BcePred Prediction Server

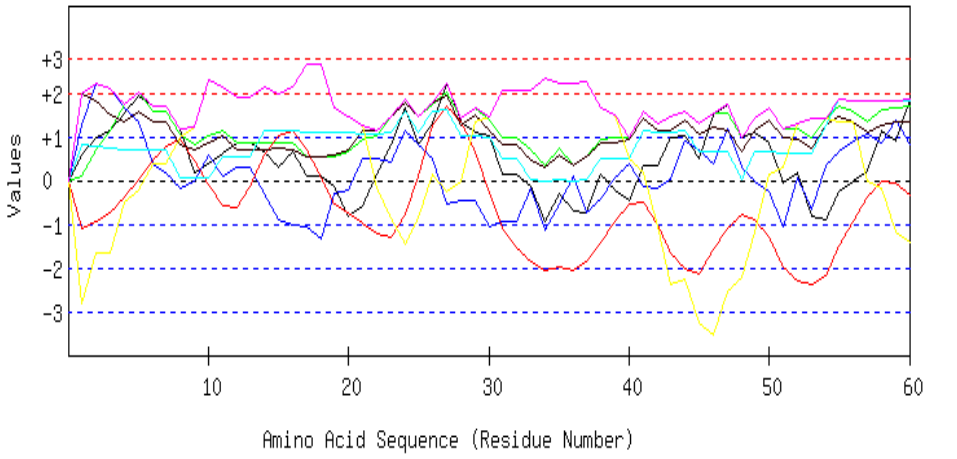
The server displays 1.GRAPHICAL RESULT 2.TABULAR RESULT 3.Overlap Display

seqname=
Seq=MTTRSASPCTVLTDGCHLVVDALKANDVDTIYGVVGIPITDLARAAQASGIRYIGFRHEA
SAGNAAAAAGFLTARPGVCLTTSGPGFLNGLPALANATTNCFPMIQISGSSSRPMVDLQRGDYQ
DLDQLNAARPFVKAAYRIGQVQDIGRGVARAIRTATSGRPGGVYLDIPGDVLGQAVEASAASG
AIWRPVDPAPRLLPAPEAIDRALDVLAQAQRPLLVLSKGAAYAQADNVIREFVEHTGIPFLPMS
MAKGLLPDSHPQSAAAARSLAMARADVVLLVGARLNWLLGNGESPQWSADAKFIQVDIEAS
EFDSNRPIVAPLTGDIGSVMSALLEAAADRSSVASAAWTGELADRKARNSAKMRRRLADDHHP
MRFYNALGAIRSVLQRNPDVYVVNEGANALDLARNIIDMHLPRHRLDSGTWGVMGIGMGYA
IAAAVETGRPVVAIEGDSAFGFSGMEFETICRYRLPVTVVILNNGGVYRGDEATIFRSAAPVWR
HDPAPTVLNAHARHELIAEAFGGKGYHVSTPTELESALTDALASNGPSLIDCELDPADGVESGH
LAKLNTTSAATPAISGDG

