

|        |                                |                                |                                |                                   |                                   |                                   |                                   |                                   |                                   |   |   |   |     |
|--------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---|---|---|-----|
| GCA[A] | 1.066                          | 1.407                          | 1.420                          | 1.231                             | 1.350                             | 1.438                             | 1.366                             | 1.377                             | 1.426                             | 1.359                                   | 1.314                                   | 1.393                                   | 2.2 |
| GCC[A] | 1.225                          | 1.312                          | 1.422                          | 1.103                             | 1.203                             | 1.485                             | 1.301                             | 1.379                             | 1.396                             | 1.417                                   | 1.405                                   | 1.483                                   |     |
| GCG[A] | 0.945                          | 1.518                          | 1.430                          | 1.190                             | 1.428                             | 1.495                             | 1.444                             | 1.431                             | 1.461                             | 1.444                                   | 1.581                                   | 1.499                                   |     |
| GCT[A] | 1.283                          | 1.257                          | 1.280                          | 1.163                             | 1.192                             | 1.291                             | 1.240                             | 1.249                             | 1.292                             | 1.276                                   | 1.274                                   | 1.338                                   |     |
| TGC[C] | 1.435                          | 1.279                          | 1.421                          | 1.298                             | 1.255                             | 1.414                             | 1.317                             | 1.285                             | 1.416                             | 1.341                                   | 1.306                                   | 1.384                                   |     |
| TGT[C] | 1.429                          | 1.205                          | 1.190                          | 1.370                             | 1.239                             | 1.196                             | 1.271                             | 1.185                             | 1.257                             | 1.167                                   | 1.229                                   | 1.270                                   |     |
| GAC[D] | 1.452                          | 1.267                          | 1.241                          | 1.274                             | 1.235                             | 1.275                             | 1.219                             | 1.249                             | 1.256                             | 1.256                                   | 1.328                                   | 1.263                                   |     |
| GAT[D] | 1.634                          | 1.294                          | 1.307                          | 1.442                             | 1.284                             | 1.260                             | 1.238                             | 1.240                             | 1.197                             | 1.192                                   | 1.277                                   | 1.251                                   |     |
| GAA[E] | 1.046                          | 1.155                          | 1.067                          | 1.219                             | 1.143                             | 1.111                             | 1.095                             | 1.125                             | 1.076                             | 1.121                                   | 1.129                                   | 1.122                                   |     |
| GAG[E] | 1.303                          | 1.194                          | 1.160                          | 1.271                             | 1.176                             | 1.145                             | 1.095                             | 1.090                             | 1.069                             | 1.119                                   | 1.139                                   | 1.108                                   |     |
| TTC[F] | 1.186                          | 1.215                          | 1.233                          | 1.152                             | 1.235                             | 1.222                             | 1.298                             | 1.265                             | 1.333                             | 1.237                                   | 1.179                                   | 1.257                                   | 2.0 |
| TTT[F] | 1.244                          | 1.301                          | 1.306                          | 1.301                             | 1.310                             | 1.254                             | 1.352                             | 1.310                             | 1.301                             | 1.294                                   | 1.262                                   | 1.314                                   |     |
| GGA[G] | 1.417                          | 1.281                          | 1.258                          | 1.419                             | 1.288                             | 1.337                             | 1.238                             | 1.177                             | 1.268                             | 1.245                                   | 1.235                                   | 1.221                                   |     |
| GGC[G] | 1.323                          | 1.202                          | 1.283                          | 1.176                             | 1.253                             | 1.296                             | 1.179                             | 1.271                             | 1.220                             | 1.282                                   | 1.290                                   | 1.291                                   |     |
| GGG[G] | 1.166                          | 1.345                          | 1.361                          | 1.297                             | 1.277                             | 1.343                             | 1.243                             | 1.289                             | 1.273                             | 1.287                                   | 1.284                                   | 1.244                                   |     |
