIRQAWHRANA 189

## PDB1: 1pho\_A

## PDB2: 3sy7\_A

## row number: 6

1pho\_A 000 GDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFGL 095

3sy7\_A 000 KSADFIGGRYAITD-NLSASLYGAELEDI-------------YRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAK-AGDISNTTWSLAAAYTLD-AH 084

1pho\_A 096 RPSLGYVLSKGKDIE-------------G------I------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 146

3sy7\_A 085 TFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDID 164

## PDB1: 1pho\_A

## PDB2: 3sy9\_A

## row number: 7

1pho\_A 000 DGFGTSLTYDFG--G-SDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT-----------------GGFANKTQ 080

3sy9\_A 000 KQYYADVDYTYEIDDNWSLNPGAHYYKTVDSGDS----LLGRIDNNTYSLHFAVGYRQHTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEK 096

1pho\_A 081 NFEAVAQYQFD----FGLRPSLGYVLSKGKDI----EG---------IGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 145

3sy9\_A 097 SWKLQYDYDFVALGVPGLSASASYSRGKLDLTRVDPDSPGYGGWYSADGKNAKHWERDLDLQYVVQGGPAKDLSLRLRWATHRGTG 182

## PDB1: 1pho\_A

## PDB2: 3syb\_A

## row number: 8

1pho\_A 000 KRAEAWATGLKYDANNIYLATFYSETRKMTPIT----------------GGFANKTQNFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGI-------- 072

3syb\_A 000 IDNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAY 100

1pho\_A 073 --------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 106

3syb\_A 101 GNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 146

## PDB1: 1pho\_A

## PDB2: 3syb\_A

## row number: 9

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN------NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDF 094

3syb\_A 000 GDRLNYLGGNYKPLD-GLEISLYGSHFQDV-------------WNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAR-EAGYIDNDTWSLAFTLGHR- 084

1pho\_A 095 GLRPSLGYVLSKGKDIE-------G----I-----GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLD 146

3syb\_A 085 AHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDI 156

## PDB1: 1pho\_A

## PDB2: 3sys\_A

## row number: 10

1pho\_A 000 GDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDA--N--NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFGLR 096

3sys\_A 000 DGFNYAGAEYRFNRERTQLGLWHGQLEDV-------------YRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR-AGEIDSHTVYGLFSAGIG-LHT 085

1pho\_A 097 PSLGYVLSKGKDIE-------G----I------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 146

3sys\_A 086 FYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNAT 156

## PDB1: 1pho\_A

## PDB2: 3sys\_A

## row number: 11

1pho\_A 000 RAEAWATGLKYDANNIYLATFYSETRKMTPIT-----------------GGFANKTQNFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNY 079

3sys\_A 000 DSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKA-GSGGKEWE 099

1pho\_A 080 IDVGATYYFN----KNMSAFVDYKINQLD 104

3sys\_A 100 RDVELGYTVQSGPLARLNVRLNHASNRRS 128

## PDB1: 1pho\_A

## PDB2: 3szd\_A

## row number: 12

1pho\_A 000 DGFGTSLTYDFG--GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT-----------G------GFANKTQN 081

3szd\_A 000 RQQYLQLQHSQPLGDWLLGANLGGFRGRDAGSA----RAGKLDNRTVSALFSARYGLHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERS 096

1pho\_A 082 FEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 145

3szd\_A 097 WQLRYDFDFVGLGLPGLTFMTRYLHGDHVRLAGVTDDGSEWGRESELGYTLQSGAFKRLNVRWRNSSQRRDW 168

## PDB1: 1pho\_A

## PDB2: 3szv\_A

## row number: 13

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFG 095

3szv\_A 000 SDAFDFAGGDYRLTP-ALTASLHQGRLKDI-------------YRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGF---RELDNRAFGALFSLRLG-A 082

1pho\_A 096 LRPSLGYVLSKGKDIE----G------IG------DEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 147

3szv\_A 083 HAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVA 154

## PDB1: 1pho\_A

## PDB2: 3szv\_A

## row number: 14

1pho\_A 000 GFGTSLTYDFG---GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT----------G------GFANKTQNF 081

3szv\_A 000 QTFAGLVHTLDLGGQRSLKSDLRFARASEDGG------FRELDNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSW 094

1pho\_A 082 EAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 164

3szv\_A 095 QLRYDYDFGALGLPGLSFMSRYVSGDNVARGA-ANDGKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNFA-----NDLDENRLILSYSL 179

## PDB1: 1pho\_A

## PDB2: 3t0s\_A

## row number: 15

1pho\_A 000 DGFGTSLTYDFG---GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT-----------G------GFANKTQ 080

3t0s\_A 000 RQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAA----ISGPVDNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEK 096

1pho\_A 081 NFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLD 144

3t0s\_A 097 SWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGAGRADDSEWERNTDLSYVIQSGPLKSVALKWRNITYRSR 168

## PDB1: 1pho\_A

## PDB2: 3t0s\_A

## row number: 16

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFG 095

3t0s\_A 000 SDEFNLAGATYAFTP-RLSASYYYGQLKDI-------------YRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAA-ISGPVDNRNLNAMLTLRAG-A 084

1pho\_A 096 LRPSLGYVLSKGKDIE----G-------IG------DEDLVNYIDVGATYYFN----KNMSAFVDYKINQLD 146

3t0s\_A 085 HAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDI 156

## PDB1: 1pho\_A

## PDB2: 3t24\_A

## row number: 17

1pho\_A 000 DGFGTSLTYDFG---GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT----------------GGFANKTQN 081

3t24\_A 000 KQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS-------SNVDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKS 093

1pho\_A 082 FEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 165

3t24\_A 094 WQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNY-----TNDYDENRLIVSYTL 180

## PDB1: 1pho\_A

## PDB2: 3t24\_A

## row number: 18

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQN-----LQ--------SRGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQ 082

3t24\_A 000 DNKALNAMFTYSLGY--HAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEW 098

1pho\_A 083 NFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYF 130

3t24\_A 099 ERDMDIAYVFQSGPLKNLGVKWRNATMRTNY------TNDYDENRLIVSYTL 144

## PDB1: 1pho\_A

## PDB2: 4frt\_A

## row number: 19

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQN-----LQ--S------RGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQ 082

4frt\_A 000 NNRALNALFTYRLGG--HAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEW 098

1pho\_A 083 NFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYF 130

4frt\_A 099 ERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF------GNDIDETRLIVSYAL 144

## PDB1: 1pho\_A

## PDB2: 4frt\_A

## row number: 20

1pho\_A 000 KRAEAWATGLKYDANNIYLATFYSETRKMTPIT----------G------GFANKTQNFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNY 080

4frt\_A 000 VNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWE 100

1pho\_A 081 IDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 126

4frt\_A 101 RDTDIAYLVQSGPLKNLGIKLRNGTFRSDF-----GNDIDETRLIVSYAL 145

## PDB1: 1pho\_A

## PDB2: 4frx\_A

## row number: 21

1pho\_A 000 GKRAEAWATGLKYDANNIYLATFYSETRKMTPI----------T-----------GGFANKTQNFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGD 075

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA--RG 098

1pho\_A 076 EDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNK---LNINNDDIVAVGMTYQF 127

4frx\_A 099 DQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 157

## PDB1: 1pho\_A

## PDB2: 4fsp\_A

## row number: 22

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQF-DFG 095

4fsp\_A 000 ADRFDLAGLDYRIAP-DWTGSYHYGELEQ-------------VYAQHFLGLKGRIGIAADSLESDLRLALSRDTGGA-RGGRIDNRSFSGSLTYRLRN-G 084

1pho\_A 096 LRPSLGYVLSKGKDIE----G------IG------DEDLVNYIDVGATYYFN----KNMSAFVDYKINQLD 146

4fsp\_A 085 QAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGA 155

## PDB1: 1pho\_A

## PDB2: 4fsp\_A

## row number: 23

1pho\_A 000 GKRAEAWATGLKYDA-NNIYLATFYSETRKMTPIT----------G------GFANKTQNFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLV 079

4fsp\_A 000 RIDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG-ADGSRE 099

1pho\_A 080 NYIDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 127

4fsp\_A 100 WERDSDLRYVLQGGALKGLGLVWRNATYRSAF-----SRDIDENRLYLTYEL 146

## PDB1: 1pho\_A

## PDB2: 4ft6\_A

## row number: 24

1pho\_A 000 GDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDA--N--NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFGLR 096

4ft6\_A 000 DRFDYLGAEYRFNAERSQVGLWQARLQDI-------------YRQDYYSLSHKQSFGGWRLGASVGLFDTRDEGAA-KLGELENRALTGFFSATRG-GHS 085

1pho\_A 097 PSLGYVLSKGKDIE--------G--------IGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 146

4ft6\_A 086 LGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHAR 155

## PDB1: 1pho\_A

## PDB2: 5dl5\_A

## row number: 25

1pho\_A 000 GKRAEAWATGLKYDANNIYLATFYSETRKMTPIT--------------G-----GFANKTQNFEAVAQYQFD-----FGLRPSLGYVLSKGKDIEGIGDE 076

5dl5\_A 000 EKTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNVTDD 100

1pho\_A 077 DLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNK-LNINNDDIVAVGMTYQF 127

5dl5\_A 101 AQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 156

## PDB1: 1pho\_A

## PDB2: 5dl6\_A

## row number: 26

1pho\_A 000 KRAEAWATGLKYDANNIYLATFYSETRKMTPIT----------------GGFANKTQNFEAVAQYQFD---FGLRPSLGYVLSKGKDIEG-IGDEDLVNY 080

5dl6\_A 000 VDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERE 100

1pho\_A 081 IDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 126

5dl6\_A 101 TDFDLGYTVQSGWLKNLGLRARYAIYDNNMLSTANIKPVNETRINIDYTW 150

## PDB1: 1pho\_A

## PDB2: 5dl7\_A

## row number: 27

1pho\_A 000 DGFGTSLTYDFG---GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT-----------G-----GFANKTQN 081

5dl7\_A 000 QQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSK----KIGEVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKV 096

1pho\_A 082 FEAVAQYQFD---------FGLRPSLGYVLSKGKDIEG-IGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 165

5dl7\_A 097 YSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTNMTFHSANETRLNVDYTF 194

## PDB1: 1pho\_A

## PDB2: 5dl7\_A

## row number: 28

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFG 095

5dl7\_A 000 TDSFYTLGGSYQLK--DYRLRAYHAELKD-------------IYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSK-KIGEVDNRHISGLFGLNYQ-N 083

1pho\_A 096 LRPSLGYVLSKGKDIE----G-------I-----GDEDLVNYIDVGATYYFNK---------NMSAFVDYKINQLDS 147

5dl7\_A 084 HTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDID 160

## PDB1: 1pho\_A

## PDB2: 5dl8\_B

## row number: 29

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDA--N--NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFGL 096

5dl8\_B 000 SDGLNYIDLRYQFTP-SLKGEYYFGNLEDL-------------YNKHYVGLEHTWKQPTFALTSKFKYFNAKDDGNT---FDIDAENIGLLETVKVK-NH 082

1pho\_A 097 RPSLGYVLSKGKDIE----G--I-----------GDEDLVNYIDVGATYYFN---KNMSAFVDYKINQLD 146

5dl8\_B 083 TFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDF 152

## PDB1: 1pho\_A

## PDB2: 5dl8\_B

## row number: 30

1pho\_A 000 TSLTYDF--GGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKMTPIT------G-----------GFANKTQNFEAV 081

5dl8\_B 000 VGLEHTWKQPTFALTSKFKYFNAKDDGN------TFDIDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVM 094

1pho\_A 082 AQYQFD---FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIVAVGMTYQF 161

5dl8\_B 095 YGYDFKDYIPGLNAMVKYVYGHDFKAAN-GEKNHETESNVILNYAFQQPLLKGFALQYIRIDYNVKH-----GNDFGEDRLFVNYTK 175

## PDB1: 1pho\_A

## PDB2: 5ldv\_A

## row number: 31

1pho\_A 000 DGNKLDVYGKVKAMHYMSDNA-S--------KDGDQSYIRFGFKGETQINDQLTGYGRWEAEFAGNKA-----ESDTAQQKTRLAFAGLKYK-DLGSFDY 085

5ldv\_A 000 AIKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVIA 100

1pho\_A 086 GRNLGALYDVEAWTD-M-FPEF----G-GDSSAQTDNFM--TKRASGLATY----------------RNTDFFGVIDGLNLTLQYQGK--NENRD----- 153

5ldv\_A 101 GKQQLNIIWTDNGVDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDSIG--NLYGAAAVGSYDLAGGQFNPQLWL 198

1pho\_A 154 -VKKQNGDGFGTSLTYDFG---GSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDANNIYLATFYSETRKM-----------T------PI-- 230

5ldv\_A 199 AYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELD--DKKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEE 296

1pho\_A 231 -T-------GGFANKTQNFEAVAQYQFDFGLRPSLGYVLSKGKDIEG-IGDEDLVNYIDVGATYYFNKNMSAFVDYKINQLDSDNK-LNINNDDIVAVGM 320

5ldv\_A 297 IFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA 396

1pho\_A 321 TYQF 324

5ldv\_A 397 LYKF 400

## PDB1: 1prn\_A

## PDB2: 2y0l\_A

## row number: 32

1prn\_A 000 AGDQVTLYGNYAFG----A-TTVRAYVSDIDR-A-------GADTAYGIGADYQFA----EGVKVSGSVQSGF----ANETVADVGVRFDF 70

2y0l\_A 000 KERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWERNTELQYVFQSGALKNLGIRWRNATFRSNFTRDIDENRLIVSYTL 91

## PDB1: 1prn\_A

## PDB2: 3jty\_A

## row number: 33

1prn\_A 000 GADTAYGIGADYQFA----EGVKVSGSVQSG 27

3jty\_A 000 AKEKSWQVRHDYNFAALGVPGLTLMNRYISG 31

## PDB1: 1prn\_A

## PDB2: 3jty\_A

## row number: 34

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLS-------------------------TAGDQVTLYGNYAFG----A-TTVRAYVSDIDR-A----GADTA-- 063

3jty\_A 000 ENRTWSGLFSAKYGGN-TFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNVHTATVSDGKEWG 099

1prn\_A 064 YGIGADYQF--A--EGVKVSGSVQSG 85

3jty\_A 100 RESEVAYTVQSGTLKNLNLKWRNSTM 125

## PDB1: 1prn\_A

## PDB2: 3sy7\_A

## row number: 35

1prn\_A 000 TEEFGIAADWSND-----MISLAAAYTTDAGG------IVDNDIAFVGAAYKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAF--GAT-TVRAYV-SDID 085

3sy7\_A 000 YRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAKAGDISNTTWSLAAAYTLDAH-TFTLAYQKVHGDQ-PFDYIGFGRNGSGAGGDSIFLANSVQYSD 098

1prn\_A 086 R-AGADTAYGIGADYQFA----EGVKVSGSVQSG 114

3sy7\_A 099 FNGPGEKSWQARYDLNLASYGVPGLTFMVRYING 132

## PDB1: 1prn\_A

## PDB2: 3sys\_A

## row number: 36

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAFGAT--TVRAYVSDIDR-AGADTAYGIGADYQFA----EGVKVSGSVQSG 85

3sys\_A 000 DSHTVYGLFSAGIGLH-TFYLGLQKVGGDS-------GWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHG 84

## PDB1: 1prn\_A

## PDB2: 3sys\_A

## row number: 37

1prn\_A 000 VTEEFGIAADWSNDMISLAAAYTTDAGGIVDNDIAFVGAAYKFNDAGTVGLNWYDNGLS-TAGDQVTLYGNYAFG----A-TTVRAYVSDIDR------- 087

3sys\_A 000 DSHTVYGLFSAGIGLHTFYLGLQKVGGDS--GWQSVYG-SS---GR-SMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKAGS 093

1prn\_A 088 AGADTAYGIGADYQFA----EGVKVSGSVQSG 115

3sys\_A 094 GGKEWERDVELGYTVQSGPLARLNVRLNHASN 125

## PDB1: 1prn\_A

## PDB2: 3szd\_A

## row number: 38

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAFG--ATTV-R-AYVSDIDRAGADTAYGIGADYQFA----EGVKVSGSVQSG 85

3szd\_A 000 DNRTVSALFSARYGLH-TLYLGLQKVSGDD---G----WMRVNGTSGGTLANDSYNASYD-NPGERSWQLRYDFDFVGLGLPGLTFMTRYLHG 84

## PDB1: 1prn\_A

## PDB2: 3szv\_A

## row number: 39

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLS------------------------TAGDQVTLYGNYAFG----A-TTVRAYVSDIDR-------AGADTAY 064

3szv\_A 000 DNRAFGALFSLRLGAH-AVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGAANDGKEWER 099

1prn\_A 065 GIGADYQFA----EGVKVSGSVQSGF----ANETVADVGVRFDF 100

3szv\_A 100 NTDLGYVVQSGPLKNLGVKWRNATVRSNFANDLDENRLILSYSL 143

## PDB1: 1prn\_A

## PDB2: 3t0s\_A

## row number: 40

1prn\_A 000 VTEEFGIAADWSNDMISLAAAYTTDAGGIVDNDIAFVGAAYKFNDAGTVGL-NWYDNGLSTAGDQVTLYGNYAFG----A-TTVRAYVSDIDR------- 087

3t0s\_A 000 DNRNLNAMLTLRAGAHAFGIGVQKMIGN----DAFPVLNGYT-TPY-VANLMAYQTFTR-PQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGAGR 093

1prn\_A 088 -AGADTAYGIGADYQFA----EGVKVSGSVQSG 115

3t0s\_A 094 ADDSEWERNTDLSYVIQSGPLKSVALKWRNITY 126

## PDB1: 1prn\_A

## PDB2: 3t24\_A

## row number: 41

1prn\_A 000 AGDQVTLYGNYAFG----A-TTVRAYVSDIDR-A-------GADTAYGIGADYQFA----EGVKVSGSVQSGF----ANETVADVGVRFDF 70

3t24\_A 000 DEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNYTNDYDENRLIVSYTL 91

## PDB1: 1prn\_A

## PDB2: 3t24\_A

## row number: 42

1prn\_A 000 GADTAYGIGADYQFAE----GVKVSGSVQSG 27

3t24\_A 000 KDEKSWQARYDYNFAGVGIPGLTFMTRYVKG 31

## PDB1: 1prn\_A

## PDB2: 4frt\_A

## row number: 43

1prn\_A 000 AGDQVTLYGNYAFG----A-TTVRAYVSDIDR--------AGADTAYGIGADYQFA----EGVKVSGSVQSGF----ANETVADVGVRFDF 70

4frt\_A 000 DERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDFGNDIDETRLIVSYAL 91

## PDB1: 1prn\_A

## PDB2: 4frx\_A

## row number: 44

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAFGA-TTVRAYVSDIDR-AGADTAYGIGADYQFA----EGVKVSGSVQSG 85

4frx\_A 000 DNRAFSGLFTYTVSGH-SIGAGYQILNGDSDF-PFLNR-GDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSG 88

## PDB1: 1prn\_A

## PDB2: 4fso\_A

## row number: 45

1prn\_A 000 AGDQVTLYGNYAFG----A-TTVRAYVSDIDR-------AGADTAYGIGADYQFA----EGVKVSGSVQSG 55

4fso\_A 000 EERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLANGDEGKEWERDIELKYIVQSGRFKDLSLRLRNATY 71

## PDB1: 1prn\_A

## PDB2: 4fsp\_A

## row number: 46

1prn\_A 000 AGDQVTLYGNYAFG----A-TTVRAYVSDIDR-------AGADTAYGIGADYQFA----EGVKVSGSVQSGF----ANETVADVGVRFDF 70

4fsp\_A 000 GESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKGADGSREWERDSDLRYVLQGGALKGLGLVWRNATYRSAFSRDIDENRLYLTYEL 90

## PDB1: 1prn\_A

## PDB2: 4ft6\_A

## row number: 47

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLST------------------------AGDQVTLYGNYAFG----A-TTVRAYVSDIDR-------AGADTAY 064

4ft6\_A 000 ENRALTGFFSATRGGH-SLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWER 099

1prn\_A 065 GIGADYQFA----EGVKVSGSVQSG 85

4ft6\_A 100 DVDVAYVIQSGPLKNLGLRWRNAML 124

## PDB1: 1prn\_A

## PDB2: 4ft6\_A

## row number: 48

1prn\_A 000 VTEEFGIAADWSNDMISLAAAYTTDAGGI-----------------------VDNDIAFVGAAYKFND----AGTVGLNWYDNGLST-------AGDQVT 066

4ft6\_A 000 ENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWERD 100

1prn\_A 067 LYGNYAFG----A-TTVRAYVSDIDRA--GADTAYGIGADYQF 102

4ft6\_A 101 VDVAYVIQSGPLKNLGLRWRNAMLRSNHAADVDENRLILSYSL 143

## PDB1: 1prn\_A

## PDB2: 5dl6\_A

## row number: 49

1prn\_A 000 GADTAYGIGADYQFA---EGVKVSGSVQSG 27

5dl6\_A 000 PKEKAYSFRYEYDFKEYVPGLCFMTRYTTG 30

## PDB1: 1prn\_A

## PDB2: 5dl7\_A

## row number: 50

1prn\_A 000 GADTAYGIGADYQFA---------EGVKVSGSVQSG 27

5dl7\_A 000 KDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKG 36

## PDB1: 1prn\_A

## PDB2: 5dl7\_A

## row number: 51

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLS------------------------TAGDQVTLYGNYAFG---------A-TTVRAYVSDIDR-A------- 058

5dl7\_A 000 DNRHISGLFGLNYQNH-TVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQ 099

1prn\_A 059 -GADTAYGIGADYQFA----EGVKVSGSVQSG 85

5dl7\_A 100 RFKEDSLEFDLGYKIPEGKLKGLGMRARFSHY 131

## PDB1: 1prn\_A

## PDB2: 5dl8\_B

## row number: 52

1prn\_A 000 ADTAYGIGADYQFA---EGVKVSGSVQSG 26

5dl8\_B 000 DEKSYHVMYGYDFKDYIPGLNAMVKYVYG 29

## PDB1: 1prn\_A

## PDB2: 5dl8\_B

## row number: 53

1prn\_A 000 AGDQVTLYGNYAFG---A-TTVRAYVSDIDR-------AGADTAYGIGADYQFA----EGVKVSGSVQSG 55

5dl8\_B 000 DEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAANGEKNHETESNVILNYAFQQPLLKGFALQYIRIDY 70

## PDB1: 1prn\_A

## PDB2: 5ldv\_A

## row number: 54

1prn\_A 000 EISLNGYGRFGLQYVEDRGVG-----LEDTIISSRLRINIVGTTETDQGVTFGAKLRMQWDDGDA--------FAGTAGNAAQFWTSY--NGVTVSVGNV 085

5ldv\_A 000 DVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVIAGKQ 100

1prn\_A 086 DTA 88

5ldv\_A 101 QLN 103

## PDB1: 1prn\_A

## PDB2: 5ldv\_A

## row number: 55

1prn\_A 000 AGDQVTLYGNYAFGA-TTVRAYVSDIDR---------AGADTAYGIGADYQFAEGVKVSGSVQSGF----------ANETVADVGVRFDF 70

5ldv\_A 000 RNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYKF 90

## PDB1: 2fgr\_A

## PDB2: 2y0l\_A

## row number: 56

2fgr\_A 000 GRYIGGYVAYDN-GPLSASLGLAQQKTAVGGLATDRDEITLGASYNFG----VAKLSGLLQQTKFKRDI-GGDIKTNSYMLGASAPVGGVGEVKLQYALY 094

2y0l\_A 000 DHFDLGGLDYKLTDQLTASYHYSNLQDV-------YRQHFVGLLHSWPIGPGELTSDLRFARSTDSGSAKAGGIDNKSLNGMFTYSLGN-HAFGAAWQRM 092

2fgr\_A 095 DQKA--------------I-------DSKAHQITLGYVHNLS----KRTALYGNLAFLKNK 130

2y0l\_A 093 NGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNV 153

## PDB1: 2fgr\_A

## PDB2: 3jty\_A

## row number: 57

2fgr\_A 000 DRDEITLGASYNFGVAKLSGLLQQTKFKRDI------------G-------GDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA----IDSKAHQI 073

3jty\_A 000 ENRTWSGLFSAKYGGNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNVHTATVSDGKEWGR 100

2fgr\_A 074 TLGYVHNL----SKRTALYGNLAFLKNKD 98

3jty\_A 101 ESEVAYTVQSGTLKNLNLKWRNSTMRRDF 129

## PDB1: 2fgr\_A

## PDB2: 3jty\_A

## row number: 58

2fgr\_A 000 GRYIGGYVAYDNG--PLSASLGLAQQKTAVGGLATDRDEITLGASYNFG----VAKLSGLLQQTKFKRDI-GGDIKTNSYMLGASAPVGGVGEVKLQYAL 093

3jty\_A 000 DRFNFQGAEYAFNDKRTQIALWNAQLKDI-------YSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSARAGDMENRTWSGLFSAKYGG-NTFYVGLQK 092

2fgr\_A 094 YDQKA---------------I-------DSKAHQITLGYVHNLS----KRTALYGNLAFLKNK 130

3jty\_A 093 LTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 155

## PDB1: 2fgr\_A

## PDB2: 3syb\_A

## row number: 59

2fgr\_A 000 DRDEITLGASYNFGVAKLSGLLQQTKFKRDI------------------GGDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA------------- 065

3syb\_A 000 DNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAYG 100

2fgr\_A 066 --------IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNKD 98

3syb\_A 101 NYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 145

## PDB1: 2fgr\_A

## PDB2: 3szv\_A

## row number: 60

2fgr\_A 000 ISYYTPNFGGFNAGFGYAFDEKQTIGTADSVGRYIGGYVAYDNG-----PLSASLGLAQQKTAVGGLATDRDEITLGASYNFGVAKLSGLLQQTKFKRDI 095

3szv\_A 000 GDYRL--TPALTASLHQGRLKDI--------YRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGFRELDNRAFGALFSLRLGAHAVAAGYQRISGDDPY 090

2fgr\_A 096 -----------G-------GDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA----IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNK 161

3szv\_A 091 PYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGAANDGKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSN 186

## PDB1: 2fgr\_A

## PDB2: 3szv\_A

## row number: 61

2fgr\_A 000 GRYIGGYVAYDN-GPLSASLGLAQQKTAVGGLATDRDEITLGASYNFG-----VAKLSGLLQQTKFKRDIGGDIKTNSYMLGASAPVGGVGEVKLQYALY 094

3szv\_A 000 DAFDFAGGDYRLTPALTASLHQGRLKDI-------YRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGG-FRELDNRAFGALFSLRLGA-HAVAAGYQRI 091

2fgr\_A 095 DQKA--------------I-------DSKAHQITLGYVHNLS----KRTALYGNLAFLKNK 130

3szv\_A 092 SGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNV 152

## PDB1: 2fgr\_A

## PDB2: 3t24\_A

## row number: 62

2fgr\_A 000 GGFNAGFGYAFDEKQTIGTADSVGRYIGGYVAYDNG-----PLSASLGLAQQKTAVGGLATDRDEITLGASYNFGVAKLSGLLQQTKFKRDI-------- 087

3t24\_A 000 DNLSTSYHYGKLDNF--------YKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS-SNVDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADP 091

2fgr\_A 088 ---G-------GDIKTNSYMLGASAPVGG----VGEVKLQYALYDQKA-----IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNK 153

3t24\_A 092 YLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTN 180

## PDB1: 2fgr\_A

## PDB2: 3t24\_A

## row number: 63

2fgr\_A 000 GRYIGGYVAYDN-GPLSASLGLAQQKTAVGGLATDRDEITLGASYNFG-----VAKLSGLLQQTKFKRDIGGDIKTNSYMLGASAPVGGVGEVKLQYALY 094

3t24\_A 000 DKFDFAGGSYKWTDNLSTSYHYGKLDNF-------YKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS--SNVDNKALNAMFTYSLGY-HAFGVGYQKM 090

2fgr\_A 095 DQKA---------------------IDSKAHQITLGYVHNLSK----RTALYGNLAFLKNKD 131

3t24\_A 091 SGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNID 152

## PDB1: 2fgr\_A

## PDB2: 4frt\_A

## row number: 64

2fgr\_A 000 ISYYTPNFGGFNAGFGYAFDEKQTIGTADSVGRYIGGYVAYDNG-----PLSASLGLAQQKTAVGGLATDRDEITLGASYNFGVAKLSGLLQQTKFKRDI 095

4frt\_A 000 GTYRWS--ERLSSSYHYANLEDF--------YRQHHLGVQHLLPLADDQSLKSDIRWARSTDEGG-SRVNNRALNALFTYRLGGHAFGLGYQRMSGDSGF 089

2fgr\_A 096 ----------G--------GDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA-----IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNKD 162

4frt\_A 090 AYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF 187

## PDB1: 2fgr\_A

## PDB2: 4frt\_A

## row number: 65

2fgr\_A 000 VGRYIGGYVAYDN-GPLSASLGLAQQKTAVGGLATDRDEITLGASYNFG-----VAKLSGLLQQTKFKRDIGGDIKTNSYMLGASAPVGGVGEVKLQYAL 094

4frt\_A 000 SDRFDFAGGTYRWSERLSSSYHYANLEDF-------YRQHHLGVQHLLPLADDQSLKSDIRWARSTDEG--GSRVNNRALNALFTYRLGG-HAFGLGYQR 090

2fgr\_A 095 YDQKA--------------I-------DSKAHQITLGYVHNLS----KRTALYGNLAFLKN 130

4frt\_A 091 MSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEH 151

## PDB1: 2fgr\_A

## PDB2: 4frx\_A

## row number: 66

2fgr\_A 000 VGRYIGGYVAYDNGPLSASLGLAQQKTAVGGLATDRDEITLGASYNFGVAKLSGLLQQTKFKRDIGGDIKTNSYMLGASAPVG----GVGEVKLQYALYD 096

4frx\_A 000 DNRAFSGLFTYTVSGHSIGAGYQILNGDSD-----FPFLNRGDG-EGSTAYLITDVQIGKF-----QRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGD 089

2fgr\_A 097 QKA---IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNKD 132

4frx\_A 090 KIKTARGDQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGL 132

## PDB1: 2fgr\_A

## PDB2: 4fso\_A

## row number: 67

2fgr\_A 000 GRYIGGYVAYDN-GPLSASLGLAQQKTAVGGLATDRDEITLGASYNF--G--VAKLSGLLQQTKFKRDI-GGDIKTNSYMLGASAPVGGVGEVKLQYALY 094

4fso\_A 000 NRFDAYQLDYQVNDGLLLQYAQGGLRNV-------YRQRYLGAVGKRQVGAGKLSADLRWFDSEDAGAARAGKIDNRALSLLLAYAQGG-HTLSAGWQRM 092

2fgr\_A 095 DQKA---------------------IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNK 130