Length=582

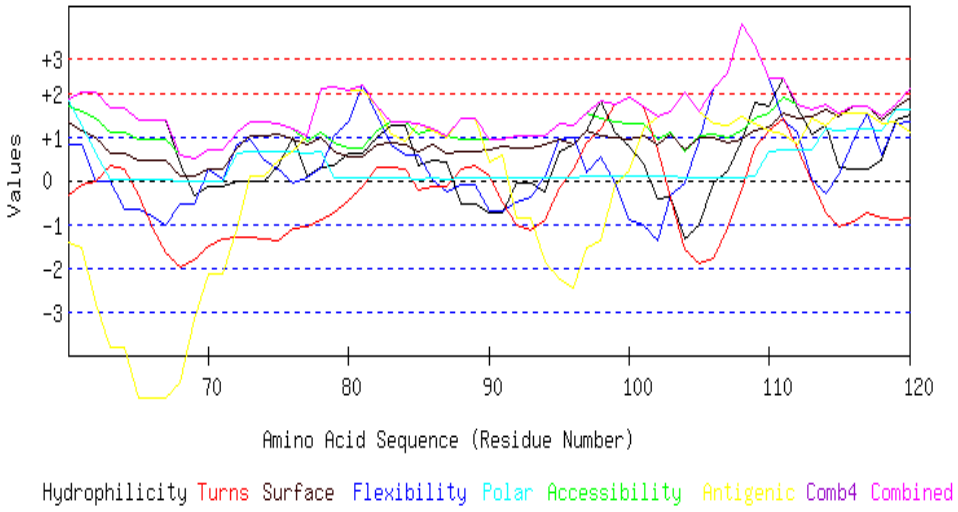
GRAPHICAL RESULT

GRAPHICAL RESULT :: SEQ 1 to 60



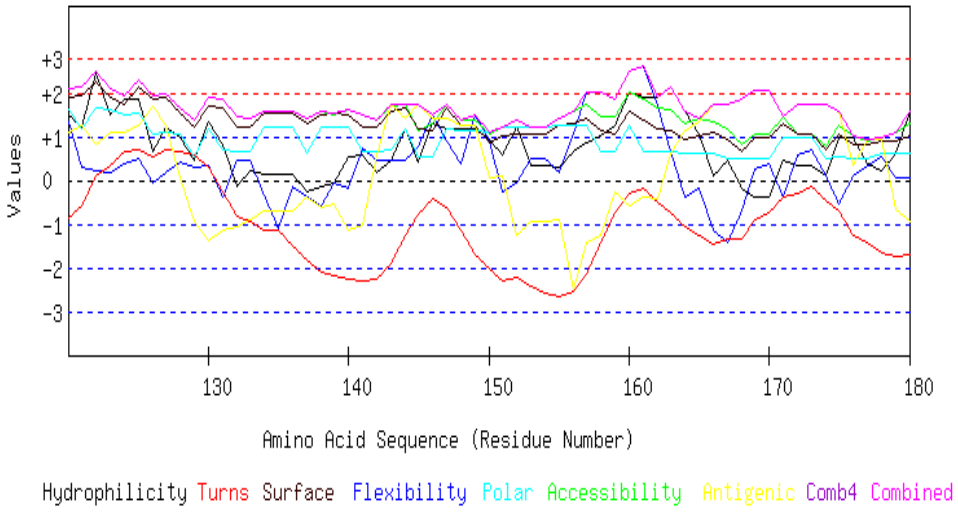
Hydrophilicity Turns Surface Flexibility Polar Accessibility Antigenic Comb4 Combined

GRAPHICAL RESULT :: SEQ 61 to 120

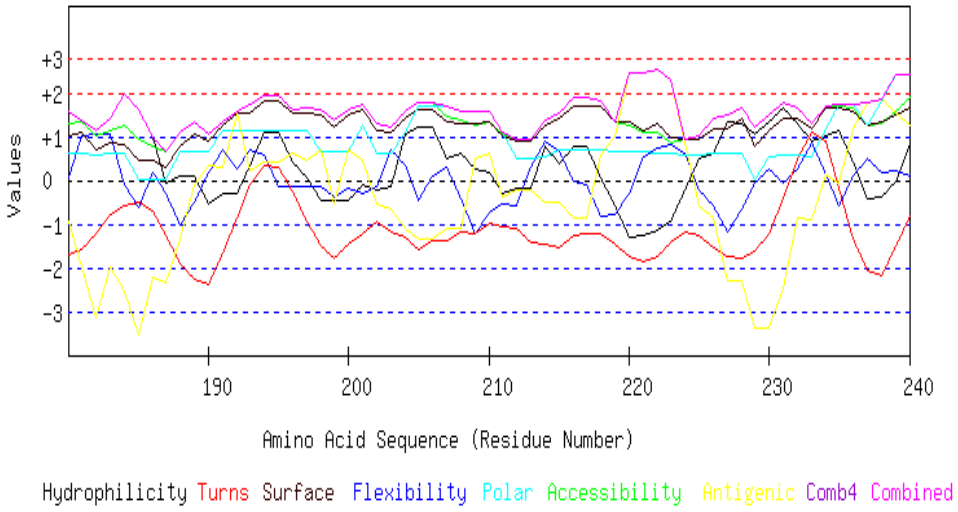


Hydrophilicity Turns Surface Flexibility Polar Accessibility Antigenic Comb4 Combined