| GGT[G] | 1.331                          | 1.170                          | 1.229                          | 1.278                             | 1.177                             | 1.234                             | 1.122                             | 1.195                             | 1.124                             | 1.166                                   | 1.215                                   | 1.193                                   |     |
| CAC[H] | 1.396                          | 1.455                          | 1.491                          | 1.312                             | 1.400                             | 1.435                             | 1.539                             | 1.511                             | 1.604                             | 1.496                                   | 1.418                                   | 1.469                                   |     |
| CAT[H] | 1.645                          | 1.479                          | 1.482                          | 1.430                             | 1.445                             | 1.466                             | 1.483                             | 1.439                             | 1.530                             | 1.392                                   | 1.342                                   | 1.453                                   |     |
| ATA[I] | 0.850                          | 1.387                          | 1.394                          | 1.170                             | 1.405                             | 1.303                             | 1.338                             | 1.296                             | 1.294                             | 1.318                                   | 1.321                                   | 1.216                                   |     |
| ATC[I] | 1.085                          | 1.207                          | 1.210                          | 1.105                             | 1.226                             | 1.100                             | 1.148                             | 1.161                             | 1.181                             | 1.140                                   | 1.167                                   | 1.119                                   | 1.8 |
| ATT[I] | 1.106                          | 1.169                          | 1.102                          | 1.148                             | 1.197                             | 1.050                             | 1.091                             | 1.145                             | 1.062                             | 1.084                                   | 1.134                                   | 1.041                                   |     |
| AAA[K] | 1.200                          | 1.165                          | 1.086                          | 1.374                             | 1.312                             | 1.217                             | 1.220                             | 1.250                             | 1.182                             | 1.386                                   | 1.416                                   | 1.356                                   |     |
| AAG[K] | 1.236                          | 1.207                          | 1.140                          | 1.331                             | 1.274                             | 1.161                             | 1.113                             | 1.147                             | 1.082                             | 1.163                                   | 1.222                                   | 1.132                                   |     |
| CTA[L] | 1.160                          | 1.363                          | 1.474                          | 1.270                             | 1.332                             | 1.439                             | 1.417                             | 1.369                             | 1.450                             | 1.415                                   | 1.441                                   | 1.389                                   |     |
| CTC[L] | 1.110                          | 1.691                          | 1.733                          | 1.338                             | 1.642                             | 1.612                             | 1.705                             | 1.686                             | 1.730                             | 1.705                                   | 1.748                                   | 1.704                                   |     |
| CTG[L] | 1.211                          | 1.563                          | 1.521                          | 1.358                             | 1.508                             | 1.622                             | 1.536                             | 1.609                             | 1.546                             | 1.499                                   | 1.545                                   | 1.475                                   |     |
| CTT[L] | 1.432                          | 1.539                          | 1.499                          | 1.407                             | 1.521                             | 1.413                             | 1.543                             | 1.460                             | 1.549                             | 1.459                                   | 1.511                                   | 1.485                                   |     |
| TTA[L] | 1.088                          | 1.302                          | 1.353                          | 1.279                             | 1.322                             | 1.209                             | 1.389                             | 1.319                             | 1.297                             | 1.275                                   | 1.299                                   | 1.233                                   |     |
| TTG[L] | 1.256                          | 1.272                          | 1.259                          | 1.268                             | 1.286                             | 1.218                             | 1.238                             | 1.190                             | 1.211                             | 1.218                                   | 1.274                                   | 1.212                                   | 1.6 |
| ATG[M] | 1.202                          | 1.439                          | 1.406                          | 1.339                             | 1.371                             | 1.362                             | 1.315                             | 1.286                             | 1.348                             | 1.308                                   | 1.328                                   | 1.273                                   |     |
| AAC[N] | 1.547                          | 1.145                          | 1.208                          | 1.271                             | 1.170                             | 1.180                             | 1.188                             | 1.188                             | 1.200                             | 1.216                                   | 1.187                                   | 1.175                                   |     |