4fso\_A 093 NGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHI 153

## PDB1: 2fgr\_A

## PDB2: 4fsp\_A

## row number: 68

2fgr\_A 000 DRDEITLGASYNF-GVAKLSGLLQQTKFKRDI------------G------GDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA----IDSKAHQI 073

4fsp\_A 000 DNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKGADGSREWER 100

2fgr\_A 074 TLGYVHNLS----KRTALYGNLAFLKNKD 98

4fsp\_A 101 DSDLRYVLQGGALKGLGLVWRNATYRSAF 129

## PDB1: 2fgr\_A

## PDB2: 4fsp\_A

## row number: 69

2fgr\_A 000 GRYIGGYVAYDN-GPLSASLGLAQQKTAVGGLATDRDEITLGASYNFG----VAKLSGLLQQTKFKRDI-GGDIKTNSYMLGASAPV-GGVGEVKLQYAL 093

4fsp\_A 000 DRFDLAGLDYRIAPDWTGSYHYGELEQV-------YAQHFLGLKGRIGIAADSLESDLRLALSRDTGGARGGRIDNRSFSGSLTYRLRNG-QAFGLGYQR 092

2fgr\_A 094 YDQKA---------------------IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNK 130

4fsp\_A 093 MSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGA 154

## PDB1: 2fgr\_A

## PDB2: 4ft6\_A

## row number: 70

2fgr\_A 000 TDRDEITLGASYNFGVAKLSGLLQQTKFKRDI------------------GGDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA----IDSKAHQI 074

4ft6\_A 000 LENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWER 100

2fgr\_A 075 TLGYVHNLS----KRTALYGNLAFLKNKD 99

4ft6\_A 101 DVDVAYVIQSGPLKNLGLRWRNAMLRSNH 129

## PDB1: 2fgr\_A

## PDB2: 4ft6\_A

## row number: 71

2fgr\_A 000 VGRYIGGYVAYDNGPLSASLGLAQQKTAVG------------G-------LATDRDEITLGASYNFG-----VAKLSGLLQQTKFKRDI-GGDIKTNSYM 075

4ft6\_A 000 ENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWERD 100

2fgr\_A 076 LGASAPVG----GVGEVKLQYALYDQKAIDSKAHQITLGYVHNLS 116

4ft6\_A 101 VDVAYVIQSGPLKNLGLRWRNAMLRSNH-AADVDENRLILSYSLP 144

## PDB1: 2fgr\_A

## PDB2: 4ft6\_A

## row number: 72

2fgr\_A 000 GRYIGGYVAYDNG--PLSASLGLAQQKTAVGGLATDRDEITLGASYNF--GV--AKLSGLLQQTKFKRDI-GGDIKTNSYMLGASAPVGGVGEVKLQYAL 093

4ft6\_A 000 DRFDYLGAEYRFNAERSQVGLWQARLQDI-------YRQDYYSLSHKQSFGGWRLGASVGLFDTRDEGAAKLGELENRALTGFFSATRGG-HSLGAGYQR 092

2fgr\_A 094 YDQKA---------------------IDSKAHQITLGYVHNLSK----RTALYGNLAFLKNK 130

4ft6\_A 093 MYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHA 154

## PDB1: 2fgr\_A

## PDB2: 5dl5\_A

## row number: 73

2fgr\_A 000 VGRYIGGYVAYDNGPLSASLGLAQQKTAVGGLATDRDEITLGASYNFGVAKLS-GLLQQTKFKRDIGGDIKTNSYMLGASAPVG-----GVGEVKLQYAL 094

5dl5\_A 000 TNNIWAISGTYATGPHSVMLAYQQNTGNVG-----Y-DYGQ-NA--DGFQSIYLPNSYMSDF-----IGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVY 086

2fgr\_A 095 YDQ-KA----IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNKD 132

5dl5\_A 087 GWDIKVRNVTDDAQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASD 133

## PDB1: 2fgr\_A

## PDB2: 5dl6\_A

## row number: 74

2fgr\_A 000 DRDEITLGASYNFGVAKLSGLLQQTKFKRDI------------------GGDIKTNSYMLGASAPVG---GVGEVKLQYALYDQKA------IDSKAHQI 073

5dl6\_A 000 DNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERET 100

2fgr\_A 074 TLGYVHNLS----KRTALYGNLAFLKNKD 98

5dl6\_A 101 DFDLGYTVQSGWLKNLGLRARYAIYDNNM 129

## PDB1: 2fgr\_A

## PDB2: 5dl7\_A

## row number: 75

2fgr\_A 000 VGRYIGGYVAYDNGPLSASLGLAQQKTAVGGLATDRDEITLGASYNF--G-V--AKLSGLLQQTKFKRDI-GGDIKTNSYMLGASAPVGGVGEVKLQYAL 094

5dl7\_A 000 TDSFYTLGGSYQLKDYRLRAYHAELKDIY-----QQ--QFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKKIGEVDNRHISGLFGLNYQN-HTVSLGYMQ 092

2fgr\_A 095 YDQKA---------------------IDSKAHQITLGYVHNLSK---------RTALYGNLAFLKN 130

5dl7\_A 093 SFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGED 158

## PDB1: 2fgr\_A

## PDB2: 5dl8\_B

## row number: 76

2fgr\_A 000 TDRDEITLGASYNFGVAKLSGLLQQTKFKRDI------------G-------GDIKTNSYMLGASAPVG---GVGEVKLQYALYDQKA----IDSKAHQI 074

5dl8\_B 000 IDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAANGEKNHETES 100

2fgr\_A 075 TLGYVHNLS----KRTALYGNLAFLKN 97

5dl8\_B 101 NVILNYAFQQPLLKGFALQYIRIDYNV 127

## PDB1: 2fgr\_A

## PDB2: 5dl8\_B

## row number: 77

2fgr\_A 000 VGRYIGGYVAYDNGPLSASLGLAQQKTAVG--------G------------LATDRDEITLGASYNFG----VAKLSGLLQQTKFKRDI-GGDIKTNSYM 075

5dl8\_B 000 DAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAANGEKNHETESN 100

2fgr\_A 076 LGASAPVG----GVGEVKLQYALYDQKAIDSKAHQITLGYVHNL 115

5dl8\_B 101 VILNYAFQQPLLKGFALQYIRIDYNVKH-GNDFGEDRLFVNYTK 143

## PDB1: 2fgr\_A

## PDB2: 5ldv\_A

## row number: 78

2fgr\_A 000 RYIGGYVAYDN--G---PLSASLGLAQQKTAVG----GLATDRDEITLGASYNFGVAKLSGLLQQTKFKRDI--------GG------------------ 065

5ldv\_A 000 FFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRL 100

2fgr\_A 066 ---DIKTNSYMLGASAPVGGVGEVKLQ--YALYDQKAI--DS--KAHQITLGYVHNLSKRTALYGNLAFLKNKDASTLGLQAKGVYAGGVQAGESQTGVQ 156

5ldv\_A 101 NGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVN------------TNESADHSTVR 188

2fgr\_A 157 VGIRHAF 163

5ldv\_A 189 LQALYKF 195

## PDB1: 2fgr\_A

## PDB2: 5ldv\_A

## row number: 79

2fgr\_A 000 DRDEITLGASYNF-GVAKLSGLLQQTKFKRDI---GGDIKTNSYMLGASAPVGGVGEVKLQYALYDQKAI-----DSKAHQITLGYVHN 80

5ldv\_A 000 RNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYK 89

## PDB1: 2por\_A

## PDB2: 2y0l\_A

## row number: 80

2por\_A 000 EMAVAAAYTF--G--NYTVGLGYEKIDSPDT--ALMADMEQLELAAIAKFGATNVKAYYADGELDRDFARA--VFDL--TPVA-AAATAVDHKAYGLSVD 089

2y0l\_A 000 QHFVGLLHSWPIGPGELTSDLRFARSTDSGSAKAGGIDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYD 100

2por\_A 090 STFG----A-TTVGGYVQVLDID------TIDDVTYYGLGASYDLG----GGASIVGGIADNDLP--NSDMVADLGVKFKF 153

2y0l\_A 101 YDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWERNTELQYVFQSGALKNLGIRWRNATFRSNFTRDIDENRLIVSYTL 181

## PDB1: 2por\_A

## PDB2: 2y0l\_A

## row number: 81

2por\_A 000 DDAQEMAVAAAYTFGNYTVGLGYEKIDSPDT-----------A--------LMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPV 076

2y0l\_A 000 IDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAG--------- 091

2por\_A 077 AAAATAVDHKAYGLSVDSTFG----A-TTVGGYVQVLDIDTIDDVTYYGLGASYDL 127

2y0l\_A 092 --QSGEGREWERNTELQYVFQSGALKNLGIRWRNATFRSNFTRDIDENRLIVSYTL 145

## PDB1: 2por\_A

## PDB2: 3sy7\_A

## row number: 82

2por\_A 000 AQEMAVAAAYTF-GNYTVGLGYEKIDSPDTALMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDSTF 094

3sy7\_A 000 KSADFIGGRYAITDNLSASLYGAELEDI-------YRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAK------------AGDISNTTWSLAAAYTL 081

2por\_A 095 GATTVGGYVQVLDID-------------------------------TIDDVTYYGLGASYDLG----GGASIVGGIADNDL 140

3sy7\_A 082 DAHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKD 162

## PDB1: 2por\_A

## PDB2: 3sy9\_A

## row number: 83

2por\_A 000 DAQEMAVAAAYTF-GNYTVGLGYEKIDSPDTALMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDST 094

3sy9\_A 000 SHHLSWLGGTWGGIEGFTSSLYAAELQNV-------WKQYYADVDYTYEIDDNWSLNPGAHYYKTVDSGDSL------------LGRIDNNTYSLHFAVG 081

2por\_A 095 FGATTVGGYVQVLDID-----------------------TIDDVTYYGLGASYDLGG----GASIVGGIADNDL 141

3sy9\_A 082 YRQHTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKL 155

## PDB1: 2por\_A

## PDB2: 3syb\_A

## row number: 84

2por\_A 000 DAQEMAVAAAYTF-GNYTVGLGYEKIDSPDTALMADMEQLELAAIAKFG----A--TNVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDS 093

3syb\_A 000 GDRLNYLGGNYKPLDGLEISLYGSHFQDV-------WNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAR------------EAGYIDNDTWSLAFTL 081

2por\_A 094 TFGATTVGGYVQVLDID----------------------TIDDVTYYGLGASYDLG----GGASIVGGIADNDL 141

3syb\_A 082 GHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWD 155

## PDB1: 2por\_A

## PDB2: 3szv\_A

## row number: 85

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDSPDT-----------A--------LMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPVA 076

3szv\_A 000 DNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGA---------- 090

2por\_A 077 AAATAVDHKAYGLSVDSTFG----A-TTVGGYVQVLDIDTIDDVTYYGLGASYDLG 127

3szv\_A 091 --ANDGKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNFANDLDENRLILSYSLA 144

## PDB1: 2por\_A

## PDB2: 3t0s\_A

## row number: 86

2por\_A 000 DAQEMAVAAAYTF-GNYTVGLGYEKIDSPDTALMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDST 094

3t0s\_A 000 SDEFNLAGATYAFTPRLSASYYYGQLKDI-------YRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAI------------SGPVDNRNLNAMLTLR 081

2por\_A 095 FGATTVGGYVQVLDID-----------------------TIDDVTYYGLGASYDLG----GGASIVGGIADNDL 141

3t0s\_A 082 AGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRD 155

## PDB1: 2por\_A

## PDB2: 3t24\_A

## row number: 87

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDS 27

3t24\_A 000 DNKALNAMFTYSLGYHAFGVGYQKMSG 27

## PDB1: 2por\_A

## PDB2: 4frt\_A

## row number: 88

2por\_A 000 ADMEQLELAAIAKFGATNVKAYYADGELD 29

4frt\_A 000 VNNRALNALFTYRLGGHAFGLGYQRMSGD 29

## PDB1: 2por\_A

## PDB2: 4frt\_A

## row number: 89

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDS 27

4frt\_A 000 NNRALNALFTYRLGGHAFGLGYQRMSG 27

## PDB1: 2por\_A

## PDB2: 4frx\_A

## row number: 90

2por\_A 000 MADMEQLELAAIAKFGATNVKAYYADGELDRDFARAV---------FDLTPV-AAAATAVDHKAYGLSVDSTFG----A-TTVGGYVQVLDID----TID 081

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTARGDQ 100

2por\_A 082 DVTYYGLGASYDLG----GGASIVGGIADNDLP----------NSDMVADLGVKFKF 124

4frx\_A 101 SEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 157

## PDB1: 2por\_A

## PDB2: 4fso\_A

## row number: 91

2por\_A 000 DDAQEMAVAAAYTFGNYTVGLGYEKIDSPDT-----------A--------LMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPV 076

4fso\_A 000 IDNRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLAN--------- 091

2por\_A 077 AAAATAVDHKAYGLSVDSTFG----A-TTVGGYVQVLDID---TIDDVTYYGLGASYDLG 128

4fso\_A 092 ---GDEGKEWERDIELKYIVQSGRFKDLSLRLRNATYRTDFERSARDVDEVRLIASYNLS 148

## PDB1: 2por\_A

## PDB2: 4fsp\_A

## row number: 92

2por\_A 000 DAQEMAVAAAYTF-GNYTVGLGYEKIDSPDT-----------A--------LMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPV 075

4fsp\_A 000 DNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG--------- 091

2por\_A 076 AAAATAVDHKAYGLSVDSTFG----A-TTVGGYVQVLDIDTIDDVTYYGLGASYDL 126

4fsp\_A 092 ---ADGSREWERDSDLRYVLQGGALKGLGLVWRNATYRSAFSRDIDENRLYLTYEL 144

## PDB1: 2por\_A

## PDB2: 4fsp\_A

## row number: 93

2por\_A 000 EMAVAAAYTF--G--NYTVGLGYEKIDSPDT--ALMADMEQLELAAIAKF-GATNVKAYYADGELDRDFARA----VFDLTPVA-AAATAVDHKAYGLSV 088

4fsp\_A 000 QHFLGLKGRIGIAADSLESDLRLALSRDTGGARGGRIDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRY 100

2por\_A 089 DSTFG----A-TTVGGYVQVLDI-D----TIDDVTYYGLGASYDLG----GGASIVGGIADNDLP--NSDMVADLGVKFKF 153

4fsp\_A 101 DCDFAPLGVPGLSLMTRYFSGHGAKPKGADGSREWERDSDLRYVLQGGALKGLGLVWRNATYRSAFSRDIDENRLYLTYEL 181

## PDB1: 2por\_A

## PDB2: 4ft6\_A

## row number: 94

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDSPDT-------------------ALMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPVA 076

4ft6\_A 000 ENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA---------- 090

2por\_A 077 AAATAVDHKAYGLSVDSTFG----A-TTVGGYVQVLDIDTIDDVTYYGLGASYDLG 127

4ft6\_A 091 --MDDGRAWERDVDVAYVIQSGPLKNLGLRWRNAMLRSNHAADVDENRLILSYSLP 144

## PDB1: 2por\_A

## PDB2: 5dl6\_A

## row number: 95

2por\_A 000 QEMAVAAAYT--FG-NYT--VGLGYEKIDSPDT--ALMADMEQLELAAIAKFGATNVKAYYADGELDRDFARAVFDLTP-----V---AAAATAVDHKAY 085

5dl6\_A 000 NQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAKAGLVDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFP---YLTGGETGLLIDTWPGEFLNPKEKAY 097

2por\_A 086 GLSVDSTFG---A-TTVGGYVQVLDID-------TIDDVTYYGLGASYDLG----GGASIVGGIADNDLPN-------SDMVADLGVKFKF 154

5dl6\_A 098 SFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERETDFDLGYTVQSGWLKNLGLRARYAIYDNNMLSTANIKPVNETRINIDYTW 188

## PDB1: 2por\_A

## PDB2: 5dl6\_A

## row number: 96

2por\_A 000 DAQEMAVAAAYTF-GNYTVGLGYEKIDSPDTALMADMEQLELAAIAKFG---AT--NVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDST 094

5dl6\_A 000 TDGLYYLGGNYQFNPALKLTAFYMDVDDL-------YNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAK------------AGLVDNDLYHAHFELK 081

2por\_A 095 FGATTVGGYVQVLDID----------------------TIDDVTYYGLGASYDLG---GGASIVGGIADNDL 141

5dl6\_A 082 HQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHN 153

## PDB1: 2por\_A

## PDB2: 5dl7\_A

## row number: 97

2por\_A 000 QEMAVAAAYTF--G---NYTVGLGYEKIDSPDT--ALMADMEQLELAAIAKFGATNVKAYYADGELDRDFARAVFDLT--P---VAA---AATAVDHKAY 085

5dl7\_A 000 QQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKKIGEVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLP---FLSGTESPVVLDFMSSDYSNKDEKVY 097

2por\_A 086 GLSVDSTFG---------A-TTVGGYVQVLDI-D------TIDDVTYYGLGASYDLG----GGASIVGGIADNDLPN-------SDMVADLGVKFKF 154

5dl7\_A 098 SIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTNMTFHSANETRLNVDYTF 194

## PDB1: 2por\_A

## PDB2: 5dl7\_A

## row number: 98

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDSPDTALMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDSTF 095

5dl7\_A 000 TDSFYTLGGSYQLKDYRLRAYHAELKD-------IYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKK------------IGEVDNRHISGLFGLNY 081

2por\_A 096 GATTVGGYVQVLDID----------------------TIDDVTYYGLGASYDLGG---------GASIVGGIADNDL 141

5dl7\_A 082 QNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGED 158

## PDB1: 2por\_A

## PDB2: 5dl8\_B

## row number: 99

2por\_A 000 YTVGLGYEKIDSPDTALMADMEQLELAAIAKFGATNVKAYYADGELDRDFARAV------FDLTPVAAAATAVDHKAYGLSVDSTFG---A-TTVGGYVQ 090

5dl8\_B 000 LTSKFKYFNAKDDGNTFDIDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYV 100

2por\_A 091 VLDID-----TIDDVTYYGLGASYDLG----GGASIVGGIADNDLP--NSDMVADLGVKFKF 141

5dl8\_B 101 YGHDFKAANGEKNHETESNVILNYAFQQPLLKGFALQYIRIDYNVKHGNDFGEDRLFVNYTK 162

## PDB1: 2por\_A

## PDB2: 5dl8\_B

## row number: 100

2por\_A 000 DAQEMAVAAAYTF-GNYTVGLGYEKIDSPDTALMADMEQLELAAIAKF--G--ATNVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDSTF 095

5dl8\_B 000 SDGLNYIDLRYQFTPSLKGEYYFGNLEDL-------YNKHYVGLEHTWKQPTFALTSKFKYFNAKDDGNT--------------FDIDAENIGLLETVKV 079

2por\_A 096 GATTVGGYVQVLDID----------T-------------IDDVTYYGLGASYDLG---GGASIVGGIADNDL 141

5dl8\_B 080 KNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHD 151

## PDB1: 2por\_A

## PDB2: 5ldv\_A

## row number: 101

2por\_A 000 ADMEQLELAAIAKF-GATNVKAYYADGELDRDFARAVFDLTPVAAAATAVDHKAYGLSVDSTFGA-TTVGGYVQVLDIDT------IDDVTYYGLGASYD 92

5ldv\_A 000 GRNIFGYVTGGYTFNETVRVGADFVYGGTKTEAT----------THLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYK 90

## PDB1: 2por\_A

## PDB2: 5ldv\_A

## row number: 102

2por\_A 000 VKLSGDARMGVMYNGDDW-----------NFSSRSRVLFTMSGTTDSGLEFGASFKAHESV------------GAETGEDGTVFLSG--AFGKIEMGDAL 075

5ldv\_A 000 VDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVIAGKQQ 100

2por\_A 076 GASEALFG--D-L-YE---VGYTDL---DDRGGNDIPYLTGDE-RLTAEDNP--------VLLYTY-SAGA-FSVAASMSDG--KVG-E------TSEDD 145

5ldv\_A 101 LNIIWTDNGVDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDSIGNLYGAAAVGSYDLAGGQFNPQLWLAYWDQV 200

2por\_A 146 AQEMAVAAAYTFG---N--YTVGLGYEKIDSPDT----ALMADMEQLELAAIAKFGATNVKAYYADGELDRD--------FARA---VF--DL--TP-VA 220

5ldv\_A 201 AFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSR 300

2por\_A 221 AAATAVDHKAYGLSVDSTFG-ATTVGGYVQVLDIDT-------IDDVTYYGLGASYDLGGGASIVGGIADNDLP--------NSDMVADLGVKFKF 300

5ldv\_A 301 LNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYKF 396

## PDB1: 2y0l\_A

## PDB2: 2zfg\_A

## row number: 103

2y0l\_A 000 IDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAG------QSG 094

2zfg\_A 000 SNGDGVGGSISYEYEGFGIVGAYGAADRTNLQE-A---QP---L------GNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTNTSGF 082

2y0l\_A 095 EGREWERNTELQYVFQSGALKNLGIRWRNATFRSNF------TRDIDENRLIVSYTL 145

2zfg\_A 083 ANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 135

## PDB1: 2y0l\_A

## PDB2: 3nsg\_A

## row number: 104

2y0l\_A 000 DHFDLGGLDYKLTDQLTASYHYSNLQD------------VYRQHFVGLLHSWPIGPGELTSDLRFARSTDSGSA-------KAGGIDNKSLNGMFTYSLG 081

3nsg\_A 000 GDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N--NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQFD 095

2y0l\_A 082 -NHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAG-QSGEGREWERNTELQYVF 175

3nsg\_A 096 FGLRPAISYVQSKGKQLN-------G--------AGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 172

## PDB1: 2y0l\_A

## PDB2: 3nsg\_A

## row number: 105

2y0l\_A 000 DNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAG------QSGE 094

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQD--------RD------GNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMA 081

2y0l\_A 095 GREWERNTELQYVFQSGALKNLGIRWRNATFRSNF-------TRDIDENRLIVSYTL 144

3nsg\_A 082 NKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYF 134

## PDB1: 2y0l\_A

## PDB2: 3nsg\_A

## row number: 106

2y0l\_A 000 QHFVGLLHSWPIGPGELTSDLRFARSTDSGSAK---AGGIDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQL 097

3nsg\_A 000 GVGYTMAYEFD----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT-V-----TD----TVEMANKTQNLEV 086

2y0l\_A 098 RYDYDFVGLGIPGLTFMTRYVKGDNVELAG-QSGEGREWERNTELQYVFQSGALKNLGIRWRNATFRSNFT-------RDIDENRLIVSYTL 181

3nsg\_A 087 VAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 170

## PDB1: 2y0l\_A

## PDB2: 3wi4\_A

## row number: 107

2y0l\_A 000 RQHFVGLLHSWPIGPGELTSDLRFARSTDSGSAKAGGIDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRY 100

3wi4\_A 000 ESYHAGFNYKN--GGFFVQYGGAYKRHHQVQEG-LNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD----A------SN------SHNSQTEVAATL 081

2y0l\_A 101 DYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWERNTELQYVFQSGALKNLGIRWRNATFRSNF---TRDIDENRLIVSYTL 182

3wi4\_A 082 AYRFG----N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 157

## PDB1: 2y0l\_A

## PDB2: 4d65\_A

## row number: 108

2y0l\_A 000 HFDLGGLDYKLTDQLTASYHYSNLQD--------------VYRQHFVGLLHSWPIGPGELTSDLRFARSTDSGSAK-----AGGIDNKSLNGMFTYSLG- 080

4d65\_A 000 DGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD----ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSFDF 096

2y0l\_A 081 NHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNV 152

4d65\_A 097 GLTPSIGYNQSKGKNL--------G--------NYGNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLK 148

## PDB1: 2y0l\_A

## PDB2: 5fvn\_A

## row number: 109

2y0l\_A 000 DHFDLGGLDYKLTDQLTASYHYSNLQD-------------VYRQHFVGLLHSWPIGPGELTSDLRFARSTDSGSA--KAGGIDNKSLNGMFTYSLG-NHA 084

5fvn\_A 000 GDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDAN----NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGLR 096

2y0l\_A 085 FGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAG--QSGEGREWERNTELQYVF 175

5fvn\_A 097 PSVAYLQSKGKDLE-------N--------GYGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 170

## PDB1: 2y0l\_A

## PDB2: 5nxr\_A

## row number: 110

2y0l\_A 000 GIDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAG-QSGEGRE 099

5nxr\_A 000 GKRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG----D-----L-----DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLV 082

2y0l\_A 100 WERNTELQYVFQSGALKNLGIRWRNATFRSNF--------TRDIDENRLIVSYTL 146

5nxr\_A 083 KYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 133

## PDB1: 2y0l\_A

## PDB2: 5nxr\_A

## row number: 111

2y0l\_A 000 DNKSLNGMFTYSLG-NHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAG--QSGEGRE 097

5nxr\_A 000 NGDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGD----SYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKT 091

2y0l\_A 098 WERNTELQYVFQSGALKNLGIRWRNATFRSNF-------TRDIDENRLIVSYTL 144

5nxr\_A 092 ENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVKYISVGSYYYF 141

## PDB1: 2y0l\_A

## PDB2: 5nxr\_A

## row number: 112

2y0l\_A 000 RQHFVGLLHSWPIGPGELTSDLRFARSTDSGSAK---AGGIDNKSLNGMFTYSLG-NHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSW 096

5nxr\_A 000 QAWNVGGKFDAN----NVYLAAMYGQTQNTSRYGDLDLIANKTENVELVAQYLFDFGLKPSIGYNQSKGKNLG-------N--------GYDNQDLVKYI 081

2y0l\_A 097 QLRYDYDFVGLGIPGLTFMTRYVKGDNV 124

5nxr\_A 082 SVGSYYYFN----KNMSAVVDYKINLLK 105

## PDB1: 2y0l\_A

## PDB2: 6ehb\_A

## row number: 113

2y0l\_A 000 DHFDLGGLDYKLTD-QLTASYHYSNLQDVYRQHFVGLLHSWPIGPGELTSDLRFARSTDSGSAKAGGIDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFP 099

6ehb\_A 000 EDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME----NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETAK--- 087

2y0l\_A 100 YLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNV 153

6ehb\_A 088 -------------------KTSADNFAIDATYYFK----PNFRSYISYQFNLLD 118

## PDB1: 2y0l\_A

## PDB2: 6ehb\_A

## row number: 114

2y0l\_A 000 DNKSLNGMFTYSLG--NHAFGAAWQRMNGDDAF----PYLEGSNPYLVNFV-QVNDF-AGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQS 092

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRME--NLYFAGLFTDGELAKDVDYTGYELAAGYKLG----Q-AAFTATYNNAETAK----- 088

2y0l\_A 093 GEGREWERNTELQYVFQSGALKNLGIRWRNATFRSNF-----TRDIDENRLIVSYTL 144

6ehb\_A 089 -KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 140

## PDB1: 2y0l\_A

## PDB2: 6ehd\_A

## row number: 115

2y0l\_A 000 IDNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWE 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN------N-----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT--GADEDGTL 077

2y0l\_A 101 RNTELQYVFQSGALKNLGIRWRNATFRSN 129

6ehd\_A 078 VYLGVEYKFA----SWARVYAEYGYGDGT 102

## PDB1: 2zfg\_A

## PDB2: 3syb\_A

## row number: 116

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNKF-------TN---TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGI-------- 078

3syb\_A 000 IDNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAY 100

2zfg\_A 079 --------GDVDLVNYFEVGATYYFN----KNMSTYVDYIINQIDS 112

3syb\_A 101 GNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 146

## PDB1: 2zfg\_A

## PDB2: 3szv\_A

## row number: 117

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQE-A---QP---L------GNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTNTSGFA 082

3szv\_A 000 DNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGA-------AND 093

2zfg\_A 083 NKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYFN 135

3szv\_A 094 GKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNF------ANDLDENRLILSYSLA 144

## PDB1: 2zfg\_A

## PDB2: 3t24\_A

## row number: 118

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQE----AQP--L-------GNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTNTSGFA 082

3t24\_A 000 DNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTT------SGE 094

2zfg\_A 083 NKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 134

3t24\_A 095 GKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNY------TNDYDENRLIVSYTL 144

## PDB1: 2zfg\_A

## PDB2: 3t24\_A

## row number: 119

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNK-----F-T-N---TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNY 086

3t24\_A 000 VDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWE 100

2zfg\_A 087 FEVGATYYFN----KNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVYQF 132

3t24\_A 101 RDMDIAYVFQSGPLKNLGVKWRNATMRTNYT-----NDYDENRLIVSYTL 145

## PDB1: 2zfg\_A

## PDB2: 4frt\_A

## row number: 120

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNKF-----TNT-----SGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNY 086

4frt\_A 000 VNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWE 100

2zfg\_A 087 FEVGATYYFN----KNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVYQF 132

4frt\_A 101 RDTDIAYLVQSGPLKNLGIKLRNGTFRSDFG-----NDIDETRLIVSYAL 145

## PDB1: 2zfg\_A

## PDB2: 4frt\_A

## row number: 121

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQE-A---QP--L-------GNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTNTSGFA 082

4frt\_A 000 NNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLD------GGGR 094

2zfg\_A 083 NKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYFN 135

4frt\_A 095 GKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF------GNDIDETRLIVSYALP 145

## PDB1: 2zfg\_A

## PDB2: 4frx\_A

## row number: 122

2zfg\_A 000 GKKAEQWATGLKYDANNIYLAANYGETRNATPITNK-------F-----TN---TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGD 081

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA--RG 098

2zfg\_A 082 VDLVNYFEVGATYYFN----KNMSTYVDYIINQIDSDNK---LGVGSDDTVAVGIVYQF 133

4frx\_A 099 DQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 157

## PDB1: 2zfg\_A

## PDB2: 4fso\_A

## row number: 123

2zfg\_A 000 SNGDGVGGSISYEYEGFGIVGAYGAADRTNLQE-A---Q-----P----LGNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTNTSGF 082

4fso\_A 000 IDNRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLAN-------GD 093

2zfg\_A 083 ANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYFN 136

4fso\_A 094 EGKEWERDIELKYIVQSGRFKDLSLRLRNATYRTDFE---RSARDVDEVRLIASYNLS 148

## PDB1: 2zfg\_A

## PDB2: 4fsp\_A

## row number: 124

2zfg\_A 000 KKAEQWATGLKYDA-NNIYLAANYGETRNATPITNK-----FTNT-----SGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVN 085

4fsp\_A 000 IDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG-ADGSREW 099

2zfg\_A 086 YFEVGATYYFN----KNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVYQF 132

4fsp\_A 100 ERDSDLRYVLQGGALKGLGLVWRNATYRSAFS-----RDIDENRLYLTYEL 145

## PDB1: 2zfg\_A

## PDB2: 4fsp\_A

## row number: 125

2zfg\_A 000 NGDGVGGSISYEY-EGFGIVGAYGAADRTNLQE-A---Q---PL------GNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTNTSGF 081

