

# BcePred Prediction Server

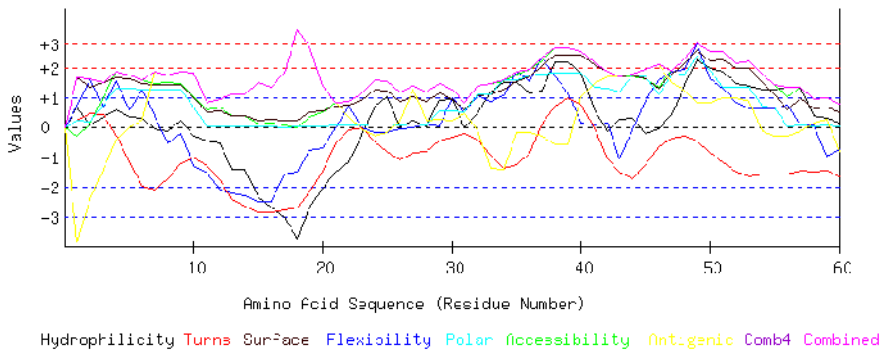
The server displays 1. [GRAPHICAL RESULT](#) 2. [TABULAR RESULT](#) 3. [Overlap Display](#)

seqname=  
Seq= MNASLRISVTMALIVLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQ  
LLAYSVATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRRLFGRRL  
ADFFTRDRPRGGNVDTTINPRIQQAGWDAMQQGCYGPCKGAVVALEPSTGKILALVSSPS  
YDPNLLASHNPEVQAQAWQRLGDNPASPLTNRAISETYPPGSTFKVITTAALAAGATET  
EQLTAAPTIPLPGSTAQLENYGGAPCGDEPTVSLREAFVKSCNTAFVQLGIRTGADALRS  
MARAFGLDSPRPPTLQVAESTVGPIDSAALGMTSIGQKDVALTPLANAIEAATIANGG  
ITMRPYLVGSLKGPDLANISTTVGYQORRAVSPQVAAKLTELMVGAEKVAQQKGAIPGVQ  
IASKTGTAEHGTDPRHTPPHAWYIAFAPAQAPKVAVAVLVENGADRLSATGGALAAPIGR  
AVIEAALQGEPI