| AAT[N] | 1.563                          | 1.188                          | 1.155                          | 1.355                             | 1.165                             | 1.103                             | 1.148                             | 1.187                             | 1.135                             | 1.107                                   | 1.077                                   | 1.113                                   |     |
| CCA[P] | 1.710                          | 1.172                          | 1.266                          | 1.227                             | 1.138                             | 1.328                             | 1.294                             | 1.247                             | 1.357                             | 1.312                                   | 1.242                                   | 1.310                                   |     |
| CCC[P] | 1.649                          | 1.294                          | 1.405                          | 1.240                             | 1.229                             | 1.479                             | 1.404                             | 1.405                             | 1.588                             | 1.501                                   | 1.425                                   | 1.510                                   |     |
| CCG[P] | 1.964                          | 1.526                          | 1.550                          | 1.439                             | 1.404                             | 1.638                             | 1.582                             | 1.773                             | 1.685                             | 1.779                                   | 1.603                                   | 1.740                                   |     |
| CCT[P] | 2.127                          | 1.311                          | 1.417                          | 1.387                             | 1.271                             | 1.470                             | 1.407                             | 1.433                             | 1.445                             | 1.437                                   | 1.406                                   | 1.522                                   |     |
| CAA[Q] | 1.204                          | 1.428                          | 1.331                          | 1.437                             | 1.474                             | 1.450                             | 1.479                             | 1.460                             | 1.540                             | 1.470                                   | 1.396                                   | 1.522                                   |     |
| CAG[Q] | 1.520                          | 1.555                          | 1.490                          | 1.545                             | 1.466                             | 1.598                             | 1.523                             | 1.478                             | 1.461                             | 1.489                                   | 1.417                                   | 1.500                                   | 1.4 |
| AGA[R] | 1.055                          | 1.134                          | 1.097                          | 1.221                             | 1.179                             | 1.204                             | 1.117                             | 1.109                             | 1.053                             | 1.147                                   | 1.146                                   | 1.122                                   |     |
| AGG[R] | 0.847                          | 1.286                          | 1.275                          | 1.196                             | 1.340                             | 1.343                             | 1.278                             | 1.309                             | 1.293                             | 1.308                                   | 1.330                                   | 1.276                                   |     |
| CGA[R] | 1.097                          | 1.716                          | 1.536                          | 1.579                             | 1.867                             | 1.888                             | 1.760                             | 1.877                             | 1.842                             | 1.930                                   | 1.795                                   | 1.772                                   |     |
| CGC[R] | 1.127                          | 1.286                          | 1.302                          | 1.174                             | 1.360                             | 1.517                             | 1.373                             | 1.405                             | 1.425                             | 1.565                                   | 1.449                                   | 1.576                                   |     |
| CGG[R] | 2.264                          | 1.602                          | 1.488                          | 1.787                             | 1.371                             | 1.501                             | 1.387                             | 1.353                             | 1.410                             | 1.389                                   | 1.385                                   | 1.441                                   |     |
| CGT[R] | 1.012                          | 1.108                          | 1.230                          | 1.199                             | 1.316                             | 1.212                             | 1.250                             | 1.152                             | 1.210                             | 1.319                                   | 1.216                                   | 1.134                                   |     |
| AGC[S] | 1.124                          | 1.340                          | 1.376                          | 1.146                             | 1.419                             | 1.407                             | 1.315                             | 1.395                             | 1.359                             | 1.370                                   | 1.393                                   | 1.342                                   |     |
| AGT[S] | 1.076                          | 1.286                          | 1.283                          | 1.228                             | 1.368                             | 1.306                             | 1.263                             | 1.271                             | 1.250                             | 1.246                                   | 1.304                                   | 1.235                                   |     |