4fsp\_A 000 DNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG-------AD 093

2zfg\_A 082 ANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 134

4fsp\_A 094 GSREWERDSDLRYVLQGGALKGLGLVWRNATYRSAF------SRDIDENRLYLTYEL 144

## PDB1: 2zfg\_A

## PDB2: 4ft6\_A

## row number: 126

2zfg\_A 000 GKKAEQWATGLKYDANNIYLAANYGETRNATPITNK-----F--TN---TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVN 086

4ft6\_A 000 ELENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTK-AMDDGRAW 099

2zfg\_A 087 YFEVGATYYFN----KNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVYQF 133

4ft6\_A 100 ERDVDVAYVIQSGPLKNLGLRWRNAMLRSNHA-----ADVDENRLILSYSL 145

## PDB1: 2zfg\_A

## PDB2: 4ft6\_A

## row number: 127

2zfg\_A 000 SNGDGVGGSISYEYEGFGIVGAYGAADRTNLQEA-----QP--------LGNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTNTSGF 082

4ft6\_A 000 LENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA-------MD 093

2zfg\_A 083 ANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYFN 136

4ft6\_A 094 DGRAWERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH------AADVDENRLILSYSLP 145

## PDB1: 2zfg\_A

## PDB2: 5dl6\_A

## row number: 128

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNKF-T------N---TSGFANKTQDVLLVAQYQFD---FGLRPSIAYTKSKAKDVEG-IGDVDLVNY 086

5dl6\_A 000 VDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERE 100

2zfg\_A 087 FEVGATYYFN----KNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVYQF 132

5dl6\_A 101 TDFDLGYTVQSGWLKNLGLRARYAIYDNNMLSTANIKPVNETRINIDYTW 150

## PDB1: 2zfg\_A

## PDB2: 5dl7\_A

## row number: 129

2zfg\_A 000 GKKAEQWATGLKYDANNIYLAANYGETRNATPITNKF-------TNT---SGFANKTQDVLLVAQYQFD---------FGLRPSIAYTKSKAKDVEG-IG 080

5dl7\_A 000 EVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGD 100

2zfg\_A 081 DVDLVNYFEVGATYYFN----KNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVYQF 133

5dl7\_A 101 QRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTNMTFHSANETRLNVDYTF 157

## PDB1: 2zfg\_A

## PDB2: 5dl8\_B

## row number: 130

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNK-------FTNT----SGFANKTQDVLLVAQYQFD---FGLRPSIAYTKSKAKDVEGIGDVDLVNY 086

5dl8\_B 000 IDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAA-NGEKNHETE 099

2zfg\_A 087 FEVGATYYFN----KNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVYQF 132

5dl8\_B 100 SNVILNYAFQQPLLKGFALQYIRIDYNVKH-----GNDFGEDRLFVNYTK 144

## PDB1: 2zfg\_A

## PDB2: 5ldv\_A

## row number: 131

2zfg\_A 000 DGNKVDLYGKA-VGLHYFSKGNGENS---YGGNGDMTYARLGFKGETQINSDLTGYGQWEYNFQGNNSE---GADAQTGNKTRLAFAGLKYA-DVGSFDY 092

5ldv\_A 000 AIKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVIA 100

2zfg\_A 093 GRNYGVVYDALG-YT-DMLPEFGGDTA-YSD-----DFF--VGRVGGVAT----------------YRNSNFFGLVDGLNFAVQYLGK--NERDT----- 159

5ldv\_A 101 GKQQLNIIWTDNGVDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDSIG--NLYGAAAVGSYDLAGGQFNPQLWL 198

2zfg\_A 160 -ARRSNGDGVGGSISYEYE-----GFGIVGAYGAADRTNLQEAQPLGNGKKAEQWATGLKYDANNIYLAANYGETRNA-----------TPI--TNKFT- 239

5ldv\_A 199 AYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDD--KKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEE 296

2zfg\_A 240 ----N---TSGFANKTQDVLLVAQYQFDFGLRPSIAYTKSKAKDVEG-IGDVDLVNYFEVGATYYFNKNMSTYVDYIINQIDSDNK-LGVGSDDTVAVGI 330

5ldv\_A 297 IFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQA 396

2zfg\_A 331 VYQF 334

5ldv\_A 397 LYKF 400

## PDB1: 3a2s\_X

## PDB2: 5ldv\_A

## row number: 132

3a2s\_X 000 GRDLQVTLYGTIKAGVEVSRVKDAGTYKAQGGKSKTATQIADFGSKIGFKGQEDLGNGMKAIWQLEQKASIAG--------TNSGWGNRQSFIGLKG--G 090

5ldv\_A 000 EAIKDVDVSGVLRYRYDTGNFDKNFL----N-NSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDV 095

3a2s\_X 091 FGTVRAGNLNTV 102

5ldv\_A 096 ATSVIAGKQQLN 107

## PDB1: 3a2s\_X

## PDB2: 5ldv\_A

## row number: 133

3a2s\_X 000 VKDYQVHRVVAGYDANDLYVSVAGQYEAAKNNE--------V-G-S----I------------KGKKHEQTQVAATAAYRFG-NVTPRVSYAHGFKAKVN 073

5ldv\_A 000 YANGNLFALKGSIEVNGW--DASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEA 098

3a2s\_X 074 GVKDANYQYDQVIVGADYDFSKRTSALVSAGWLKQGKGAG---KVEQTASMVGLRHKF 128

5ldv\_A 099 TTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYKF 156

## PDB1: 3jty\_A

## PDB2: 6ehb\_A

## row number: 134

3jty\_A 000 SDRFNFQGAEYAFNDKRTQIALWNAQLKDIYSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSARAGDMENRTWSGLFSAKYGGNTFYVGLQKLTGDSAW 100

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME----NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETA--- 087

3jty\_A 101 MRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 156

6ehb\_A 088 --------------------KKTSADNFAIDATYYFK----PNFRSYISYQFNLLD 119

## PDB1: 3jty\_A

## PDB2: 6ehd\_A

## row number: 135

3jty\_A 000 DMENRTWSGLFSAKYGGNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNVHTATVSDGKEW 100

6ehd\_A 000 DVTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-------N-----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT-GADEDGT 077

3jty\_A 101 GRESEVAYTVQSGTLKNLNLKWRNSTMRRDF 131

6ehd\_A 078 LVYLGVEYKF----ASWARVYAEYGYGDGTT 104

## PDB1: 3nsg\_A

## PDB2: 3syb\_A

## row number: 136

3nsg\_A 000 NGDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDAN------NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQY 093

3syb\_A 000 GDRLNYLGGNYKPLDGLEISLYGSHFQDV------------WNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAR-------EAGYIDNDTWSLAFTL 081

3nsg\_A 094 QFDFGLRPAISYVQSKGKQLNG------A---------GGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLD 150

3syb\_A 082 GHR-AHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDI 156

## PDB1: 3nsg\_A

## PDB2: 3sys\_A

## row number: 137

3nsg\_A 000 GVGYTMAYEF--D--GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT----V---T----DTVEMANKTQNLE 085

3sys\_A 000 QSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR---AGEIDSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQ 097

3nsg\_A 086 VVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDE 148

3sys\_A 098 VRYDYDFVGLGWPGLIGMVRYGHGSNATTKA--GSGGKEWERDVELGYTVQSGPLARLNVRLNHASNRRSF 166

## PDB1: 3nsg\_A

## PDB2: 3sys\_A

## row number: 138

3nsg\_A 000 NKLDLYGKAVGRHVWTTTGDS----KNADQTYAQIGFKGETQINTDLTGFGQWEYRT----KADR-----AE--------GEQQNSNL-VRLAFAGLKYA 078

3sys\_A 000 EDAKTDLVLRNYYFNRDFRDHDAGKSLVDEWAQGFILKFSSGYTPG-TVGVGLDAIGLFGVKLNSGRGTSNSELLPLHDDGRAADNYGRVGVA-AKLRV- 097

3nsg\_A 079 EVGSIDYGRNYGIVYDVESYTDM--APY-FSGETWGGAYTDNYMTSRAGGLLTYRNSDFFGLVDGLSFGIQYQGKNQDNHSI-----------NSQNGDG 164

3sys\_A 098 SASELKIGEMLPDIPLLR-YDDGRLLPQTFRGF-----------------AVVSRE--L----PGLALQAGRFDAVSLRNSADMQDLSAWSAPTQKSDGF 173

3nsg\_A 165 VGYTMAYEFD--GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N--NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQFDFG 258

3sys\_A 174 NYAGAEYRFNRERTQLGLWHGQLED------------VYRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR-------AGEIDSHTVYGLFSAGIG-L 253

3nsg\_A 259 LRPAISYVQSKGKQLNG--------A--------GGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQ 332

3sys\_A 254 HTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKA--GSGGKEWERDVELGYT 345

## PDB1: 3nsg\_A

## PDB2: 3szv\_A

## row number: 139

3nsg\_A 000 GDGVGYTMAYEFD-GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQF 094

3szv\_A 000 DAFDFAGGDYRLTPALTASLHQGRLKD------------IYRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGF---------RELDNRAFGALFSLRL 079

3nsg\_A 095 DFGLRPAISYVQSKGKQL-------NG--------AGGSADLAKYIQAGATYYFNK----NMNVWVDYRFNLLD 149

3szv\_A 080 G-AHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNV 152

## PDB1: 3nsg\_A

## PDB2: 3szv\_A

## row number: 140

3nsg\_A 000 GVGYTMAYEFD-----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENTV------TD----TVEMANKTQNLE 085

3szv\_A 000 QTFAGLVHTLDLGGQRSLKSDLRFARASEDGG-----FRELDNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQ 095

3nsg\_A 086 VVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 170

3szv\_A 096 LRYDYDFGALGLPGLSFMSRYVSGDNVARGA--ANDGKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNFA-------NDLDENRLILSYSL 179

## PDB1: 3nsg\_A

## PDB2: 3szv\_A

## row number: 141

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQD--------RD------GNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMA 081

3szv\_A 000 DNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGA-------AND 093

3nsg\_A 082 NKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN 135

3szv\_A 094 GKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNF-------ANDLDENRLILSYSLA 144

## PDB1: 3nsg\_A

## PDB2: 3t0s\_A

## row number: 142

3nsg\_A 000 DGVGYTMAYEFD-----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVEN----TVT---D----TVEMANKTQN 084

3t0s\_A 000 RQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAI---SGPVDNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKS 097

3nsg\_A 085 LEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLD 148

3t0s\_A 098 WQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGA-GRADDSEWERNTDLSYVIQSGPLKSVALKWRNITYRSR 168

## PDB1: 3nsg\_A

## PDB2: 3t24\_A

## row number: 143

3nsg\_A 000 GVGYTMAYEFD-----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT----V--TD----TVEMANKTQNLE 085

3t24\_A 000 QHYLGLVHTLPIADKQSLKSDIRWARSTDDGS------SNVDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQ 094

3nsg\_A 086 VVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 170

3t24\_A 095 ARYDYNFAGVGIPGLTFMTRYVKGDNIDLLT-TSGEGKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNYT-------NDYDENRLIVSYTL 179

## PDB1: 3nsg\_A

## PDB2: 3t24\_A

## row number: 144

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQ------D--R------DGNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMA 081

3t24\_A 000 DNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLT------TSGE 094

3nsg\_A 082 NKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYF 134

3t24\_A 095 GKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNY-------TNDYDENRLIVSYTL 144

## PDB1: 3nsg\_A

## PDB2: 4frt\_A

## row number: 145

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQD--------RD------GNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMA 081

4frt\_A 000 NNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLD------GGGR 094

3nsg\_A 082 NKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN 135

4frt\_A 095 GKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF-------GNDIDETRLIVSYALP 145

## PDB1: 3nsg\_A

## PDB2: 4frt\_A

## row number: 146

3nsg\_A 000 GVGYTMAYEFD-----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT-V-----TD----TVEMANKTQNLE 085

4frt\_A 000 QHHLGVQHLLPLADDQSLKSDIRWARSTDEGG------SRVNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQ 094

3nsg\_A 086 VVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 170

4frt\_A 095 LRYDYDFAAIGLPGLTFMSRYLRGEHIDLLD-GGGRGKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDFG-------NDIDETRLIVSYAL 179

## PDB1: 3nsg\_A

## PDB2: 4frx\_A

## row number: 147

3nsg\_A 000 GDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT-------V----TD----TVEMANKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGG 081

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA---R 097

3nsg\_A 082 SADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYS-SSYVGTDDQAAVGITYQF 136

4frx\_A 098 GDQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 157

## PDB1: 3nsg\_A

## PDB2: 4fso\_A

## row number: 148

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQD---------R-----DGNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMA 081

4fso\_A 000 DNRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLAN-------GDE 093

3nsg\_A 082 NKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN 135

4fso\_A 094 GKEWERDIELKYIVQSGRFKDLSLRLRNATYRTDFER----SARDVDEVRLIASYNLS 147

## PDB1: 3nsg\_A

## PDB2: 4fsp\_A

## row number: 149

3nsg\_A 000 NGDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQ------D--R-D-----GNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEM 080

4fsp\_A 000 DNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG-------AD 093

3nsg\_A 081 ANKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYF 134

4fsp\_A 094 GSREWERDSDLRYVLQGGALKGLGLVWRNATYRSAF-------SRDIDENRLYLTYEL 144

## PDB1: 3nsg\_A

## PDB2: 4fsp\_A

## row number: 150

3nsg\_A 000 GVGYTMAYEFD----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA-NNVYLAAVYAETRNMSIVENT----V--TD----TVEMANKTQNLE 085

4fsp\_A 000 QHFLGLKGRIGIAADSLESDLRLALSRDTGGAR---GGRIDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQ 097

3nsg\_A 086 VVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 170

4fsp\_A 098 LRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG--ADGSREWERDSDLRYVLQGGALKGLGLVWRNATYRSAFS-------RDIDENRLYLTYEL 181

## PDB1: 3nsg\_A

## PDB2: 4ft6\_A

## row number: 151

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQ-------D-------RDGNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMA 081

4ft6\_A 000 ENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA-------MDD 093

3nsg\_A 082 NKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYF 134

4ft6\_A 094 GRAWERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH-------AADVDENRLILSYSL 143

## PDB1: 3nsg\_A

## PDB2: 4ft6\_A

## row number: 152

3nsg\_A 000 GDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT-----V--T---DTVEMANKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLA 086

4ft6\_A 000 ELENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA--MDDGRA 098

3nsg\_A 087 KYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 136

4ft6\_A 099 WERDVDVAYVIQSGPLKNLGLRWRNAMLRSNHA-------ADVDENRLILSYSL 145

## PDB1: 3nsg\_A

## PDB2: 5dl6\_A

## row number: 153

3nsg\_A 000 NGDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N---NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQ 094

5dl6\_A 000 TDGLYYLGGNYQFNPALKLTAFYMDVDDL------------YNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAK-------AGLVDNDLYHAHFELK 081

3nsg\_A 095 FDFGLRPAISYVQSKGKQLNG-----A----------GGSADLAKYIQAGATYYFN---KNMNVWVDYRFNLLD 150

5dl6\_A 082 HQ-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNI 154

## PDB1: 3nsg\_A

## PDB2: 5dl7\_A

## row number: 154

3nsg\_A 000 DGVGYTMAYEFD-----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT----V---TDT---VEMANKTQNL 085

5dl7\_A 000 QQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKK---IGEVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVY 097

3nsg\_A 086 EVVAQYQFD---------FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 171

5dl7\_A 098 SIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTN--MTFHSANETRLNVDYTF 194

## PDB1: 3nsg\_A

## PDB2: 5dl7\_A

## row number: 155

3nsg\_A 000 GDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQFD 095

5dl7\_A 000 DSFYTLGGSYQLKDYRLRAYHAELKD------------IYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKK-------IGEVDNRHISGLFGLNYQ 081

3nsg\_A 096 FGLRPAISYVQSKGKQLNG---------------AGGSADLAKYIQAGATYYFNK---------NMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQ 171

5dl7\_A 082 -NHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRFKEDSLEFDLGYK 180

3nsg\_A 172 F 172

5dl7\_A 181 I 181

## PDB1: 3nsg\_A

## PDB2: 5dl8\_B

## row number: 156

3nsg\_A 000 YTMAYEF--D--GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT----V----TD---TVEMANKTQNLEVVA 085

5dl8\_B 000 VGLEHTWKQPTFALTSKFKYFNAKDDGNT-----FDIDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMY 095

3nsg\_A 086 QYQFD---FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 167

5dl8\_B 096 GYDFKDYIPGLNAMVKYVYGHDFKAAN--GEKNHETESNVILNYAFQQPLLKGFALQYIRIDYNVKHG-------NDFGEDRLFVNYTK 175

## PDB1: 3nsg\_A

## PDB2: 5ldv\_A

## row number: 157

3nsg\_A 000 GNKLDLYGKAVGRHVWTTTGDS--------KNADQTYAQIGFKGETQINTDLTGFGQWEYRTKADRAE----GEQQNSNLVRLAFAGLKYA-EVGSIDYG 087

5ldv\_A 000 IKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVIAG 100

3nsg\_A 088 RNYGIVYDVESYTDMAPYFSGETWGGAYTDNYMTSRAGGLLTYRNSDFFGLVDGLSFGIQYQGKNQDNH---------------------SINSQNGDGV 166

5ldv\_A 101 KQQLNIIWTDNGVDG-LVGTGV-----------------KVVNNS--I----DGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDSIGNLY 176

3nsg\_A 167 GYTMAYEFD----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N---NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQFD 257

5ldv\_A 177 GAAAVGSYDLAGGQFNPQLWLAYWD------------QVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDD-----KKTYANGNLFALKGSIEVN 259

3nsg\_A 258 FGLRPAISYVQSKGKQLN---------G-----A------------GGSADLAKYIQAGATYYFNKNMNVWVD--YRFNLL 310

5ldv\_A 260 -GWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKT 339

## PDB1: 3nsg\_A

## PDB2: 5ldv\_A

## row number: 158

3nsg\_A 000 NKDGNKLDLYGKAVGRHVWTTTGDSK--------NADQTYAQIGFKGETQINTDLTGFGQWEYRTKADRAE----GEQQNSNLVRLAFAGLKY--AEVGS 086

5ldv\_A 000 EEAIKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVAT-S 099

3nsg\_A 087 IDYGRNYGIVYDVESYTDMAPYFSGET-----WGGA-----YTDNYMTSRAGG-------------------LLTYRNSDFFGLVDGLSFGIQYQGKN-- 155

5ldv\_A 100 VIAGKQQLNIIWTDNGVDG-LVGTGVKVVNNSIDGLTLAAFAVDSF-MAAEQGSDLLGQSTYVGNGKNNNDSFKLDSIGNL------YGAAAVGSYDLAG 191

3nsg\_A 156 QDNHS-----INSQNGDGVGYTMAYEFD-----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMS--------IVENT 237

5ldv\_A 192 GQFNPQLWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDD-KKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNL 290

3nsg\_A 238 ----V------TD---TVEMANKTQNLEVVAQYQFDFGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYFNKNMNVWVDYRFNLLDENDYSSSYVG 324

5ldv\_A 291 GSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNT-NESA 389

3nsg\_A 325 TDDQAAVGITYQF 337

5ldv\_A 390 DHSTVRLQALYKF 402

## PDB1: 3sy7\_A

## PDB2: 5fvn\_A

## row number: 159

3sy7\_A 000 KSADFIGGRYAITDNLSASLYGAELEDI-------------YRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKA--KAGDISNTTWSLAAAYTLD-AH 084

5fvn\_A 000 GDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDAN-----NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGL 095

3sy7\_A 085 TFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDID 164

5fvn\_A 096 RPSVAYLQSKGKDLE-------------NG-----Y------GDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLDD 147

## PDB1: 3sy7\_A

## PDB2: 6ehb\_A

## row number: 160

3sy7\_A 000 AKSADFIGGRYAITD-NLSASLYGAELEDIYRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAKAGDISNTTWSLAAAYTLDAHTFTLAYQKVHGDQP 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETA-- 087

3sy7\_A 100 FDYIGFGRNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDID 165

6ehb\_A 088 -----------------------------KKTSADNFAIDATYYFK----PNFRSYISYQFNLLDS 120

## PDB1: 3sy9\_A

## PDB2: 6ehb\_A

## row number: 161

3sy9\_A 000 SHHLSWLGGTWGGIE-GFTSSLYAAELQNVWKQYYADVDYTYEIDDNWSLNPGAHYYKTVDSGDSLLGRIDNNTYSLHFAVGYRQHTVTAVLQKVNGNTP 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETA-- 087

3sy9\_A 100 FDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKL 155

6ehb\_A 088 ---------------------KKTSADNFAIDATYYFK----PNFRSYISYQFNLL 118

## PDB1: 3syb\_A

## PDB2: 4d65\_A

## row number: 162

3syb\_A 000 RLNYLGGNYKPLDGLEISLYGSHFQD--------------VWNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAR-----EAGYIDNDTWSLAFTLGH 081

4d65\_A 000 DGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD------ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 094

3syb\_A 082 R-AHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGW 152

4d65\_A 095 DFGLTPSIGYNQSKGKNLGN----------------YGNKDLVKYIAVGASYDFN----KNMAAVIDYKINL 146

## PDB1: 3syb\_A

## PDB2: 5fvn\_A

## row number: 163

3syb\_A 000 DRLNYLGGNYKPLDGLEISLYGSHFQDV-------------WNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAR--EAGYIDNDTWSLAFTLGHR-A 084

5fvn\_A 000 GDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDAN------NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFG 094

3syb\_A 085 HALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDI 155

5fvn\_A 095 LRPSVAYLQSKGKDLE------NG---------YGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLD 146

## PDB1: 3syb\_A

## PDB2: 5nxr\_A

## row number: 164

3syb\_A 000 DRLNYLGGNYKPLDGLEISLYGSHFQDV----------------------WNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAR---EAGYIDNDTWS 075

5nxr\_A 000 GDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN------NVYLAAMYGQTQNTSRYGDLDLIANKTENVE 094

3syb\_A 076 LAFTLGHR-AHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDI 155

5nxr\_A 095 LVAQYLFDFGLKPSIGYNQSKGKNLGN------G---------YDNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLK 156

## PDB1: 3syb\_A

## PDB2: 6ehb\_A

## row number: 165

3syb\_A 000 GDRLNYLGGNYKPLD-GLEISLYGSHFQDVWNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAREAGYIDNDTWSLAFTLGHRAHALTLAYQQVDGNE 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME------NLYFAGLFTDGELA-----KDVDYTGYELAAGYKLGQAAFTATYNNAETA- 087

3syb\_A 100 YFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDI 156

6ehb\_A 088 ---------------------KKTSADNFAIDATYYFK----PNFRSYISYQFNLLD 119

## PDB1: 3sys\_A

## PDB2: 6ehb\_A

## row number: 166

3sys\_A 000 EDAKTDLVLRNYYFNRDFRDHDAGKSLVDEWAQGFILKFSSGYTPG-TVGVGLDAIGLFGVKLNSGRGTSNSELLPLHDDGRAADNYGRVGVA-AKLRVS 098

6ehb\_A 000 TSLEVGGRAEARLSLKDGKA-------QDNSRVRLNFLGKAEINDSLYGVGFYEGEF----TTNDQG----K--------NASNNSLD-NRYTYAGIGGT 076

3sys\_A 099 ASELKIGEMLPDIPLLR-YDDGRL-----------L-PQTFRGFAVVSRELPGLALQAGRFDAVSLRNSADMQDLSA--WSAPTQKSDGFNYAGAEYRFN 183

6ehb\_A 077 YGEVTYGKNDGALGVITDFTDIMSYHGNTAAEKIAVADRVDNMLAYKG-QFGDLGVKASYRFADRNAVDAMGNVVTETNAAKYSDNGEDGYSLSAIYTFG 175

3sys\_A 184 RERTQLGLWHGQLEDVYRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAARAGEIDSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGND 283

6ehb\_A 176 DTGFNVGAGYADQD-DQNEYMLAASYRM--E--NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETAK---------------- 249

3sys\_A 284 MFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKAGSGGKEWERDVELGYT 345

6ehb\_A 250 -------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYD 300

## PDB1: 3sys\_A

## PDB2: 6ehb\_A

## row number: 167

3sys\_A 000 SDGFNYAGAEYRFNRERTQLGLWHGQLEDVYRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAARAGEIDSHTVYGLFSAGIGLHTFYLGLQKVGGDSGW 100

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRM--EN--LYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETA--- 087

3sys\_A 101 QSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNAT 157

6ehb\_A 088 --------------------KKTSADNFAIDATYYFK----PNFRSYISYQFNLLDS 120

## PDB1: 3sys\_A

## PDB2: 6ehd\_A

## row number: 168

3sys\_A 000 DSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKAGSGGKEWER 100

6ehd\_A 000 TNSYFEVTGEYTIGDALIGVTYYNAELDVEN------------N------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT-GADEDGTLV 077

3sys\_A 101 DVELGYTVQSGPLARLNVRLNHASNRRS 128

6ehd\_A 078 YLGVEYKFA----SWARVYAEYGYGDGT 101

## PDB1: 3szd\_A

## PDB2: 6ehb\_A

## row number: 169

3szd\_A 000 SDRFDFAGGEYRFNG-ERSLLGLWNAELKDIYRQQYLQLQHSQPLGDWLLGANLGGFRGRDAGSARAGKLDNRTVSALFSARYGLHTLYLGLQKVSGDDG 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGF-NVGAGYADQDD-QNEYMLAASYRME----NLYFAGLFTDGELA-----KDVDYTGYELAAGYKLGQAAFTATYNNAETAK- 088

3szd\_A 100 WMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHV 156

6ehb\_A 089 ----------------------KTSADNFAIDATYYFK----PNFRSYISYQFNLLD 119

## PDB1: 3szv\_A

## PDB2: 4d65\_A

## row number: 170

3szv\_A 000 DAFDFAGGDYRLTPALTASLHQGRLKD--------------IYRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGF-------RELDNRAFGALFSLRL 079

4d65\_A 000 GDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD-----ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 095

3szv\_A 080 G-AHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNV 152

4d65\_A 096 DFGLTPSIGYNQSKGKNL-------G---------NYGNKDLVKYIAVGASYDFNK----NMAAVIDYKINLLK 149

## PDB1: 3szv\_A

## PDB2: 4rjw\_A

## row number: 171

3szv\_A 000 DNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGA-------------------LGLPGLSFMSRYV 081

4rjw\_A 000 DDSVWGLEGAWAMGPFSAQAEYLARKLKADDN---A-------------YKDIKAKGYYAQLAYTLTGESRQYKLEGAKFDSVKPENKEIGAWEVFYRYD 084

3szv\_A 082 SGDNVARGA--------ANDGKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNFA------NDLDENRLILSYSL 143

4rjw\_A 085 NIKVEDDNVVADTATREVGDTKAKAHNLGVNWYV----NDAVKISAAYVKAKTDKITNNNGDDDGDGFVTRLQYVF 156

## PDB1: 3szv\_A

## PDB2: 5fvn\_A

## row number: 172

3szv\_A 000 SDAFDFAGGDYRLTPALTASLHQGRLKDI-------------YRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGF----RELDNRAFGALFSLRLG-A 082

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDAN-----NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFG 095

3szv\_A 083 HAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVA 154

5fvn\_A 096 LRPSVAYLQSKGKDLE----N--G---Y------GDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLDD 148

## PDB1: 3szv\_A

## PDB2: 5nxr\_A

## row number: 173

3szv\_A 000 LDNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGA--ANDGKEW 098

5nxr\_A 000 KRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG----D-----L-----DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVK 082

3szv\_A 099 ERNTDLGYVVQSGPLKNLGVKWRNATVRSNF--------ANDLDENRLILSYSL 144

5nxr\_A 083 YISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 132

## PDB1: 3szv\_A

## PDB2: 5nxr\_A

## row number: 174

3szv\_A 000 AFDFAGGDYRLTPALTASLHQGRLKD----------------------IYRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGF-----RELDNRAFGAL 073

5nxr\_A 000 DGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKTENVELV 095

3szv\_A 074 FSLRLG-AHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNV 151

5nxr\_A 096 AQYLFDFGLKPSIGYNQSKGKNL-------GN--------GYDNQDLVKYISVGSYYYFNK----NMSAVVDYKINLLK 155

## PDB1: 3szv\_A

## PDB2: 6ehb\_A

## row number: 175

3szv\_A 000 DNRAFGALFSLRLG--AHAVAAGYQRISGDDPYP----YIAGSDPYLVNF-IQIGDF-GNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGAAN 092

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRME--NLYFAGLFTDGELAKDVDYTGYELAAGYKLG----Q-AAFTATYNNAETAK----- 088

3szv\_A 093 DGKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNF-----ANDLDENRLILSYSL 143

6ehb\_A 089 KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 140

## PDB1: 3szv\_A

## PDB2: 6ehb\_A

## row number: 176

3szv\_A 000 SDAFDFAGGDYRLTP-ALTASLHQGRLKDIYRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGFRELDNRAFGALFSLRLGAHAVAAGYQRISGDDPYP 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK---DVDYTGYELAAGYKLGQAAFTATYNNAETAK--- 088

3szv\_A 100 YIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVA 154

6ehb\_A 089 -------------------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDS 120

## PDB1: 3szv\_A

## PDB2: 6ehd\_A

## row number: 177

3szv\_A 000 LDNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGAANDGKEWER 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-------N----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT-GADEDGTLV 078

3szv\_A 101 NTDLGYVVQSGPLKNLGVKWRNATVRSN 128

6ehd\_A 079 YLGVEYKFA----SWARVYAEYGYGDGT 102

## PDB1: 3szv\_A

## PDB2: 6ehd\_A

## row number: 178

3szv\_A 000 NRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARGAANDGKEWERNT 100

6ehd\_A 000 QELAELYVGATFGDLAVHAGGGQNRDKAF-KVGS-NTVGTTTT-D--IKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISV 090

3szv\_A 101 DLGYVVQSGPLKNLGVKWRNATVRSNF----ANDLDENRLILSYSL 142

6ehd\_A 091 AGTYKVA----DKTKLYAGYEYVMQEANTGADEDGTLVYLGVEYKF 132

## PDB1: 3t0s\_A

## PDB2: 4d65\_A

## row number: 179

3t0s\_A 000 DEFNLAGATYAFTPRLSASYYYGQLKD--------------IYRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAI-----SGPVDNRNLNAMLTLRA 081

4d65\_A 000 GDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD-----ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 095

3t0s\_A 082 G-AHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDI 155

4d65\_A 096 DFGLTPSIGYNQSKGKNLG------N-----Y------GNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLK 149