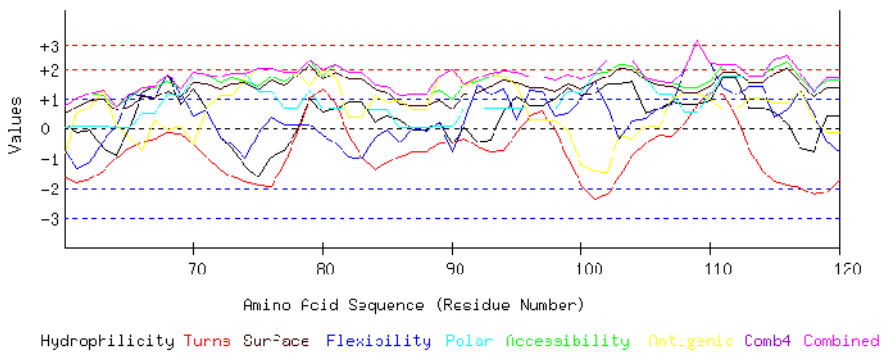
Length=491

## GRAPHICAL RESULT

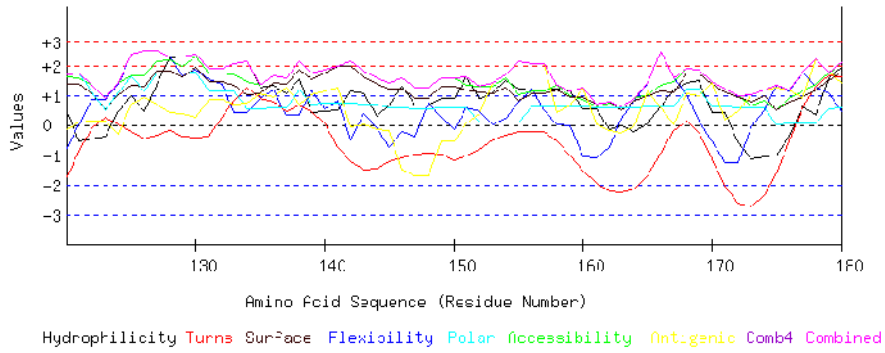
GRAPHICAL RESULT :: SEQ 1 to 60



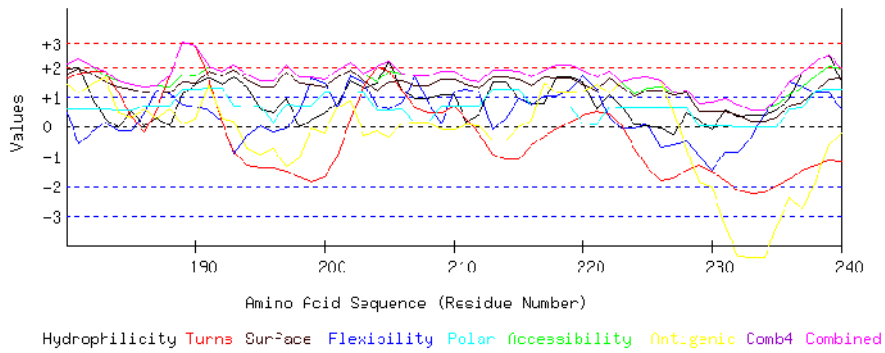
GRAPHICAL RESULT :: SEQ 61 to 120



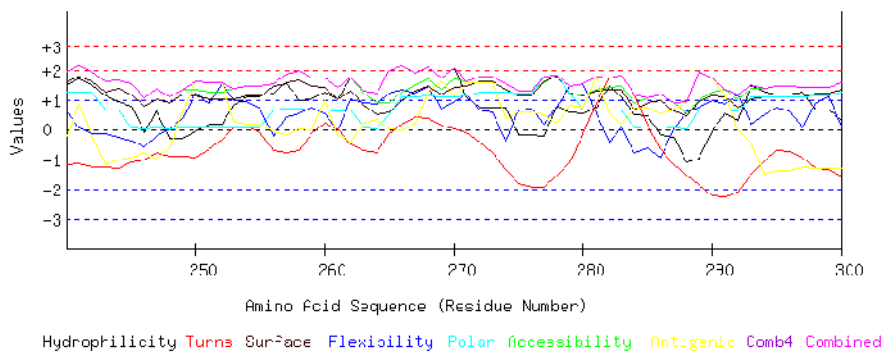
GRAPHICAL RESULT :: SEQ 121 to 180



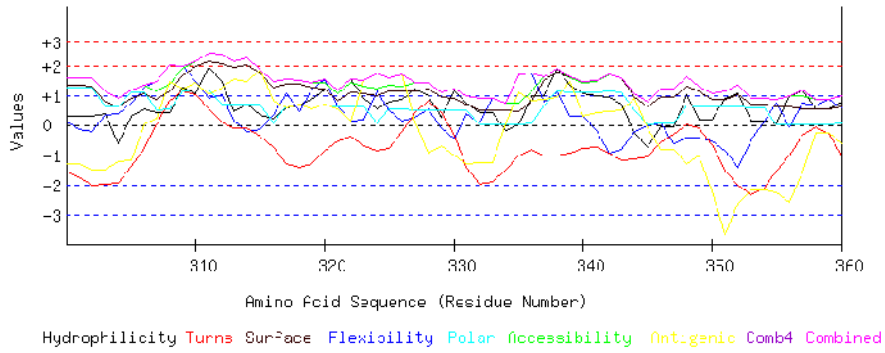
GRAPHICAL RESULT :: SEQ 181 to 240



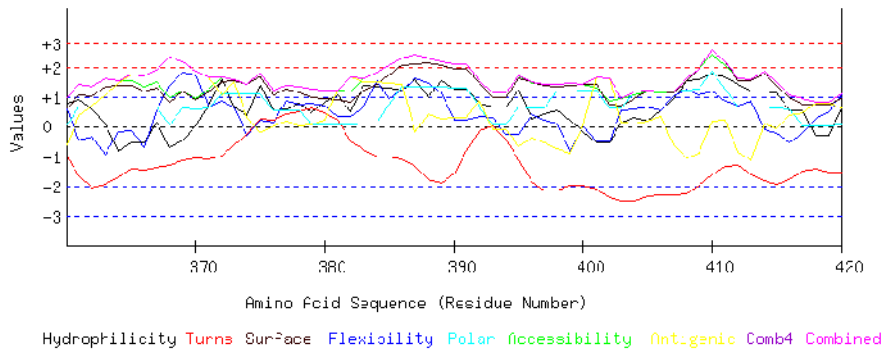
GRAPHICAL RESULT :: SEQ 241 to 300



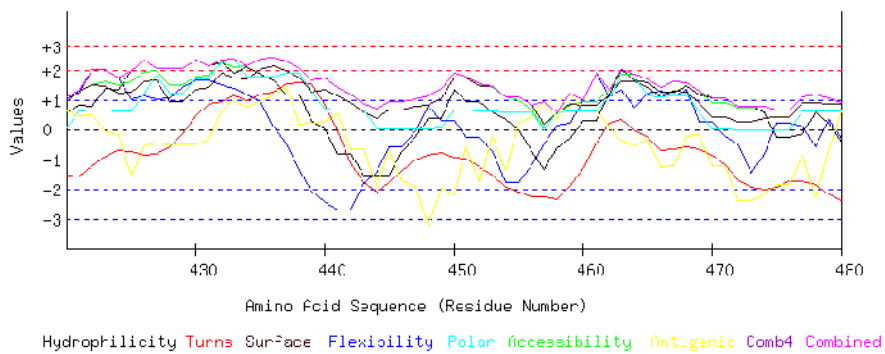
GRAPHICAL RESULT :: SEQ 301 to 360



GRAPHICAL RESULT :: SEQ 361 to 420



GRAPHICAL RESULT :: SEQ 421 to 480





|      |        |        |       |        |       |       |        |       |        |        |
|------|--------|--------|-------|--------|-------|-------|--------|-------|--------|--------|
| 35 R | 1.495  | 1.860  | 1.767 | -1.250 | 1.549 | 1.597 | -0.192 | 1.860 | -1.250 | 0.975  |
| 36 A | 1.129  | 1.537  | 1.926 | -0.867 | 1.704 | 1.732 | -0.184 | 1.926 | -0.867 | 0.997  |
| 37 D | 1.211  | 2.351  | 2.234 | 0.090  | 2.060 | 1.773 | -0.297 | 2.351 | -0.297 | 1.346  |
| 38 P | 2.172  | 1.716  | 2.646 | 0.702  | 2.424 | 1.810 | -0.569 | 2.646 | -0.569 | 1.557  |
| 39 R | 2.172  | 1.153  | 2.646 | 0.972  | 2.424 | 1.810 | -0.569 | 2.646 | -0.569 | 1.515  |
| 40 N | 1.805  | 0.135  | 2.524 | 0.755  | 2.415 | 1.812 | 1.030  | 2.524 | 0.135  | 1.497  |
| 41 Q | 0.591  | 0.065  | 2.169 | -0.008 | 2.105 | 1.328 | 1.474  | 2.169 | -0.008 | 1.103  |
| 42 R | -0.123 | 0.149  | 1.842 | -1.046 | 1.841 | 1.315 | 1.689  | 1.842 | -1.046 | 0.809  |
| 43 V | 0.244  | -1.071 | 1.683 | -1.494 | 1.686 | 1.179 | 1.681  | 1.686 | -1.494 | 0.558  |
| 44 L | 0.294  | -0.120 | 1.711 | -1.736 | 1.741 | 1.738 | 1.768  | 1.768 | -1.736 | 0.771  |
| 45 L | -0.205 | 0.898  | 1.636 | -1.260 | 1.604 | 1.715 | 1.936  | 1.936 | -1.260 | 0.903  |
| 46 D | -0.060 | 1.593  | 1.356 | -0.655 | 1.285 | 1.110 | 2.097  | 2.097 | -0.655 | 0.961  |
| 47 E | 0.440  | 1.868  | 1.907 | -0.393 | 1.768 | 1.733 | 1.508  | 1.907 | -0.393 | 1.261  |
| 48 Y | 1.401  | 1.920  | 2.318 | -0.290 | 2.132 | 1.770 | 1.236  | 2.318 | -0.290 | 1.498  |
| 49 S | 2.248  | 2.818  | 2.832 | -0.460 | 2.597 | 2.389 | 0.800  | 2.832 | -0.460 | 1.889  |
| 50 R | 1.976  | 1.637  | 2.552 | -0.873 | 2.233 | 1.901 | 0.809  | 2.552 | -0.873 | 1.462  |
| 51 Q | 1.862  | 1.315  | 2.552 | -1.185 | 2.242 | 1.343 | 0.999  | 2.552 | -1.185 | 1.304  |
| 52 R | 1.476  | 0.824  | 2.160 | -1.496 | 1.987 | 1.326 | 0.988  | 2.160 | -1.496 | 1.038  |
| 53 G | 1.394  | 0.638  | 2.206 | -1.641 | 1.987 | 1.326 | 0.869  | 2.206 | -1.641 | 0.968  |
| 54 Q | 1.261  | 0.638  | 1.776 | -1.600 | 1.513 | 0.701 | -0.140 | 1.776 | -1.600 | 0.593  |
| 55 I | 1.242  | 0.638  | 1.440 | -1.589 | 1.093 | 0.659 | -0.303 | 1.440 | -1.589 | 0.454  |
| 56 T | 1.337  | 0.758  | 1.001 | -1.561 | 0.574 | 0.034 | -0.302 | 1.337 | -1.561 | 0.263  |
| 57 A | 1.356  | 0.063  | 1.337 | -1.463 | 0.993 | 0.076 | -0.139 | 1.356 | -1.463 | 0.318  |
| 58 G | 0.395  | 0.063  | 0.926 | -1.502 | 0.629 | 0.039 | 0.133  | 0.926 | -1.502 | 0.098  |
| 59 G | 0.319  | -0.971 | 0.982 | -1.447 | 0.656 | 0.043 | 0.246  | 0.982 | -1.447 | -0.025 |
| 60 Q | 0.123  | -0.743 | 0.786 | -1.653 | 0.501 | 0.023 | -0.805 | 0.786 | -1.653 | -0.252 |
| 61 L | -0.129 | -1.330 | 1.038 | -1.802 | 0.738 | 0.042 | 0.538  | 1.038 | -1.802 | -0.129 |
| 62 L | -0.079 | -1.125 | 1.197 | -1.709 | 0.938 | 0.062 | 0.697  | 1.197 | -1.709 | -0.003 |
| 63 A | -0.673 | -0.430 | 1.085 | -1.402 | 0.975 | 0.064 | 1.286  | 1.286 | -1.402 | 0.129  |
| 64 Y | -0.920 | 0.109  | 0.758 | -0.984 | 0.601 | 0.022 | 0.112  | 0.758 | -0.984 | -0.043 |
| 65 S | -0.009 | 1.143  | 1.038 | -0.679 | 0.747 | 0.036 | -0.282 | 1.143 | -0.679 | 0.285  |
| 66 V | 1.205  | 1.101  | 1.393 | -0.452 | 1.057 | 0.520 | -0.726 | 1.393 | -0.452 | 0.585  |
| 67 A | 1.432  | 1.022  | 1.384 | -0.343 | 1.011 | 0.520 | 0.284  | 1.432 | -0.343 | 0.759  |
| 68 T | 1.818  | 1.836  | 1.561 | -0.159 | 1.248 | 1.125 | -0.049 | 1.836 | -0.159 | 1.054  |
| 69 D | 0.825  | 1.171  | 1.346 | -0.198 | 1.048 | 1.109 | 0.043  | 1.346 | -0.198 | 0.763  |
| 70 G | 1.325  | 0.427  | 1.898 | -0.538 | 1.531 | 1.732 | -0.547 | 1.898 | -0.547 | 0.833  |
| 71 R | 0.610  | 0.614  | 1.832 | -0.964 | 1.485 | 1.736 | 0.714  | 1.832 | -0.964 | 0.861  |
| 72 F | -0.300 | -0.296 | 1.552 | -1.361 | 1.339 | 1.722 | 1.109  | 1.722 | -1.361 | 0.538  |
| 73 R | -0.667 | -0.528 | 1.711 | -1.612 | 1.494 | 1.858 | 1.117  | 1.858 | -1.612 | 0.482  |
| 74 F | -1.261 | -0.983 | 1.599 | -1.784 | 1.531 | 1.859 | 1.705  | 1.859 | -1.784 | 0.381  |
| 75 L | -1.647 | -0.200 | 1.421 | -1.916 | 1.294 | 1.254 | 2.038  | 2.038 | -1.916 | 0.321  |
| 76 R | -0.932 | 0.363  | 1.730 | -1.942 | 1.613 | 1.269 | 2.007  | 2.007 | -1.942 | 0.587  |
| 77 V | -0.755 | 0.125  | 1.599 | -1.192 | 1.449 | 0.685 | 1.895  | 1.895 | -1.192 | 0.543  |
| 78 Y | -0.041 | 0.125  | 1.907 | -0.143 | 1.768 | 0.699 | 1.864  | 1.907 | -0.143 | 0.883  |
| 79 P | 1.034  | 0.125  | 2.318 | 0.964  | 2.123 | 1.294 | 1.402  | 2.318 | 0.125  | 1.323  |
| 80 N | 0.534  | -0.234 | 1.767 | 1.350  | 1.640 | 0.670 | 1.992  | 1.992 | -0.234 | 1.103  |
| 81 P | 0.648  | -0.484 | 2.141 | 0.852  | 1.886 | 0.688 | 1.735  | 2.141 | -0.484 | 1.067  |
| 82 E | 0.901  | -0.939 | 1.889 | -0.226 | 1.649 | 0.669 | 0.393  | 1.889 | -0.939 | 0.619  |