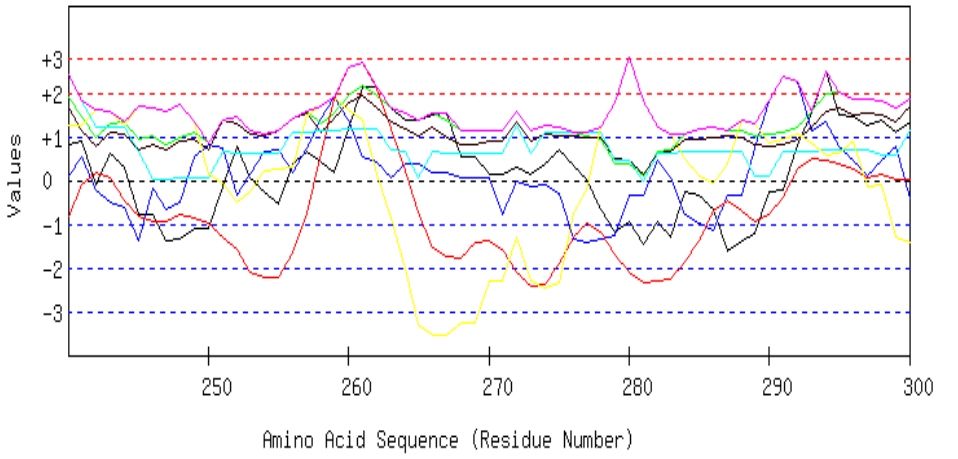
GRAPHICAL RESULT :: SEQ 121 to 180



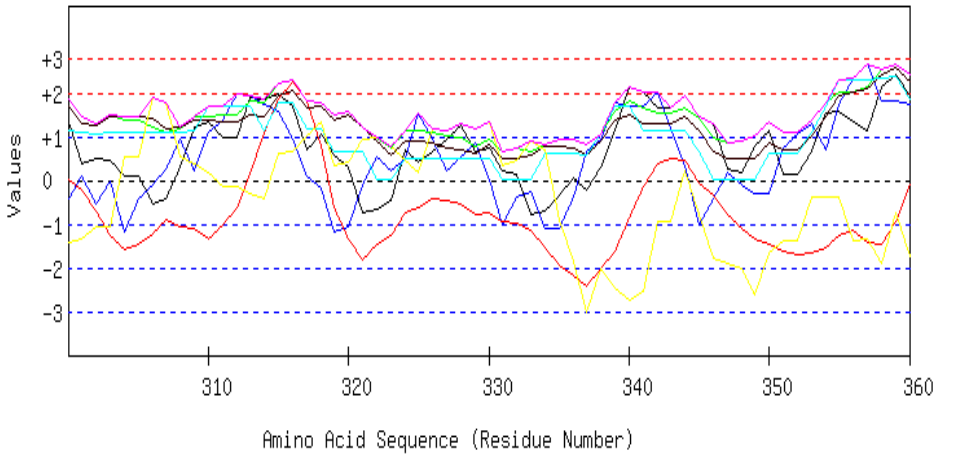
GRAPHICAL RESULT :: SEQ 181 to 240



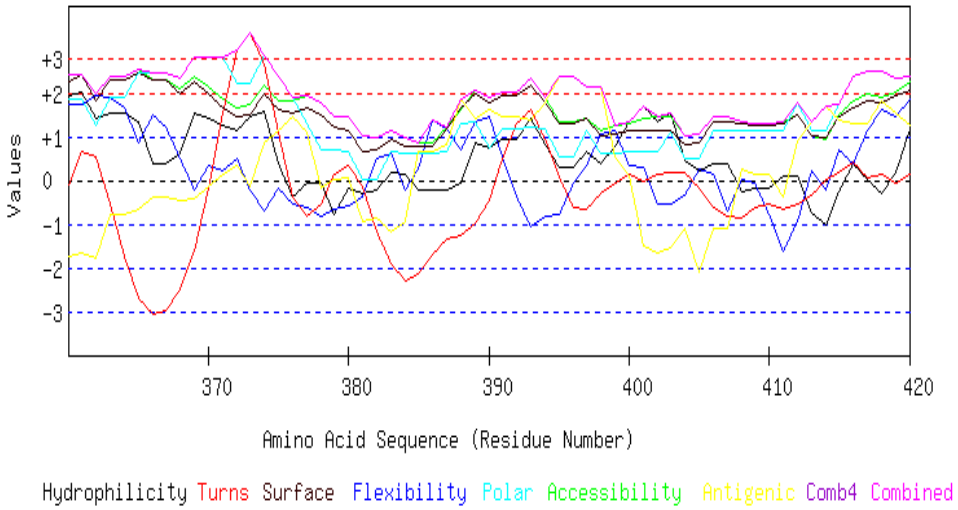
GRAPHICAL RESULT :: SEQ 241 to 300



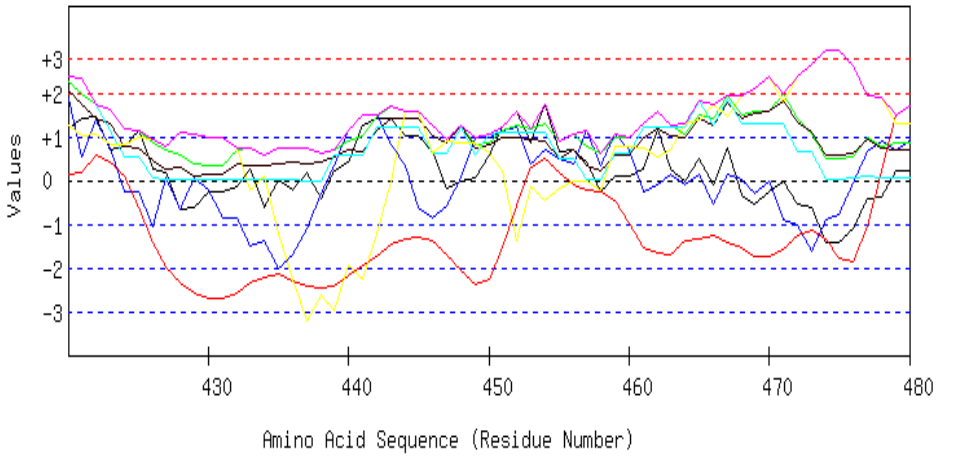
GRAPHICAL RESULT :: SEQ 301 to 360



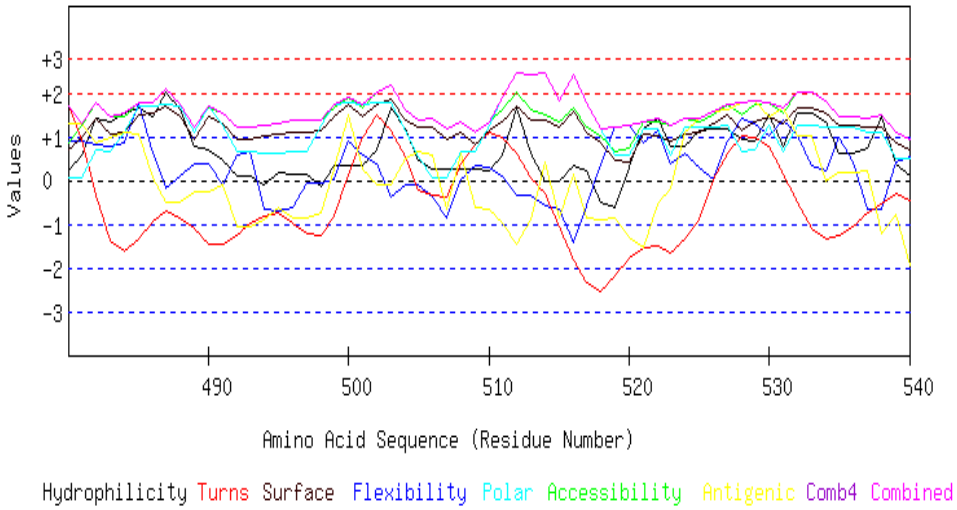
GRAPHICAL RESULT :: SEQ 361 to 420



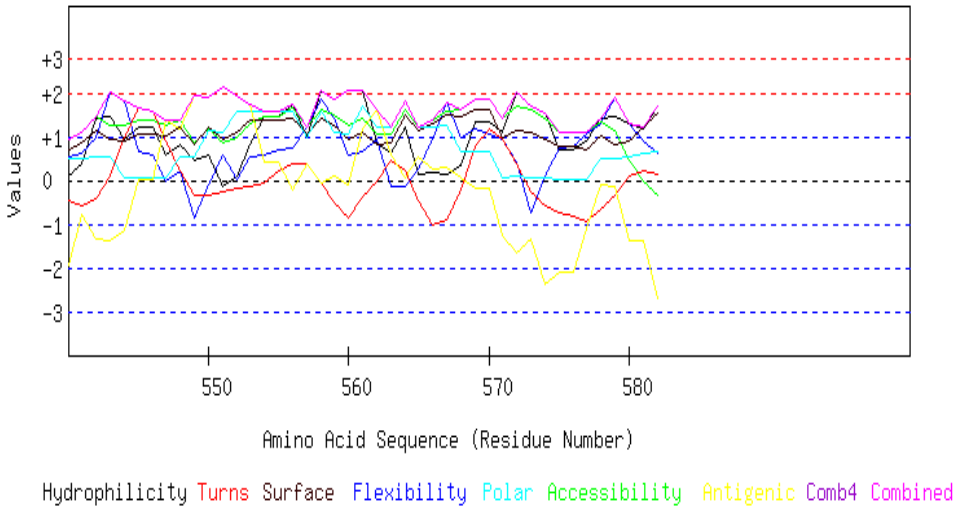
GRAPHICAL RESULT :: SEQ 421 to 480



GRAPHICAL RESULT :: SEQ 481 to 540



GRAPHICAL RESULT :: SEQ 541 to 600



TOP

TABULAR RESULT

Selected Programs: hydro flexi access turns surface polar antipro

Respective Threshold: 1.9 2 1.9 2.4 2.3 1.8 1.9

MTTRSASPCTVLTDGCHLVVDALKANDVDTIYGVVGIPITDLARAAQASGIRYIGFRHEA
SAGNAAAAAGFLTARPGVCLTTSGPGFLNGLPALANATTNCFPMIQISGSSSRPMVDLQR
GDYQDLDQLNAARPFVKAAYRIGQVQDIGRGVARAIRTATSGRPGGVYLDIPGDVLGQAV
EASAASGAIWRPVDPAPRLLPAPEAIDRALDVLAQAQRPLLVLSKGAAYAQADNVIREFV
EHTGIPFLPMSMAKGLLPDSHPQSAAAARSLAMARADVVLLVGARLNWLLGNGESPQWSA
DAKFIQVDIEASEFDSNRPIVAPLTGDIGSVMSALLEAAADRSSVASAAWTGELADRKAR