## PDB1: 3t0s\_A

## PDB2: 5fvn\_A

## row number: 180

3t0s\_A 000 DEFNLAGATYAFTPRLSASYYYGQLKDI-------------YRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAA--ISGPVDNRNLNAMLTLRAG-AH 084

5fvn\_A 000 GDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDAN-----NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGL 095

3t0s\_A 085 AFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDI 155

5fvn\_A 096 RPSVAYLQSKGKDLE------NG----------YGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLD 146

## PDB1: 3t0s\_A

## PDB2: 6ehb\_A

## row number: 181

3t0s\_A 000 SDEFNLAGATYAFTP-RLSASYYYGQLKDIYRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAISGPVDNRNLNAMLTLRAGAHAFGIGVQKMIGNDA 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETA-- 087

3t0s\_A 100 FPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDI 156

6ehb\_A 088 ---------------------KKTSADNFAIDATYYFK----PNFRSYISYQFNLLD 119

## PDB1: 3t24\_A

## PDB2: 3wi4\_A

## row number: 182

3t24\_A 000 KQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS--SNVDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARY 098

3wi4\_A 000 ESYHAGFNYKNG---GFFVQYGGAYKRHHQVQEGLNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD-----A----S-N------SHNSQTEVAATL 081

3t24\_A 099 DYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNY---TNDYDENRLIVSYTL 180

3wi4\_A 082 AYRFG-----NVTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 157

## PDB1: 3t24\_A

## PDB2: 4d65\_A

## row number: 183

3t24\_A 000 VDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWE 100

4d65\_A 000 KRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGD---DD---------AEAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVKY 084

3t24\_A 101 RDMDIAYVFQSGPLKNLGVKWRNATMRTNY--------TNDYDENRLIVSYTL 145

4d65\_A 085 IAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 133

## PDB1: 3t24\_A

## PDB2: 4d65\_A

## row number: 184

3t24\_A 000 DKFDFAGGSYKWTDNLSTSYHYGKLDN--------------FYKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS--------SNVDNKALNAMFTYSL 078

4d65\_A 000 GDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD-----ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 095

3t24\_A 079 G-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNID 152

4d65\_A 096 DFGLTPSIGYNQSKGKNLG-----N-----Y------GNKDLVKYIAVGASYDFNK----NMAAVIDYKINLLKD 150

## PDB1: 3t24\_A

## PDB2: 4rjw\_A

## row number: 185

3t24\_A 000 DNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAG-------------------VGIPGLTFMTRYV 081

4rjw\_A 000 DDSVWGLEGAWAMGPFSAQAEYLARKLKADDNA----------------YKDIKAKGYYAQLAYTLTGESRQYKLEGAKFDSVKPENKEIGAWEVFYRYD 084

3t24\_A 082 KGDNIDLLTT-------SGEGKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNY------TNDYDENRLIVSYTL 144

4rjw\_A 085 NIKVEDDNVVADTATREVGDTKAKAHNLGVNWYV----NDAVKISAAYVKAKTDKITNNNGDDDGDGFVTRLQYVF 156

## PDB1: 3t24\_A

## PDB2: 5fvn\_A

## row number: 186

3t24\_A 000 VDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLT-TSGEGKEW 099

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG---------N------LGWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLK 081

3t24\_A 100 ERDMDIAYVFQSGPLKNLGVKWRNATMRTNY--------TNDYDENRLIVSYTL 145

5fvn\_A 082 YVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 3t24\_A

## PDB2: 5fvn\_A

## row number: 187

3t24\_A 000 DKFDFAGGSYKWTDNLSTSYHYGKLDNF-------------YKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS-----SNVDNKALNAMFTYSLG-YH 081

5fvn\_A 000 GDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDAN-----NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGL 095

3t24\_A 082 AFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNID 152

5fvn\_A 096 RPSVAYLQSKGKDLE----NG-----------YGDQDLLKYVDVGATYYFNK----NMSTYVDYKINLLDD 147

## PDB1: 3t24\_A

## PDB2: 5mdo\_A

## row number: 188

3t24\_A 000 DNKALNAMFTYSLG-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLT-TSGEGKEW 098

5mdo\_A 000 ENNTYLVGVQGWFENGISFFAQYKYMEADAS------N------------GVNEKQDAMSAGLMYTTG-----DWQYKLGYAANFDLERDGKTLSNTSDD 077

3t24\_A 099 ERDMDIAYVFQSGPLKNLGVKWRNATMRTN 128

5mdo\_A 078 VVSAQIMYFVD----PSAVLYARARMNDFN 103

## PDB1: 3t24\_A

## PDB2: 5nxr\_A

## row number: 189

3t24\_A 000 VDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLT-TSGEGKEW 099

5nxr\_A 000 KRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG----D----L------DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVK 082

3t24\_A 100 ERDMDIAYVFQSGPLKNLGVKWRNATMRTNY--------TNDYDENRLIVSYTL 145

5nxr\_A 083 YISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 132

## PDB1: 3t24\_A

## PDB2: 5nxr\_A

## row number: 190

3t24\_A 000 DKFDFAGGSYKWTDNLSTSYHYGKLDNF----------------------YKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS------SNVDNKALNA 072

5nxr\_A 000 GDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKTENVEL 095

3t24\_A 073 MFTYSLG-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNID 152

5nxr\_A 096 VAQYLFDFGLKPSIGYNQSKGKNLG-----NG----Y------DNQDLVKYISVGSYYYFNK----NMSAVVDYKINLLKD 157

## PDB1: 3t24\_A

## PDB2: 6ehb\_A

## row number: 191

3t24\_A 000 KDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWERDMDIAYVFQSGPLKNLGVKWRNATMRTNY-----TNDYDENRLIVSYTL 92

6ehb\_A 000 VDYTGYELAAGYKLGQ-----AAFTATYNNAETAK------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 82

## PDB1: 3t24\_A

## PDB2: 6ehb\_A

## row number: 192

3t24\_A 000 SDKFDFAGGSYKWTD-NLSTSYHYGKLDNFYKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGSSNVDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAY 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK--DVDYTGYELAAGYKLGQAAFTATYNNAETAK---- 088

3t24\_A 100 INGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNID 153

6ehb\_A 089 ------------------KTSADNFAIDATYYFKP----NFRSYISYQFNLLDS 120

## PDB1: 3t24\_A

## PDB2: 6ehd\_A

## row number: 193

3t24\_A 000 VDNKALNAMFTYSLGYHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEWE 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-----N------------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT--GADEDGTL 077

3t24\_A 101 RDMDIAYVFQSGPLKNLGVKWRNATMRTN 129

6ehd\_A 078 VYLGVEYKFA----SWARVYAEYGYGDGT 102

## PDB1: 3wi4\_A

## PDB2: 4frt\_A

## row number: 194

3wi4\_A 000 ESYHAGFNYKNG---GFFVQYGGAYKRHHQVQEGLNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD----A-----SN-------SHNSQTEVAATL 081

4frt\_A 000 RQHHLGVQHLLPLADDQSLKSDIRWARSTDEGG--SRVNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRY 098

3wi4\_A 082 AYRFG----N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 157

4frt\_A 099 DYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDFG---NDIDETRLIVSYAL 180

## PDB1: 3wi4\_A

## PDB2: 4fso\_A

## row number: 195

3wi4\_A 000 SYHAGFNYKN--GGFFVQYGGAYKRHHQVQEG-LNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD----A------SN------SHNSQTEVAATLA 081

4fso\_A 000 QRYLGAVGKRQVGAGKLSADLRWFDSEDAGAARAGKIDNRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYD 100

3wi4\_A 082 YRFG----N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 156

4fso\_A 101 FDLRSVGVPGLSFMTRYVNGDHIRLA-NGDEGKEWERDIELKYIVQSGRFKDLSLRLRNATYRTDFERSARDVDEVRLIASYNL 183

## PDB1: 3wi4\_A

## PDB2: 4ft6\_A

## row number: 196

3wi4\_A 000 SYHAGFNYKN--GGFFVQYGGAYKRHHQVQEG-LNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD--------A--S------NSHNSQTEVAATLA 081

4ft6\_A 000 QDYYSLSHKQSFGGWRLGASVGLFDTRDEGAAKLGELENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYD 100

3wi4\_A 082 YRFGN-----VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 156

4ft6\_A 101 YDFVALGIPGLTAMARYASGAHARTK-AMDDGRAWERDVDVAYVIQSGPLKNLGLRWRNAMLRSNHA---ADVDENRLILSYSL 180

## PDB1: 3wi4\_A

## PDB2: 5dl6\_A

## row number: 197

3wi4\_A 000 ESYHAGFNYKNG---GFFVQYGGAYKRHHQVQEG-LNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD------A----SN------SHNSQTEVAAT 080

5dl6\_A 000 NQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAKAGLVDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFR 100

3wi4\_A 081 LAYRFG---N-VTPRVSYAHGFKGLVDD-ADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGE--NKFVATAGGVGLRHKF 157

5dl6\_A 101 YEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERETDFDLGYTVQSGWLKNLGLRARYAIYDNNMLSTANIKPVNETRINIDYTW 188

## PDB1: 3wi4\_A

## PDB2: 5dl7\_A

## row number: 198

3wi4\_A 000 ESYHAGFNYKNG---GFFVQYGGAYKRHHQVQEG-LNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD------A----SN------SHNSQTEVAAT 080

5dl7\_A 000 QQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKKIGEVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIR 100

3wi4\_A 081 LAYRFGN----------VTPRVSYAHGFKGLVDD-ADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGE--NKFVATAGGVGLRHKF 157

5dl7\_A 101 YEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTNMTFHSANETRLNVDYTF 194

## PDB1: 4afk\_A

## PDB2: 4rjw\_A

## row number: 199

4afk\_A 000 PKNFGLDVKITGESENDRDLGTAPGGTLNDIGIDLRPWAFGQWG-DWSAYFMGQAVAATDTIETDTLQSDTDDGNNSRNDGREPDKSYLAAREFWVDYAG 099

4rjw\_A 000 SFKLGGRLQADYSRFDGFYTK-NGNTADAAYFRRAFIELGGTAYKDWKYQINFDLSHNTG------------------------SSDNGYFDEASVTYTG 075

4afk\_A 100 LTAYPGEHLRFGRQRLREDSGQ 121

4rjw\_A 076 ---FNPVNLKFGRFDPDFGLEK 94

## PDB1: 4aui\_A

## PDB2: 5ldv\_A

## row number: 200

4aui\_A 000 AMADVTLYGTIKAGVETSRSVAHHGAQADRVKTATEIADLGSKIGFKGQEDLGNGLKAIWQLEQKAYVSG--------TDTGWGNRQSFIGLKG--GFGK 090

5ldv\_A 000 AIKDVDVSGVLRYRYDTGNFDKNFL-NNSNLNNSK--QDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATS 097

4aui\_A 091 VRVGRLNN--ILKDT----GNFNP-------WEGKSYY-SGLSNIAQ--PEE----------------------R-HVS----VRYDSP-EFAGFSGSVQ 146

5ldv\_A 098 VIAGKQQLNIIWTDNGVDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDSIGNLYGAAAVGSYDLAGGQFNPQLW 197

4aui\_A 147 YVPNDNSGKNRSESYHAGFNYKND---GFFVQYAGSYKRHNYT--------TEKHQVHRLVGGYDHDALYASVAVQQQDAKL--------T-WRD----D 222

5ldv\_A 198 LAYWD----QVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLA 293

4aui\_A 223 N-------------SHNSQTEVATTVAYRFG-NVTPRVSYAHGFKGSVYD-ADHDNTYDQVVVGAEYDFSKRTSALVSAGWLQKGKGAE---KFVATVGG 304

5ldv\_A 294 GEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVR 393

4aui\_A 305 VGLRHKF 311

5ldv\_A 394 LQALYKF 400

## PDB1: 4d65\_A

## PDB2: 4frt\_A

## row number: 201

4d65\_A 000 KRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGD---DD---A------EAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVKY 084

4frt\_A 000 VNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWE 100

4d65\_A 085 IAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 133

4frt\_A 101 RDTDIAYLVQSGPLKNLGIKLRNGTFRSDF--------GNDIDETRLIVSYAL 145

## PDB1: 4d65\_A

## PDB2: 4frt\_A

## row number: 202

4d65\_A 000 NGDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD-----ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYS 095

4frt\_A 000 SDRFDFAGGTYRWSERLSSSYHYANLED--------------FYRQHHLGVQHLLPLADDQSLKSDIRWARSTDEGG--------SRVNNRALNALFTYR 078

4d65\_A 096 FDFGLTPSIGYNQSKGKNLG-------N--Y-G------NKDLVKYIAVGASYDFN----KNMAAVIDYKINLLK 150

4frt\_A 079 LG-GHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHI 152

## PDB1: 4d65\_A

## PDB2: 4frx\_A

## row number: 203

4d65\_A 000 GKRAEAWNVGSKLELDELYLAAMYGQTLNTTRFG--D------DD----A-----EAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGN 079

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA--RG 098

4d65\_A 080 KDLVKYIAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 134

4frx\_A 099 DQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 157

## PDB1: 4d65\_A

## PDB2: 4fso\_A

## row number: 204

4d65\_A 000 GKRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGD---DD----A-----EAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVK 084

4fso\_A 000 KIDNRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLAN-GDEGKEW 099

4d65\_A 085 YIAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 134

4fso\_A 100 ERDIELKYIVQSGRFKDLSLRLRNATYRTDFER-----SARDVDEVRLIASYNL 148

## PDB1: 4d65\_A

## PDB2: 4fsp\_A

## row number: 205

4d65\_A 000 KRAEAWNVGSKLEL-DELYLAAMYGQTLNTTRFGD---DD----A-----EAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVK 083

4fsp\_A 000 IDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG-ADGSREW 099

4d65\_A 084 YIAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 133

4fsp\_A 100 ERDSDLRYVLQGGALKGLGLVWRNATYRSAF--------SRDIDENRLYLTYEL 145

## PDB1: 4d65\_A

## PDB2: 4ft6\_A

## row number: 206

4d65\_A 000 GKRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGD-------D-D----AEAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVK 084

4ft6\_A 000 ELENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA-MDDGRAW 099

4d65\_A 085 YIAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 134

4ft6\_A 100 ERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH--------AADVDENRLILSYSL 145

## PDB1: 4d65\_A

## PDB2: 5dl5\_A

## row number: 207

4d65\_A 000 GKRAEAWNVGSKLELDELYLAAMYGQTLNTTRFG------D-DDA---E-----AIANKTENLELVALYSFD-----FGLTPSIGYNQSKGKNLGNYGNK 080

5dl5\_A 000 EKTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNVTDD 100

4d65\_A 081 DLVKYIAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 134

5dl5\_A 101 AQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQ--GAYIGDTNEWRIFLDIPV 156

## PDB1: 4d65\_A

## PDB2: 5dl6\_A

## row number: 208

4d65\_A 000 KRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGD---DD----A-----EAIANKTENLELVALYSFD---FGLTPSIGYNQSKGKNLGN-YGNKDLVKY 084

5dl6\_A 000 VDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERE 100

4d65\_A 085 IAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 133

5dl6\_A 101 TDFDLGYTVQSGWLKNLGLRARYAIYDNNMLST---ANIKPVNETRINIDYTW 150

## PDB1: 4d65\_A

## PDB2: 5dl7\_A

## row number: 209

4d65\_A 000 NGDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD-----ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYS 095

5dl7\_A 000 TDSFYTLGGSYQLK-DYRLRAYHAELKD--------------IYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKK-----IGEVDNRHISGLFGLN 080

4d65\_A 096 FDFGLTPSIGYNQSKGKNLG------N-----Y-----GNKDLVKYIAVGASYDFNK---------NMAAVIDYKINLLK 150

5dl7\_A 081 YQ-NHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDI 159

## PDB1: 4d65\_A

## PDB2: 5dl8\_B

## row number: 210

4d65\_A 000 GDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLEL--D--ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSFD 096

5dl8\_B 000 DGLNYIDLRYQFTPSLKGEYYFGNLEDL--------------YNKHYVGLEHTWKQPTFALTSKFKYFNAKDDGNT-------FDIDAENIGLLETVKVK 079

4d65\_A 097 FGLTPSIGYNQSKGKNLG-------N--Y--------GNKDLVKYIAVGASYDFN---KNMAAVIDYKINLLK 149

5dl8\_B 080 -NHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDF 151

## PDB1: 4d65\_A

## PDB2: 5dl8\_B

## row number: 211

4d65\_A 000 KRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGD----DD----A-----EAIANKTENLELVALYSFD---FGLTPSIGYNQSKGKNLGNYGNKDLVKY 084

5dl8\_B 000 IDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAAN-GEKNHETE 099

4d65\_A 085 IAVGASYDFN----KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 133

5dl8\_B 100 SNVILNYAFQQPLLKGFALQYIRIDYNVKH--------GNDFGEDRLFVNYTK 144

## PDB1: 4d65\_A

## PDB2: 5ldv\_A

## row number: 212

4d65\_A 000 GNKLDVYGQIDVRHYFADAKSGE--------DGDDSRVRLGFKGDTQITDQLIGFGRFEWETSTNKA------ETSNDNQNRLAYAGLKFA-DYGSLDYG 085

5ldv\_A 000 IKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVIAG 100

4d65\_A 086 RNYGVIYDTNAWTDVLPLWGADT-----M-DQ-ED--TF--MMGRNRN-L--L------------TYRNNNGFGYIDG-LSFALQYQGKN--GDQNKSTG 156

5ldv\_A 101 KQQLNIIWTDNGVDG-LVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDS---IGNLYGAAAVGSYDLAGGQFNPQLW 196

4d65\_A 157 SSALDNNGDGYGFSTAYELG----WGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELDELYLAAMYGQTLNT-----------TRF---GDD 238

5ldv\_A 197 LAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDD---KKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAG 293

4d65\_A 239 ------D---AEAIANKTENLELVALYSFDFGLTPSIGYNQSKGKNLGN-YGNKDLVKYIAVGASYDFNKNMAAVIDYKINLLKDNQFTDDYGINTDNVL 328

5ldv\_A 294 EEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVN--TNESADHSTV 391

4d65\_A 329 GLGLIYQF 336

5ldv\_A 392 RLQALYKF 399

## PDB1: 4frt\_A

## PDB2: 5fvn\_A

## row number: 213

4frt\_A 000 SDRFDFAGGTYRWSERLSSSYHYANLEDF-------------YRQHHLGVQHLLPLADDQSLKSDIRWARSTDEGG-----SRVNNRALNALFTYRLG-G 081

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDAN-----NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFG 095

4frt\_A 082 HAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHI 152

5fvn\_A 096 LRPSVAYLQSKGKDLE----N--G---Y------GDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLD 147

## PDB1: 4frt\_A

## PDB2: 5fvn\_A

## row number: 214

4frt\_A 000 VNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLD-GGGRGKEW 099

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG---------NL------GWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLK 081

4frt\_A 100 ERDTDIAYLVQSGPLKNLGIKLRNGTFRSDFG--------NDIDETRLIVSYAL 145

5fvn\_A 082 YVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 4frt\_A

## PDB2: 5mdo\_A

## row number: 215

4frt\_A 000 NNRALNALFTYRLG-GHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLD-GGGRGKEW 098

5mdo\_A 000 ENNTYLVGVQGWFENGISFFAQYKYMEADASN-----------G-------VNEKQDAMSAGLMYTTG----D-WQYKLGYAANFDLERDGKTLSNTSDD 077

4frt\_A 099 ERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF 129

5mdo\_A 078 VVSAQIMYFVD----PSAVLYARARMNDFNE 104

## PDB1: 4frt\_A

## PDB2: 5nxr\_A

## row number: 216

4frt\_A 000 VNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLD-GGGRGKEW 099

5nxr\_A 000 KRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG----D----L------DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVK 082

4frt\_A 100 ERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF--------GNDIDETRLIVSYAL 145

5nxr\_A 083 YISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 132

## PDB1: 4frt\_A

## PDB2: 5nxr\_A

## row number: 217

4frt\_A 000 SDRFDFAGGTYRWSERLSSSYHYANLEDF----------------------YRQHHLGVQHLLPLADDQSLKSDIRWARSTDEGG------SRVNNRALN 072

5nxr\_A 000 NGDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKTENVE 095

4frt\_A 073 ALFTYRLG-GHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHI 152

5nxr\_A 096 LVAQYLFDFGLKPSIGYNQSKGKNLGN---G------Y------DNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLK 157

## PDB1: 4frt\_A

## PDB2: 5nxr\_A

## row number: 218

4frt\_A 000 NNRALNALFTYRLG-GHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLD--GGGRGKE 097

5nxr\_A 000 NGDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSE-GD---SYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKT 091

4frt\_A 098 WERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF-------GNDIDETRLIVSYALP 145

5nxr\_A 092 ENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVKYISVGSYYYFN 142

## PDB1: 4frt\_A

## PDB2: 6ehb\_A

## row number: 219

4frt\_A 000 KDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDF-----GNDIDETRLIVSYAL 92

6ehb\_A 000 VDYTGYELAAGYKLGQ-----AAFTATYNNAETAK------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 82

## PDB1: 4frt\_A

## PDB2: 6ehb\_A

## row number: 220

4frt\_A 000 SDRFDFAGGTYRWSE-RLSSSYHYANLEDFYRQHHLGVQHLLPLADDQSLKSDIRWARSTDEGGSRVNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAY 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK--DVDYTGYELAAGYKLGQAAFTATYNNAETAK---- 088

4frt\_A 100 LAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHI 152

6ehb\_A 089 ------------------KTSADNFAIDATYYFK----PNFRSYISYQFNLLD 119

## PDB1: 4frt\_A

## PDB2: 6ehd\_A

## row number: 221

4frt\_A 000 VNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWE 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-------N---P-------LVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT--GADEDGTL 077

4frt\_A 101 RDTDIAYLVQSGPLKNLGIKLRNGTFRSD 129

6ehd\_A 078 VYLGVEYKFA----SWARVYAEYGYGDGT 102

## PDB1: 4frx\_A

## PDB2: 5fvn\_A

## row number: 222

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA---R 097

5fvn\_A 000 GDRAETYTGGLKYDANNIYLAAQYTQTYNATRVG---------------N-----LGWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYG 076

4frx\_A 098 GDQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 157

5fvn\_A 077 DQDLLKYVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 132

## PDB1: 4frx\_A

## PDB2: 5nxr\_A

## row number: 223

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA---R 097

5nxr\_A 000 GKRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG---------D-----L-----DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYD 077

4frx\_A 098 GDQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 157

5nxr\_A 078 NQDLVKYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 133

## PDB1: 4frx\_A

## PDB2: 6ehb\_A

## row number: 224

4frx\_A 000 SNKFYYAGGDYKVNK-DLTLQYYYGNLDDFYKQHFLGLIHNWQIGPGVLKTDLRAFDSSSDGKNGSRSGRADGYVSSGYYGSGVTKGEVDNRAFSGLFTY 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRM--E--NLYFAGLFTDGELA-------------------------KDVDYTGYELAAGY 070

4frx\_A 100 TVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIK 180

6ehb\_A 071 KLGQAAFTATYNNAETAK---------------------------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDS 120

## PDB1: 4frx\_A

## PDB2: 6ehb\_A

## row number: 225

4frx\_A 000 VDNRAFSGLFTYTVS--GHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKF-QRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTARG 097

6ehb\_A 000 NGEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEY-MLAASYRM-ENLYFAGLFTDGELAKDVDYTGYELAAGYKLGQ-----AAFTATYNNAETAK---- 089

4frx\_A 098 DQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 156

6ehb\_A 090 KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKA---SKVASEDELAIGLRYDF 141

## PDB1: 4frx\_A

## PDB2: 6ehd\_A

## row number: 226

4frx\_A 000 EVDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTARGDQ 100

6ehd\_A 000 DVTNSYFEVTGEYTIGDALIGVTYYNAELDVEN----------N------------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANTGADE 074

4frx\_A 101 SEWERDISLAYVIPDGTFKGLGFTWKNASFRSGL 134

6ehd\_A 075 DGTLVYLGVEYKFA----SWARVYAEYGYGDGTT 104

## PDB1: 4fso\_A

## PDB2: 5fvn\_A

## row number: 227

4fso\_A 000 IDNRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLAN--GDEGKEW 098

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG----------N-----LGWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLK 081

4fso\_A 099 ERDIELKYIVQSGRFKDLSLRLRNATYRTDFER-----SARDVDEVRLIASYNL 147

5fvn\_A 082 YVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 4fso\_A

## PDB2: 5nxr\_A

## row number: 228

4fso\_A 000 KIDNRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLAN--GDEGKE 098

5nxr\_A 000 GKRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG-----D----L-----DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLV 082

4fso\_A 099 WERDIELKYIVQSGRFKDLSLRLRNATYRTDFER-----SARDVDEVRLIASYNL 148

5nxr\_A 083 KYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 133

## PDB1: 4fso\_A

## PDB2: 5nxr\_A

## row number: 229

4fso\_A 000 NRFDAYQLDYQVNDGLLLQYAQGGLRNV----------------------YRQRYLGAVGKRQVGAGKLSADLRWFDSEDAGAAR---AGKIDNRALSLL 075

5nxr\_A 000 GDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDA--N--NVYLAAMYGQTQNTSRYGDLDLIANKTENVELV 096

4fso\_A 076 LAYAQG-GHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIR 154

5nxr\_A 097 AQYLFDFGLKPSIGYNQSKGKNLG------NG---Y------DNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLKD 157

## PDB1: 4fso\_A

## PDB2: 6ehb\_A

## row number: 230

4fso\_A 000 DNRALSLLLAYAQG--GHTLSAGWQRMNGASSM----PYLDGSNPYLANYLQVNDF-ANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLANGDE 093

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRMEN-LYFAGLFTDGELAKDVDYTGYELAAGYKLG----Q-AAFTATYNNAETAK-----K 089

4fso\_A 094 GKEWERDIELKYIVQSGRFKDLSLRLRNATYRTDFER--SARDVDEVRLIASYNL 146

6ehb\_A 090 TSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 140

## PDB1: 4fso\_A

## PDB2: 6ehd\_A

## row number: 231

4fso\_A 000 NRALSLLLAYAQGGHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLANGDEGKEWERDI 100

6ehd\_A 000 QELAELYVGATFGDLAVHAGGGQNRDKAFKVGS--NTVGTTTT---DIKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISV 090

4fso\_A 101 ELKYIVQSGRFKDLSLRLRNATYRTDFE-RSARDVDEVRLIASYNLS 146

6ehd\_A 091 AGTYKVA----DKTKLYAGYEYVMQEANTGADEDGTLVYLGVEYKFA 133

## PDB1: 4fsp\_A

## PDB2: 5fvn\_A

## row number: 232

4fsp\_A 000 IDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG--ADGSRE 098

5fvn\_A 000 DRAETYTGGLKYDA-NNIYLAAQYTQTYNATRVG----------NL-----GWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLL 080

4fsp\_A 099 WERDSDLRYVLQGGALKGLGLVWRNATYRSAFS--------RDIDENRLYLTYEL 145

5fvn\_A 081 KYVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 4fsp\_A

## PDB2: 5nxr\_A

## row number: 233

4fsp\_A 000 DNRSFSGSLTYRLRN-GQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG---ADGSR 096

5nxr\_A 000 NGDGYGFSTAYEL-GWGVTLGGGYSSSSRTPNQKAGVVTSE-GD---SYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANK 090

4fsp\_A 097 EWERDSDLRYVLQGGALKGLGLVWRNATYRSAF-------SRDIDENRLYLTYEL 144

5nxr\_A 091 TENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVKYISVGSYYYF 141

## PDB1: 4fsp\_A

## PDB2: 5nxr\_A

## row number: 234

4fsp\_A 000 RIDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG--ADGSR 098

5nxr\_A 000 GKRAQAWNVGGKFDA-NNVYLAAMYGQTQNTSRYG-----D----L-----DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDL 081

4fsp\_A 099 EWERDSDLRYVLQGGALKGLGLVWRNATYRSAF--------SRDIDENRLYLTYEL 146

5nxr\_A 082 VKYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 133

## PDB1: 4fsp\_A

## PDB2: 6ehb\_A

## row number: 235

4fsp\_A 000 DNRSFSGSLTYRLRN--GQAFGLGYQRMSGDHGF----PYLEGTDPYLVNF-GQYNDF-AEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKGA 092

6ehb\_A 000 GEDGYSLSAIYTF-GDTGFNVGAGYADQDDQNEYMLAASYRME--NLYFAGLFTDGELAKDVDYTGYELAAGYKLGQ-----AAFTATYNNAETAK---- 088

4fsp\_A 093 DGSREWERDSDLRYVLQGGALKGLGLVWRNATYRSAF-----SRDIDENRLYLTYEL 144

6ehb\_A 089 -KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 140

## PDB1: 4fsp\_A

## PDB2: 6ehd\_A

## row number: 236

4fsp\_A 000 RIDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKGADGSREW 100

6ehd\_A 000 DVTNSYFEVTGEYTI-GDALIGVTYYNAELDVEN-------N----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT-GADEDGT 077

4fsp\_A 101 ERDSDLRYVLQGGALKGLGLVWRNATYRSA 130

6ehd\_A 078 LVYLGVEYKFA----SWARVYAEYGYGDGT 103

## PDB1: 4fsp\_A

## PDB2: 6ehd\_A

## row number: 237

4fsp\_A 000 RSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKGADGSREWERDS 100

6ehd\_A 000 ELAELYVGATF-GDLAVHAGGGQNRDKAFKVG-S-NTVGTTTT---DIKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISV 089

4fsp\_A 101 DLRYVLQGGALKGLGLVWRNATYRSAF----SRDIDENRLYLTYEL 142

6ehd\_A 090 AGTYKVA----DKTKLYAGYEYVMQEANTGADEDGTLVYLGVEYKF 131

## PDB1: 4ft6\_A

## PDB2: 5fvn\_A

## row number: 238

4ft6\_A 000 LENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA--MDDGRAW 098

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG----------N-----LGWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLK 081

4ft6\_A 099 ERDVDVAYVIQSGPLKNLGLRWRNAMLRSNHA--------ADVDENRLILSYSL 144

5fvn\_A 082 YVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 4ft6\_A

## PDB2: 5fvn\_A

## row number: 239

4ft6\_A 000 ENRALTGFFSATRG-GHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTK--AMDDGRAW 097

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQN-------DL------TYGNGDRAETYTGGLKYDAN-----NIYLAAQYTQTYNATRVGNLGWANKAQ 082

4ft6\_A 098 ERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH-------AADVDENRLILSYSL 143

5fvn\_A 083 NFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYF 131

## PDB1: 4ft6\_A

## PDB2: 5mdo\_A

## row number: 240

4ft6\_A 000 ENRALTGFFSATRG-GHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTK--AMDDGRAW 097