| 83 V | 0.901  | -1.023 | 1.889 | -0.969 | 1.649 | 0.669 | 0.393  | 1.889 | -1.023 | 0.501  |
| 84 Y | 0.225  | -0.300 | 1.468 | -1.380 | 1.330 | 0.630 | 1.095  | 1.468 | -1.380 | 0.438  |
| 85 A | 0.421  | -0.068 | 1.421 | -1.159 | 1.212 | 0.631 | 0.916  | 1.421 | -1.159 | 0.482  |
| 86 P | 0.288  | -0.474 | 1.085 | -0.950 | 0.802 | 0.031 | 0.942  | 1.085 | -0.950 | 0.246  |
| 87 V | -0.060 | 0.023  | 1.141 | -0.760 | 0.765 | 0.034 | 0.605  | 1.141 | -0.760 | 0.250  |
| 88 T | -0.060 | -0.086 | 1.141 | -0.768 | 0.765 | 0.034 | 0.605  | 1.141 | -0.768 | 0.233  |
| 89 G | 0.218  | 0.237  | 1.290 | -0.502 | 0.920 | 0.054 | 1.775  | 1.775 | -0.502 | 0.570  |
| 90 F | -0.496 | -0.797 | 0.963 | -0.441 | 0.656 | 0.040 | 1.990  | 1.990 | -0.797 | 0.274  |
| 91 Y | 0.003  | 0.233  | 1.515 | -0.331 | 1.139 | 0.663 | 1.400  | 1.515 | -0.331 | 0.660  |
| 92 S | -0.446 | 1.495  | 1.571 | -0.604 | 1.221 | 0.663 | 1.691  | 1.691 | -0.604 | 0.799  |
| 93 L | -0.395 | 1.131  | 1.730 | -0.785 | 1.422 | 0.683 | 1.851  | 1.851 | -0.785 | 0.805  |
| 94 R | 0.598  | 1.335  | 1.945 | -0.733 | 1.622 | 0.699 | 1.760  | 1.945 | -0.733 | 1.032  |
| 95 Y | 1.046  | 0.317  | 1.889 | -0.133 | 1.540 | 0.699 | 1.468  | 1.889 | -0.133 | 0.975  |
| 96 S | 0.768  | 1.299  | 1.739 | 0.407  | 1.385 | 0.679 | 0.298  | 1.739 | 0.298  | 0.939  |
| 97 S | 0.768  | 1.257  | 1.739 | 0.571  | 1.385 | 0.679 | 0.298  | 1.739 | 0.298  | 0.957  |
| 98 T | 0.996  | 0.401  | 1.636 | -0.012 | 1.276 | 0.654 | 0.273  | 1.636 | -0.012 | 0.746  |
| 99 A | 1.382  | 0.485  | 1.814 | -1.001 | 1.513 | 1.260 | -0.060 | 1.814 | -1.001 | 0.770  |
| 100L | 1.103  | 1.024  | 1.664 | -1.889 | 1.358 | 1.239 | -1.230 | 1.664 | -1.889 | 0.467  |
| 101E | 1.186  | 1.587  | 1.842 | -2.391 | 1.567 | 1.819 | -1.416 | 1.842 | -2.391 | 0.599  |
| 102R | 1.489  | 0.688  | 1.917 | -2.213 | 1.731 | 2.288 | -1.466 | 2.288 | -2.213 | 0.633  |
| 103A | 1.489  | -0.330 | 2.160 | -1.613 | 2.005 | 2.307 | -0.236 | 2.307 | -1.613 | 0.826  |
| 104E | 1.565  | 0.279  | 2.103 | -0.898 | 1.977 | 2.303 | -0.349 | 2.303 | -0.898 | 0.997  |
| 105D | 0.490  | 0.331  | 1.692 | -0.489 | 1.622 | 1.709 | 0.112  | 1.709 | -0.489 | 0.781  |
| 106P | 0.667  | 0.648  | 1.561 | -0.202 | 1.458 | 1.125 | 0.000  | 1.561 | -0.202 | 0.751  |
| 107I | 0.895  | 0.828  | 1.552 | -0.277 | 1.412 | 1.125 | 1.010  | 1.552 | -0.277 | 0.935  |
| 108L | 0.813  | 1.966  | 1.375 | 0.183  | 1.203 | 0.546 | 1.197  | 1.966 | 0.183  | 1.040  |
| 109N | 0.813  | 2.984  | 1.375 | 0.780  | 1.203 | 0.546 | 1.197  | 2.984 | 0.546  | 1.271  |
| 110G | 0.945  | 2.170  | 1.561 | 1.233  | 1.403 | 1.151 | 0.976  | 2.170 | 0.945  | 1.349  |
| 111S | 1.717  | 1.369  | 2.132 | 1.132  | 1.895 | 1.774 | 0.653  | 2.132 | 0.653  | 1.525  |
| 112D | 1.717  | 1.141  | 2.132 | 0.419  | 1.895 | 1.774 | 0.653  | 2.132 | 0.419  | 1.390  |
| 113R | 0.692  | 1.415  | 1.767 | -0.702 | 1.540 | 1.738 | 1.017  | 1.767 | -0.702 | 1.067  |
| 114R | 0.692  | 1.415  | 1.767 | -1.402 | 1.540 | 1.738 | 1.017  | 1.767 | -1.402 | 0.967  |
| 115L | 0.547  | 0.397  | 2.047 | -1.764 | 1.859 | 2.342 | 0.857  | 2.342 | -1.764 | 0.898  |
| 116F | 0.180  | 0.602  | 2.206 | -1.904 | 2.014 | 2.478 | 0.865  | 2.478 | -1.904 | 0.920  |
| 117G | -0.667 | 1.315  | 1.692 | -1.968 | 1.549 | 1.859 | 1.301  | 1.859 | -1.968 | 0.726  |
| 118R | -0.800 | 0.513  | 1.262 | -2.234 | 1.075 | 1.234 | 0.291  | 1.262 | -2.234 | 0.192  |
| 119R | 0.414  | -0.474 | 1.617 | -2.141 | 1.385 | 1.718 | -0.153 | 1.718 | -2.141 | 0.338  |
| 120L | 0.414  | -0.797 | 1.617 | -1.734 | 1.385 | 1.718 | -0.153 | 1.718 | -1.734 | 0.350  |
| 121A | -0.528 | 0.035  | 1.561 | -0.874 | 1.385 | 1.722 | 0.098  | 1.722 | -0.874 | 0.486  |
| 122D | -0.465 | 0.848  | 1.328 | -0.081 | 1.066 | 1.117 | 0.140  | 1.328 | -0.465 | 0.565  |
| 123F | -0.370 | 0.848  | 0.889 | 0.269  | 0.547 | 0.493 | 0.141  | 0.889 | -0.370 | 0.402  |
| 124F | 0.477  | 1.381  | 1.403 | 0.015  | 1.011 | 1.112 | -0.295 | 1.403 | -0.295 | 0.729  |
| 125T | 0.977  | 2.369  | 1.674 | -0.236 | 1.330 | 1.601 | 0.706  | 2.369 | -0.236 | 1.203  |
| 126G | 0.477  | 2.505  | 1.646 | -0.468 | 1.285 | 1.131 | 0.935  | 2.505 | -0.468 | 1.073  |
| 127R | 1.325  | 2.505  | 2.141 | -0.335 | 1.804 | 1.751 | 0.683  | 2.505 | -0.335 | 1.411  |
| 128D | 2.267  | 2.301  | 2.197 | -0.193 | 1.804 | 1.747 | 0.432  | 2.301 | -0.193 | 1.508  |
| 129P | 2.298  | 1.666  | 1.991 | -0.369 | 1.604 | 1.727 | 0.392  | 2.298 | -0.369 | 1.330  |
| 130R | 2.381  | 1.846  | 2.300 | -0.410 | 1.959 | 1.768 | 0.279  | 2.381 | -0.410 | 1.446  |
| 131G | 1.881  | 1.523  | 1.748 | -0.360 | 1.476 | 1.145 | 0.868  | 1.881 | -0.360 | 1.183  |
| 132G | 1.881  | 1.387  | 1.748 | 0.244  | 1.476 | 1.145 | 0.868  | 1.881 | 0.244  | 1.250  |
| 133N | 2.077  | 0.435  | 1.702 | 0.824  | 1.358 | 1.146 | 0.689  | 2.077 | 0.435  | 1.176  |
| 134V | 2.140  | 0.435  | 1.468 | 1.273  | 1.039 | 0.541 | 0.731  | 2.140 | 0.435  | 1.090  |
| 135D | 1.274  | 0.890  | 1.337 | 0.917  | 1.066 | 0.543 | 1.052  | 1.337 | 0.543  | 1.011  |
| 136T | 1.356  | 1.165  | 1.646 | 0.798  | 1.422 | 0.583 | 0.939  | 1.646 | 0.583  | 1.130  |
| 137T | 1.046  | 0.349  | 1.589 | 0.445  | 1.385 | 0.562 | 1.272  | 1.589 | 0.349  | 0.950  |
| 138I | 1.546  | 0.349  | 2.141 | 0.662  | 1.868 | 1.185 | 0.682  | 2.141 | 0.349  | 1.205  |
| 139N | 0.408  | 1.165  | 1.730 | 0.467  | 1.531 | 0.698 | 1.013  | 1.730 | 0.408  | 1.002  |