NSAKMRRRLADDHHPMRFYNALGAIRSVLQRNPDVYVVNEGANALDLARNIIDMHLPRHR
LDSGTWGVMGIGMGYAIAAAVETGRPVVAIEGDSAFGFSGMEFETICRYRLPVTVVILNN
GGVYRGDEATIFRSAAPVWRHDPAPTVLNAHARHELIAEAFGGKGYHVSTPTELESALTD
ALASNGPSLIDCELDPADGVESGHLAKLNTTSAATPAISGDG

Length=582

A.A. **Parameter Combined**

		Hydro	Flexi	Access	Turns	Surface	Polar	AntiPro	MAX	MIN	AVG
1	M	0.579	1.263	0.085	-1.103	1.987	0.832	-2.823	1.987	-2.823	0.117
2	T	0.990	2.233	0.692	-0.924	1.823	0.792	-1.653	2.233	-1.653	0.564
3	T	1.122	2.100	1.150	-0.759	1.504	0.732	-1.653	2.100	-1.653	0.599
4	R	1.533	1.646	1.758	-0.385	1.339	0.692	-0.483	1.758	-0.483	0.871
5	S	1.932	1.323	2.010	0.010	1.567	0.694	-0.208	2.010	-0.208	1.047
6	A	1.691	0.371	1.599	0.470	1.321	0.691	0.373	1.691	0.371	0.931
7	S	1.691	0.167	1.599	0.785	1.321	0.691	0.373	1.691	0.167	0.947
8	P	1.192	-0.198	1.047	0.936	0.838	0.068	0.963	1.192	-0.198	0.692
9	C	0.199	-0.017	0.814	0.442	0.692	0.054	1.238	1.238	-0.017	0.489
10	T	0.395	0.574	1.010	-0.108	0.847	0.074	2.289	2.289	-0.108	0.726
11	V	0.617	0.119	1.132	-0.572	1.011	0.542	2.120	2.120	-0.572	0.710