5mdo\_A 000 ENNTYLVGVQGWFENGISFFAQYKYMEADASN------------------GVNEKQDAMSAGLMYTTG----D-WQYKLGYAANFDLERDGKTLSNTSDD 077

4ft6\_A 098 ERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH---------------AADVDENRLILSYSL 143

5mdo\_A 078 VVSAQIMYFVD----PSAVLYARARMNDFNEGLDGLDDAARWTSGTNGDYNEYSVGVEYYF 134

## PDB1: 4ft6\_A

## PDB2: 5nxr\_A

## row number: 241

4ft6\_A 000 ELENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA--MDDGRA 098

5nxr\_A 000 GKRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG-------D-------LDLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLV 082

4ft6\_A 099 WERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH--------AADVDENRLILSYSL 145

5nxr\_A 083 KYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 133

## PDB1: 4ft6\_A

## PDB2: 6ehb\_A

## row number: 242

4ft6\_A 000 RFDYLGAEYRFNAERSQVGLWQARLQDIYRQDYYSLSHKQSFGGWRLGASVGLFDTRDEGAAKLGELENRALTGFFSATRGGHSLGAGYQRMYGDDGMLY 100

6ehb\_A 000 DGYSLSAIYTFGDTGFNVGAGYADQD-DQNEYMLAASYRM--E--NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETAK---- 086

4ft6\_A 101 IAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWERDVDVAYV 173

6ehb\_A 087 ------------------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYD 137

## PDB1: 4ft6\_A

## PDB2: 6ehd\_A

## row number: 243

4ft6\_A 000 RALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWERDVD 100

6ehd\_A 000 ELAELYVGATFGDLAVHAGGGQNRDKAFKVG---S-NTVGTT-TTDIKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISVA 090

4ft6\_A 101 VAYVIQSGPLKNLGLRWRNAMLRSNH----AADVDENRLILSYSL 141

6ehd\_A 091 GTYKVA----DKTKLYAGYEYVMQEANTGADEDGTLVYLGVEYKF 131

## PDB1: 4ft6\_A

## PDB2: 6ehd\_A

## row number: 244

4ft6\_A 000 ELENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWE 100

6ehd\_A 000 DVTNSYFEVTGEYTIGDALIGVTYYNAELDVEN--------N---------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT-GADEDGTL 078

4ft6\_A 101 RDVDVAYVIQSGPLKNLGLRWRNAMLRSN 129

6ehd\_A 079 VYLGVEYKFA----SWARVYAEYGYGDGT 103

## PDB1: 4rjw\_A

## PDB2: 5ldv\_A

## row number: 245

4rjw\_A 000 FSFKLGGRLQADYSRFDGFYTKN-----GNTADAAYFRRAFIELGGTAYKDWKYQINFDLSHNTG---------SSDNGYFDEASVTYTGF-NPVNLKFG 085

5ldv\_A 000 KDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKY-RAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVIAG 099

4rjw\_A 086 RFDPDF 91

5ldv\_A 100 KQQLNI 105

## PDB1: 5dl5\_A

## PDB2: 6ehb\_A

## row number: 246

5dl5\_A 000 LDRAIVWGAKYKFND-NLNASYYGLDSKNALERHYANVNFKQPLANDSSLTYDFSGYHTKFDANAHTYSATGTVAPNYAADGIAGEEKTNNIWAISGTYA 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK-----------------------DVDYTGYELAAGYK 071

5dl5\_A 100 TGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWD 176

6ehb\_A 072 LGQAAFTATYNNAETA-------------------------KKTSADNFAIDATYYFK-----PNFRSYISYQFNLL 118

## PDB1: 5dl6\_A

## PDB2: 5fvn\_A

## row number: 247

5dl6\_A 000 VDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERE 100

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG-----N----------LGWANKAQNFEVVAQYQFD---FGLRPSVAYLQSKGKDLENGYGDQDLLKY 082

5dl6\_A 101 TDFDLGYTVQSGWLKNLGLRARYAIYDNNMLST---ANIKPVNETRINIDYTW 150

5fvn\_A 083 VDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 5dl6\_A

## PDB2: 5nxr\_A

## row number: 248

5dl6\_A 000 VDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERE 100

5nxr\_A 000 KRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG-----D----L-----DLIANKTENVELVAQYLFD---FGLKPSIGYNQSKGKNLGNGYDNQDLVKY 083

5dl6\_A 101 TDFDLGYTVQSGWLKNLGLRARYAIYDNNMLST---ANIKPVNETRINIDYTW 150

5nxr\_A 084 ISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 132

## PDB1: 5dl6\_A

## PDB2: 6ehb\_A

## row number: 249

5dl6\_A 000 DNDLYHAHFELKHQ--NHKFIFGTFQHHGDTAF----PYLTGGETGLLIDTWP-GEF-LNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGG 092

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRMENLY-F-AGLFTDGELAKDVDYTGYELAAGYKLG---Q-AAFTATYNNAETA------- 087

5dl6\_A 093 TNLKERETDFDLGYTVQSGWLKNLGLRARYAIYDNNMLSTANIKPVNETRINIDYTW 149

6ehb\_A 088 KKTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 140

## PDB1: 5dl6\_A

## PDB2: 6ehd\_A

## row number: 250

5dl6\_A 000 VDNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERE 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN------N-----------PLVIDEDAISVAGTYKVA---DKTKLYAGYEYVMQEANT---GADEDGTL 077

5dl6\_A 101 TDFDLGYTVQSGWLKNLGLRARYAIYDNNM 130

6ehd\_A 078 VYLGVEYKFA----SWARVYAEYGYGDGTT 103

## PDB1: 5dl7\_A

## PDB2: 5fvn\_A

## row number: 251

5dl7\_A 000 VDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQ 100

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG----------NL-----GWANKAQNFEVVAQYQFD---------FGLRPSVAYLQSKGKDLENGYGD 076

5dl7\_A 101 RFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTN---MTFHSANETRLNVDYTF 156

5fvn\_A 077 QDLLKYVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 5dl7\_A

## PDB2: 5nxr\_A

## row number: 252

5dl7\_A 000 EVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGD 100

5nxr\_A 000 GKRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG------D---L-----DLIANKTENVELVAQYLFD---------FGLKPSIGYNQSKGKNLGNGYD 077

5dl7\_A 101 QRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTN---MTFHSANETRLNVDYTF 157

5nxr\_A 078 NQDLVKYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 133

## PDB1: 5dl7\_A

## PDB2: 6ehb\_A

## row number: 253

5dl7\_A 000 DNRHISGLFGLNYQ--NHTVSLGYMQSFGSTGL----PFLSGTESPVVLD--FMSSDY-SNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDI 091

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRME---NLYFAGLFTDGELAKDVDYTGYELAAGYKLGQ----------AAFTATYNNAETA 087

5dl7\_A 092 DLLQYGDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTNMTFHSANETRLNVDYTF 155

6ehb\_A 088 K-------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 140

## PDB1: 5dl7\_A

## PDB2: 6ehb\_A

## row number: 254

5dl7\_A 000 TDSFYTLGGSYQLK--DYRLRAYHAELKDIYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKKIGEVDNRHISGLFGLNYQNHTVSLGYMQSFGSTG 098

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRME-----NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETAK- 088

5dl7\_A 099 LPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDID 160

6ehb\_A 089 ---------------------KTSADNFAIDATYYFKP---------NFRSYISYQFNLLDS 120

## PDB1: 5dl7\_A

## PDB2: 6ehd\_A

## row number: 255

5dl7\_A 000 EVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGD 100

6ehd\_A 000 DVTNSYFEVTGEYTIGDALIGVTYYNAELDVEN------N-----------PLVIDEDAISVAGTYKVA---------DKTKLYAGYEYVMQEANTG--- 071

5dl7\_A 101 QRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDM 137

6ehd\_A 072 ADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGTT 104

## PDB1: 5dl7\_A

## PDB2: 6ehd\_A

## row number: 256

5dl7\_A 000 SFYTLGGSYQLKDYRLRAYHAELKD---------------------IYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKKIGEVDNRHISGLFGLNY 079

6ehd\_A 000 ELAELYVGATFGDLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISVAGTYKV 095

5dl7\_A 080 Q-NHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDI 157

6ehd\_A 096 ADKTKLYAGYEYVMQEANT------------G------ADEDGTLVYLGVEYKFAS---------WARVYAEYGYGDGT 147

## PDB1: 5dl8\_B

## PDB2: 5fvn\_A

## row number: 257

5dl8\_B 000 IDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAAN--GEKNHET 098

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG------N-----L-----GWANKAQNFEVVAQYQFD---FGLRPSVAYLQSKGKDLENGYGDQDLLK 081

5dl8\_B 099 ESNVILNYAFQQPLLKGFALQYIRIDYNVKH--------GNDFGEDRLFVNYTK 144

5fvn\_A 082 YVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 131

## PDB1: 5dl8\_B

## PDB2: 5fvn\_A

## row number: 258

5dl8\_B 000 SDGLNYIDLRYQFTPSLKGEYYFGNLEDL-------------YNKHYVGLEHTWKQPTFALTSKFKYFNAKDDGNT----FDIDAENIGLLETVKVK-NH 082

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDA--N--NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGL 096

5dl8\_B 083 TFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDF 152

5fvn\_A 097 RPSVAYLQSKGKDLE----N--G--Y--------GDQDLLKYVDVGATYYFN---KNMSTYVDYKINLLD 147

## PDB1: 5dl8\_B

## PDB2: 5nxr\_A

## row number: 259

5dl8\_B 000 IDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAAN--GEKNHET 098

5nxr\_A 000 KRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG------D----L-----DLIANKTENVELVAQYLFD---FGLKPSIGYNQSKGKNLGNGYDNQDLVK 082

5dl8\_B 099 ESNVILNYAFQQPLLKGFALQYIRIDYNVKH--------GNDFGEDRLFVNYTK 144

5nxr\_A 083 YISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 132

## PDB1: 5dl8\_B

## PDB2: 5nxr\_A

## row number: 260

5dl8\_B 000 SDGLNYIDLRYQFTPSLKGEYYFGNLEDL----------------------YNKHYVGLEHTWKQPTFALTSKFKYFNAKDDGNT-----FDIDAENIGL 073

5nxr\_A 000 NGDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDA--N--NVYLAAMYGQTQNTSRYGDLDLIANKTENVEL 096

5dl8\_B 074 LETVKVK-NHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDF 152

5nxr\_A 097 VAQYLFDFGLKPSIGYNQSKGKNLG------NG--Y--------DNQDLVKYISVGSYYYFN---KNMSAVVDYKINLLK 157

## PDB1: 5dl8\_B

## PDB2: 6ehb\_A

## row number: 261

5dl8\_B 000 EDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAANGEKNHETESNVILNYAFQQPLLKGFALQYIRIDYNVKH-----GNDFGEDRLFVNYTK 90

6ehb\_A 000 VDYTGYELAAGYKLG---Q-AAFTATYNNAETAK-----KTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKASKVASEDELAIGLRYDF 82

## PDB1: 5dl8\_B

## PDB2: 6ehb\_A

## row number: 262

5dl8\_B 000 SDGLNYIDLRYQFTP-SLKGEYYFGNLEDLYNKHYVGLEHTWKQPTFALTSKFKYFNAKDDGNTFDIDAENIGLLETVKVKNHTFGLGYQQIIGESAYPL 099

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRM--E--NLYFAGLFTDGELAK---DVDYTGYELAAGYKLGQAAFTATYNNAETAK---- 088

5dl8\_B 100 PDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDF 152

6ehb\_A 089 -------------------KTSADNFAIDATYYFK---PNFRSYISYQFNLLD 119

## PDB1: 5dl8\_B

## PDB2: 6ehd\_A

## row number: 263

5dl8\_B 000 IDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAANGEKNHETES 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-------N----P-------LVIDEDAISVAGTYKVA---DKTKLYAGYEYVMQEANT-GADEDGTLV 078

5dl8\_B 101 NVILNYAFQQPLLKGFALQYIRIDYNVK 128

6ehd\_A 079 YLGVEYKFA----SWARVYAEYGYGDGT 102

## PDB1: 5fvn\_A

## PDB2: 5ldv\_A

## row number: 264

5fvn\_A 000 NKDGNKLDLYGKVDGLHYFSDDDSQ---------DGDQTYMRLGFKGETQVNDQLTGYGQWEYQIQGNSG-----E-NENNSWTRVAFAGLKF--GDAGS 083

5ldv\_A 000 EEAIKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVAT-S 099

5fvn\_A 084 FDYGRNYGVVYDVTSWTD--VLPEFG---GDTYGS--D-NF---MQQRGN-G--FA------------TYRNSDFFGLVDG-LNFAVQYQGKNGSASGED 156

5ldv\_A 100 VIAGKQQLNIIWTDNGVDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDSI---GNLYGAAAVGSYDLAGGQFNP 196

5fvn\_A 157 QTNNGRTELRQNGDGVGGSITYNLG--E--GFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDANNIYLAAQYTQTYNA-----------TRV-- 239

5ldv\_A 197 QLW--LAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDD--KKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGS 292

5fvn\_A 240 --G------N-----LGWANKAQNFEVVAQYQFDFGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYFNKNMSTYVDYKINLLDDKEFTRNAGIST 326

5ldv\_A 293 LLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNT--NESAD 390

5fvn\_A 327 DDIVALGLVYQF 338

5ldv\_A 391 HSTVRLQALYKF 402

## PDB1: 5ldv\_A

## PDB2: 5nxr\_A

## row number: 265

5ldv\_A 000 EAIKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVI 100

5nxr\_A 000 KDGNKLDVYGKVDVRHYFASADKGKKS-----EDGDDSRVRLGVKGDTQITDQLTGFGRFEWETKTNKA------ENEGENKNRLAYAGLKFA-DFGSID 088

5ldv\_A 101 AGKQQLNIIWTDNGVDGLVGTGVKVVNNSIDGLTLAAFAVDS-FMAAEQGSDLLGQSTYVGNGKNNNDSFKLDS---IGNLYGAAAVGSYDLAGGQFNPQ 196

5nxr\_A 089 YGRNYGVVYDTNAWTD--VFPLW---GADTMA------QTDNFMTSRNRN-L--L------------TYRNNNAFGYVDG-LSFALQYQGKNGDNNKSSA 161

5ldv\_A 197 LWLAYWDQVAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDD-----------KKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIED 285

5nxr\_A 162 ---GMAKDNGDGYGFSTAYELGW----GVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDANNVYLAAMYGQTQNT---------- 244

5ldv\_A 286 QGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNT- 384

5nxr\_A 245 -SRY----GD----------LDLIANKTENVELVAQYLFDFGLKPSIGYNQSKGKNLGNGYDNQDLVKYISVGSYYYFNKNMSAVVDYKINLLKDNDFTK 329

5ldv\_A 385 -NESADHSTVRLQALYKF 401

5nxr\_A 330 EYGINTDNVLGLGLVYQF 347

## PDB1: 5ldv\_A

## PDB2: 6ehb\_A

## row number: 266

5ldv\_A 000 EAIKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSVI 100

6ehb\_A 000 AKGTSLEVGGRAEARLSLKDGKAQ-----------DNSRVRLNFLGKAEINDSLYGVGFYEGEFTTNDQG--K-NASNNSLDNRYTYAGIGG--TYGEVT 084

5ldv\_A 101 AGKQQLN 107

6ehb\_A 085 YGKNDGA 91

## PDB1: 5ldv\_A

## PDB2: 6ehd\_A

## row number: 267

5ldv\_A 000 EEAIKDVDVSGVLRYRYDTGNFDKNFLNNSNLNNSKQDHKYRAQVNFSAAIADNFKAFVQFDYNAVDGGTGVDNATNAEKGLFVRQLYLTYTNEDVATSV 100

6ehd\_A 000 KSDAGTVDFYGQLRTELKFLEDKDP---------TIGSGSSRAGVDANYTVNDSLALQGKVEFALKDS-----------GDMYVRNHILGVKT--NFGKF 078

5ldv\_A 101 IAGKQQLNIIWTDNGVDGLVGTGVKVVNNSIDGLTLAAFAVDSFMAAEQGSDLLGQSTYVGNGKNNNDSFKLDSIGNLYGAAAVGSYDLAGGQFNPQLWL 200

6ehd\_A 079 SFGKQWTT--SDDV--Y-G-AD---YSY-FFGGTGLR--Y-G---TLSDA-----------------------LHDSQ----VKYVY--EADSFWVKAGY 133

5ldv\_A 201 AYWDQ--VAFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELD--------DKKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNL 290

6ehd\_A 134 GFPEDNAKQELAELYVGATF--G-DLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTIGDALIGVTYYNAELD-----------V-- 217

5ldv\_A 291 GSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNT----- 385

6ehd\_A 218 ----EN-----------NPLVIDEDAISVAGTYKVADKTKLYAGYEYVMQEANT---GADEDGTLVYLGVEYKFASWARVYAEYGYGDGTTLGYTNKGSD 299

5ldv\_A 386 -----NESADHSTVRLQALYKF 402

6ehd\_A 300 AEVKATKVDSANNFGIGARYYW 321

FAILED

interaction NaNDom1 NaNDom2 NaNE-value NaNRes1 NaNRes2 NaNStrand1 NaNStrand2 NaNSeq1 NaNSeq2 NaNHHS\_Prob NaNHHS\_Score NaNLength NaNPerc\_ID NaNPerc\_Sim NaNRMSD NaNTMScore NaNMaxSub NaNGDT\_TS NaNGDT\_HA NaNInCyto? NaNName: 268, dtype: object

## PDB1: 1pho\_A

## PDB2: 3sy9\_A

## row number: 269

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN-----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFG 095

3sy9\_A 000 SHHLSWLGGTWGGIE-GFTSSLYAAELQNV-------------WKQYYADVDYTYEIDDNWSLNPGAHYYKTVDSGDS-LLGRIDNNTYSLHFAVGYR-Q 084

1pho\_A 096 LRPSLGYVLSKGKDIE-------G----I------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQL 145

3sy9\_A 085 HTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKL 155

## PDB1: 1pho\_A

## PDB2: 3sys\_A

## row number: 270

1pho\_A 000 TQNFEAVAQYQFDFGLRPSLGYVLSKGKDIE---------G--I------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDSDNKLNINNDDIV 079

3sys\_A 000 SHTVYGLFSAGIG-LHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKAGSGGKEWER 099

1pho\_A 080 AVGMTYQ 86

3sys\_A 100 DVELGYT 106

## PDB1: 1pho\_A

## PDB2: 3szd\_A

## row number: 271

1pho\_A 000 NGDGFGTSLTYDFGGSDF-AISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDAN----NIYLATFYSETRKMTPITGGFANKTQNFEAVAQYQFDFG 095

3szd\_A 000 SDRFDFAGGEYRFNG-ERSLLGLWNAELKDI-------------YRQQYLQLQHSQPLGDWLLGANLGGFRGRDAGSA-RAGKLDNRTVSALFSARYG-L 084

1pho\_A 096 LRPSLGYVLSKGKDIE--------G---I------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLD 146

3szd\_A 085 HTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHV 156

## PDB1: 1pho\_A

## PDB2: 4frx\_A

## row number: 272

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQNLQSRGTGKRAEAWATGLKYDA--N--NIYLATFYSETRKMTPIT-------------------GGF 077

4frx\_A 000 SNKFYYAGGDYKVNK-DLTLQYYYGNLDDF-------------YKQHFLGLIHNWQIGPGVLKTDLRAFDSSSDGKNGSRSGRADGYVSSGYYGSGVTKG 086

1pho\_A 078 ANKTQNFEAVAQYQFDFGLRPSLGYVLSKGKDIE----------G-----I------GDEDLVNYIDVGATYYFN----KNMSAFVDYKINQLDS 147

4frx\_A 087 EVDNRAFSGLFTYTVS-GHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIK 180

## PDB1: 1pho\_A

## PDB2: 5dl5\_A

## row number: 273

1pho\_A 000 NGDGFGTSLTYDFGGSDFAISGAYTNSDRTNEQN------L-Q-----SR----GTGKRAEAWATGLKYDA------NNIYLATFYSETRKMTPITGGFA 078

5dl5\_A 000 TNNIWAISGTYATGP--HSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNVTDD 098

1pho\_A 079 NKTQNFEAVAQYQFD----FGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYYF 130

5dl5\_A 099 AQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 154

## PDB1: 1pho\_A

## PDB2: 5ldv\_A

## row number: 274

1pho\_A 000 KRAEAWATGLKYDA-NNIYLATFYSETRKMTPIT-GGFANKTQNFEAVAQYQFDFGLRPSLGYVLSKGKDIEGIGDEDLVNYIDVGATYY 88

5ldv\_A 000 GRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYK 90

## PDB1: 1pho\_A

## PDB2: 5ldv\_A

## row number: 275

1pho\_A 000 NKTQNFEAVAQYQFDFGLRPSLGYVLSKGKD----------------------I-E----GIGDEDLVNYIDVGATYYFNKNMSAFVD--YKINQLD 68

5ldv\_A 000 ANGNLFALKGSIEVN-GWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSRLNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTE 96

## PDB1: 1prn\_A

## PDB2: 2y0l\_A

## row number: 276

1prn\_A 000 GADTAYGIGADYQFA----EGVKVSGSVQSG 27

2y0l\_A 000 PKERSWQLRYDYDFVGLGIPGLTFMTRYVKG 31

## PDB1: 1prn\_A

## PDB2: 3sy9\_A

## row number: 277

1prn\_A 000 NDIAFVGAAYKFNDAGTVGLNWYDNGLS-------------------------TAGDQVTLYGNYAFG----A-TTVRAYVSDIDR-------------- 056

3sy9\_A 000 NNTYSLHFAVGYRQH-TVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKLDLTRVDPDSPGYGG 099

1prn\_A 057 -------AGADTAYGIGADYQFA----EGVKVSGSVQSG 84

3sy9\_A 100 WYSADGKNAKHWERDLDLQYVVQGGPAKDLSLRLRWATH 138

## PDB1: 1prn\_A

## PDB2: 3syb\_A

## row number: 278

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLST------------------------AGDQVTLYGNYAFG----A-TTVRAYVSDIDR-------------- 057

3syb\_A 000 DNDTWSLAFTLGHRAH-ALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAY 099

1prn\_A 058 ----------AGADTAYGIGADYQFA----EGVKVSGSVQSG 85

3syb\_A 100 GNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMH 141

## PDB1: 1prn\_A

## PDB2: 3szd\_A

## row number: 279

1prn\_A 000 VTEEFGIAADWSNDMISLAAAYTTDAGGIVDNDIAFVGA--AYKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAFG----A-TTVRAYVSDIDR-A---- 088

3szd\_A 000 DNRTVSALFSARYGLHTLYLGLQKVSGDD--GWMRVNGTSGGTLA----N-DSYNASYDN-PGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHVRLAGV 092

1prn\_A 089 ---GADTAYGIGADYQF--A--EGVKVSGSVQSG 115

3szd\_A 093 TDDGSEWGRESELGYTLQSGAFKRLNVRWRNSSQ 126

## PDB1: 1prn\_A

## PDB2: 4frx\_A

## row number: 280

1prn\_A 000 VTEEFGIAADWSNDMISLAAAYTTDAGGIVDNDIAFV-GAA-YKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAFG----A-TTVRAYVSDIDR-A---- 088

4frx\_A 000 DNRAFSGLFTYTVSGHSIGAGYQILNGDS--DFPFLNRGDGEGST-AYLITDVQIGKFQR-AGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTARG 096

1prn\_A 089 -GADTAYGIGADYQFA----EGVKVSGSVQSG 115

4frx\_A 097 DQSEWERDISLAYVIPDGTFKGLGFTWKNASF 128

## PDB1: 1prn\_A

## PDB2: 5dl5\_A

## row number: 281

1prn\_A 000 DNDIAFVGAAYKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAFGATTVR-AYVSDIDR-AGADTAYGIGADYQFA-----EGVKVSGSVQSG 85

5dl5\_A 000 TNNIWAISGTYATGPH-SVMLAYQQNTGNV---GYDYGQN-ADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYG 87

## PDB1: 1prn\_A

## PDB2: 5dl5\_A

## row number: 282

1prn\_A 000 VTEEFGIAADWSNDMISLAAAYTTDAGGIVDNDIAFVG-AAYKFNDAGTVGLNWYDNGLSTAGDQVTLYGNYAFG-----A-TTVRAYVSDIDR------ 087

5dl5\_A 000 TNNIWAISGTYATGPHSVMLAYQQNTGN----VGYDYGQNADGFQSIYLPNSYMSDFIG-NHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNV 095

1prn\_A 088 --AGADTAYGIGADYQFA----EGVKVSGSVQSG 115

5dl5\_A 096 TDDAQEREFFNQVKYTVQSGFAKDASLRIRNSYY 129

## PDB1: 1prn\_A

## PDB2: 5dl6\_A

## row number: 283

1prn\_A 000 VTEEFGIAADWSNDMISLAAAYTTDAGGIVDNDIAFVGAAYKFNDA--GTVGLNWYDNGLSTAGDQVTLYGNYAFG---A-TTVRAYVSDIDR------- 087

5dl6\_A 000 DNDLYHAHFELKHQNHKFIFGTFQHHGD----TAF----PYLTGGETGLLIDTWPGEFL-NPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLG 091

1prn\_A 088 --AGADTAYGIGADYQFA----EGVKVSGSVQSG 115

5dl6\_A 092 GTNLKERETDFDLGYTVQSGWLKNLGLRARYAIY 125

## PDB1: 1prn\_A

## PDB2: 5ldv\_A

## row number: 284

1prn\_A 000 DNDIAFVGAAYKFN-DAGTVGLNWYDNGLS---------TAGDQVTLYGNYAFGA-TTVRAYVSDIDR 57

5ldv\_A 000 RNIFGYVTGGYTFNETV-RVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNL 67

## PDB1: 2fgr\_A

## PDB2: 3sy7\_A

## row number: 285

2fgr\_A 000 IKTNSYMLGASAPVG----GVGEVKLQYALYDQKA-----------------IDSKAHQITLGYVHNL----SKRTALYGNLAFLKNKD 64

3sy7\_A 000 PGEKSWQARYDLNLASYGVPGLTFMVRYINGKDIDGTKMSDNNVGYKNYGYGEDGKHHETNLEAKYVVQSGPAKDLSFRIRQAWHRANA 89

## PDB1: 2fgr\_A

## PDB2: 3sy9\_A

## row number: 286

2fgr\_A 000 DRDEITLGASYNFGVAKLSGLLQQTKFKRDI-------------------GGDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA------------ 065

3sy9\_A 000 DNNTYSLHFAVGYRQHTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKLDLTRVDPDSPGYGG 100

2fgr\_A 066 ------IDSKAHQITLGYVHNLS----KRTALYGNLAFLKNKD 98

3sy9\_A 101 WYSADGKNAKHWERDLDLQYVVQGGPAKDLSLRLRWATHRGTG 143

## PDB1: 2fgr\_A

## PDB2: 3syb\_A

## row number: 287

2fgr\_A 000 GRYIGGYVAYDNGPLSASLGLAQQKTAVG--------G-----------LATDRDEITLGASYNFG-----VAKLSGLLQQTKF 60

3syb\_A 000 NDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWD 84

## PDB1: 2fgr\_A

## PDB2: 3sys\_A

## row number: 288

2fgr\_A 000 DRDEITLGASYNFGVAKLSGLLQQTKFKRDI-------------G------GDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKAI----DSKAHQI 073

3sys\_A 000 DSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKAGSGGKEWER 100

2fgr\_A 074 TLGYVHNLS----KRTALYGNLAFLKNK 97

3sys\_A 101 DVELGYTVQSGPLARLNVRLNHASNRRS 128

## PDB1: 2fgr\_A

## PDB2: 3szd\_A

## row number: 289

2fgr\_A 000 DRDEITLGASYNFGVAKLSGLLQQTKFKRD---------I---G-------GDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA-----IDSKAHQ 072

3szd\_A 000 DNRTVSALFSARYGLHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHVRLAGVTDDGSEWG 100

2fgr\_A 073 ITLGYVHNLS----KRTALYGNLAFLKNKD 98

3szd\_A 101 RESELGYTLQSGAFKRLNVRWRNSSQRRDW 130

## PDB1: 2fgr\_A

## PDB2: 3t0s\_A

## row number: 290

2fgr\_A 000 DRDEITLGASYNFGVAKLSGLLQQTKFKRD-------I------------GGDIKTNSYMLGASAPVG----GVGEVKLQYALYDQKA-----IDSKAHQ 072

3t0s\_A 000 DNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGAGRADDSEWE 100

2fgr\_A 073 ITLGYVHNLS----KRTALYGNLAFLKNK 97

3t0s\_A 101 RNTDLSYVIQSGPLKSVALKWRNITYRSR 129

## PDB1: 2fgr\_A

## PDB2: 3t0s\_A

## row number: 291

2fgr\_A 000 GRYIGGYVAYDN-GPLSASLGLAQQKTAVGGLATDRDEITLGASYN--FG---VAKLSGLLQQTKFKRDI-GGDIKTNSYMLGASAPVGGVGEVKLQYAL 093

3t0s\_A 000 DEFNLAGATYAFTPRLSASYYYGQLKDIY-----RQH--YLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAISGPVDNRNLNAMLTLRAGA-HAFGIGVQK 092

2fgr\_A 094 YDQKA----------------------IDSKAHQITLGYVHNLS----KRTALYGNLAFLKN 129

3t0s\_A 093 MIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRD 154

## PDB1: 2fgr\_A

## PDB2: 5dl6\_A

## row number: 292

2fgr\_A 000 TDRDEITLGASYNFGVAKLSGLLQQTKFKRDIGGDIKTNSYMLGASAPVGGVGEVKLQYALYDQKAIDSKAHQITLGYVHNLS---KRTALYGNLAFLKN 97

5dl6\_A 000 VDNDLYHAHFELKHQNHKFIFGTFQHHGDTA-------------FPYLTGGETGLLID-TWPG-EFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHN 85

## PDB1: 2por\_A

## PDB2: 3jty\_A

## row number: 293

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDSPDT-------------A-------LMADMEQLELAAIAKFG-----ATNVKAYYADGELD 62

3jty\_A 000 ENRTWSGLFSAKYGGNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 87

## PDB1: 2por\_A

## PDB2: 3sy7\_A

## row number: 294

2por\_A 000 QEMAVAAAYTF--G---NYTVGLGYEKIDSPDT--ALMADMEQLELAAIAKFGATNVKAYYADGELDRDFARAV-------------FDLTPV-AAAATA 079

3sy7\_A 000 RQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAKAGDISNTTWSLAAAYTLDAHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDFNG 100