|      |              |              |              |              |       |        |              |       |        |        |
|------|--------------|--------------|--------------|--------------|-------|--------|--------------|-------|--------|--------|
| 140P | 0.459        | 0.556        | 1.860        | 0.079        | 1.750 | 0.720  | 1.135        | 1.860 | 0.079  | 0.937  |
| 141R | 0.509        | 0.824        | <b>1.991</b> | -0.729       | 1.968 | 0.743  | 1.258        | 1.991 | -0.729 | 0.938  |
| 142I | 1.148        | -0.492       | <b>2.132</b> | -1.202       | 1.987 | 0.741  | -0.074       | 2.132 | -1.202 | 0.606  |
| 143Q | 1.065        | 0.371        | 1.823        | -1.484       | 1.631 | 0.700  | 0.039        | 1.823 | -1.484 | 0.592  |
| 144Q | 0.300        | -0.120       | 1.599        | -1.450       | 1.376 | 0.706  | -0.158       | 1.599 | -1.450 | 0.322  |
| 145A | 0.667        | -0.725       | 1.440        | -1.218       | 1.221 | 0.571  | -0.166       | 1.440 | -1.218 | 0.256  |
| 146G | 1.306        | -0.234       | 1.580        | -1.094       | 1.239 | 0.569  | -1.498       | 1.580 | -1.498 | 0.267  |
| 147W | 0.661        | -0.370       | 1.244        | -0.971       | 0.911 | 0.544  | -1.717       | 1.244 | -1.717 | 0.043  |
| 148D | 0.661        | 0.760        | 1.244        | -0.927       | 0.911 | 0.544  | -1.717       | 1.244 | -1.717 | 0.211  |
| 149A | 0.907        | 0.257        | 1.571        | -1.000       | 1.285 | 0.586  | -0.543       | 1.571 | -1.000 | 0.438  |
| 150M | 0.907        | -0.150       | 1.571        | -1.195       | 1.285 | 0.586  | -0.543       | 1.571 | -1.195 | 0.352  |
| 151Q | 1.628        | 0.592        | 1.337        | -1.000       | 1.175 | 0.579  | 0.057        | 1.628 | -1.000 | 0.624  |
| 152Q | 0.876        | 0.459        | 1.318        | -0.814       | 1.093 | 0.109  | 0.398        | 1.318 | -0.814 | 0.491  |
| 153G | 1.103        | 0.005        | 1.309        | -0.512       | 1.048 | 0.109  | 1.408        | 1.408 | -0.512 | 0.639  |
| 154C | 1.502        | 0.209        | 1.561        | -0.324       | 1.276 | 0.111  | 1.683        | 1.683 | -0.324 | 0.860  |
| 155Y | 1.211        | 0.800        | 1.019        | -0.239       | 0.811 | 0.086  | <b>2.142</b> | 2.142 | -0.239 | 0.833  |
| 156G | 1.192        | 1.207        | 1.141        | -0.236       | 1.075 | 0.638  | <b>2.044</b> | 2.044 | -0.236 | 1.009  |
| 157F | 1.192        | 0.483        | 1.141        | -0.206       | 1.075 | 0.638  | <b>2.044</b> | 2.044 | -0.206 | 0.910  |
| 158C | 1.236        | 0.029        | 1.356        | -0.534       | 1.166 | 0.621  | 0.412        | 1.356 | -0.534 | 0.612  |
| 159K | 1.122        | -0.007       | 0.982        | -1.015       | 0.920 | 0.603  | 0.668        | 1.122 | -1.015 | 0.468  |
| 160G | 0.528        | -1.043       | 0.870        | -1.554       | 0.957 | 0.604  | 1.257        | 1.257 | -1.554 | 0.231  |
| 161A | 0.528        | -1.095       | 0.627        | -1.953       | 0.683 | 0.585  | 0.027        | 0.683 | -1.953 | -0.085 |
| 162V | -0.142       | -0.737       | 0.758        | -2.200       | 0.784 | 0.573  | -0.161       | 0.784 | -2.200 | -0.161 |
| 163V | -0.009       | 0.215        | 0.636        | -2.251       | 0.510 | 0.578  | -0.252       | 0.636 | -2.251 | -0.082 |
| 164A | -0.237       | 0.802        | 0.889        | -2.155       | 0.829 | 0.597  | -0.032       | 0.889 | -2.155 | 0.099  |
| 165L | 0.041        | 1.429        | 1.038        | -1.704       | 0.984 | 0.617  | 1.138        | 1.429 | -1.704 | 0.506  |
| 166E | 0.604        | <b>2.465</b> | 1.356        | -0.952       | 1.148 | 0.635  | 0.590        | 2.465 | -0.952 | 0.835  |
| 167P | 1.198        | 1.565        | 1.468        | -0.176       | 1.112 | 0.634  | 0.001        | 1.565 | -0.176 | 0.829  |
| 168S | 1.426        | 1.002        | <b>1.917</b> | 0.148        | 1.750 | 1.228  | 1.076        | 1.917 | 0.148  | 1.221  |
| 169T | 1.502        | 0.147        | 1.860        | -0.253       | 1.722 | 1.225  | 0.963        | 1.860 | -0.253 | 1.024  |
| 170G | 0.427        | -0.548       | 1.449        | -1.124       | 1.367 | 0.631  | 1.424        | 1.449 | -1.124 | 0.518  |
| 171K | 0.427        | -1.272       | 1.206        | -2.048       | 1.093 | 0.612  | 0.194        | 1.206 | -2.048 | 0.030  |
| 172I | -0.566       | -1.248       | 0.973        | -2.624       | 0.948 | 0.597  | 0.469        | 0.973 | -2.624 | -0.207 |
| 173L | -1.128       | -0.068       | 0.655        | -2.739       | 0.784 | 0.579  | 1.017        | 1.017 | -2.739 | -0.129 |
| 174A | -1.078       | 0.495        | 0.814        | -2.352       | 0.984 | 0.599  | 1.177        | 1.177 | -2.352 | 0.091  |
| 175L | -1.027       | 1.351        | 0.515        | -1.607       | 0.501 | 0.024  | 1.272        | 1.351 | -1.607 | 0.147  |
| 176V | -0.389       | 1.149        | 0.898        | -0.550       | 0.793 | 0.041  | 1.170        | 1.170 | -0.550 | 0.445  |
| 177S | 0.604        | 1.784        | 1.132        | 0.584        | 0.938 | 0.056  | 0.895        | 1.784 | 0.056  | 0.856  |
| 178S | 0.351        | 1.287        | 1.384        | 1.288        | 1.175 | 0.075  | <b>2.237</b> | 2.237 | 0.075  | 1.114  |
| 179P | 1.565        | 1.040        | 1.739        | 1.646        | 1.485 | 0.559  | 1.793        | 1.793 | 0.559  | 1.404  |
| 180S | <b>1.932</b> | 0.477        | <b>2.103</b> | 1.603        | 1.768 | 0.576  | 1.424        | 2.103 | 0.477  | 1.412  |
| 181Y | <b>1.963</b> | -0.583       | <b>2.253</b> | 1.784        | 1.923 | 0.597  | 1.151        | 2.253 | -0.583 | 1.298  |
| 182D | 0.971        | -0.176       | <b>2.019</b> | 1.849        | 1.777 | 0.582  | 1.427        | 2.019 | -0.176 | 1.207  |
| 183P | 0.256        | 0.141        | 1.692        | 1.873        | 1.513 | 0.569  | 1.642        | 1.873 | 0.141  | 1.098  |
| 184N | -0.022       | -0.128       | 1.543        | 1.148        | 1.358 | 0.549  | 0.472        | 1.543 | -0.128 | 0.703  |
| 185L | 0.509        | -0.128       | 1.440        | 0.360        | 1.276 | 0.549  | 0.299        | 1.440 | -0.128 | 0.615  |
| 186L | 0.010        | 0.435        | 1.328        | -0.177       | 1.130 | 0.680  | 0.576        | 1.328 | -0.177 | 0.569  |
| 187A | 0.319        | 1.215        | 1.384        | 0.532        | 1.166 | 0.702  | 0.243        | 1.384 | 0.243  | 0.794  |
| 188S | 0.010        | 1.119        | 1.328        | 1.704        | 1.130 | 0.680  | 0.576        | 1.704 | 0.010  | 0.935  |
| 189H | 1.084        | 0.754        | 1.739        | <b>2.805</b> | 1.485 | 1.274  | 0.114        | 2.805 | 0.114  | 1.322  |
| 190N | 1.432        | 0.664        | 1.702        | <b>2.703</b> | 1.467 | 1.270  | 0.268        | 2.703 | 0.268  | 1.358  |
| 191P | 1.679        | 0.546        | <b>2.029</b> | 1.627        | 1.841 | 1.313  | 1.442        | 2.029 | 0.546  | 1.497  |