12	L	0.844	0.305	0.879	-0.610	0.692	0.523	1.901	1.901	-0.610	0.648
13	T	0.844	0.305	0.879	-0.145	0.692	0.523	1.901	1.901	-0.145	0.714
14	D	0.648	-0.282	0.842	0.580	0.711	1.123	2.127	2.127	-0.282	0.821
15	G	0.300	-0.917	0.879	1.036	0.729	1.127	1.973	1.973	-0.917	0.733
16	C	0.648	-1.005	0.842	1.151	0.711	1.123	2.127	2.127	-1.005	0.800
17	H	0.085	-1.041	0.524	0.683	0.547	1.105	2.675	2.675	-1.041	0.654
18	L	0.085	-1.336	0.524	0.047	0.547	1.105	2.675	2.675	-1.336	0.521
19	V	-0.142	-0.300	0.533	-0.522	0.592	1.105	1.665	1.665	-0.522	0.419
20	V	-0.812	-0.204	0.664	-0.722	0.692	1.093	1.477	1.477	-0.812	0.313
21	D	-0.585	0.501	0.954	-0.981	1.157	1.067	1.275	1.275	-0.981	0.484
22	A	0.130	0.501	1.038	-1.207	1.148	1.062	-0.170	1.148	-1.207	0.358
23	L	0.806	0.405	1.459	-1.281	1.467	1.101	-0.872	1.467	-1.281	0.441
24	K	1.672	1.149	1.851	-0.776	1.795	1.588	-1.469	1.851	-1.469	0.830
25	A	0.806	0.808	1.459	0.096	1.467	1.101	-0.872	1.467	-0.872	0.695
26	N	1.306	0.483	1.730	1.247	1.786	1.590	0.130	1.786	0.130	1.182