2por\_A 080 VDHKAYGLSVDSTFG----A-TTVGGYVQVLDID------------------TIDDVTYYGLGASYDL----GGGASIVGGIADNDLP 140

3sy7\_A 101 PGEKSWQARYDLNLASYGVPGLTFMVRYINGKDIDGTKMSDNNVGYKNYGYGEDGKHHETNLEAKYVVQSGPAKDLSFRIRQAWHRAN 188

## PDB1: 2por\_A

## PDB2: 3szd\_A

## row number: 295

2por\_A 000 ADMEQLELAAIAKFGATNVKAYYADGELD 29

3szd\_A 000 LDNRTVSALFSARYGLHTLYLGLQKVSGD 29

## PDB1: 2por\_A

## PDB2: 3t0s\_A

## row number: 296

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDSPDT-------A-------------LMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFDLTPV 075

3t0s\_A 000 DNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGA--------- 091

2por\_A 076 AAAATAVDHKAYGLSVDSTF--GA---TTVGGYVQVLDIDTIDDVTYYGLGASYDLG 127

3t0s\_A 092 --GRADDSEWERNTDLSYVIQSGPLKSVALKWRNITYRSRYGADLDENRFIVNYTLK 146

## PDB1: 2por\_A

## PDB2: 4frx\_A

## row number: 297

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDSPDT-----------A-------------LMADMEQLELAAIAKFG-----ATNVKAYYADGELDRDFARAVFD 071

4frx\_A 000 DNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA------ 094

2por\_A 072 LTPVAAAATAVDHKAYGLSVDSTFG--A---TTVGGYVQVLDID--------TIDDVTYYGLGASYDL 126

4frx\_A 095 -------RGDQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 155

## PDB1: 2por\_A

## PDB2: 5dl5\_A

## row number: 298

2por\_A 000 ADMEQLELAAIAKFGATNVKAYYADGELDRDFARA----VF-D---LTPVAAAATAVDHKAYGLSVDSTFG-----A-TTVGGYVQVLDI-D-----TID 080

5dl5\_A 000 KTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNVTDDA 100

2por\_A 081 DVTYYGLGASYDLG----GGASIVGGIADNDLP--------NSDMVADLGVKFKF 123

5dl5\_A 101 QEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 155

## PDB1: 2por\_A

## PDB2: 5dl5\_A

## row number: 299

2por\_A 000 DAQEMAVAAAYTFGNYTVGLGYEKIDSPDT----------A------------LMADMEQLELAAIAKF------GATNVKAYYADGELDRDFARAVFDL 072

5dl5\_A 000 TNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRN------ 094

2por\_A 073 TPVAAAATAVDHKAYGLSVDSTF--GA---TTVGGYVQVLDID------TIDDVTYYGLGASYDL 126

5dl5\_A 095 -----VTDDAQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 154

## PDB1: 2y0l\_A

## PDB2: 3wi4\_A

## row number: 300

2y0l\_A 000 DNKSLNGMFTYSLGNHAFG--AAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREW 098

3wi4\_A 000 NSESYHAGFNYKNGGFFVQYGGAYKRHHQVQE-----G------L-------NIEKYQIHRLVSGYDND-----ALYASVAVQQQDAKLTDASNSHNSQT 077

2y0l\_A 099 ERNTELQYVFQSGALKNLGIRWRNATFRSN------FTRDIDENRLIVSYTLP 145

3wi4\_A 078 EVAATLAYRFG----N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS 125

## PDB1: 2y0l\_A

## PDB2: 4aui\_A

## row number: 301

2y0l\_A 000 DNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWER 100

4aui\_A 000 KHQVHRLVGGYDHDALYASVAVQQQDAKLTW----RD----DN-------SHNSQTEVATTVAYRFG-----NVTPRVSYAHGFKGSVYDADHDNTYDQV 080

2y0l\_A 101 NTELQYVFQSGALKNLGIRWRNATFRSNF---TRDIDENRLIVSYTL 144

4aui\_A 081 VVGAEYDFS----KRTSALVSAGWLQKGKGAEKFVATVGGVGLRHKF 123

## PDB1: 2y0l\_A

## PDB2: 4rjw\_A

## row number: 302

2y0l\_A 000 EDSKASLETRNFYMNRDFRDGP-GQSKREEWAQGFILNLQSGYTQG-TVGFGLDAMGMLGVKLDSGRGRSGTGLLPKDSDGRAPDTYSKLGL-TAKVKVS 097

4rjw\_A 000 FSFKLGGRLQADYSRFDGFYTKNGNTADAAYFRRAFIELGGTAYKDWKYQINFDLSHNT-----------------------GSSDNGYFDEASVTYTGF 077

2y0l\_A 098 -QSELKVGTLIP 108

4rjw\_A 078 NPVNLKFGRFDP 89

## PDB1: 2y0l\_A

## PDB2: 5mdo\_A

## row number: 303

2y0l\_A 000 DNKSLNGMFTYSLGNHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNVELAGQSGEGREWER 100

5mdo\_A 000 DDYWGGIAAHYKLGPLQLDAAYEGNRNIEAE-----------G-------QTWENNTYLVGVQGWFE----NGISFFAQYKYMEADASN--GVNEKQDAM 076

2y0l\_A 101 NTELQYVFQSGALKNLGIRWRNATFRSN-------FTRDIDENRLIVSYTL 144

5mdo\_A 077 SAGLMYTTG----D-WQYKLGYAANFDLERDGKTLSNTSDDVVSAQIMYFV 122

## PDB1: 2y0l\_A

## PDB2: 5mdo\_A

## row number: 304

2y0l\_A 000 FDLGGLDYKLTDQLTASYHYSNLQDV--------YRQHFVGLLHSWPIGPGELTSDLRFARSTDSGSAKAGGIDNKSLNGMFTYSLGNHAFGAAWQRMNG 092

5mdo\_A 000 WGGIAAHYKL-GPLQLDAAYEGNRNIEAEGQTWENNTYLVGVQGWFE---NGISFFAQYKYMEADASN-GVNEKQDAMSAGLMYTTGDWQYKLGYAANFD 095

2y0l\_A 093 DDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYDFVGLGIPGLTFMTRYVKGDNV 151

5mdo\_A 096 LERD----G------K-----TLSNTSDDVVSAQIMYFVD----PSAVLYARARMNDFN 135

## PDB1: 2y0l\_A

## PDB2: 5mdo\_A

## row number: 305

2y0l\_A 000 VGLLHSWPIGPGELTSDLRFARSTDSGSAKAGGIDNKSLNGMFTYSLG-NHAFGAAWQRMNGDDAFPYLEGSNPYLVNFVQVNDFAGPKERSWQLRYDYD 099

5mdo\_A 000 IAAHYKL--G--PLQLDAAYEGNRNIEAE-GQTWENNTYLVGVQGWFENGISFFAQYKYMEADASN-----------G-------VNEKQDAMSAGLMYT 077

2y0l\_A 100 FVGLGIPGLTFMTRYVKGDNVELAG-QSGEGREWERNTELQYVFQSGALKNLGIRWRNATFRSN 162

5mdo\_A 078 TG----D-WQYKLGYAANFDLERDGKTLSNTSDDVVSAQIMYFVD----PSAVLYARARMNDFN 132

## PDB1: 2zfg\_A

## PDB2: 3jty\_A

## row number: 306

2zfg\_A 000 GDGVGGSISYEYE--GFGIVGAYGAADRTNLQEAQPLGNGKKAEQWATGLKYDA--N--NIYLAANYGETRNATPITNKFTNTSGFANKTQDVLLVAQYQ 094

3jty\_A 000 DRFNFQGAEYAFNDKRTQIALWNAQLKDI-------------YSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSAR-------AGDMENRTWSGLFSAK 080

2zfg\_A 095 FDFGLRPSIAYTKSKAKDV------EG-----I------GDVDLVNYFEVGATYYFN----KNMSTYVDYIINQI 148

3jty\_A 081 YGG-NTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSN 154

## PDB1: 2zfg\_A

## PDB2: 3jty\_A

## row number: 307

2zfg\_A 000 GKKAEQWATGLKYDANNIYLAANYGETRNATPITNKF--------TN---TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLV 085

3jty\_A 000 DMENRTWSGLFSAKYGGNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNVHTAT-VSDGKE 099

2zfg\_A 086 NYFEVGATYYFN----KNMSTYVDYIINQIDS 113

3jty\_A 100 WGRESEVAYTVQSGTLKNLNLKWRNSTMRRDF 131

## PDB1: 2zfg\_A

## PDB2: 3sy7\_A

## row number: 308

2zfg\_A 000 DGVGGSISYEYE-----GFGIVGAYGAADRTNLQEAQPLGNGKKAEQWATGLKYDANNIYLAANYGETRNATPITN-----------K---FTNT----- 076

3sy7\_A 000 RQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKA----KAGDISNTTWSLAAAYTLDAHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYS 096

2zfg\_A 077 SGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEG------------IGDVDLVNYFEVGATYYF----NKNMSTYVDYIINQIDS 149

3sy7\_A 097 DFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDIDGTKMSDNNVGYKNYGYGEDGKHHETNLEAKYVVQSGPAKDLSFRIRQAWHRANA 189

## PDB1: 2zfg\_A

## PDB2: 3sy9\_A

## row number: 309

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNK------FTN-----TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDV----EG---- 077

3sy9\_A 000 IDNNTYSLHFAVGYRQHTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKLDLTRVDPDSPGYG 100

2zfg\_A 078 -----IGDVDLVNYFEVGATYYFN----KNMSTYVDYIINQIDS 112

3sy9\_A 101 GWYSADGKNAKHWERDLDLQYVVQGGPAKDLSLRLRWATHRGTG 144

## PDB1: 2zfg\_A

## PDB2: 3syb\_A

## row number: 310

2zfg\_A 000 NGDGVGGSISYEY-EGFGIVGAYGAADRTNLQEAQPLGNGKKAEQWATGLKYDAN----N--IYLAANYGETRNATPITNKFTNTSGFANKTQDVLLVAQ 093

3syb\_A 000 GDRLNYLGGNYKPLDGLEISLYGSHFQDV-------------WNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGARE-------AGYIDNDTWSLAFT 080

2zfg\_A 094 YQFDFGLRPSIAYTKSKAKDVE-------G----I-----GDVDLVNYFEVGATYYFN----KNMSTYVDYIINQI 149

3syb\_A 081 LGHR-AHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWD 155

## PDB1: 2zfg\_A

## PDB2: 3sys\_A

## row number: 311

2zfg\_A 000 GDGVGGSISYEYE--GFGIVGAYGAADRTNLQEAQPLGNGKKAEQWATGLKYDA--NN--IYLAANYGETRNATPITNKFTNTSGFANKTQDVLLVAQYQ 094

3sys\_A 000 DGFNYAGAEYRFNRERTQLGLWHGQLEDV-------------YRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR-------AGEIDSHTVYGLFSAG 080

2zfg\_A 095 FDFGLRPSIAYTKSKAKDV-------EG----------IGDVDLVNYFEVGATYYFN----KNMSTYVDYIINQID 149

3sys\_A 081 IGL-HTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNA 155

## PDB1: 2zfg\_A

## PDB2: 3sys\_A

## row number: 312

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNK--------FTN---TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVN 085

3sys\_A 000 IDSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTK-AGSGGKEW 099

2zfg\_A 086 YFEVGATYYFN----KNMSTYVDYIINQID 111

3sys\_A 100 ERDVELGYTVQSGPLARLNVRLNHASNRRS 129

## PDB1: 2zfg\_A

## PDB2: 3szd\_A

## row number: 313

2zfg\_A 000 KKAEQWATGLKYDANNIYLAANYGETRNATPITNK------F--T---NTSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVN 085

3szd\_A 000 LDNRTVSALFSARYGLHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHVRLAGVTDDGSEW 100

2zfg\_A 086 YFEVGATYYFN----KNMSTYVDYIINQIDS 112

3szd\_A 101 GRESELGYTLQSGAFKRLNVRWRNSSQRRDW 131

## PDB1: 2zfg\_A

## PDB2: 4frx\_A

## row number: 314

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQ---E------AQ-P--L------GNGKKAEQWATGLKYDAN-----NIYLAANYGETRNATPITNKFTN 077

4frx\_A 000 DNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA------ 094

2zfg\_A 078 TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGI--GDVDLVNYFEVGATYYF 134

4frx\_A 095 --RGDQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 155

## PDB1: 2zfg\_A

## PDB2: 5dl5\_A

## row number: 315

2zfg\_A 000 GKKAEQWATGLKYDANNIYLAANYGETRNATPITNK-----FT----NTS----GFANKTQDVLLVAQYQFD-----FGLRPSIAYTKSKAKDVEGIGDV 082

5dl5\_A 000 EKTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNVTDD 100

2zfg\_A 083 DLVNYFEVGATYYFN----KNMSTYVDYIINQIDSDNK-LGVGSDDTVAVGIVYQF 133

5dl5\_A 101 AQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 156

## PDB1: 2zfg\_A

## PDB2: 5dl5\_A

## row number: 316

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQE--------AQP---L-----GNGKKAEQWATGLKYDA------NNIYLAANYGETRNATPITNKFTNT 078

5dl5\_A 000 TNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRN------ 094

2zfg\_A 079 SGFANKTQDVLLVAQYQF--D--FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 134

5dl5\_A 095 VTDDAQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 154

## PDB1: 2zfg\_A

## PDB2: 5dl6\_A

## row number: 317

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQEA----Q--P-------LGNGKKAEQWATGLKYDAN----NIYLAANYGETRNATPITNKFTNTSGFAN 083

5dl6\_A 000 DNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNL-----GGTNL 095

2zfg\_A 084 KTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 134

5dl6\_A 096 KERETDFDLGYTVQSGWLKNLGLRARYAIYDNNMLST-ANIKPVNETRINIDYTW 149

## PDB1: 2zfg\_A

## PDB2: 5dl7\_A

## row number: 318

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQE-----AQP---L-----GNGKKAEQWATGLKYDAN----------NIYLAANYGETRNATPITNKFTN 077

5dl7\_A 000 DNRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQY---- 096

2zfg\_A 078 TSGFANKTQDVLLVAQYQFD----FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 134

5dl7\_A 097 -GDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTN-MTFHSANETRLNVDYTF 155

## PDB1: 2zfg\_A

## PDB2: 5dl8\_B

## row number: 319

2zfg\_A 000 NGDGVGGSISYEYEGFGIVGAYGAADRTNLQE-A---QP--L--------GNGKKAEQWATGLKYDAN----NIYLAANYGETRNATPITNKFTNTSGFA 082

5dl8\_B 000 DAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAAN-------GEK 093

2zfg\_A 083 NKTQDVLLVAQYQF--D--FGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 134

5dl8\_B 094 NHETESNVILNYAFQQPLLKGFALQYIRIDYNVKH------GNDFGEDRLFVNYTK 143

## PDB1: 2zfg\_A

## PDB2: 5ldv\_A

## row number: 320

2zfg\_A 000 KKAEQWATGLKYDA-NNIYLAANYGETRNATPITNKFTNTSGFANKTQDVLLVAQYQFDFGLRPSIAYTKSKAKDVEGIGDVDLVNYFEVGATYYF 95

5ldv\_A 000 GRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATT-----HLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYKF 91

## PDB1: 3a2s\_X

## PDB2: 3syb\_A

## row number: 321

3a2s\_X 000 RESYHAGLKYEN-AGFFGQYAGSFAKYADLNTDAERVAVNTANAHPVKDYQVHRVVAGYDAN----DLYVSVAGQYEAAKNNEVGSIKGKKHEQTQVAAT 095

3syb\_A 000 DRLNYLGGNYKPLDGLEISLY-----GSHFQ----------------DVWNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAR--EAGYIDNDTWSLA 077

3a2s\_X 096 AAYRFGNVTPRVSYAHGFKAKV----N---G---V-----KDANYQYDQVIVGADYDFS----KRTSALVSAGWLKQ 153

3syb\_A 078 FTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWD 154

## PDB1: 3a2s\_X

## PDB2: 3szv\_A

## row number: 322

3a2s\_X 000 HRVVAGYDAN---DLYVSVAGQYEAAKNNEVGSIKGKKHEQTQVAATAAYRFGNVTPRVSYAHGFKAKV-N---G-----VK------DANYQYDQVIVG 082

3szv\_A 000 TFAGLVHTLDLGGQRSLKSDLRFARASEDGG----FRELDNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLR 096

3a2s\_X 083 ADYDFS----KRTSALVSAGWLKQG 103

3szv\_A 097 YDYDFGALGLPGLSFMSRYVSGDNV 121

## PDB1: 3a2s\_X

## PDB2: 4frt\_A

## row number: 323

3a2s\_X 000 HRVVAGYDAN---DLYVSVAGQYEAAKNNEVGSIKGKKHEQTQVAATAAYRFGNVTPRVSYAHGFKAKV----NG-----VK------DANYQYDQVIVG 082

4frt\_A 000 HHLGVQHLLPLADDQSLKSDIRWARSTDEGG-----SRVNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLR 095

3a2s\_X 083 ADYDFS----KRTSALVSAGWLKQ 102

4frt\_A 096 YDYDFAAIGLPGLTFMSRYLRGEH 119

## PDB1: 3a2s\_X

## PDB2: 4fso\_A

## row number: 324

3a2s\_X 000 KDYQVHRVVAGYDANDLYVSVAGQYEAAKNNEVG------S----IK-----GKKHEQTQVAATAAYRFG----N-VTPRVSYAHGFKAKVNGVKDANYQ 080

4fso\_A 000 IDNRALSLLLAYAQGGHT--LSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLA--NGDEGK 096

3a2s\_X 081 YDQVIVGADYDFS----KRTSALVSAGWLKQGKGAGKVEQTASMVGLRHKF 127

4fso\_A 097 EWERDIELKYIVQSGRFKDLSLRLRNATYRTDFERSARDVDEVRLIASYNL 147

## PDB1: 3a2s\_X

## PDB2: 5dl7\_A

## row number: 325

3a2s\_X 000 RESYHAGLKYENAGFFGQYAGSFAKYADLNTDAERVAVNTANAHPVKDYQVHRVVAGYDAN---DLYVSVAGQYEAAKNNEVGSIKGKKHEQTQVAATAA 097

5dl7\_A 000 DSFYTLGGSYQLKDYRLRAY-----HAELK----------------DIYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSK--KIGEVDNRHISGLFG 077

3a2s\_X 098 YRFGNVTPRVSYAHGFKAKV----NGV------K-----DANYQYDQVIVGADYDFSK---------RTSALVSAGWLKQG 154

5dl7\_A 078 LNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDI 158

## PDB1: 3jty\_A

## PDB2: 3nsg\_A

## row number: 326

3jty\_A 000 QFINLIHSQPLGDWTLGANLGFFYGKEDGSAR---AGDMENRTWSGLFSAKYGGNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQV 097

3nsg\_A 000 VGYTMAYEFD----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT----V----TD---TVEMANKTQNLEV 085

3jty\_A 098 RHDYNFAALGVPGLTLMNRYISGSNVHTAT--VSDGKEWGRESEVAYTVQSGTLKNLNLKWRNSTMRRDF 165

3nsg\_A 086 VAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYF----NKNMNVWVDYRFNLLDE 147

## PDB1: 3jty\_A

## PDB2: 3nsg\_A

## row number: 327

3jty\_A 000 EDAQANLTLRNFYFNRNFTNPTKAQGKAEEWTQSFILDAKSGFTQGTVGFGMDVLGLYSLKLDGGKGTGGTQLLPLDHDGRPADNFGRLGVAF-KARLSQ 099

3nsg\_A 000 NKLDLYGKAVGRHVWTTTGDS----KNADQTYAQIGFKGETQINTD-LTGFGQWEYRT--KA--DRA---E---------GEQQNSNLVRLAFAGLKYAE 079

3jty\_A 100 -TEVKVGEWMPVLPILR-SDDGRSLPQTFRGG-----------------QITSKE--I----AGLTLYGGQFRANSPRDDSSMSDMSMFGKAAFTSDRFN 174

3nsg\_A 080 VGSIDYGRNYGIVYDVESYTDM--APY-FSGETWGGAYTDNYMTSRAGGLLTYRNSDFFGLVDGLSFGIQYQGKNQDNHS-----------INSQNGDGV 165

3jty\_A 175 FQGAEYAFNDKRTQIALWNAQLKD------------IYSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSA-------RAGDMENRTWSGLFSAKYG-GN 254

3nsg\_A 166 GYTMAYEF-D-GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N--NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQFDFGL 259

3jty\_A 255 TFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 325

3nsg\_A 260 RPAISYVQSKGKQLN---------G-------AGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLD 310

## PDB1: 3jty\_A

## PDB2: 4d65\_A

## row number: 328

3jty\_A 000 DRFNFQGAEYAFNDKRTQIALWNAQLKDI--------------YSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSAR-----AGDMENRTWSGLFSAKY 081

4d65\_A 000 GDGYGFSTAYELGW-GLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLEL--D--ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 095

3jty\_A 082 G-GNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 155

4d65\_A 096 DFGLTPSIGYNQSKGKNLG------N-----Y------GNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLK 149

## PDB1: 3jty\_A

## PDB2: 5fvn\_A

## row number: 329

3jty\_A 000 DRFNFQGAEYAFNDKRTQIALWNAQLKDI-------------YSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSA--RAGDMENRTWSGLFSAKYG-GN 084

5fvn\_A 000 GDGVGGSITYNLGE-GFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDA--N--NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGL 095

3jty\_A 085 TFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 155

5fvn\_A 096 RPSVAYLQSKGKDLE------NG----Y------GDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLD 146

## PDB1: 3jty\_A

## PDB2: 5fvn\_A

## row number: 330

3jty\_A 000 QFINLIHSQPLGDWTLGANLGFFYGKEDGSA----RAGDMENRTWSGLFSAKYGGNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQ 096

5fvn\_A 000 VGGSITYNL--GE-GFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDANNIYLAAQYTQTYNATRVG-----------N-----LGWANKAQNFE 081

3jty\_A 097 VRHDYNFAALGVPGLTLMNRYISGSNVHTAT--VSDGKEWGRESEVAYTVQSGTLKNLNLKWRNSTMRRDF 165

5fvn\_A 082 VVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYF----NKNMSTYVDYKINLLDD 144

## PDB1: 3jty\_A

## PDB2: 5nxr\_A

## row number: 331

3jty\_A 000 DRFNFQGAEYAFNDKRTQIALWNAQLKDI----------------------YSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSAR---AGDMENRTWSG 075

5nxr\_A 000 GDGYGFSTAYELGW-GVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN----NVYLAAMYGQTQNTSRYGDLDLIANKTENVEL 095

3jty\_A 076 LFSAKYG-GNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 155

5nxr\_A 096 VAQYLFDFGLKPSIGYNQSKGKNLG------NG----Y------DNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLK 156

## PDB1: 3jty\_A

## PDB2: 6ehb\_A

## row number: 332

3jty\_A 000 ENRTWSGLFSAKYG--GNTFYVGLQKLTGDSAWMRVNG--TSGGTLANDSYNASY-DNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNVHTATVSDG 095

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRMENLYFAGLFTDGELAKDVDYTGYELAAGYKLG----Q-AAFTATYNNAETAK-----KT 090

3jty\_A 096 KEWGRESEVAYTVQSGTLKNLNLKWRNSTMRRDF 129

6ehb\_A 091 SADNFAIDATYYFK----PNFRSYISYQFNLLDS 120

## PDB1: 3jty\_A

## PDB2: 6ehd\_A

## row number: 333

3jty\_A 000 FNFQGAEYAFNDKRTQIALWNAQLKDI---------------------YSQQFINLIHSQPLGDWTLGANLGFFYGKEDGSARAGDMENRTWSGLFSAKY 079

6ehd\_A 000 LAELYVGATFG--DLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTI--G--DALIGVTYYNAELDVENNPLVIDEDAISVAGTYKV 094

3jty\_A 080 G-GNTFYVGLQKLTGDSAWMRVNGTSGGTLANDSYNASYDNAKEKSWQVRHDYNFAALGVPGLTLMNRYISGSNV 153

6ehd\_A 095 ADKTKLYAGYEYVMQEANT------------G-------ADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGT 146

## PDB1: 3nsg\_A

## PDB2: 3sy7\_A

## row number: 334

3nsg\_A 000 GDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQF 094

3sy7\_A 000 KSADFIGGRYAITDNLSASLYGAELEDI------------YRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAK-------AGDISNTTWSLAAAYTL 081

3nsg\_A 095 DFGLRPAISYVQSKGKQLN-------------GA-----G------GSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDE 150

3sy7\_A 082 DA-HTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDID 164

## PDB1: 3nsg\_A

## PDB2: 3sy7\_A

## row number: 335

3nsg\_A 000 GLSFGIQYQGKNQDNHSINSQNGDGVGYTMAYEFD---GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVEN---- 093

3sy7\_A 000 NLSASLYGAELEDIY------RQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAK---AGDISNTTWSLAAAYTLDAHTFTLAYQKVHGDQPFDYIGFG 091

3nsg\_A 094 --------T---VTD----TVEMANKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGA-----------GGSADLAKYIQAGATYYF----NKNM 159

3sy7\_A 092 RNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDIDGTKMSDNNVGYKNYGYGEDGKHHETNLEAKYVVQSGPAKDL 191

3nsg\_A 160 NVWVDYRFNLLDE 172

3sy7\_A 192 SFRIRQAWHRANA 204

## PDB1: 3nsg\_A

## PDB2: 3sy9\_A

## row number: 336

3nsg\_A 000 DGVGYTMAYEFD-----GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT----V--TD-----TVEMANKTQN 084

3sy9\_A 000 KQYYADVDYTYEIDDNWSLNPGAHYYKTVDSGDSL---LGRIDNNTYSLHFAVGYRQHTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKS 097

3nsg\_A 085 LEVVAQYQFD----FGLRPAISYVQSKGKQL----NG--------AGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDE 149

3sy9\_A 098 WKLQYDYDFVALGVPGLSASASYSRGKLDLTRVDPDSPGYGGWYSADGKNAKHWERDLDLQYVVQGGPAKDLSLRLRWATHRGTG 182

## PDB1: 3nsg\_A

## PDB2: 3sy9\_A

## row number: 337

3nsg\_A 000 NGDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N---NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQ 094

3sy9\_A 000 SHHLSWLGGTWGGIEGFTSSLYAAELQNV------------WKQYYADVDYTYEIDDNWSLNPGAHYYKTVDSGDSL-------LGRIDNNTYSLHFAVG 081

3nsg\_A 095 FDFGLRPAISYVQSKGKQLN-----G-A---G-------GSADLAKYIQAGATYYFNK----NMNVWVDYRFNLL 149

3sy9\_A 082 YRQ-HTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKL 155

## PDB1: 3nsg\_A

## PDB2: 3sys\_A

## row number: 338

3nsg\_A 000 GDGVGYTMAYEFD--GFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--NN--VYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQF 094

3sys\_A 000 DGFNYAGAEYRFNRERTQLGLWHGQLEDV------------YRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR-------AGEIDSHTVYGLFSAGI 081

3nsg\_A 095 DFGLRPAISYVQSKGKQLN-------G----A-----GGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDE 150

3sys\_A 082 GL-HTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNAT 156

## PDB1: 3nsg\_A

## PDB2: 3szd\_A

## row number: 339

3nsg\_A 000 DRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT-----V---T---DTVEMANKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLA 085

3szd\_A 000 LDNRTVSALFSARYGLHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHVRLAG-VTDDGSE 099

3nsg\_A 086 KYIQAGATYYFN----KNMNVWVDYRFNLLDE 113

3szd\_A 100 WGRESELGYTLQSGAFKRLNVRWRNSSQRRDW 131

## PDB1: 3nsg\_A

## PDB2: 3t0s\_A

## row number: 340

3nsg\_A 000 NGDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N---NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQ 094

3t0s\_A 000 SDEFNLAGATYAFTPRLSASYYYGQLKDI------------YRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAI-------SGPVDNRNLNAMLTLR 081

3nsg\_A 095 FDFGLRPAISYVQSKGKQLN----G--A----G------GSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLD 150

3t0s\_A 082 AGA-HAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDI 156

## PDB1: 3nsg\_A

## PDB2: 3t24\_A

## row number: 341

3nsg\_A 000 KTQNLEVVAQYQFDFGLRPAISYVQSKGKQLN-------G--------AGGSADLAKYIQAGATYYFN----KNMNVWVDYRFNLLD 68

3t24\_A 000 DNKALNAMFTYSLG-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNI 86

## PDB1: 3nsg\_A

## PDB2: 4frx\_A

## row number: 342

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQ---------D-----R-----DGNGDRAESRAVGAKYDAN-----NVYLAAVYAETRNMSIVENTVTD 076

4frx\_A 000 DNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKTA------ 094

3nsg\_A 077 TVEMANKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGA-GGSADLAKYIQAGATYYF 134

4frx\_A 095 --RGDQSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 155

## PDB1: 3nsg\_A

## PDB2: 4ft6\_A

## row number: 343

3nsg\_A 000 NKLDLYGKAVGRHVWTTTGDS----KNADQTYAQIGFKGETQINTD-LTGFGQWEYRT--KADRA--E------------GEQQNSNLVRLAFAGLKYAE 079

4ft6\_A 000 EDASVSLGLRNLYFNRDFRQPGAAQSKQEEWAQGFLLQAKSGYTQGTLGLGVELIGQLGLKLDSSPDRAGSGLLPRHADGRAADDYARLGVA-PKLKL-S 098

3nsg\_A 080 VGSIDYGRNYGI 91

4ft6\_A 099 NTELKLGELLPE 110

## PDB1: 3nsg\_A

## PDB2: 5dl5\_A

## row number: 344

3nsg\_A 000 GDRAESRAVGAKYDANNVYLAAVYAETRNMSIVENT------VT---DT----VEMANKTQNLEVVAQYQFD-----FGLRPAISYVQSKGKQLNGAGGS 082

5dl5\_A 000 EKTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRN-VTD 099

3nsg\_A 083 ADLAKYIQAGATYYFN----KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 136

5dl5\_A 100 DAQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQG-AYIGDTNEWRIFLDIPV 156

## PDB1: 3nsg\_A

## PDB2: 5dl6\_A

## row number: 345

3nsg\_A 000 GDGVGYTMAYEF-DGFGVTAAYSNSKRTNDQQDRDGNGDRAESRAVGAKYDA--N---NVYLAAVYAETRNMSIVENTVTDTVEMANKTQNLEVVAQYQF 094

5dl6\_A 000 DGLYYLGGNYQFNPALKLTAFYMDVDD------------LYNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAK-------AGLVDNDLYHAHFELKH 081

3nsg\_A 095 DFGLRPAISYVQSKGKQLNG--------A-------GGSADLAKYIQAGATYYFN---KNMNVWVDYRFNLLDENDYSSSYVGTDDQAAVGITYQF 172

5dl6\_A 082 Q-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERETDFDLGYTV 176

## PDB1: 3nsg\_A

## PDB2: 5dl8\_B

## row number: 346

3nsg\_A 000 NGDGVGYTMAYEFDGFGVTAAYSNSKRTNDQQ------D--R-D------GNGDRAESRAVGAKYDAN----NVYLAAVYAETRNMSIVENTVTDTVEMA 081

5dl8\_B 000 DAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDFKAAN-------GEK 093