| 192E | 1.401        | 0.187        | 1.879        | 0.121        | 1.686 | 1.293  | 0.272        | 1.879 | 0.121  | 0.977  |
| 193V | 1.647        | -0.891       | <b>2.047</b> | -0.847       | 1.886 | 0.715  | 0.168        | 2.047 | -0.891 | 0.675  |
| 194Q | 1.337        | -0.304       | 1.748        | -1.303       | 1.576 | 0.675  | -0.729       | 1.748 | -1.303 | 0.429  |
| 195A | 0.572        | 0.019        | 1.524        | -1.366       | 1.321 | 0.681  | -0.927       | 1.524 | -1.366 | 0.261  |
| 196Q | 0.459        | -0.186       | 1.524        | -1.372       | 1.330 | 0.124  | -0.738       | 1.524 | -1.372 | 0.163  |
| 197A | 0.958        | -0.050       | <b>2.075</b> | -1.513       | 1.813 | 0.747  | -1.327       | 2.075 | -1.513 | 0.386  |
| 198W | -0.003       | 0.489        | 1.664        | -1.717       | 1.449 | 0.710  | -1.055       | 1.664 | -1.717 | 0.220  |
| 199Q | 0.225        | 1.601        | 1.655        | -1.841       | 1.403 | 0.710  | -0.045       | 1.655 | -1.841 | 0.530  |
| 200R | 0.477        | 1.469        | 1.599        | -1.715       | 1.349 | 1.156  | -0.217       | 1.599 | -1.715 | 0.588  |
| 201L | 0.787        | 0.656        | 1.898        | -0.974       | 1.658 | 1.197  | 0.680        | 1.898 | -0.974 | 0.843  |
| 202G | 1.552        | 1.716        | <b>2.122</b> | 0.245        | 1.914 | 1.191  | 0.877        | 2.122 | 0.245  | 1.374  |
| 203D | 1.306        | 1.447        | 1.795        | 1.358        | 1.540 | 1.148  | -0.296       | 1.795 | -0.296 | 1.186  |
| 204N | 1.451        | 0.704        | 1.515        | 2.035        | 1.221 | 0.544  | -0.135       | 2.035 | -0.135 | 1.048  |
| 205P | <b>2.166</b> | 0.586        | 1.842        | 1.859        | 1.485 | 0.557  | -0.350       | 2.166 | -0.350 | 1.163  |
| 206A | 1.224        | 0.836        | 1.767        | 1.215        | 1.540 | 0.563  | 0.084        | 1.767 | 0.084  | 1.033  |
| 207S | 0.920        | 1.650        | 1.692        | 0.606        | 1.376 | 0.094  | 0.134        | 1.692 | 0.094  | 0.925  |
| 208P | 0.920        | 0.794        | 1.692        | 0.458        | 1.376 | 0.094  | 0.134        | 1.692 | 0.094  | 0.781  |
| 209L | 1.053        | 0.111        | 1.879        | 0.466        | 1.576 | 0.700  | -0.087       | 1.879 | -0.087 | 0.814  |
| 210T | 1.053        | 1.171        | 1.879        | 0.659        | 1.576 | 0.700  | -0.087       | 1.879 | -0.087 | 0.993  |
| 211N | 0.136        | 1.255        | 1.589        | 0.264        | 1.403 | 0.681  | 0.075        | 1.589 | 0.075  | 0.772  |
| 212R | 0.414        | 1.137        | 1.496        | -0.248       | 1.285 | 0.682  | 0.015        | 1.496 | -0.248 | 0.683  |
| 213A | 1.489        | -0.084       | <b>1.907</b> | -0.950       | 1.640 | 1.276  | -0.446       | 1.907 | -0.950 | 0.690  |
| 214I | 1.489        | 0.275        | <b>1.907</b> | -1.094       | 1.640 | 1.276  | -0.446       | 1.907 | -1.094 | 0.721  |
| 215S | 0.926        | 0.958        | 1.860        | -1.101       | 1.567 | 1.255  | -0.001       | 1.860 | -1.101 | 0.781  |
| 216E | 0.794        | 0.730        | 1.674        | -0.614       | 1.367 | 0.650  | 0.220        | 1.674 | -0.614 | 0.688  |
| 217T | 0.794        | 1.010        | <b>1.917</b> | -0.347       | 1.640 | 0.669  | 1.450        | 1.917 | -0.347 | 1.019  |
| 218Y | 1.660        | 1.010        | <b>2.047</b> | -0.062       | 1.613 | 0.667  | 1.128        | 2.047 | -0.062 | 1.152  |
| 219P | 1.660        | 1.243        | <b>2.047</b> | 0.136        | 1.613 | 0.667  | 1.128        | 2.047 | 0.136  | 1.213  |
| 220P | 1.495        | 1.716        | <b>1.917</b> | 0.391        | 1.403 | 0.087  | 1.195        | 1.917 | 0.087  | 1.172  |
| 221G | 0.585        | 1.261        | 1.655        | 0.514        | 1.203 | 0.071  | 1.406        | 1.655 | 0.071  | 0.956  |
| 222S | 1.065        | 0.309        | 1.851        | 0.417        | 1.604 | 0.647  | 1.139        | 1.851 | 0.309  | 1.005  |
| 223T | 0.699        | -0.056       | 1.487        | 0.047        | 1.321 | 0.629  | 1.508        | 1.508 | -0.056 | 0.805  |
| 224F | 0.060        | -0.056       | 1.103        | -0.747       | 1.030 | 0.612  | 1.609        | 1.609 | -0.747 | 0.516  |
| 225K | 0.029        | 0.119        | 1.309        | -1.383       | 1.230 | 0.632  | 1.650        | 1.650 | -1.383 | 0.512  |
| 226V | -0.054       | -0.713       | 1.356        | -1.838       | 1.230 | 0.632  | 1.531        | 1.531 | -1.838 | 0.306  |
| 227I | -0.250       | -0.617       | 1.160        | -1.745       | 1.075 | 0.612  | 0.480        | 1.160 | -1.745 | 0.102  |
| 228T | 0.465        | -0.496       | 1.225        | -1.476       | 1.121 | 0.608  | -0.781       | 1.225 | -1.476 | 0.095  |
| 229T | 0.237        | -0.987       | 0.776        | -1.294       | 0.483 | 0.013  | -1.857       | 0.776 | -1.857 | -0.376 |
| 230A | -0.111       | -1.478       | 0.814        | -1.500       | 0.501 | 0.017  | -2.010       | 0.814 | -2.010 | -0.538 |
| 231A | 0.528        | -0.851       | 0.954        | -1.812       | 0.519 | 0.015  | -3.342       | 0.954 | -3.342 | -0.570 |
| 232A | 0.332        | -0.851       | 0.758        | -2.146       | 0.364 | -0.005 | -4.393       | 0.758 | -4.393 | -0.849 |
| 233L | 0.364        | -0.360       | 0.552        | -2.263       | 0.164 | -0.025 | -4.434       | 0.552 | -4.434 | -0.857 |
| 234A | 0.364        | 0.419        | 0.552        | -2.210       | 0.164 | -0.025 | -4.434       | 0.552 | -4.434 | -0.739 |
| 235A | 0.560        | 0.910        | 0.748        | -1.986       | 0.319 | -0.005 | -3.383       | 0.910 | -3.383 | -0.405 |
| 236G | 0.920        | 1.485        | 1.075        | -1.792       | 0.683 | 0.595  | -2.399       | 1.485 | -2.399 | 0.081  |
| 237A | 1.830        | 1.349        | 1.356        | -1.457       | 0.829 | 0.609  | -2.793       | 1.830 | -2.793 | 0.246  |
| 238T | <b>2.191</b> | 1.145        | 1.683        | -1.307       | 1.194 | 1.209  | -1.809       | 2.191 | -1.809 | 0.615  |
| 239E | <b>2.437</b> | 1.145        | <b>2.010</b> | -1.125       | 1.567 | 1.251  | -0.636       | 2.437 | -1.125 | 0.950  |
| 240T | 1.495        | 0.570        | <b>1.935</b> | -1.195       | 1.622 | 1.257  | -0.201       | 1.935 | -1.195 | 0.783  |
| 241E | 1.691        | 0.079        | <b>2.132</b> | -1.137       | 1.777 | 1.277  | 0.850        | 2.132 | -1.137 | 0.953  |
| 242Q | 1.495        | -0.138       | <b>1.935</b> | -1.269       | 1.622 | 1.257  | -0.201       | 1.935 | -1.269 | 0.672  |
| 243L | 1.135        | -0.138       | 1.608        | -1.261       | 1.257 | 0.657  | -1.185       | 1.608 | -1.261 | 0.296  |
| 244T | 0.939        | -0.258       | 1.655        | -1.283       | 1.376 | 0.656  | -1.006       | 1.655 | -1.283 | 0.297  |