27 D	2.216	-0.532	2.010	1.703	1.932	1.604	-0.265	2.216	-0.532	1.238
28 V	1.350	-0.444	1.421	1.351	1.276	1.012	-0.008	1.421	-0.444	0.851
29 D	1.097	-0.444	1.674	0.651	1.513	1.031	1.334	1.674	-0.444	0.979
30 T	1.015	-1.079	1.365	-0.319	1.157	0.990	1.447	1.447	-1.079	0.654
31 I	0.149	-0.943	0.973	-1.104	0.829	0.503	2.045	2.045	-1.104	0.350
32 Y	0.149	-0.943	0.973	-1.544	0.829	0.503	2.045	2.045	-1.544	0.287
33 G	-0.123	-0.178	0.692	-1.861	0.465	0.014	2.054	2.054	-1.861	0.152
34 V	-0.958	-1.129	0.356	-2.066	0.291	-0.004	2.335	2.335	-2.066	-0.168
35 V	-0.319	-0.542	0.739	-1.981	0.583	0.013	2.234	2.234	-1.981	0.104
36 G	-0.705	0.093	0.346	-2.076	0.328	-0.004	2.223	2.223	-2.076	0.029
37 I	-0.736	-0.739	0.552	-1.860	0.528	0.015	2.264	2.264	-1.860	0.004
38 P	0.130	-0.414	0.945	-1.422	0.856	0.503	1.666	1.666	-1.422	0.323
39 I	-0.218	0.041	0.982	-0.921	0.875	0.507	1.512	1.512	-0.921	0.397
40 T	-0.446	0.365	0.991	-0.540	0.920	0.507	0.502	0.991	-0.540	0.329
41 D	0.326	-0.126	1.561	-0.501	1.412	1.130	0.179	1.561	-0.501	0.569
42 L	0.326	-0.174	1.318	-1.034	1.139	1.111	-1.051	1.318	-1.051	0.234
43 A	0.964	0.031	1.459	-1.642	1.157	1.109	-2.383	1.459	-2.383	0.099
44 R	1.015	0.886	1.589	-2.011	1.376	1.131	-2.260	1.589	-2.260	0.247
45 A	0.515	0.700	1.318	-2.122	1.057	0.642	-3.261	1.318	-3.261	-0.164
46 A	1.508	0.375	1.552	-1.581	1.203	0.657	-3.536	1.552	-3.536	0.025
47 Q	1.736	1.189	1.543	-1.111	1.157	0.657	-2.526	1.736	-2.526	0.378
48 A	0.964	0.291	0.973	-0.764	0.665	0.034	-2.203	0.973	-2.203	-0.006
49 S	1.097	-0.034	1.403	-0.888	1.139	0.659	-1.194	1.403	-1.194	0.312
50 G	0.844	-0.262	1.655	-1.298	1.376	0.678	0.148	1.655	-1.298	0.449
51 I	-0.041	-1.063	1.188	-1.992	0.984	0.638	0.306	1.188	-1.992	0.003
52 R	0.187	0.075	1.178	-2.309	0.938	0.638	1.317	1.317	-2.309	0.289
53 Y	-0.806	-0.649	0.963	-2.389	0.738	0.622	1.408	1.408	-2.389	-0.016
54 I	-0.901	0.333	1.403	-2.182	1.257	1.246	1.407	1.407	-2.182	0.366
55 G	-0.262	0.658	1.702	-1.508	1.449	1.864	1.353	1.864	-1.508	0.751
56 F	-0.035	0.886	1.599	-0.926	1.339	1.839	1.327	1.839		