| TCA[S] | 1.316                          | 1.389                          | 1.420                          | 1.312                             | 1.380                             | 1.312                             | 1.424                             | 1.421                             | 1.455                             | 1.354                                   | 1.258                                   | 1.333                                   | 1.2 |
| TCC[S] | 1.314                          | 1.225                          | 1.298                          | 1.131                             | 1.182                             | 1.216                             | 1.352                             | 1.276                             | 1.349                             | 1.303                                   | 1.322                                   | 1.323                                   |     |
| TCG[S] | 1.310                          | 1.506                          | 1.502                          | 1.374                             | 1.421                             | 1.372                             | 1.551                             | 1.380                             | 1.438                             | 1.372                                   | 1.369                                   | 1.361                                   |     |
| TCT[S] | 1.430                          | 1.276                          | 1.307                          | 1.262                             | 1.253                             | 1.211                             | 1.319                             | 1.240                             | 1.360                             | 1.265                                   | 1.258                                   | 1.262                                   |     |
| ACA[T] | 1.490                          | 1.392                          | 1.441                          | 1.346                             | 1.379                             | 1.426                             | 1.324                             | 1.390                             | 1.398                             | 1.336                                   | 1.295                                   | 1.366                                   |     |
| ACC[T] | 1.367                          | 1.257                          | 1.374                          | 1.177                             | 1.211                             | 1.259                             | 1.271                             | 1.417                             | 1.353                             | 1.311                                   | 1.284                                   | 1.359                                   |     |
| ACG[T] | 1.583                          | 1.452                          | 1.364                          | 1.404                             | 1.315                             | 1.383                             | 1.312                             | 1.372                             | 1.379                             | 1.267                                   | 1.323                                   | 1.287                                   |     |
| ACT[T] | 1.417                          | 1.306                          | 1.344                          | 1.255                             | 1.293                             | 1.269                             | 1.295                             | 1.355                             | 1.339                             | 1.293                                   | 1.308                                   | 1.311                                   |     |
| GTA[V] | 0.920                          | 1.225                          | 1.219                          | 1.050                             | 1.126                             | 1.260                             | 1.207                             | 1.147                             | 1.208                             | 1.181                                   | 1.191                                   | 1.117                                   | 1.0 |
| GTC[V] | 0.907                          | 1.078                          | 1.111                          | 0.992                             | 1.075                             | 1.136                             | 1.134                             | 1.115                             | 1.188                             | 1.137                                   | 1.089                                   | 1.118                                   |     |
| GTG[V] | 1.117                          | 1.159                          | 1.208                          | 1.101                             | 1.111                             | 1.201                             | 1.122                             | 1.111                             | 1.101                             | 1.161                                   | 1.149                                   | 1.136                                   |     |
| GTT[V] | 0.962                          | 1.106                          | 1.111                          | 1.036                             | 1.060                             | 1.110                             | 1.117                             | 1.067                             | 1.088                             | 1.061                                   | 1.056                                   | 1.077                                   |     |
| TGG[W] | 0.979                          | 1.392                          | 1.382                          | 1.235                             | 1.419                             | 1.410                             | 1.259                             | 1.320                             | 1.230                             | 1.336                                   | 1.344                                   | 1.283                                   |     |
| TAC[Y] | 1.125                          | 1.228                          | 1.353                          | 1.171                             | 1.222                             | 1.372                             | 1.365                             | 1.359                             | 1.377                             | 1.347                                   | 1.252                                   | 1.356                                   |     |
| TAT[Y] | 1.102                          | 1.193                          | 1.188                          | 1.253                             | 1.208                             | 1.159                             | 1.253                             | 1.194                             | 1.200                             | 1.158                                   | 1.183                                   | 1.157                                   |     |
|        | wt_ribo_YPD1_absolute_valid_ps | wt_ribo_YPD2_absolute_valid_ps | wt_ribo_YPD3_absolute_valid_ps | ncs2d_ribo_YPD1_absolute_valid_ps | ncs2d_ribo_YPD2_absolute_valid_ps | ncs2d_ribo_YPD3_absolute_valid_ps | elp6d_ribo_YPD1_absolute_valid_ps | elp6d_ribo_YPD2_absolute_valid_ps | elp6d_ribo_YPD3_absolute_valid_ps | ncs2d_elp6d_ribo_YPD1_absolute_valid_ps | ncs2d_elp6d_ribo_YPD2_absolute_valid_ps | ncs2d_elp6d_ribo_YPD3_absolute_valid_ps |     |