|      |        |        |       |        |       |       |        |       |        |        |
|------|--------|--------|-------|--------|-------|-------|--------|-------|--------|--------|
| 245A | 0.775  | -0.390 | 1.524 | -1.094 | 1.166 | 0.077 | -0.939 | 1.524 | -1.094 | 0.160  |
| 246A | -0.111 | -0.595 | 1.057 | -1.034 | 0.774 | 0.036 | -0.780 | 1.057 | -1.034 | -0.093 |
| 247F | 0.604  | -0.236 | 1.384 | -0.777 | 1.039 | 0.049 | -0.995 | 1.384 | -0.995 | 0.152  |
| 248T | -0.307 | 0.033  | 1.103 | -0.894 | 0.893 | 0.035 | -0.601 | 1.103 | -0.894 | 0.037  |
| 249I | -0.307 | 0.397  | 1.346 | -0.881 | 1.166 | 0.054 | 0.629  | 1.346 | -0.881 | 0.344  |
| 250P | -0.079 | 1.213  | 1.337 | -0.942 | 1.121 | 0.054 | 1.639  | 1.639 | -0.942 | 0.620  |
| 251L | 0.199  | 0.854  | 1.244 | -0.670 | 1.002 | 0.055 | 1.579  | 1.579 | -0.670 | 0.609  |
| 252P | 0.199  | 1.549  | 1.244 | -0.356 | 1.002 | 0.055 | 1.579  | 1.579 | -0.356 | 0.753  |
| 253G | 0.838  | 0.986  | 1.384 | 0.057  | 1.020 | 0.053 | 0.247  | 1.384 | 0.053  | 0.655  |
| 254S | 1.084  | 0.934  | 1.468 | 0.090  | 1.121 | 0.077 | 0.191  | 1.468 | 0.077  | 0.709  |
| 255T | 1.084  | 0.688  | 1.468 | -0.118 | 1.121 | 0.077 | 0.191  | 1.468 | -0.118 | 0.644  |
| 256A | 1.445  | -0.210 | 1.552 | -0.704 | 1.212 | 0.657 | -0.055 | 1.552 | -0.704 | 0.557  |
| 257Q | 1.527  | 0.417  | 1.860 | -0.786 | 1.567 | 0.698 | -0.169 | 1.860 | -0.786 | 0.731  |
| 258L | 0.996  | 0.554  | 1.963 | -0.689 | 1.649 | 0.697 | 0.003  | 1.963 | -0.689 | 0.739  |
| 259E | 1.028  | 0.758  | 1.758 | -0.135 | 1.449 | 0.677 | -0.037 | 1.758 | -0.135 | 0.785  |
| 260N | 1.255  | 0.542  | 1.748 | 0.233  | 1.403 | 0.677 | 0.973  | 1.748 | 0.233  | 0.976  |
| 261Y | 1.009  | -0.032 | 1.421 | 0.017  | 1.030 | 0.635 | -0.200 | 1.421 | -0.200 | 0.554  |
| 262G | 1.723  | 1.002  | 1.748 | -0.484 | 1.294 | 0.648 | -0.415 | 1.748 | -0.484 | 0.788  |
| 263G | 1.318  | 0.914  | 1.206 | -0.720 | 0.838 | 0.067 | 0.234  | 1.318 | -0.720 | 0.551  |
| 264A | 1.236  | 0.862  | 0.898 | -0.776 | 0.483 | 0.026 | 0.347  | 1.236 | -0.776 | 0.439  |
| 265P | 1.989  | 1.221  | 0.917 | -0.154 | 0.565 | 0.496 | 0.006  | 1.989 | -0.154 | 0.720  |
| 266C | 2.121  | 1.353  | 1.253 | 0.191  | 0.975 | 1.095 | -0.021 | 2.121 | -0.021 | 0.995  |
| 267G | 1.894  | 1.221  | 1.505 | 0.418  | 1.294 | 1.114 | 0.199  | 1.894 | 0.199  | 1.092  |
| 268D | 2.090  | 1.449  | 1.702 | 0.368  | 1.449 | 1.134 | 1.250  | 2.090 | 0.368  | 1.349  |
| 269E | 1.723  | 0.706  | 1.337 | 0.147  | 1.166 | 1.117 | 1.619  | 1.723 | 0.147  | 1.116  |
| 270P | 2.045  | 0.944  | 1.702 | 0.011  | 1.412 | 1.119 | 1.156  | 2.045 | 0.011  | 1.198  |
| 271T | 1.103  | 1.161  | 1.627 | -0.102 | 1.467 | 1.124 | 1.591  | 1.627 | -0.102 | 1.139  |
| 272V | 0.737  | 0.670  | 1.786 | -0.406 | 1.622 | 1.260 | 1.599  | 1.786 | -0.406 | 1.038  |
| 273S | 0.737  | 0.592  | 1.786 | -0.765 | 1.622 | 1.260 | 1.599  | 1.786 | -0.765 | 0.976  |
| 274L | 0.737  | -0.360 | 1.543 | -1.359 | 1.349 | 1.241 | 0.369  | 1.543 | -1.359 | 0.503  |
| 275R | -0.174 | 0.676  | 1.281 | -1.824 | 1.148 | 1.225 | 0.579  | 1.281 | -1.824 | 0.416  |
| 276E | -0.174 | 0.718  | 1.281 | -1.938 | 1.148 | 1.225 | 0.579  | 1.281 | -1.938 | 0.406  |
| 277A | -0.224 | 0.179  | 1.580 | -1.936 | 1.631 | 1.800 | 0.484  | 1.800 | -1.936 | 0.502  |
| 278F | 0.768  | 0.788  | 1.814 | -1.541 | 1.777 | 1.815 | 0.209  | 1.815 | -1.541 | 0.804  |
| 279V | 0.591  | 1.453  | 1.169 | -1.085 | 1.212 | 1.208 | 0.832  | 1.453 | -1.085 | 0.769  |
| 280K | 0.541  | 1.549  | 1.141 | -0.144 | 1.157 | 0.649 | 0.746  | 1.549 | -0.144 | 0.806  |
| 281S | 0.737  | 0.544  | 1.337 | 0.917  | 1.312 | 0.669 | 1.797  | 1.797 | 0.544  | 1.044  |
| 282C | 1.451  | -0.408 | 1.403 | 1.726  | 1.358 | 0.664 | 0.535  | 1.726 | -0.408 | 0.961  |
| 283N | 1.103  | 0.047  | 1.459 | 1.840  | 1.321 | 0.667 | 0.198  | 1.840 | 0.047  | 0.948  |
| 284T | 0.509  | -0.767 | 0.889 | 1.169  | 0.674 | 0.074 | 0.721  | 1.169 | -0.767 | 0.467  |
| 285A | 0.477  | -0.631 | 1.066 | 0.130  | 0.893 | 0.096 | 0.725  | 1.066 | -0.631 | 0.394  |
| 286F | -0.193 | -0.955 | 1.197 | -0.673 | 0.993 | 0.084 | 0.538  | 1.197 | -0.955 | 0.141  |
| 287V | -0.275 | 0.033  | 0.889 | -1.199 | 0.638 | 0.043 | 0.651  | 0.889 | -1.199 | 0.111  |
| 288Q | -1.109 | 0.620  | 0.552 | -1.551 | 0.465 | 0.025 | 0.932  | 0.932 | -1.551 | -0.010 |
| 289L | -0.977 | 0.756  | 0.982 | -1.877 | 0.938 | 0.650 | 1.941  | 1.941 | -1.877 | 0.345  |
| 290G | -0.066 | 0.960  | 1.244 | -2.204 | 1.139 | 0.666 | 1.731  | 1.731 | -2.204 | 0.496  |
| 291I | 0.528  | 0.872  | 1.356 | -2.246 | 1.103 | 0.664 | 1.142  | 1.356 | -2.246 | 0.488  |
| 292R | 0.281  | 1.197  | 1.029 | -2.100 | 0.729 | 0.622 | -0.031 | 1.197 | -2.100 | 0.247  |
| 293T | 1.495  | 0.179  | 1.384 | -1.507 | 1.039 | 1.105 | -0.475 | 1.495 | -1.507 | 0.460  |
| 294G | 1.268  | 0.501  | 1.393 | -1.056 | 1.084 | 1.105 | -1.486 | 1.393 | -1.486 | 0.401  |
| 295A | 1.192  | 0.730  | 1.449 | -0.685 | 1.112 | 1.109 | -1.372 | 1.449 | -1.372 | 0.505  |
| 296D | 1.192  | 0.616  | 1.449 | -0.742 | 1.112 | 1.109 | -1.372 | 1.449 | -1.372 | 0.480  |
| 297A | 1.274  | 0.077  | 1.403 | -0.923 | 1.112 | 1.109 | -1.253 | 1.403 | -1.253 | 0.400  |
| 298L | 0.648  | 0.890  | 1.403 | -1.291 | 1.203 | 1.126 | -1.309 | 1.403 | -1.309 | 0.381  |
| 299R | 0.648  | 1.095  | 1.403 | -1.343 | 1.203 | 1.126 | -1.309 | 1.403 | -1.343 | 0.403  |
| 300S | 0.281  | 0.107  | 1.561 | -1.598 | 1.358 | 1.262 | -1.301 | 1.561 | -1.598 | 0.239  |
| 301M | 0.281  | -0.122 | 1.561 | -1.759 | 1.358 | 1.262 | -1.301 | 1.561 | -1.759 | 0.183  |
| 302A | 0.281  | -0.212 | 1.580 | -2.003 | 1.303 | 1.261 | -1.484 | 1.580 | -2.003 | 0.104  |
| 303R | 0.376  | 0.327  | 1.141 | -1.992 | 0.784 | 0.636 | -1.483 | 1.141 | -1.992 | -0.030 |
| 304A | -0.616 | 0.369  | 0.907 | -1.925 | 0.638 | 0.621 | -1.208 | 0.907 | -1.925 | -0.173 |
| 305F | 0.281  | 0.728  | 1.188 | -1.376 | 0.911 | 1.093 | -1.162 | 1.188 | -1.376 | 0.238  |
| 306G | 0.560  | 1.261  | 1.337 | -0.790 | 1.066 | 1.113 | 0.008  | 1.337 | -0.790 | 0.651  |
| 307L | 0.427  | 1.447  | 1.150 | 0.008  | 0.866 | 0.507 | 0.229  | 1.447 | 0.008  | 0.662  |
| 308D | 0.427  | 2.010  | 1.393 | 0.828  | 1.139 | 0.526 | 1.459  | 2.010 | 0.427  | 1.112  |
| 309S | 1.274  | 1.962  | 1.889 | 1.145  | 1.658 | 1.147 | 1.207  | 1.962 | 1.145  | 1.469  |
| 310P | 1.046  | 1.465  | 2.141 | 1.019  | 1.977 | 1.166 | 1.427  | 2.141 | 1.019  | 1.463  |
| 311P | 1.957  | 0.902  | 2.421 | 0.533  | 2.123 | 1.180 | 1.032  | 2.421 | 0.533  | 1.450  |
| 312R | 1.457  | 1.034  | 2.393 | 0.116  | 2.078 | 0.710 | 1.261  | 2.393 | 0.116  | 1.293  |
| 313P | 0.465  | 0.125  | 2.160 | -0.116 | 1.932 | 0.696 | 1.536  | 2.160 | -0.116 | 0.971  |
| 314T | 0.711  | -0.234 | 2.244 | -0.100 | 2.032 | 0.719 | 1.480  | 2.244 | -0.234 | 0.979  |
| 315P | 0.345  | -0.150 | 1.879 | -0.394 | 1.750 | 0.702 | 1.849  | 1.879 | -0.394 | 0.854  |
| 316L | 0.212  | 0.347  | 1.449 | -0.724 | 1.276 | 0.077 | 0.839  | 1.449 | -0.724 | 0.497  |
| 317Q | 0.572  | 1.042  | 1.533 | -1.285 | 1.367 | 0.658 | 0.593  | 1.533 | -1.285 | 0.640  |
| 318V | 0.655  | 0.455  | 1.487 | -1.413 | 1.367 | 0.658 | 0.712  | 1.487 | -1.413 | 0.560  |
| 319A | 0.850  | 1.179  | 1.440 | -1.311 | 1.248 | 0.659 | 0.533  | 1.440 | -1.311 | 0.657  |
| 320E | 1.198  | 1.537  | 1.403 | -0.844 | 1.230 | 0.655 | 0.687  | 1.537 | -0.844 | 0.838  |
| 321S | 1.179  | 0.638  | 1.066 | -0.545 | 0.811 | 0.613 | 0.524  | 1.179 | -0.545 | 0.612  |
| 322T | 1.546  | 0.141  | 1.431 | -0.387 | 1.093 | 0.630 | 0.155  | 1.546 | -0.387 | 0.658  |
| 323V | 0.907  | 0.189  | 1.290 | -0.702 | 1.075 | 0.632 | 1.487  | 1.487 | -0.702 | 0.697  |
| 324G | 0.547  | 1.141  | 1.206 | -0.842 | 0.984 | 0.051 | 1.733  | 1.733 | -0.842 | 0.689  |
| 325P | 0.768  | 0.513  | 1.328 | -0.799 | 1.148 | 0.520 | 1.564  | 1.564 | -0.799 | 0.720  |
| 326I | 0.850  | 0.155  | 1.281 | -0.222 | 1.148 | 0.520 | 1.683  | 1.683 | -0.222 | 0.774  |
| 327P | 1.217  | 0.275  | 1.403 | 0.425  | 1.157 | 0.519 | 0.084  | 1.403 | 0.084  | 0.726  |
| 328D | 0.990  | 0.544  | 1.412 | 0.824  | 1.203 | 0.519 | -0.926 | 1.412 | -0.926 | 0.652  |
| 329S | 0.275  | -0.110 | 1.085 | 0.419  | 0.938 | 0.505 | -0.711 | 1.085 | -0.711 | 0.343  |
| 330A | 1.141  | -0.474 | 1.216 | -0.350 | 0.911 | 0.503 | -1.032 | 1.216 | -1.032 | 0.273  |
| 331A | 0.743  | 0.381  | 0.963 | -1.407 | 0.683 | 0.501 | -1.307 | 0.963 | -1.407 | 0.080  |
| 332L | 0.440  | 0.057  | 0.889 | -1.964 | 0.519 | 0.032 | -1.258 | 0.889 | -1.964 | -0.184 |
| 333G | 0.440  | 0.888  | 0.889 | -1.905 | 0.519 | 0.032 | -1.258 | 0.889 | -1.905 | -0.056 |
| 334M | -0.199 | 0.752  | 0.748 | -1.492 | 0.501 | 0.034 | 0.074  | 0.752 | -1.492 | 0.060  |
| 335T | 0.029  | 1.698  | 0.739 | -1.034 | 0.455 | 0.034 | 1.084  | 1.698 | -1.034 | 0.429  |
| 336S | 0.990  | 1.746  | 1.150 | -0.825 | 0.820 | 0.071 | 0.813  | 1.746 | -0.825 | 0.681  |
| 337I | 0.990  | 0.794  | 1.608 | -1.028 | 1.504 | 0.666 | 0.877  | 1.608 | -1.028 | 0.773  |
| 338G | 1.887  | 1.119  | 1.889 | -1.009 | 1.777 | 1.138 | 0.924  | 1.889 | -1.009 | 1.103  |
| 339Q | 1.325  | 0.287  | 1.571 | -0.957 | 1.613 | 1.119 | 1.472  | 1.613 | -0.957 | 0.919  |
| 340K | 1.046  | 0.287  | 1.421 | -0.768 | 1.458 | 1.099 | 0.302  | 1.458 | -0.768 | 0.692  |
| 341D | 0.971  | -0.186 | 1.477 | -0.726 | 1.485 | 1.103 | 0.415  | 1.485 | -0.726 | 0.648  |
| 342V | 0.939  | -0.929 | 1.683 | -0.924 | 1.686 | 1.123 | 0.456  | 1.686 | -0.929 | 0.576  |
| 343A | 0.692  | -0.833 | 1.599 | -1.186 | 1.586 | 1.099 | 0.512  | 1.599 | -1.186 | 0.496  |
| 344L | -0.250 | -0.224 | 1.066 | -1.127 | 0.957 | 0.510 | 0.882  | 1.066 | -1.127 | 0.259  |
| 345T | -0.749 | -0.019 | 0.795 | -1.077 | 0.638 | 0.021 | -0.119 | 0.795 | -1.077 | -0.073 |
| 346P | -0.073 | 0.065  | 1.216 | -0.574 | 0.957 | 0.060 | -0.821 | 1.216 | -0.821 | 0.118  |
| 347L | -0.073 | -0.619 | 1.216 | -0.313 | 0.957 | 0.060 | -0.821 | 1.216 | -0.821 | 0.058  |
| 348A | 1.002  | -0.414 | 1.627 | 0.023  | 1.312 | 0.654 | -1.282 | 1.627 | -1.282 | 0.417  |
| 349N | 0.168  | -0.414 | 1.290 | -0.108 | 1.139 | 0.636 | -1.001 | 1.290 | -1.001 | 0.244  |