-0.926 0.861
57 R 0.218 1.060 1.346 -0.380 1.103 1.820 -0.015 1.820
-0.380 0.736
58 H 1.135 0.874 1.636 -0.004 1.276 1.838 -0.177 1.838
-0.177 0.940
59 E 0.907 1.393 1.646 -0.052 1.321 1.838 -1.187 1.838
-1.187 0.838
60 A 1.849 0.818 1.702 -0.323 1.321 1.834 -1.438 1.849
-1.438 0.823
61 S 2.026 0.818 1.571 -0.088 1.157 1.250 -1.550 2.026
-1.550 0.741
62 A 2.026 -0.038 1.412 -0.031 0.984 0.630 -2.828 2.026
-2.828 0.308
63 G 1.666 -0.038 1.085 0.332 0.619 0.031 -3.812 1.666
-3.812 -0.017
64 N 1.666 -0.665 1.085 0.277 0.619 0.031 -3.812 1.666
-3.812 -0.114
65 A 1.388 -0.647 0.935 -0.321 0.465 0.010 -4.981 1.388
-4.981 -0.450
66 A 1.388 -0.821 0.935 -1.112 0.465 0.010 -4.981 1.388
-4.981 -0.588
67 A 1.388 -1.025 0.935 -1.677 0.465 0.010 -4.981 1.388
-4.981 -0.698
68 A 0.364 -0.534 0.571 -1.990 0.109 -0.026 -4.617 0.571
-4.617 -0.875
69 A -0.351 -0.534 0.487 -1.820 0.118 -0.021 -3.172 0.487
-3.172 -0.756
70 G -0.155 0.279 0.683 -1.506 0.273 -0.001 -2.121 0.683
-2.121 -0.364
71 F -0.155 0.011 0.683 -1.334 0.273 -0.001 -2.121 0.683
-2.121 -0.378
72 L -0.022 0.812 1.113 -1.303 0.747 0.624 -1.112 1.113
-1.303 0.123
73 T -0.022 0.920 1.356 -1.313 1.020 0.643 0.118 1.356
-1.313 0.389
74 A -0.022 0.465 1.356 -1.352 1.020 0.643 0.118 1.356
-1.352 0.318
75 R 0.326 0.261 1.300 -1.361 1.057 0.640 0.456 1.300
-1.361 0.383
76 P 0.996 -0.062 1.169 -1.114 0.957 0.653 0.643 1.169
-1.114 0.463
77 G 0.085 0.071 0.889 -1.055 0.811 0.638 1.037 1.037
-1.055 0.354
78 V 0.281 0.299 1.085 -0.885 0.966 0.658 2.088 2.088
-0.885 0.642
79 C 0.345 1.022 0.851 -0.732 0.647 0.053 2.130 2.130
-0.732 0.617
80 L 0.623 1.345 0.758 -0.442 0.528 0.055 2.069 2.069
-0.442 0.705
81 T 0.623 2.176 0.758 -0.134 0.528 0.055 2.069 2.176
-0.134 0.868
82 T 0.990 1.511 1.122 0.309 0.811 0.072 1.701 1.701
0.072 0.931
83 S 1.261 0.816 1.328 0.300 0.856 0.054 1.079 1.328
0.054 0.814
84 G 1.261 0.570 1.346 0.258 0.802 0.053 0.895 1.346
0.053 0.741
85 P 0.351 0.570 1.066 -0.200 0.656 0.038 1.289 1.289
-0.200 0.539

86 G	0.465	0.007	1.169	-0.155	0.811	0.059	1.135	1.169	
-0.155	0.499								
87 F	0.414	-0.262	1.010	-0.134	0.610	0.039	0.976	1.010	
-0.262	0.379								
88 L	-0.528	-0.088	0.935	0.247	0.665	0.044	1.410	1.410	
-0.528	0.384								
89 N	-0.528	-0.088	0.935	0.333	0.665	0.044	1.410	1.410	
-0.528	0.396								
90 G	-0.755	-0.697	0.945	0.106	0.711	0.044	0.400	0.945	
-0.755	0.108								
91 L	-0.755	-0.715	0.926	-0.513	0.765	0.046	0.584	0.926	
-0.755	0.048								
92 P	-0.041	-0.510	1.010	-1.011	0.756	0.040	-0.861	1.010	
-1.011	-0.088								
93 A	-0.041	-0.378	1.010	-1.155	0.756	0.040	-0.861	1.010	
-1.155	-0.090								
94 L	-0.269	0.113	1.019	-0.890	0.802	0.040	-1.872	1.019	
-1.872	-0.151								
95 A	0.642	0.926	1.300	-0.176	0.948	0.055	-2.266	1.300	
-2.266	0.204								
96 N	0.838	0.962	1.253	0.261	0.829	0.056	-2.445	1.253	
-2.445	0.251								
97 A	1.148	0.179	1.552	0.853	1.139	0.096	-1.548	1.552	
-1.548	0.488								
98 T	1.818	0.538	1.421	1.184	1.039	0.109	-1.361	1.818	
-1.361	0.678								
99 T	1.103	-0.068	1.356	1.737	0.993	0.113	-0.099	1.737	
-0.099	0.734								
100N	0.794	-0.883	1.300	1.904	0.957	0.091	0.234	1.904	
-0.883	0.628								
101C	0.395	-1.001	1.290	1.696	1.002	0.108	1.188	1.696	
-1.001	0.668								
102F	-0.439	-1.362	0.954	0.695	0.829	0.090	1.469	1.469	
-1.362	0.320								
103P	-0.389	-0.332	1.085	-0.423	1.048	0.113	1.592	1.592	
-0.423	0.385								
104M	-1.337	-0.064	0.646	-1.589	0.720	0.074	2.027	2.027	
-1.589	0.068								
105I	-1.015	0.906	1.010	-1.889	0.966	0.076	1.564	1.564	
-1.889	0.231								
106Q	-0.073	2.086	1.066	-1.763	0.966	0.072	1.313	2.086	
-1.763	0.524								
107I	0.206	2.451	0.973	-1.090	0.847	0.073	1.253	2.451	
-1.090	0.673								
108S	0.882	3.589	1.132	-0.231	0.957	0.076	1.468	3.589	
-0.231	1.125								
109G	1.799	3.092	1.421	0.737	1.130	0.094	1.306	3.092	
0.094	1.369								
110S	1.685	2.351	1.524	1.148	1.230	0.677	1.142	2.351	
0.677	1.394								
111S	2.324	1.399	1.907	1.422	1.522	0.694	1.040	2.324	
0.694	1.473								
112S	1.647	1.082	1.748	0.755	1.412	0.691	0.825	1.748	
0.691	1.166								
113R	1.053	0.023	1.636	-0.023	1.449	0.692	1.414	1.636	
-0.023	0.892								
114P	1.274	-0.300	1.758	-0.734	1.613	1.161	1.245	1.758	
-0.734	0.860								
115M	0.281	0.155	1.524	-1.074	1.467	1.147	1.520	1.524	