3nsg\_A 082 NKTQNLEVVAQYQFD----FGLRPAISYVQSKGKQLNGAGGSADLAKYIQAGATYYF 134

5dl8\_B 094 NHETESNVILNYAFQQPLLKGFALQYIRIDYNVKH-------GNDFGEDRLFVNYTK 143

## PDB1: 3sy7\_A

## PDB2: 4d65\_A

## row number: 347

3sy7\_A 000 KSADFIGGRYAITDNLSASLYGAELED--------------IYRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAK-----AGDISNTTWSLAAAYTL 081

4d65\_A 000 GDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELD-----ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 095

3sy7\_A 082 D-AHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDID 164

4d65\_A 096 DFGLTPSIGYNQSKGKNL--------------G--N---Y------GNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLKD 150

## PDB1: 3sy7\_A

## PDB2: 4d65\_A

## row number: 348

3sy7\_A 000 RQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAK-----AGDISNTTWSLAAAYTLDAHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQY 095

4d65\_A 000 DGYGFSTAYELG----WGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELDELYLAAMYGQTLNTTRFG------------DD----DA---- 076

3sy7\_A 096 SDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDIDGTKMSDNNVGYKNYGYGEDGKHHETNLEAKYVVQSGPAKDLSFRIRQAWHRANA 189

4d65\_A 077 -EAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGN------------YGNKDLVKYIAVGASYDF----NKNMAAVIDYKINLLKD 149

## PDB1: 3sy7\_A

## PDB2: 5nxr\_A

## row number: 349

3sy7\_A 000 KSADFIGGRYAITDNLSASLYGAELEDI----------------------YRQYYLNSNYTIPLASDQSLGFDFNIYRTNDEGKAK---AGDISNTTWSL 075

5nxr\_A 000 GDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKTENVEL 095

3sy7\_A 076 AAAYTLD-AHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDFNGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDID 164

5nxr\_A 096 VAQYLFDFGLKPSIGYNQSKGKNLG-------------NG-----Y------DNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLKD 157

## PDB1: 3sy7\_A

## PDB2: 6ehb\_A

## row number: 350

3sy7\_A 000 SNTTWSLAAAYTLD--AHTFTLAYQKVHGDQPFDYIGFGRNGSGAGGDSIFLANSVQYSDF-NGPGEKSWQARYDLNLASYGVPGLTFMVRYINGKDIDG 097

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYM-LA-AS--YRMEN--LYFAGLFTDGELAKDVDYTGYELAAGYKLGQ-----AAFTATYNNAETAK- 088

3sy7\_A 098 TKMSDNNVGYKNYGYGEDGKHHETNLEAKYVVQSGPAKDLSFRIRQAWHRANA 150

6ehb\_A 089 -----------------KTSADNFAIDATYYF----KPNFRSYISYQFNLLDS 120

## PDB1: 3sy9\_A

## PDB2: 6ehb\_A

## row number: 351

3sy9\_A 000 DNNTYSLHFAVGYR--QHTVTAVLQKVNGNTPFDYINQ--GDSIFLDNSQQYSDF-NGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKLDLTRVDPDS 095

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRMENLYFAGLFTDGELAKDVDYTGYELAAGYKLGQ-----AAFTATYNNAETA-------- 087

3sy9\_A 096 PGYGGWYSADGKNAKHWERDLDLQYVVQGGPAKDLSLRLRWATHRGTG 143

6ehb\_A 088 -----------KKTSADNFAIDATYYFK----PNFRSYISYQFNLLDS 120

## PDB1: 3sy9\_A

## PDB2: 6ehd\_A

## row number: 352

3sy9\_A 000 IDNNTYSLHFAVGYRQHTVTAVLQKVNGNTPFDYINQGDSIFLDNSQQYSDFNGPNEKSWKLQYDYDFVALGVPGLSASASYSRGKLDLTRVDPDSPGYG 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-------N-----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEAN---------- 068

3sy9\_A 101 GWYSADGKNAKHWERDLDLQYVVQGGPAKDLSLRLRWATHRGTG 144

6ehd\_A 069 -----TGADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGTT 103

## PDB1: 3syb\_A

## PDB2: 3wi4\_A

## row number: 353

3syb\_A 000 NQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAREAGYIDNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQI 100

3wi4\_A 000 ESYHAGFNYKNG----GFFVQYGGAYKRHHQVQEG-LNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD-------A----S-----NSHNSQTEVAA 079

3syb\_A 101 RYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAYGNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 185

3wi4\_A 080 TLAYRFG----N-VTPRVSYAHGFKGLVDDA----------------DIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGK 139

## PDB1: 3syb\_A

## PDB2: 4d65\_A

## row number: 354

3syb\_A 000 IDNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAY 100

4d65\_A 000 KRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGDD----D--------AEAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNY-------- 076

3syb\_A 101 GNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 146

4d65\_A 077 --------GNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLKD 110

## PDB1: 3syb\_A

## PDB2: 4rjw\_A

## row number: 355

3syb\_A 000 EGQSLTLTTRNFYSRENMKDSFTFRIPKAGGGSQRIHQRNAWV-QGTVLKYSSGYTQGTVGFGFDVAAFNEIALERGKGRIGGGGNRTLANSDGEALGEW 099

4rjw\_A 000 FSFKLGGRLQADYSRFDGFYTK-----------NG-NTADAAYFRRAFIELGGTAYKD-WKYQINFDLSHNT-----------------------GSSDN 064

3syb\_A 100 SKLGVANIRLRAS-NTEFKAGRFLV 123

4rjw\_A 065 GYFDEASVTYTGFNPVNLKFGRFDP 89

## PDB1: 3syb\_A

## PDB2: 5fvn\_A

## row number: 356

3syb\_A 000 IDNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAY 100

5fvn\_A 000 DRAETYTGGLKYDANNIYLAAQYTQTYNATRVG----------N-----LGWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENG-------- 073

3syb\_A 101 GNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 146

5fvn\_A 074 -------YGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLDD 108

## PDB1: 3syb\_A

## PDB2: 5nxr\_A

## row number: 357

3syb\_A 000 IDNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAY 100

5nxr\_A 000 KRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYGD--------------LDLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNG-------- 074

3syb\_A 101 GNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 146

5nxr\_A 075 -------YDNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLKD 109

## PDB1: 3syb\_A

## PDB2: 6ehb\_A

## row number: 358

3syb\_A 000 DNDTWSLAFTLGHR--AHALTLAYQQVDGNEYFDYVHET-SAIFLANSM--LADY-NSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGD 094

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRMENLYFAGLFTDGELAKDVDYTGYELAAGYKLGQ-----AAFTATYNNAETAK------- 088

3syb\_A 095 RNGAYGNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 145

6ehb\_A 089 ---------------KTSADNFAIDATYYFK----PNFRSYISYQFNLLDS 120

## PDB1: 3syb\_A

## PDB2: 6ehd\_A

## row number: 359

3syb\_A 000 IDNDTWSLAFTLGHRAHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDIDGTHYDGDRNGAY 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-------N----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANTG--------- 070

3syb\_A 101 GNYAEVRAQDGEKHHELGLMAAYKVQNGPIKDSTFKLTYMMHKASQ 146

6ehd\_A 071 ---------ADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGTT 103

## PDB1: 3syb\_A

## PDB2: 6ehd\_A

## row number: 360

3syb\_A 000 RLNYLGGNYKPLDGLEISLYGSHFQD---------------------VWNQYYLGVTHDIGDLENGIALRTAFNGYHTGDTGAREAGYIDNDTWSLAFTL 079

6ehd\_A 000 ELAELYVGATF-GDLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTIG------DALIGVTYYNAELDVENNPLVIDEDAISVAGTY 093

3syb\_A 080 GHR-AHALTLAYQQVDGNEYFDYVHETSAIFLANSMLADYNSPNEKSAQIRYETDWSYYGVPGLSTGVWYVKGWDI 154

6ehd\_A 094 KVADKTKLYAGYEYVMQEANT------------------GADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGT 147

## PDB1: 3sys\_A

## PDB2: 4d65\_A

## row number: 361

3sys\_A 000 EDAKTDLVLRNYYFNRDFRDHDAGKSLVDEWAQGFILKFSSGYTPG-TVGVGLDAIGLFGVKLNSGRGTSNSELLPLHDDGRAADNYGRVGVA-AKLRV- 097

4d65\_A 000 NKLDVYGQIDVRHYFADAKSG----EDGDDSRVRLGFKGDTQITDQLIGFGRFEWET----STNK---------------AETSNDNQ-NRLAYAGLKFA 076

3sys\_A 098 SASELKIGEMLPDIPLLRY-DD----GRLL---------PQTFRGFAVVSR-E-----LPGLALQAGRFDAVSLRNSADMQDLSAWSAPTQKSDGFNYAG 177

4d65\_A 077 DYGSLDYGRNYGVIYDTNAWTDVLPLWGADTMDQEDTFMMGRNR-NLLTYRNNNGFGYIDGLSFALQYQGKNGDQNKST----GSS--ALDNNGDGYGFS 169

3sys\_A 178 AEYRFNRERTQLGLWHGQLED--------------VYRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR-----AGEIDSHTVYGLFSAGIG-LHTFY 257

4d65\_A 170 TAYELG-WGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLEL--D--ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSFDFGLTPS 264

3sys\_A 258 LGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNAT 326

4d65\_A 265 IGYNQSKGKNLG---------N--------YGNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLKD 312

## PDB1: 3sys\_A

## PDB2: 4d65\_A

## row number: 362

3sys\_A 000 DSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKA-GSGGKEWE 099

4d65\_A 000 RAEAWNVGSKLELDELYLAAMYGQTLNTTRFG----D----DD-----AEAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVKY 083

3sys\_A 100 RDVELGYTVQSGPLARLNVRLNHASNRRS 128

4d65\_A 084 IAVGASYDFN----KNMAAVIDYKINLLK 108

## PDB1: 3sys\_A

## PDB2: 5fvn\_A

## row number: 363

3sys\_A 000 DSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKA--GSGGKEW 098

5fvn\_A 000 RAETYTGGLKYDANNIYLAAQYTQTYNATRVG-----------N-----LGWANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLK 080

3sys\_A 099 ERDVELGYTVQSGPLARLNVRLNHASNRRS 128

5fvn\_A 081 YVDVGATYYFN----KNMSTYVDYKINLLD 106

## PDB1: 3sys\_A

## PDB2: 5fvn\_A

## row number: 364

3sys\_A 000 DGFNYAGAEYRFNRERTQLGLWHGQLED-------------VYRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR--AGEIDSHTVYGLFSAGIG-LH 084

5fvn\_A 000 GDGVGGSITYNLGE-GFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDA--N--NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGL 095

3sys\_A 085 TFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKA---GSGGKEWERDVELGYT 175

5fvn\_A 096 RPSVAYLQSKGKDLE--------NG--------YGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQ 169

## PDB1: 3sys\_A

## PDB2: 5nxr\_A

## row number: 365

3sys\_A 000 DSHTVYGLFSAGIGLHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKA--GSGGKEW 098

5nxr\_A 000 RAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG----D-----------LDLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVK 081

3sys\_A 099 ERDVELGYTVQSGPLARLNVRLNHASNRRS 128

5nxr\_A 082 YISVGSYYYFN----KNMSAVVDYKINLLK 107

## PDB1: 3sys\_A

## PDB2: 5nxr\_A

## row number: 366

3sys\_A 000 DGFNYAGAEYRFNRERTQLGLWHGQLEDV----------------------YRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAAR---AGEIDSHTVYG 075

5nxr\_A 000 GDGYGFSTAYELG-WGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDA--NN--VYLAAMYGQTQNTSRYGDLDLIANKTENVEL 095

3sys\_A 076 LFSAGIG-LHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNAT 156

5nxr\_A 096 VAQYLFDFGLKPSIGYNQSKGKNLG------NG----------YDNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLKD 157

## PDB1: 3sys\_A

## PDB2: 5nxr\_A

## row number: 367

3sys\_A 000 TVYGLFSAGIG-LHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNATTKA---GSGGKEWE 096

5nxr\_A 000 NVELVAQYLFDFGLKPSIGYNQSKGKNLGN--------G--------YDNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNV 080

3sys\_A 097 RDVELGYT 104

5nxr\_A 081 LGLGLVYQ 88

## PDB1: 3sys\_A

## PDB2: 6ehd\_A

## row number: 368

3sys\_A 000 GFNYAGAEYRFNRERTQLGLWHGQLEDV---------------------YRQSYANLLHKQRVGDWTLGANLGLFVDRDDGAARAGEIDSHTVYGLFSAG 079

6ehd\_A 000 ELAELYVGATFG--DLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTI--G--DALIGVTYYNAELDVENNPLVIDEDAISVAGTYK 094

3sys\_A 080 IG-LHTFYLGLQKVGGDSGWQSVYGSSGRSMGNDMFNGNFTNADERSWQVRYDYDFVGLGWPGLIGMVRYGHGSNA 154

6ehd\_A 095 VADKTKLYAGYEYVMQEANT-------------------GADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGT 147

## PDB1: 3szd\_A

## PDB2: 4d65\_A

## row number: 369

3szd\_A 000 LDNRTVSALFSARYGLHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHVRLAGVTDDGSEW 100

4d65\_A 000 KRAEAWNVGSKLELDELYLAAMYGQTLNTTRFG----D--D---D----AEAIANKTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVK 083

3szd\_A 101 GRESELGYTLQSGAFKRLNVRWRNSSQRRDW 131

4d65\_A 084 YIAVGASYDFN----KNMAAVIDYKINLLKD 110

## PDB1: 3szd\_A

## PDB2: 4d65\_A

## row number: 370

3szd\_A 000 DRFDFAGGEYRFNGERSLLGLWNAELKD--------------IYRQQYLQLQHSQPLGDWLLGANLGGFRGRDAGSAR-----AGKLDNRTVSALFSARY 081

4d65\_A 000 GDGYGFSTAYELGWGL-SIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLEL--D--ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 095

3szd\_A 082 G-LHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHV 155

4d65\_A 096 DFGLTPSIGYNQSKGKNL-------G-N---Y------GNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLK 149

## PDB1: 3szd\_A

## PDB2: 5fvn\_A

## row number: 371

3szd\_A 000 DRFDFAGGEYRFNGERSLLGLWNAELKDI-------------YRQQYLQLQHSQPLGDWLLGANLGGFRGRDAGSA--RAGKLDNRTVSALFSARYG-LH 084

5fvn\_A 000 GDGVGGSITYNLGEGF-GIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDA--N--NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGL 095

3szd\_A 085 TLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHV 155

5fvn\_A 096 RPSVAYLQSKGKDL-E-----N-G---Y------GDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLD 146

## PDB1: 3szd\_A

## PDB2: 5nxr\_A

## row number: 372

3szd\_A 000 LDNRTVSALFSARYG-LHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHV 88

5nxr\_A 000 NKTENVELVAQYLFDFGLKPSIGYNQSKGKNLG------N-G---Y------DNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLK 69

## PDB1: 3szd\_A

## PDB2: 6ehd\_A

## row number: 373

3szd\_A 000 KLDNRTVSALFSARYGLHTLYLGLQKVSGDDGWMRVNGTSGGTLANDSYNASYDNPGERSWQLRYDFDFVGLGLPGLTFMTRYLHGDHVRLAGVTDDGSE 100

6ehd\_A 000 DVTNSYFEVTGEYTIGDALIGVTYYNAELDVEN--------N----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT--GADEDG 076

3szd\_A 101 WGRESELGYTLQSGAFKRLNVRWRNSSQRRDW 132

6ehd\_A 077 TLVYLGVEYKF----ASWARVYAEYGYGDGTT 104

## PDB1: 3szv\_A

## PDB2: 3wi4\_A

## row number: 374

3szv\_A 000 RQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGF-RELDNRAFGALFSLRLGAHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRY 099

3wi4\_A 000 ESYHAGFNYKNG---GFFVQYGGAYKRHHQVQEGLNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD----A-----SN-------SHNSQTEVAATL 081

3szv\_A 100 DYDFGALGLPGLSFMSRYVSGDNVARG-AANDGKEWERNTDLGYVVQSGPLKNLGVKWRNATVRSNFA---NDLDENRLILSYSL 180

3wi4\_A 082 AYRFG----N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 157

## PDB1: 3szv\_A

## PDB2: 5mdo\_A

## row number: 375

3szv\_A 000 DNRAFGALFSLRLG-AHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNVARG--AANDGKEW 097

5mdo\_A 000 ENNTYLVGVQGWFENGISFFAQYKYMEADASN-----------G-------VNEKQDAMSAGLMYTTG----D-WQYKLGYAANFDLERDGKTLSNTSDD 077

3szv\_A 098 ERNTDLGYVVQSGPLKNLGVKWRNATVRSNF---------------ANDLDENRLILSYSL 143

5mdo\_A 078 VVSAQIMYFVD----PSAVLYARARMNDFNEGLDGLDDAARWTSGTNGDYNEYSVGVEYYF 134

## PDB1: 3szv\_A

## PDB2: 5mdo\_A

## row number: 376

3szv\_A 000 AFDFAGGDYRLTPALTASLHQGRLKDI--------YRQTFAGLVHTLDLGGQRSLKSDLRFARASEDGGF-RELDNRAFGALFSLRLGAHAVAAGYQRIS 091

5mdo\_A 000 YWGGIAAHYKL-GPLQLDAAYEGNRNIEAEGQTWENNTYLVGVQGWFE--N--GISFFAQYKYMEADASNGVNEKQDAMSAGLMYTTGDWQYKLGYAANF 095

3szv\_A 092 GDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFMSRYVSGDNV 151

5mdo\_A 096 DLERD----G-----------KTLSNTSDDVVSAQIMYFVD----PSAVLYARARMNDFN 136

## PDB1: 3szv\_A

## PDB2: 6ehd\_A

## row number: 377

3szv\_A 000 SLKSDLRFARASEDGG--FRELDNRAFGALFSLRLG-AHAVAAGYQRISGDDPYPYIAGSDPYLVNFIQIGDFGNVDERSWQLRYDYDFGALGLPGLSFM 097

6ehd\_A 000 DALIGVTYYNAELDVENNPLVIDEDAISVAGTYKVADKTKLYAGYEYVMQEAN-------T-----------GADEDGTLVYLGVEYKFAS----WARVY 078

3szv\_A 098 SRYVSGDNV 106

6ehd\_A 079 AEYGYGDGT 87

## PDB1: 3t0s\_A

## PDB2: 4d65\_A

## row number: 378

3t0s\_A 000 RQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAI-----SGPVDNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQE 095

4d65\_A 000 DGYGFSTAYELG----WGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLELDELYLAAMYGQTLNTTRFGD----DD----A-----EAIANKT 083

3t0s\_A 096 KSWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGAGRADDSEWERNTDLSYVIQSGPLKSVALKWRNITYRSR 168

4d65\_A 084 ENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLK 148

## PDB1: 3t0s\_A

## PDB2: 5fvn\_A

## row number: 379

3t0s\_A 000 RQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAA----ISGPVDNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEK 096

5fvn\_A 000 DGVGGSITYNL--GE--GFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDANNIYLAAQYTQTYNATRVG------N----------LGWANKAQ 080

3t0s\_A 097 SWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGA-GRADDSEWERNTDLSYVIQSGPLKSVALKWRNITYRSR 168

5fvn\_A 081 NFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLD 145

## PDB1: 3t0s\_A

## PDB2: 5nxr\_A

## row number: 380

3t0s\_A 000 DEFNLAGATYAFTPRLSASYYYGQLKDI----------------------YRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAI---SGPVDNRNLNA 075

5nxr\_A 000 GDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKTENVEL 095

3t0s\_A 076 MLTLRAG-AHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDI 155

5nxr\_A 096 VAQYLFDFGLKPSIGYNQSKGKNLG------NG----Y------DNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLK 156

## PDB1: 3t0s\_A

## PDB2: 5nxr\_A

## row number: 381

3t0s\_A 000 VDNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGA-GRADDSE 099

5nxr\_A 000 KRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG------D----L-----DLIANKTENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLV 081

3t0s\_A 100 WERNTDLSYVIQSGPLKSVALKWRNITYRSR 130

5nxr\_A 082 KYISVGSYYYFN----KNMSAVVDYKINLLK 108

## PDB1: 3t0s\_A

## PDB2: 6ehb\_A

## row number: 382

3t0s\_A 000 DNRNLNAMLTLRAG--AHAFGIGVQKMIGNDAFPVLNG--YTTPYVANLMAYQTF-TRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGAGRAD 095

6ehb\_A 000 GEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAASYRMENLYFAGLFTDGELAKDVDYTGYELAAGYKLGQ-----AAFTATYNNAETAK------K 089

3t0s\_A 096 DSEWERNTDLSYVIQSGPLKSVALKWRNITYRSR 129

6ehb\_A 090 TSADNFAIDATYYFK----PNFRSYISYQFNLLD 119

## PDB1: 3t0s\_A

## PDB2: 6ehd\_A

## row number: 383

3t0s\_A 000 EFNLAGATYAFTPRLSASYYYGQLKDI---------------------YRQHYLGLLHTLPLGEGLSLRSDLRYFDSGEDGAAISGPVDNRNLNAMLTLR 079

6ehd\_A 000 ELAELYVGATF-GDLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISVAGTYK 094

3t0s\_A 080 AG-AHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDI 154

6ehd\_A 095 VADKTKLYAGYEYVMQEANT-------------------GADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGT 147

## PDB1: 3t0s\_A

## PDB2: 6ehd\_A

## row number: 384

3t0s\_A 000 VDNRNLNAMLTLRAGAHAFGIGVQKMIGNDAFPVLNGYTTPYVANLMAYQTFTRPQEKSWQLRYDYDFAGLGLPGLNLMTRYVQGRDIDRGAGRADDSEW 100

6ehd\_A 000 VTNSYFEVTGEYTIGDALIGVTYYNAELDVEN-------N-----------PLVIDEDAISVAGTYKVA----DKTKLYAGYEYVMQEANT--GADEDGT 076

3t0s\_A 101 ERNTDLSYVIQSGPLKSVALKWRNITYRSR 130

6ehd\_A 077 LVYLGVEYKFA----SWARVYAEYGYGDGT 102

## PDB1: 3t24\_A

## PDB2: 3wi4\_A

## row number: 385

3t24\_A 000 DNKALNAMFTYSLGYHAFG--VGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNIDLLTTSGEGKEW 098

3wi4\_A 000 NSESYHAGFNYKNGGFFVQYGGAYKRHHQVQE-----G-------L------NIEKYQIHRLVSGYDND-----ALYASVAVQQQDAKLTDASNSHNSQT 077

3t24\_A 099 ERDMDIAYVFQSGPLKNLGVKWRNATMRTN------YTNDYDENRLIVSYTLP 145

3wi4\_A 078 EVAATLAYRF--G--N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS 125

## PDB1: 3t24\_A

## PDB2: 4d65\_A

## row number: 386

3t24\_A 000 DNKALNAMFTYSLG-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNI 86

4d65\_A 000 KTENLELVALYSFDFGLTPSIGYNQSKGKNLG----------------NYGNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLK 67

## PDB1: 3t24\_A

## PDB2: 5fvn\_A

## row number: 387

3t24\_A 000 QHYLGLVHTLPIADKQSLKSDIRWARSTDDGS-----SNVDNKALNAMFTYSLG-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQ 094

5fvn\_A 000 TYTGGLKYDA--N---NIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGLRPSVAYLQSKGKDLE-------N--------GYGDQDLLKYVD 080

3t24\_A 095 ARYDYNFAGVGIPGLTFMTRYVKGDNI 121

5fvn\_A 081 VGATYYFN----KNMSTYVDYKINLLD 103

## PDB1: 3t24\_A

## PDB2: 5mdo\_A

## row number: 388

3t24\_A 000 FDFAGGSYKWTDNLSTSYHYGKLDNF--------YKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS--SNVDNKALNAMFTYSLGYHAFGVGYQKMSG 090

5mdo\_A 000 WGGIAAHYKL-GPLQLDAAYEGNRNIEAEGQTWENNTYLVGVQGWFE--N--GISFFAQYKYMEADASNGVNEKQDAMSAGLMYTTGDWQYKLGYAANFD 095

3t24\_A 091 DTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNID 150

5mdo\_A 096 LERD----G-----------KTLSNTSDDVVSAQIMYFVDP----SAVLYARARMNDFNE 136

## PDB1: 3t24\_A

## PDB2: 5nxr\_A

## row number: 389

3t24\_A 000 DNKALNAMFTYSLG-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNI 86

5nxr\_A 000 KTENVELVAQYLFDFGLKPSIGYNQSKGKNLG---------------NGYDNQDLVKYISVGSYYYFN----KNMSAVVDYKINLLK 68

## PDB1: 3t24\_A

## PDB2: 6ehd\_A

## row number: 390

3t24\_A 000 FDFAGGSYKWTDNLSTSYHYGKLDN---------------------FYKQHYLGLVHTLPIADKQSLKSDIRWARSTDDGS---SNVDNKALNAMFTYSL 076

6ehd\_A 000 LAELYVGATF-GDLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISVAGTYKV 094

3t24\_A 077 G-YHAFGVGYQKMSGDTGFAYINGADPYLVNFIQIGDFANKDEKSWQARYDYNFAGVGIPGLTFMTRYVKGDNI 149

6ehd\_A 095 ADKTKLYAGYEYVMQEANT----------G--------ADEDGTLVYLGVEYKFAS----WARVYAEYGYGDGT 146

## PDB1: 3wi4\_A

## PDB2: 4frt\_A

## row number: 391

3wi4\_A 000 NSESYHAGFNYKNGGFFVQYGGAYKRHHQVQE-----G------L-------NIEKYQIHRLVSGYDND-----ALYASVAVQQQDAKLTDASNSHNSQT 077

4frt\_A 000 NNRALNALFTYRLGGHAFG--LGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEW 098

3wi4\_A 078 EVAATLAYRFG----N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS 125

4frt\_A 099 ERDTDIAYLVQSGPLKNLGIKLRNGTFRSD------FGNDIDETRLIVSYALP 145

## PDB1: 3wi4\_A

## PDB2: 4frx\_A

## row number: 392

3wi4\_A 000 EKYQIHRLVSGYDNDALYASVAVQQQDAKLTD----------AS----N-------SHNSQTEVAATLAYRFG----N-VTPRVSYAHGFKGLVDDADIG 074

4frx\_A 000 VDNRAFSGLFTYTVSGHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIKT--ARGD 098

3wi4\_A 075 NEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGE-----NKFVATAGGVGLRHKF 123

4frx\_A 099 QSEWERDISLAYVIPDGTFKGLGFTWKNASFRSGLPAAGSSNNQRDQDENRLIVSYTL 156

## PDB1: 3wi4\_A

## PDB2: 4fsp\_A

## row number: 393

3wi4\_A 000 EKYQIHRLVSGYDN-DALYASVAVQQQDAKLTD----------ASN------SHNSQTEVAATLAYRFG----N-VTPRVSYAHGFKGLVDDADIGNEYD 078

4fsp\_A 000 IDNRSFSGSLTYRLRNGQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPK-GADGSREW 099

3wi4\_A 079 QVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 123

4fsp\_A 100 ERDSDLRYVLQGGALKGLGLVWRNATYRSAFS---RDIDENRLYLTYEL 145

## PDB1: 3wi4\_A

## PDB2: 5dl5\_A

## row number: 394

3wi4\_A 000 EKYQIHRLVSGYDNDALYASVAVQQQDAKLTD-------A--S----NS------HNSQTEVAATLAYRFG-----N-VTPRVSYAHGFKGLVDDADIGN 075

5dl5\_A 000 KTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNVTDDA 100

3wi4\_A 076 EYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGE---NKFVATAGGVGLRHKF 123

5dl5\_A 101 QEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 155

## PDB1: 3wi4\_A

## PDB2: 5dl8\_B

## row number: 395

3wi4\_A 000 SYHAGFNYKN--GGFFVQYGGAYKRHHQVQEGLNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTD----A--S----N-------SHNSQTEVAATLA 081

5dl8\_B 000 KHYVGLEHTWKQPTFALTSKFKYFNAKDDGNT-FDIDAENIGLLETVKVKNHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYG 099

3wi4\_A 082 YRFG---N-VTPRVSYAHGFKGLVDDADIGNEYDQVVVGAEYDFS----KRTSALVSAGWLQEGKGENKFVATAGGVGLRHKF 156

5dl8\_B 100 YDFKDYIPGLNAMVKYVYGHDFKAA-NGEKNHETESNVILNYAFQQPLLKGFALQYIRIDYNVKH---GNDFGEDRLFVNYTK 178

## PDB1: 3wi4\_A

## PDB2: 5ldv\_A

## row number: 396

3wi4\_A 000 SESYHAGFNYKN--G-GFFVQYGGAYKRHHQVQEG---LNIEKYQIHRLVSGYDNDALYASVAVQQQDAKLTDA--------S------N---------- 070

5ldv\_A 000 AFFYAVDAAYSTTIFDGINWTLEGAYLGNSLDSELDDKKTYANGNLFALKGSIEVNGWDASLGGLYYGDKEKASTVVIEDQGNLGSLLAGEEIFYTTGSR 100

3wi4\_A 071 ---SHNSQTEVAATLAYRFGN-VTPRVS--YAHGFKGLVDDADIGNEYDQVVVGAEYDFSKRTSALVSAGWLQEGKGE---NKFVATAGGVGLRHKF 158

5ldv\_A 101 LNGDTGRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATT-HLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYKF 196

## PDB1: 3wi4\_A

## PDB2: 5ldv\_A

## row number: 397

3wi4\_A 000 SQTEVAATLAYRFG-NVTPRVSYAHGFKGLVDD-ADIGNEYDQVVVGAEYDFSKRTSALVSAGWLQEGKGE---NKFVATAGGVGLRHKF 85

5ldv\_A 000 RNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYKF 90

## PDB1: 4afk\_A

## PDB2: 6ehd\_A

## row number: 398

4afk\_A 000 EAPKNFGLDVKITGESENDRDLGTAPGGTLNDIGIDLRPWAFGQWG-DWSAYFMGQAVAATDTIETDTLQSDTDDGNNSRNDGREPDKSYLAAREFWVDY 099

6ehd\_A 000 AGTVDFYGQLRTELKFLEDKD------PTIGSGSSRAGVDANYTVNDSLALQGKVEFALK--------------------------DSGDMYVRNHILGV 068

4afk\_A 100 AGLTAYPGEHLRFGRQRLREDS 121

6ehd\_A 069 KT----NFGKFSFGKQWTTSDD 86

## PDB1: 4aui\_A

## PDB2: 4frt\_A

## row number: 399

4aui\_A 000 ESYHAGFNYKND---GFFVQYAGSYKRHNYT---TEKHQVHRLVGGYDHDALYASVAVQQQDAKLTW----RD----DN-------SHNSQTEVATTVAY 079

4frt\_A 000 RQHHLGVQHLLPLADDQSLKSDIRWARSTDEGGSRVNNRALNALFTYRLGGHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDY 100