|      |        |        |       |        |       |       |        |       |        |        |
|------|--------|--------|-------|--------|-------|-------|--------|-------|--------|--------|
| 350A | 0.168  | -0.532 | 1.047 | -0.670 | 0.866 | 0.617 | -2.231 | 1.047 | -2.231 | -0.105 |
| 351E | 0.882  | -0.857 | 1.132 | -1.552 | 0.856 | 0.612 | -3.676 | 1.132 | -3.676 | -0.372 |
| 352I | 1.078  | -1.432 | 1.328 | -2.030 | 1.011 | 0.632 | -2.625 | 1.328 | -2.625 | -0.291 |
| 353A | 0.130  | -0.498 | 0.889 | -2.355 | 0.683 | 0.593 | -2.191 | 0.889 | -2.355 | -0.393 |
| 354A | 0.130  | 0.129  | 0.889 | -2.088 | 0.683 | 0.593 | -2.191 | 0.889 | -2.191 | -0.265 |
| 355T | 0.079  | 0.756  | 0.860 | -1.559 | 0.629 | 0.034 | -2.277 | 0.860 | -2.277 | -0.211 |
| 356I | 0.945  | -0.060 | 0.991 | -1.006 | 0.601 | 0.032 | -2.599 | 0.991 | -2.599 | -0.156 |
| 357A | 1.173  | 0.756  | 0.982 | -0.342 | 0.556 | 0.032 | -1.588 | 1.173 | -1.588 | 0.224  |
| 358N | 0.534  | 0.642  | 0.842 | -0.077 | 0.537 | 0.034 | -0.257 | 0.842 | -0.257 | 0.322  |
| 359G | 0.534  | 0.846  | 0.842 | -0.291 | 0.537 | 0.034 | -0.257 | 0.846 | -0.291 | 0.321  |
| 360G | 0.775  | 0.578  | 0.973 | -1.025 | 0.601 | 0.049 | -0.634 | 0.973 | -1.025 | 0.188  |
| 361I | 0.907  | -0.456 | 1.403 | -1.645 | 1.075 | 0.674 | 0.376  | 1.403 | -1.645 | 0.333  |
| 362T | 0.598  | -0.336 | 1.346 | -2.078 | 1.039 | 0.652 | 0.709  | 1.346 | -2.078 | 0.276  |
| 363M | 0.117  | -0.923 | 1.608 | -1.923 | 1.321 | 0.672 | 1.040  | 1.608 | -1.923 | 0.273  |
| 364R | -0.825 | -0.182 | 1.533 | -1.698 | 1.376 | 0.677 | 1.475  | 1.533 | -1.698 | 0.337  |
| 365P | -0.553 | -0.140 | 1.552 | -1.432 | 1.385 | 0.677 | 1.742  | 1.742 | -1.432 | 0.462  |
| 366Y | -0.521 | -0.703 | 1.346 | -1.479 | 1.185 | 0.657 | 1.702  | 1.702 | -1.479 | 0.312  |
| 367L | 0.155  | 0.576  | 1.505 | -1.385 | 1.294 | 0.660 | 1.917  | 1.917 | -1.385 | 0.669  |
| 368V | -0.692 | 1.367  | 0.991 | -1.301 | 0.829 | 0.041 | 2.353  | 2.353 | -1.301 | 0.512  |
| 369G | -0.465 | 1.822  | 1.197 | -1.132 | 1.194 | 0.616 | 2.198  | 2.198 | -1.132 | 0.776  |
| 370S | 0.016  | 1.734  | 0.935 | -1.067 | 0.911 | 0.597 | 1.866  | 1.866 | -1.067 | 0.713  |
| 371L | 0.730  | 0.674  | 1.262 | -1.097 | 1.175 | 0.610 | 1.651  | 1.651 | -1.097 | 0.715  |
| 372K | 1.597  | 0.878  | 1.655 | -0.991 | 1.504 | 1.098 | 1.053  | 1.655 | -0.991 | 0.970  |
| 373G | 0.655  | 0.656  | 1.580 | -0.637 | 1.558 | 1.103 | 1.488  | 1.580 | -0.637 | 0.915  |
| 374P | 0.376  | -0.296 | 1.431 | -0.276 | 1.403 | 1.083 | 0.318  | 1.431 | -0.296 | 0.577  |
| 375D | 1.401  | 0.201  | 1.814 | 0.244  | 1.704 | 1.118 | -0.230 | 1.814 | -0.230 | 0.893  |
| 376L | 0.534  | 0.153  | 1.225 | 0.231  | 1.048 | 0.526 | 0.027  | 1.225 | 0.027  | 0.535  |
| 377A | 0.585  | 0.848  | 1.384 | 0.426  | 1.248 | 0.546 | 0.186  | 1.384 | 0.186  | 0.746  |
| 378N | 0.781  | 0.752  | 1.337 | 0.513  | 1.130 | 0.547 | 0.007  | 1.337 | 0.007  | 0.724  |
| 379I | 0.477  | 0.770  | 1.262 | 0.620  | 0.966 | 0.078 | 0.057  | 1.262 | 0.057  | 0.604  |
| 380S | 0.825  | 0.688  | 1.225 | 0.473  | 0.948 | 0.074 | 0.210  | 1.225 | 0.074  | 0.635  |
| 381T | 1.053  | 0.323  | 1.216 | 0.212  | 0.902 | 0.074 | 1.221  | 1.221 | 0.074  | 0.714  |
| 382T | 0.490  | 0.323  | 1.169 | -0.481 | 0.829 | 0.052 | 1.666  | 1.666 | -0.481 | 0.578  |
| 383V | 1.375  | 0.646  | 1.636 | -0.764 | 1.221 | 0.093 | 1.508  | 1.636 | -0.764 | 0.816  |
| 384G | 1.344  | 1.555  | 1.814 | -1.031 | 1.440 | 0.115 | 1.511  | 1.814 | -1.031 | 0.964  |
| 385Y | 1.280  | 0.928  | 2.047 | -1.025 | 1.759 | 0.720 | 1.469  | 2.047 | -1.025 | 1.026  |
| 386Q | 1.217  | 1.239  | 2.281 | -1.088 | 2.078 | 1.325 | 1.428  | 2.281 | -1.088 | 1.211  |
| 387Q | 1.584  | 1.603  | 2.403 | -1.344 | 2.087 | 1.323 | -0.171 | 2.403 | -1.344 | 1.069  |
| 388R | 0.990  | 1.471  | 2.290 | -1.799 | 2.123 | 1.325 | 0.417  | 2.290 | -1.799 | 0.974  |
| 389R | 1.521  | 1.149  | 2.188 | -1.917 | 2.041 | 1.326 | 0.245  | 2.188 | -1.917 | 0.936  |
| 390A | 1.274  | 0.239  | 2.103 | -1.579 | 1.941 | 1.302 | 0.302  | 2.103 | -1.579 | 0.798  |
| 391V | 1.274  | 0.239  | 2.103 | -0.821 | 1.941 | 1.302 | 0.302  | 2.103 | -0.821 | 0.906  |
| 392S | 0.775  | 0.335  | 1.552 | -0.146 | 1.458 | 0.679 | 0.891  | 1.552 | -0.146 | 0.792  |
| 393P | 0.642  | 0.311  | 1.122 | 0.027  | 0.984 | 0.054 | -0.118 | 1.122 | -0.118 | 0.432  |
| 394Q | 0.642  | -0.252 | 1.122 | -0.438 | 0.984 | 0.054 | -0.118 | 1.122 | -0.438 | 0.285  |
| 395V | 1.236  | -0.252 | 1.692 | -1.141 | 1.631 | 0.647 | -0.642 | 1.692 | -1.141 | 0.453  |
| 396A | 0.244  | 0.419  | 1.459 | -1.864 | 1.485 | 0.633 | -0.366 | 1.485 | -1.864 | 0.287  |
| 397A | 0.440  | 0.215  | 1.412 | -2.122 | 1.367 | 0.634 | -0.546 | 1.412 | -2.122 | 0.200  |
| 398K | 0.553  | 0.101  | 1.412 | -2.147 | 1.358 | 1.191 | -0.735 | 1.412 | -2.147 | 0.247  |
| 399L | 0.206  | -0.827 | 1.449 | -1.971 | 1.376 | 1.195 | -0.889 | 1.449 | -1.971 | 0.077  |
| 400T | -0.193 | 0.005  | 1.440 | -1.964 | 1.422 | 1.212 | 0.066  | 1.440 | -1.964 | 0.284  |
| 401E | -0.559 | -0.486 | 1.318 | -2.118 | 1.412 | 1.214 | 1.665  | 1.665 | -2.118 | 0.349  |
| 402L | -0.559 | -0.486 | 0.860 | -2.382 | 0.729 | 0.619 | 1.600  | 1.600 | -2.382 | 0.054  |
| 403M | 0.155  | 0.550  | 0.945 | -2.495 | 0.720 | 0.613 | 0.155  | 0.945 | -2.495 | 0.092  |
| 404V | 0.319  | 0.568  | 1.075 | -2.486 | 0.929 | 1.193 | 0.088  | 1.193 | -2.486 | 0.241  |
| 405G | 0.187  | 0.664  | 1.197 | -2.334 | 1.203 | 1.188 | 0.179  | 1.203 | -2.334 | 0.326  |
| 406A | 0.534  | 0.527  | 1.160 | -2.285 | 1.185 | 1.184 | 0.333  | 1.185 | -2.285 | 0.377  |
| 407E | 0.933  | 0.018  | 1.169 | -2.311 | 1.139 | 1.167 | -0.622 | 1.169 | -2.311 | 0.356  |
| 408K | 1.546  | 1.275  | 1.617 | -2.248 | 1.522 | 1.208 | -1.047 | 1.617 | -2.248 | 0.553  |
| 409V | 1.565  | 1.070  | 1.954 | -1.990 | 1.941 | 1.250 | -0.884 | 1.954 | -1.990 | 0.701  |
| 410A | 1.793  | 1.167  | 2.403 | -1.635 | 2.579 | 1.845 | 0.191  | 2.579 | -1.635 | 1.192  |
| 411Q | 1.660  | 0.842  | 2.066 | -1.334 | 2.169 | 1.245 | 0.217  | 2.169 | -1.334 | 0.981  |
| 412Q | 1.432  | 0.710  | 1.617 | -1.312 | 1.531 | 0.651 | -0.858 | 1.617 | -1.312 | 0.539  |
| 413K | 1.160  | 0.846  | 1.599 | -1.617 | 1.522 | 0.651 | -1.125 | 1.599 | -1.617 | 0.434  |
| 414G | 1.160  | -0.082 | 1.842 | -1.825 | 1.795 | 0.670 | 0.105  | 1.842 | -1.825 | 0.524  |
| 415A | 1.141  | -0.218 | 1.505 | -1.940 | 1.376 | 0.628 | -0.058 | 1.505 | -1.940 | 0.348  |
| 416I | 0.528  | -0.542 | 1.057 | -1.799 | 0.993 | 0.587 | 0.368  | 1.057 | -1.799 | 0.170  |
| 417P | 0.547  | -0.218 | 0.935 | -1.484 | 0.729 | 0.035 | 0.466  | 0.935 | -1.484 | 0.144  |
| 418G | -0.319 | 0.279  | 0.804 | -1.420 | 0.756 | 0.036 | 0.787  | 0.804 | -1.420 | 0.132  |
| 419V | -0.319 | 0.483  | 0.804 | -1.546 | 0.756 | 0.036 | 0.787  | 0.804 | -1.546 | 0.143  |
| 420Q | 0.598  | 1.070  | 1.094 | -1.529 | 0.929 | 0.055 | 0.625  | 1.094 | -1.529 | 0.406  |
| 421I | 0.825  | 1.207  | 1.300 | -1.575 | 1.294 | 0.630 | 0.471  | 1.300 | -1.575 | 0.593  |
| 422A | 0.794  | 2.022  | 1.505 | -1.209 | 1.494 | 0.650 | 0.511  | 2.022 | -1.209 | 0.824  |
| 423S | 1.388  | 2.022  | 1.617 | -0.898 | 1.458 | 0.649 | -0.077 | 2.022 | -0.898 | 0.880  |
| 424K | 1.337  | 1.742  | 1.487 | -0.698 | 1.239 | 0.626 | -0.200 | 1.742 | -0.698 | 0.790  |
| 425T | 1.976  | 1.000  | 1.627 | -0.725 | 1.257 | 0.624 | -1.532 | 1.976 | -1.532 | 0.604  |
| 426G | 2.336  | 1.137  | 1.954 | -0.855 | 1.622 | 1.224 | -0.548 | 2.336 | -0.855 | 0.981  |
| 427T | 2.058  | 1.000  | 1.963 | -0.834 | 1.640 | 1.824 | -0.440 | 2.058 | -0.834 | 1.030  |
| 428A | 2.058  | 1.048  | 1.505 | -0.583 | 0.957 | 1.229 | -0.505 | 2.058 | -0.583 | 0.816  |
| 429E | 2.058  | 1.407  | 1.505 | -0.138 | 0.957 | 1.229 | -0.505 | 2.058 | -0.505 | 0.930  |
| 430H | 2.330  | 1.646  | 1.786 | 0.444  | 1.321 | 1.718 | -0.514 | 2.330 | -0.514 | 1.247  |
| 431G | 2.134  | 1.646  | 1.832 | 0.859  | 1.440 | 1.717 | -0.335 | 2.134 | -0.335 | 1.327  |
| 432T | 2.267  | 1.509  | 2.262 | 0.928  | 1.914 | 2.342 | 0.674  | 2.342 | 0.674  | 1.699  |
| 433D | 1.906  | 1.377  | 2.094 | 1.146  | 1.722 | 2.362 | 0.968  | 2.362 | 0.968  | 1.654  |
| 434P | 2.102  | 1.197  | 2.132 | 0.968  | 1.704 | 1.762 | 0.741  | 2.132 | 0.741  | 1.515  |
| 435R | 1.875  | 0.928  | 2.384 | 1.163  | 2.023 | 1.781 | 0.961  | 2.384 | 0.928  | 1.588  |
| 436H | 1.679  | 0.115  | 2.431 | 1.261  | 2.142 | 1.780 | 1.140  | 2.431 | 0.115  | 1.507  |
| 437T | 1.179  | -0.478 | 2.318 | 1.559  | 1.996 | 1.911 | 1.416  | 2.318 | -0.478 | 1.414  |
| 438P | 1.179  | -1.376 | 2.075 | 1.579  | 1.722 | 1.892 | 0.186  | 2.075 | -1.376 | 1.037  |
| 439P | 0.281  | -2.059 | 1.664 | 1.556  | 1.267 | 1.293 | 0.209  | 1.664 | -2.059 | 0.602  |
| 440H | 0.029  | -2.418 | 1.758 | 0.875  | 1.330 | 0.692 | 0.274  | 1.758 | -2.418 | 0.363  |
| 441A | -0.806 | -2.682 | 1.421 | -0.056 | 1.157 | 0.674 | 0.555  | 1.421 | -2.682 | 0.038  |
| 442W | -0.806 | -2.682 | 1.178 | -1.136 | 0.884 | 0.655 | -0.675 | 1.178 | -2.682 | -0.369 |
| 443Y | -1.520 | -1.821 | 0.870 | -1.787 | 0.565 | 0.640 | -0.644 | 0.870 | -1.821 | -0.528 |
| 444I | -1.520 | -1.414 | 0.711 | -2.116 | 0.392 | 0.020 | -1.921 | 0.711 | -2.116 | -0.836 |
| 445A | -1.520 | -0.599 | 0.954 | -1.765 | 0.665 | 0.039 | -0.691 | 0.954 | -1.765 | -0.417 |
| 446F | -0.755 | -0.599 | 0.935 | -1.388 | 0.647 | 0.014 | -1.724 | 0.935 | -1.724 | -0.410 |
| 447A | -0.256 | -0.066 | 1.010 | -1.017 | 0.784 | 0.037 | -1.892 | 1.010 | -1.892 | -0.200 |
| 448P | 0.383  | 0.766  | 1.150 | -0.878 | 0.802 | 0.035 | -3.224 | 1.150 | -3.224 | -0.138 |
| 449A | 0.383  | 0.311  | 1.393 | -0.772 | 1.075 | 0.054 | -1.994 | 1.393 | -1.994 | 0.064  |
| 450Q | 1.325  | 0.311  | 1.907 | -0.929 | 1.759 | 0.645 | -2.180 | 1.907 | -2.180 | 0.405  |
| 451A | 0.958  | -0.276 | 1.786 | -0.968 | 1.750 | 0.646 | -0.581 | 1.786 | -0.968 | 0.473  |
| 452P | 0.958  | -0.276 | 1.543 | -1.276 | 1.476 | 0.627 | -1.812 | 1.543 | -1.812 | 0.177  |
| 453K | 0.591  | -0.731 | 1.421 | -1.548 | 1.467 | 0.629 | -0.213 | 1.467 | -1.548 | 0.231  |
| 454V | 0.345  | -1.767 | 1.094 | -1.934 | 1.093 | 0.587 | -1.386 | 1.094 | -1.934 | -0.281 |



|      |              |        |       |        |       |        |        |       |        |        |
|------|--------------|--------|-------|--------|-------|--------|--------|-------|--------|--------|
| 455A | -0.022       | -1.767 | 0.973 | -2.104 | 1.084 | 0.588  | 0.213  | 1.084 | -2.104 | -0.148 |
| 456V | -0.736       | -1.192 | 0.646 | -2.271 | 0.820 | 0.575  | 0.428  | 0.820 | -2.271 | -0.247 |
| 457A | -1.331       | -0.486 | 0.075 | -2.273 | 0.173 | -0.018 | 0.951  | 0.951 | -2.273 | -0.415 |
| 458V | -0.604       | 0.141  | 0.524 | -2.326 | 0.547 | 0.580  | 0.336  | 0.580 | -2.326 | -0.115 |
| 459L | -0.294       | 0.237  | 0.823 | -1.888 | 0.856 | 0.620  | 1.234  | 1.234 | -1.888 | 0.227  |
| 460V | 0.300        | 0.980  | 0.935 | -1.292 | 0.820 | 0.619  | 0.645  | 0.980 | -1.292 | 0.430  |
| 461E | 0.300        | 1.890  | 0.935 | -0.461 | 0.820 | 0.619  | 0.645  | 1.890 | -0.461 | 0.678  |
| 462N | 1.167        | 1.111  | 1.328 | 0.225  | 1.148 | 1.106  | 0.047  | 1.328 | 0.047  | 0.876  |
| 463G | <u>2.014</u> | 1.357  | 1.842 | 0.336  | 1.613 | 1.725  | -0.388 | 2.014 | -0.388 | 1.214  |
| 464A | 1.666        | 0.730  | 1.879 | -0.007 | 1.631 | 1.729  | -0.542 | 1.879 | -0.542 | 1.012  |
| 465D | 1.584        | 1.221  | 1.702 | -0.260 | 1.422 | 1.150  | -0.356 | 1.702 | -0.356 | 0.923  |
| 466R | 1.274        | 1.309  | 1.403 | -0.700 | 1.112 | 1.109  | -1.253 | 1.403 | -1.253 | 0.608  |
| 467L | 1.242        | 1.123  | 1.608 | -0.649 | 1.312 | 1.129  | -1.213 | 1.608 | -1.213 | 0.650  |
| 468S | 1.470        | 1.327  | 1.599 | -0.579 | 1.267 | 1.129  | -0.202 | 1.599 | -0.579 | 0.859  |
| 469A | 1.198        | 0.267  | 1.318 | -0.668 | 0.902 | 0.640  | -0.193 | 1.318 | -0.668 | 0.495  |
| 470T | 1.065        | 0.267  | 0.889 | -0.852 | 0.428 | 0.015  | -1.202 | 1.065 | -1.202 | 0.087  |
| 471G | 1.065        | -0.224 | 0.889 | -1.182 | 0.428 | 0.015  | -1.202 | 1.065 | -1.202 | -0.030 |
| 472G | 0.787        | -0.492 | 0.739 | -1.691 | 0.273 | -0.005 | -2.372 | 0.787 | -2.372 | -0.394 |
| 473A | 0.787        | -1.444 | 0.739 | -1.960 | 0.273 | -0.005 | -2.372 | 0.787 | -2.372 | -0.569 |
| 474L | 0.591        | -0.817 | 0.786 | -2.016 | 0.392 | -0.006 | -2.193 | 0.786 | -2.193 | -0.466 |
| 475A | -0.275       | 0.201  | 0.655 | -1.945 | 0.419 | -0.004 | -1.872 | 0.655 | -1.945 | -0.403 |
| 476A | -0.275       | 0.201  | 0.655 | -1.726 | 0.419 | -0.004 | -1.872 | 0.655 | -1.872 | -0.372 |
| 477P | -0.142       | 0.105  | 1.085 | -1.739 | 0.893 | 0.621  | -0.862 | 1.085 | -1.739 | -0.006 |
| 478I | 0.572        | -0.578 | 1.169 | -1.877 | 0.884 | 0.615  | -2.307 | 1.169 | -2.307 | -0.218 |
| 479G | 0.206        | 0.321  | 1.047 | -2.163 | 0.875 | 0.617  | -0.709 | 1.047 | -2.163 | 0.028  |
| 480R | -0.433       | -0.306 | 0.907 | -2.372 | 0.856 | 0.619  | 0.623  | 0.907 | -2.372 | -0.015 |
| 481A | -0.073       | -1.119 | 0.991 | -2.595 | 0.948 | 1.199  | 0.377  | 1.199 | -2.595 | -0.039 |
| 482V | 0.566        | -1.324 | 1.132 | -2.637 | 0.966 | 1.197  | -0.955 | 1.197 | -2.637 | -0.151 |
| 483I | 0.338        | -0.737 | 1.141 | -2.692 | 1.011 | 1.197  | -1.965 | 1.197 | -2.692 | -0.244 |
| 484E | -0.509       | 0.215  | 0.627 | -2.623 | 0.547 | 0.578  | -1.529 | 0.627 | -2.623 | -0.385 |
| 485A | -0.262       | 0.215  | 0.954 | -2.383 | 0.920 | 0.621  | -0.356 | 0.954 | -2.383 | -0.042 |
| 486A | 0.332        | 0.574  | 1.066 | -2.122 | 0.884 | 0.619  | -0.944 | 1.066 | -2.122 | 0.058  |
| 487L | 1.331        | 0.828  | 1.533 | -1.827 | 1.267 | 1.217  | -1.292 | 1.533 | -1.827 | 0.437  |
| 488Q | 0.971        | 1.287  | 1.449 | -1.518 | 1.175 | 0.636  | -1.046 | 1.449 | -1.518 | 0.422  |
| 489G | 0.838        | 1.050  | 0.991 | -1.236 | 1.494 | 0.696  | -1.046 | 1.494 | -1.236 | 0.398  |
| 490E | 0.705        | 0.678  | 0.533 | -0.909 | 1.813 | 0.756  | -1.046 | 1.813 | -1.046 | 0.362  |
| 491P | 1.287        | 0.357  | 0.160 | -0.575 | 2.123 | 0.811  | -2.491 | 2.123 | -2.491 | 0.239  |

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**Overlap Display**

Selected Programs: hydro flexi access turns surface polar antipro

Respective Threshold: 1.9 2 1.9 2.4 2.3 1.8 1.9

The predicted B-cell epitopes are shown in blue colour and underlined.

|                      |   |
|----------------------|---|
| Sequence             | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |
| Hydrophilicity       | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |
| Flexibility          | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |
| Accessibility        | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |
| Turns                | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |
| Exposed Surface      | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |
| Polarity             | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |
| Antigenic Propensity | <sup>1</sup> MNASLRRISVTVMALIVLLLLLNATMTQVFTADGLRADPRNQRVLLDEYSRQRGQITAGGQLLAYS VATDGRFRFLRVYPNPEVYAPVTGFYSLRYSSTALERAEDPILNGSDRRLFGRRLADFFTGDRDPRGNN |

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