4aui\_A 080 RFG-----NVTPRVSYAHGFKGSVYDADHDNTYDQVVVGAEYDFS----KRTSALVSAGWLQKGKGAEKFVATVGGVGLRHKF 153

4frt\_A 101 DFAAIGLPGLTFMSRYLRGEHIDLLDGGGRGKEWERDTDIAYLVQSGPLKNLGIKLRNGTFRSDFG---NDIDETRLIVSYAL 180

## PDB1: 4aui\_A

## PDB2: 4ft6\_A

## row number: 400

4aui\_A 000 KHQVHRLVGGYDHDALYASVAVQQQDAKLTWR----------D-----DNSHNSQTEVATTVAYRFGN-----VTPRVSYAHGFKGSVYDADHDNTYDQV 080

4ft6\_A 000 ENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTK-AMDDGRAWER 099

4aui\_A 081 VVGAEYDFS----KRTSALVSAGWLQKGKGAEKFVATVGGVGLRHKF 123

4ft6\_A 100 DVDVAYVIQSGPLKNLGLRWRNAMLRSNHA---ADVDENRLILSYSL 143

## PDB1: 4aui\_A

## PDB2: 5ldv\_A

## row number: 401

4aui\_A 000 HQVHRLVGGYDH-DALYASVAVQQQDAKLTWRDD--NSHNSQTEVATTVAYRFG-NVTPRVSYAHGFK 64

5ldv\_A 000 NIFGYVTGGYTFNETVRVGADFVYGGTKT--EATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNL 66

## PDB1: 4d65\_A

## PDB2: 4frx\_A

## row number: 402

4d65\_A 000 NGDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLEL--D--ELYLAAMYGQTLNTTRFGDDD---------------AEAI 081

4frx\_A 000 SNKFYYAGGDYKVNKDLTLQYYYGNLDDF--------------YKQHFLGLIHNWQIGPGVLKTDLRAFDSSSDGKNGSRSGRADGYVSSGYYGSGVTKG 086

4d65\_A 082 ANKTENLELVALYSFDFGLTPSIGYNQSKGKNLG----------N-----Y------GNKDLVKYIAVGASYDFN----KNMAAVIDYKINLLKD 151

4frx\_A 087 EVDNRAFSGLFTYTVS-GHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKIK 180

## PDB1: 4d65\_A

## PDB2: 4ft6\_A

## row number: 403

4d65\_A 000 NGDGYGFSTAYELGWGLSIGGGYSNSSRTPSQN-------NI-K----TGATGKRAEAWNVGSKLELD-----ELYLAAMYGQTLNTTRFGDDDAEAIAN 083

4ft6\_A 000 ENRALTGFFSATRG-GHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA-----MDDG 094

4d65\_A 084 KTENLELVALYSFD----FGLTPSIGYNQSKGKNLGNYGNKDLVKYIAVGASYDF 134

4ft6\_A 095 RAWERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH------AADVDENRLILSYSL 143

## PDB1: 4d65\_A

## PDB2: 4ft6\_A

## row number: 404

4d65\_A 000 KLDVYGQIDVRHYFADAKSG----EDGDDSRVRLGFKGDTQITDQ-LIGFGRFEWET--STN-K---------------AETSNDNQNRLAYAGLKFADY 077

4ft6\_A 000 DASVSLGLRNLYFNRDFRQPGAAQSKQEEWAQGFLLQAKSGYTQGTLGLGVELIGQLGLKLDSSPDRAGSGLLPRHADGRAADDYARLGVA-PKLKL-SN 098

4d65\_A 078 GSLDYGRNYGV 88

4ft6\_A 099 TELKLGELLPE 109

## PDB1: 4d65\_A

## PDB2: 5dl6\_A

## row number: 405

4d65\_A 000 NGDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLEL--D---ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYS 095

5dl6\_A 000 TDGLYYLGGNYQFNPALKLTAFYMDVDD--------------LYNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAK-----AGLVDNDLYHAHFELK 081

4d65\_A 096 FDFGLTPSIGYNQSKGKNLG------N----------YGNKDLVKYIAVGASYDFN---KNMAAVIDYKINLL 149

5dl6\_A 082 HQ-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHN 153

## PDB1: 4d65\_A

## PDB2: 5dl6\_A

## row number: 406

4d65\_A 000 GDGYGFSTAYELGWGLSIGGGYSNSSRTPSQNNIKTGATGKRAEAWNVGSKLEL--D---ELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSF 095

5dl6\_A 000 DGLYYLGGNYQFNPALKLTAFYMDVDD--------------LYNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAK-----AGLVDNDLYHAHFELKH 081

4d65\_A 096 DFGLTPSIGYNQSKGKNLGN----------------YGNKDLVKYIAVGASYDFN---KNMAAVIDYKINLLKDNQFTDDYGINTDNVLGLGLIYQF 173

5dl6\_A 082 Q-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPN-LGGTNLKERETDFDLGYTV 176

## PDB1: 4d65\_A

## PDB2: 5ldv\_A

## row number: 407

4d65\_A 000 KRAEAWNVGSKLEL-DELYLAAMYGQTLNTTRFGDDDAEAIANKTENLELVALYSFDFGLTPSIGYNQSKGKNLGNYGNKDLVKYIAVGASYD 92

5ldv\_A 000 GRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATT---HLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYK 90

## PDB1: 4frt\_A

## PDB2: 5mdo\_A

## row number: 408

4frt\_A 000 RFDFAGGTYRWSERLSSSYHYANLEDF--------YRQHHLGVQHLLPLADDQSLKSDIRWARSTDEGG--SRVNNRALNALFTYRLGGHAFGLGYQRMS 090

5mdo\_A 000 YWGGIAAHYKL-GPLQLDAAYEGNRNIEAEGQTWENNTYLVGVQGWFE--N--GISFFAQYKYMEADASNGVNEKQDAMSAGLMYTTGDWQYKLGYAANF 095

4frt\_A 091 GDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEH 149

5mdo\_A 096 DLERD----G-----K------TLSNTSDDVVSAQIMYFVD----PSAVLYARARMNDF 135

## PDB1: 4frt\_A

## PDB2: 6ehd\_A

## row number: 409

4frt\_A 000 RFDFAGGTYRWSERLSSSYHYANLED---------------------FYRQHHLGVQHLLPLADDQSLKSDIRWARSTDEGG---SRVNNRALNALFTYR 076

6ehd\_A 000 ELAELYVGATF-GDLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTIG-----DALIGVTYYNAELDVENNPLVIDEDAISVAGTYK 094

4frt\_A 077 LG-GHAFGLGYQRMSGDSGFAYLAGTDPYLVNFVQIGDFANKDERSWQLRYDYDFAAIGLPGLTFMSRYLRGEHI 150

6ehd\_A 095 VADKTKLYAGYEYVMQEANT----------G--------ADEDGTLVYLGVEYKFA----SWARVYAEYGYGDGT 147

## PDB1: 4frx\_A

## PDB2: 5fvn\_A

## row number: 410

4frx\_A 000 SNKFYYAGGDYKVNKDLTLQYYYGNLDDF-------------YKQHFLGLIHNWQIGPGVLKTDLRAFDSSSDGKNGSRSGRADGYVSSGYYGSGVTKGE 087

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDA--N--NIYLAAQYTQTYNATRVGN------------------LGWA 078

4frx\_A 088 VDNRAFSGLFTYTVS-GHSIGAGYQILNGDSDFPFLNRGDGEGSTAYLITDVQIGKFQRAGERTWQVRYGYDFATVGVPGLTFNTIYLSGDKI 179

5fvn\_A 079 NKAQNFEVVAQYQFDFGLRPSVAYLQSKGKDLE---N------G-----------YGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLD 147

## PDB1: 4fso\_A

## PDB2: 5mdo\_A

## row number: 411

4fso\_A 000 DNRALSLLLAYAQG-GHTLSAGWQRMNGASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDHIRLA--NGDEGKEW 097

5mdo\_A 000 ENNTYLVGVQGWFENGISFFAQYKYMEADASN------------------GVNEKQDAMSAGLMYTTG----D-WQYKLGYAANFDLERDGKTLSNTSDD 077

4fso\_A 098 ERDIELKYIVQSGRFKDLSLRLRNATYRTDFER------------SARDVDEVRLIASYNL 146

5mdo\_A 078 VVSAQIMYFVD----PSAVLYARARMNDFNEGLDGLDDAARWTSGTNGDYNEYSVGVEYYF 134

## PDB1: 4fso\_A

## PDB2: 5mdo\_A

## row number: 412

4fso\_A 000 FDAYQLDYQVNDGLLLQYAQGGLRNV--------YRQRYLGAVGKRQVGAGKLSADLRWFDSEDAGAARAGKIDNRALSLLLAYAQGGHTLSAGWQRMNG 092

5mdo\_A 000 WGGIAAHYKL-GPLQLDAAYEGNRNIEAEGQTWENNTYLVGVQGWFE--N-GISFFAQYKYMEADASN-GVNEKQDAMSAGLMYTTGDWQYKLGYAANFD 095

4fso\_A 093 ASSMPYLDGSNPYLANYLQVNDFANPEERSWQLRYDFDLRSVGVPGLSFMTRYVNGDH 150

5mdo\_A 096 LERD----G-----KTL------SNTSDDVVSAQIMYFVD----PSAVLYARARMNDF 134

## PDB1: 4fsp\_A

## PDB2: 5fvn\_A

## row number: 413

4fsp\_A 000 DNRSFSGSLTYRLRN-GQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPKG--ADGSRE 097

5fvn\_A 000 NGDGVGGSITYNL-GEGFGIGTAVSSSKRTSSQN-----DL--T------YGNGDRAETYTGGLKYDAN-----NIYLAAQYTQTYNATRVGNLGWANKA 081

4fsp\_A 098 WERDSDLRYVLQGGALKGLGLVWRNATYRSAF-------SRDIDENRLYLTYEL 144

5fvn\_A 082 QNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYF 131

## PDB1: 4fsp\_A

## PDB2: 5mdo\_A

## row number: 414

4fsp\_A 000 DNRSFSGSLTYRLRN-GQAFGLGYQRMSGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGAKPK--GADGSRE 097

5mdo\_A 000 ENNTYLVGVQGWF-ENGISFFAQYKYMEADAS------------N------GVNEKQDAMSAGLMYTTG-----DWQYKLGYAANFDLERDGKTLSNTSD 076

4fsp\_A 098 WERDSDLRYVLQGGALKGLGLVWRNATYRSA 128

5mdo\_A 077 DVVSAQIMYFVD----PSAVLYARARMNDFN 103

## PDB1: 4fsp\_A

## PDB2: 5mdo\_A

## row number: 415

4fsp\_A 000 RFDLAGLDYRIAPDWTGSYHYGELEQV--------YAQHFLGLKGRIGIAADSLESDLRLALSRDTGGARGGRIDNRSFSGSLTYRLRNGQAFGLGYQRM 092

5mdo\_A 000 YWGGIAAHYKL-GPLQLDAAYEGNRNIEAEGQTWENNTYLVGVQGWFE---NGISFFAQYKYMEADASN-GVNEKQDAMSAGLMYTT-GDWQYKLGYAAN 094

4fsp\_A 093 SGDHGFPYLEGTDPYLVNFGQYNDFAEAGESSWQLRYDCDFAPLGVPGLSLMTRYFSGHGA 153

5mdo\_A 095 FDLERD----G------K-----TLSNTSDDVVSAQIMYFVD----PSAVLYARARMNDFN 136

## PDB1: 4ft6\_A

## PDB2: 4rjw\_A

## row number: 416

4ft6\_A 000 NRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVA-------------------LGIPGLTAMARYAS 081

4rjw\_A 000 DSVWGLEGAWAMGPFSAQAEYLARKLKADDN---A-------------YKDIKAKGYYAQLAYTLTGESRQYKLEGAKFDSVKPENKEIGAWEVFYRYDN 084

4ft6\_A 082 GAHARTKA--------MDDGRAWERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH------AADVDENRLILSYSL 142

4rjw\_A 085 IKVEDDNVVADTATREVGDTKAKAHNLGVNWYV----NDAVKISAAYVKAKTDKITNNNGDDDGDGFVTRLQYVF 155

## PDB1: 4ft6\_A

## PDB2: 5fvn\_A

## row number: 417

4ft6\_A 000 LENRALTGFFSATRG-GHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA---MDDGR 096

5fvn\_A 000 NKAQNFEVVAQYQFDFGLRPSVAYLQSKGKDLE-------NG--------YGDQDLLKYVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGIST 081

4ft6\_A 097 AWERDVDVAYV 107

5fvn\_A 082 DDIVALGLVYQ 92

## PDB1: 4ft6\_A

## PDB2: 5mdo\_A

## row number: 418

4ft6\_A 000 ENRALTGFFSATRGGHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKAMDDGRAWERD 100

5mdo\_A 000 DDYWGGIAAHYKLGPLQLDAAYEGNRNIEAE------------------GQTWENNTYLVGVQGWFE----NGISFFAQYKYMEADASN-GVNEKQDAMS 077

4ft6\_A 101 VDVAYVIQSGPLKNLGLRWRNAMLRSNH-------AADVDENRLILSYSL 143

5mdo\_A 078 AGLMYTTG----D-WQYKLGYAANFDLERDGKTLSNTSDDVVSAQIMYFV 122

## PDB1: 4ft6\_A

## PDB2: 5nxr\_A

## row number: 419

4ft6\_A 000 ENRALTGFFSATRG-GHSLGAGYQRMYGDDGMLYIAGTSTPLVNDIQVRNFTSAGERSWQLRYDYDFVALGIPGLTAMARYASGAHARTKA---MDDGRA 096

5nxr\_A 000 NGDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVT-SEGDS---YYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKT 091

4ft6\_A 097 WERDVDVAYVIQSGPLKNLGLRWRNAMLRSNH-------AADVDENRLILSYSL 143

5nxr\_A 092 ENVELVAQYLFD----FGLKPSIGYNQSKGKNLGNGYDNQDLVKYISVGSYYYF 141

## PDB1: 4ft6\_A

## PDB2: 5nxr\_A

## row number: 420

4ft6\_A 000 EDASVSLGLRNLYFNRDFRQPGAAQSKQEEWAQGFLLQAKSGYTQGTLGLGVELIGQLGLKLDSSPDRAGSGLLPRHADGRAADDYARLGVA-PKLKL-S 098

5nxr\_A 000 NKLDVYGKVDVRHYFASADKGK-KSEDGDDSRVRLGVKGDTQITDQ-LTGFGRFEWET--KTN-K---------------AENEGENKNRLAYAGLKFAD 080

4ft6\_A 099 NTELKLGELLPE 110

5nxr\_A 081 FGSIDYGRNYGV 92

## PDB1: 4rjw\_A

## PDB2: 5dl6\_A

## row number: 421

4rjw\_A 000 DDSVWGLEGAWAMGPFSAQAEYLARKLKADDNA----------------YKDIKAKGYYAQLAYTLTGESRQYKLEGAKFDSVKPENKEIGAWEVFYRYD 084

5dl6\_A 000 DNDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKE--------------Y------VPGLCFMTRYT 080

4rjw\_A 085 NIKVEDDNVVADTATREVGDTKAKAHNLGVNWYVN----DAVKISAAYVKAKTDKITNNNGDDDGDGFVTRLQYVF 156

5dl6\_A 081 TGHNIYAPNL------GGTNLKERETDFDLGYTVQSGWLKNLGLRARYAIYDNNMLST-ANIKPVNETRINIDYTW 149

## PDB1: 4rjw\_A

## PDB2: 5dl7\_A

## row number: 422

4rjw\_A 000 AWEVFYRYDNIKVEDDNVVADTATREVGDTKAKAHNLGVNWYVN----DAVKISAAYVKAKTDKITNNNGDDDGDGFVTRLQYVF 81

5dl7\_A 000 GLRFMTRYAKGEDIDLLQY------GDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTN-MTFHSANETRLNVDYTF 78

## PDB1: 5dl5\_A

## PDB2: 5fvn\_A

## row number: 423

5dl5\_A 000 EKTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRN-VTD 099

5fvn\_A 000 GDRAETYTGGLKYDANNIYLAAQYTQTYNATRVG--------N-----L-----GWANKAQNFEVVAQYQFD-----FGLRPSVAYLQSKGKDLENGYGD 077

5dl5\_A 100 DAQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQG--AYIGDTNEWRIFLDIPV 156

5fvn\_A 078 QDLLKYVDVGATYYFN----KNMSTYVDYKINLLDDKEFTRNAGISTDDIVALGLVYQF 132

## PDB1: 5dl5\_A

## PDB2: 5nxr\_A

## row number: 424

5dl5\_A 000 EKTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRN-VTD 099

5nxr\_A 000 GKRAQAWNVGGKFDANNVYLAAMYGQTQNTSRYG---------D----L----DLIANKTENVELVAQYLFD-----FGLKPSIGYNQSKGKNLGNGYDN 078

5dl5\_A 100 DAQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQG--AYIGDTNEWRIFLDIPV 156

5nxr\_A 079 QDLVKYISVGSYYYFN----KNMSAVVDYKINLLKDNDFTKEYGINTDNVLGLGLVYQF 133

## PDB1: 5dl5\_A

## PDB2: 6ehb\_A

## row number: 425

5dl5\_A 000 KTNNIWAISGTYATG--PHSVMLAYQQNTGNVGYDYGQNADGFQSIYLP-NSYMSDF-IGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNV 096

6ehb\_A 000 NGEDGYSLSAIYTFGDTGFNVGAGYADQDDQNEYMLAAS-YRMENLYFAGLFTDGELAKDVDYTGYELAAGYKLG-----Q-AAFTATYNNAETA----- 088

5dl5\_A 097 TDDAQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASDAYQGAYIGDTNEWRIFLDIPV 155

6ehb\_A 089 -KKTSADNFAIDATYYFK----PNFRSYISYQFNLLDSDKA-SKVASEDELAIGLRYDF 141

## PDB1: 5dl5\_A

## PDB2: 6ehd\_A

## row number: 426

5dl5\_A 000 EKTNNIWAISGTYATGPHSVMLAYQQNTGNVGYDYGQNADGFQSIYLPNSYMSDFIGNHEKSAQIQYNVDFGKLGVLPGLNWTTAFVYGWDIKVRNVTDD 100

6ehd\_A 000 DVTNSYFEVTGEYTIGDALIGVTYYNAELDVEN---------N-----P------LVIDEDAISVAGTYKVA-----DKTKLYAGYEYVMQEANT--GAD 073

5dl5\_A 101 AQEREFFNQVKYTVQSGFAKDASLRIRNSYYRASD 135

6ehd\_A 074 EDGTLVYLGVEYKFA----SWARVYAEYGYGDGTT 104

## PDB1: 5dl6\_A

## PDB2: 5fvn\_A

## row number: 427

5dl6\_A 000 TDGLYYLGGNYQFNPALKLTAFYMDVDDL-------------YNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQA--KAGLVDNDLYHAHFELKHQ-N 084

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQNDLTYGNGDRAETYTGGLKYDA--N-NIY--LAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFG 095

5dl6\_A 085 HKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHN 153

5fvn\_A 096 LRPSVAYLQSKGKDLE----NG-----------YGDQDLLKYVDVGATYYFN---KNMSTYVDYKINLL 146

## PDB1: 5dl6\_A

## PDB2: 5fvn\_A

## row number: 428

5dl6\_A 000 DNDLYHAHFELKHQ-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERE 099

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQN-----D--L-T-----YGNGDRAETYTGGLKYDAN----NIYLAAQYTQTYNATRVGNLGWANKAQN 083

5dl6\_A 100 TDFDLGYTVQSGWLKNLGLRARYAIYDNNMLST--ANIKPVNETRINIDYTW 149

5fvn\_A 084 FEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYF 131

## PDB1: 5dl6\_A

## PDB2: 5mdo\_A

## row number: 429

5dl6\_A 000 VDNDLYHAHFELKHQ-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKER 099

5mdo\_A 000 WENNTYLVGVQGWFENGISFFAQYKYMEADASN------------------GVNEKQDAMSAGLMYTTG---D-WQYKLGYAANFDLERDGKTLSNTSDD 078

5dl6\_A 100 ETDFDLGYTVQSGWLKNLGLRARYAIYDNNMLS----------TANIKPVNETRINIDYTW 150

5mdo\_A 079 VVSAQIMYFVD----PSAVLYARARMNDFNEGLDGLDDAARWTSGTNGDYNEYSVGVEYYF 135

## PDB1: 5dl6\_A

## PDB2: 5mdo\_A

## row number: 430

5dl6\_A 000 NDLYHAHFELKHQNHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERETD 100

5mdo\_A 000 DYWGGIAAHYKLGPLQLDAAYEGNRNIEA-------E----G-------QTWENNTYLVGVQGWFE---NGISFFAQYKYMEADASN---GVNEKQDAMS 076

5dl6\_A 101 FDLGYTVQSGWLKNLGLRARYAIYDNNMLS--TANIKPVNETRINIDYTW 148

5mdo\_A 077 AGLMYTT--G--D-WQYKLGYAANFDLERDGKTLSNTSDDVVSAQIMYFV 121

## PDB1: 5dl6\_A

## PDB2: 5mdo\_A

## row number: 431

5dl6\_A 000 PKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHN 32

5mdo\_A 000 TSDDVVSAQIMYFVD---PSAVLYARARMNDF 29

## PDB1: 5dl6\_A

## PDB2: 5nxr\_A

## row number: 432

5dl6\_A 000 TDGLYYLGGNYQFNPALKLTAFYMDVDDL----------------------YNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAK---AGLVDNDLYH 075

5nxr\_A 000 NGDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDA--N---NVYLAAMYGQTQNTSRYGDLDLIANKTENVE 095

5dl6\_A 076 AHFELKHQ-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHN 153

5nxr\_A 096 LVAQYLFDFGLKPSIGYNQSKGKNLGN-----G----------YDNQDLVKYISVGSYYYFN---KNMSAVVDYKINLL 156

## PDB1: 5dl6\_A

## PDB2: 5nxr\_A

## row number: 433

5dl6\_A 000 DNDLYHAHFELKHQ-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNL-GGTNLKER 098

5nxr\_A 000 KTENVELVAQYLFDFGLKPSIGYNQSKGKNLGN---------------GYDNQDLVKYISVGSYYYFN---KNMSAVVDYKINLLKDNDFTKEYGINTDN 082

5dl6\_A 099 ETDFDLGYTV 108

5nxr\_A 083 VLGLGLVYQF 92

## PDB1: 5dl6\_A

## PDB2: 6ehb\_A

## row number: 434

5dl6\_A 000 DGLYYLGGNYQFNP-ALKLTAFYMDVDDLYNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAKAGLVDNDLYHAHFELKHQNHKFIFGTFQHHGDTAF 099

6ehb\_A 000 EDGYSLSAIYTFGDTGFNVGAGYADQDD-QNEYMLAASYRM--E---NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETA--- 086

5dl6\_A 100 PYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHNIYAPNLGGTNLKERETDFDLGYTV 176

6ehb\_A 087 -------------------KKTSADNFAIDATYYFK---PNFRSYISYQFNLLDSDKA--SKVASEDELAIGLRYDF 139

## PDB1: 5dl6\_A

## PDB2: 6ehd\_A

## row number: 435

5dl6\_A 000 GLYYLGGNYQFNPALKLTAFYMDVDD---------------------LYNQTMVGALHQYKINDTTNFSSQLRYYRSRDDGQAKAGLVDNDLYHAHFELK 079

6ehd\_A 000 ELAELYVGATF-GDLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYTI--G---DALIGVTYYNAELDVENNPLVIDEDAISVAGTYK 094

5dl6\_A 080 HQ-NHKFIFGTFQHHGDTAFPYLTGGETGLLIDTWPGEFLNPKEKAYSFRYEYDFKEYVPGLCFMTRYTTGHN 151

6ehd\_A 095 VADKTKLYAGYEYVMQEANT-----------G-------ADEDGTLVYLGVEYKFA---SWARVYAEYGYGDG 146

## PDB1: 5dl7\_A

## PDB2: 5fvn\_A

## row number: 436

5dl7\_A 000 DNRHISGLFGLNYQ-NHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQ 099

5fvn\_A 000 NGDGVGGSITYNLGEGFGIGTAVSSSKRTSSQN------DL--TY-----GNGDRAETYTGGLKYDAN----------NIYLAAQYTQTYNATRVGNLGW 077

5dl7\_A 100 RFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPTN--MTFHSANETRLNVDYTF 155

5fvn\_A 078 ANKAQNFEVVAQYQFD----FGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYF 131

## PDB1: 5dl7\_A

## PDB2: 5mdo\_A

## row number: 437

5dl7\_A 000 NRHISGLFGLNYQNHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRF 100

5mdo\_A 000 DYWGGIAAHYKLGPLQLDAAYEGNRNIEA-------E-----G------QTWENNTYLVGVQGWFE---------NGISFFAQYKYMEADASNG---VNE 070

5dl7\_A 101 KEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPT--NMTFHSANETRLNVDYTF 154

5mdo\_A 071 KQDAMSAGLMYTTG----D-WQYKLGYAANFDLERDGKTLSNTSDDVVSAQIMYFV 121

## PDB1: 5dl7\_A

## PDB2: 5mdo\_A

## row number: 438

5dl7\_A 000 FLGFNGKQPLNDQLNFLSDVRFFNSEETGSKKIGEVDNRHISGLFGLNYQ-NHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYE 099

5mdo\_A 000 GIAAHYKLG-----PLQLDAAYEGNRNIEAE-GQTWENNTYLVGVQGWFENGISFFAQYKYMEADASN------------G------VNEKQDAMSAGLM 076

5dl7\_A 100 YDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRFKEDSLEFDLGYKIPEGKLKGLGMRARFSHYRNDMPT----------NMTFHSANETRLNVDY 189

5mdo\_A 077 YTTG---------D-WQYKLGYAANFDLERDGKTLSNTSDDVVSAQIMYFVD----PSAVLYARARMNDFNEGLDGLDDAARWTSGTNGDYNEYSVGVEY 162

5dl7\_A 190 TF 191

5mdo\_A 163 YF 164

## PDB1: 5dl7\_A

## PDB2: 5nxr\_A

## row number: 439

5dl7\_A 000 TDSFYTLGGSYQLK-DYRLRAYHAELKDI----------------------YQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKK---IGEVDNRHIS 074

5nxr\_A 000 NGDGYGFSTAYELGWGVTLGGGYSSSSRTPNQKAGVVTSEGDSYYSATGKRAQAWNVGGKFDAN-----NVYLAAMYGQTQNTSRYGDLDLIANKTENVE 095

5dl7\_A 075 GLFGLNYQ-NHTVSLGYMQSFGSTGLPFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDID 160

5nxr\_A 096 LVAQYLFDFGLKPSIGYNQSKGKNLG------NG----Y-----DNQDLVKYISVGSYYYFNK---------NMSAVVDYKINLLKD 158

## PDB1: 5dl7\_A

## PDB2: 6ehb\_A

## row number: 440

5dl7\_A 000 DSFYTLGGSYQLK--DYRLRAYHAELKDIYQQQFLGFNGKQPLNDQLNFLSDVRFFNSEETGSKKIGEVDNRHISGLFGLNYQNHTVSLGYMQSFGSTGL 098

6ehb\_A 000 EDGYSLSAIYTFGDTGFNVGAGYADQD-DQNEYMLAASYRME-----NLYFAGLFTDGELAK-----DVDYTGYELAAGYKLGQAAFTATYNNAETAK-- 087

5dl7\_A 099 PFLSGTESPVVLDFMSSDYSNKDEKVYSIRYEYDFKNARIGDVSLNGLRFMTRYAKGEDIDLLQYGDQRFKEDSLEFDLGYKI 181

6ehb\_A 088 --------------------KTSADNFAIDATYYFKP---------NFRSYISYQFNLLDSDKA--SKVASEDELAIGLRYDF 139

## PDB1: 5dl8\_B

## PDB2: 6ehd\_A

## row number: 441

5dl8\_B 000 GLNYIDLRYQFTPSLKGEYYFGNLEDL---------------------YNKHYVGLEHTWKQPTFALTSKFKYFNAKDDGNT--FDIDAENIGLLETVKV 077

6ehd\_A 000 ELAELYVGATF-GDLAVHAGGGQNRDKAFKVGSNTVGTTTTDIKADVTNSYFEVTGEYT--IG--DALIGVTYYNAELDVENNPLVIDEDAISVAGTYKV 095

5dl8\_B 078 K-NHTFGLGYQQIIGESAYPLPDGFLPETYFINWNATGFFKEDEKSYHVMYGYDFKDYIPGLNAMVKYVYGHDF 150

6ehd\_A 096 ADKTKLYAGYEYVMQEANT------------G-------ADEDGTLVYLGVEYKFA---SWARVYAEYGYGDGT 147

## PDB1: 5fvn\_A

## PDB2: 5ldv\_A

## row number: 442

5fvn\_A 000 DRAETYTGGLKYDA-NNIYLAAQYTQTYNATRVGNLGWANKAQNFEVVAQYQFDFGLRPSVAYLQSKGKDLENGYGDQDLLKYVDVGATYYF 91

5ldv\_A 000 GRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVN-TNESADHSTVRLQALYKF 91

## PDB1: 5ldv\_A

## PDB2: 5mdo\_A

## row number: 443

5ldv\_A 000 EEAIKDVDVSGVLRYRYDTGNFDKNFLNNSNL-NNSKQDHKYRAQVNFSAAIADN-FKAFVQFDYNAV-DGGTGVDNATNAEKGLFVRQLYLTYTNEDVA 097

5mdo\_A 000 TKDSFSYEVYGIIAMQAAYRDYDSGDAKQDDNLGGMQLNNESRIGFRGKKQFANFEPTFIWQIEGGYVDPSF------GGEGAGLGERDTFVGFESA-SW 093

5ldv\_A 098 TSVIAGKQQLN 108

5mdo\_A 094 GQVRLGRVLTP 104

## PDB1: 5ldv\_A

## PDB2: 6ehd\_A

## row number: 444

5ldv\_A 000 GRNIFGYVTGGYTFNETVRVGADFVYGGTKTEATTHLGGGKKLEAVARVDYKYSPKLNFSAFYSYVNLDQGVNTNESADHSTVRLQALYK 90

6ehd\_A 000 VTNSYFEVTGEYTI-GDALIGVTYYNAELDVENN--PLVIDEDAISVAGTYKVADKTKLYAGYEYVMQEANT--GADEDGTLVYLGVEYK 85