-1.074 0.717
116V 0.250 0.896 1.702 -0.957 1.686 1.169 1.524 1.702
-0.957 0.896
117D 0.250 1.531 1.702 -0.758 1.686 1.169 1.524 1.702
-0.758 1.015
118L 0.477 0.586 1.449 -0.868 1.367 1.150 1.304 1.449
-0.868 0.781
119Q 1.375 1.281 1.730 -0.910 1.640 1.622 1.350 1.730
-0.910 1.155
120R 1.489 1.329 2.103 -0.846 1.886 1.640 1.094 2.103
-0.846 1.242
121G 1.236 0.311 2.160 -0.579 1.941 1.193 1.266 2.160
-0.579 1.075
122D 2.450 0.223 2.515 0.085 2.251 1.677 0.822 2.515
0.085 1.432
123Y 1.489 0.175 2.103 0.349 1.886 1.640 1.094 2.103
0.175 1.248
124Q 1.856 0.377 1.945 0.658 1.731 1.504 1.086 1.945
0.377 1.308
125D 1.875 0.495 2.281 0.712 2.151 1.546 1.249 2.281
0.495 1.473
126L 0.661 -0.044 1.926 0.549 1.841 1.063 1.693 1.926
-0.044 1.098
127D 1.224 0.161 1.973 0.683 1.914 1.084 1.247 1.973
0.161 1.184
128Q 0.977 0.435 1.646 0.656 1.540 1.042 0.074 1.646
0.074 0.910
129L 0.477 0.303 1.375 0.568 1.221 0.553 -0.927 1.375
-0.927 0.510
130N 1.325 0.333 1.889 0.304 1.686 1.172 -1.363 1.889
-1.363 0.764
131A 0.825 -0.372 1.860 -0.250 1.640 0.702 -1.134 1.860
-1.134 0.467
132A -0.136 0.459 1.468 -0.819 1.221 0.664 -1.046 1.468
-1.046 0.259
133R 0.212 0.459 1.431 -0.957 1.203 0.660 -0.892 1.431
-0.957 0.302
134P 0.130 -0.354 1.580 -1.137 1.531 1.214 -0.714 1.580
-1.137 0.321
135F 0.130 -1.119 1.580 -1.147 1.531 1.214 -0.714 1.580
-1.147 0.211
136V 0.130 -0.132 1.580 -1.507 1.531 1.214 -0.714 1.580
-1.507 0.300
137K -0.256 -0.360 1.403 -1.826 1.294 0.609 -0.381 1.403
-1.826 0.069
138A -0.123 -0.564 1.589 -2.093 1.494 1.214 -0.602 1.589
-2.093 0.131
139A -0.047 -0.074 1.515 -2.200 1.522 1.212 -0.532 1.522
-2.200 0.199
140Y 0.547 -0.170 1.627 -2.267 1.485 1.210 -1.120 1.627
-2.267 0.188
141R 0.566 0.728 1.505 -2.293 1.221 0.658 -1.022 1.505
-2.293 0.195
142I 0.199 0.453 1.384 -2.241 1.212 0.660 0.577 1.384
-2.241 0.321
143G 0.446 0.453 1.711 -1.886 1.586 0.702 1.750 1.750
-1.886 0.680
144Q 1.198 0.453 1.730 -1.270 1.668 1.172 1.409 1.730
-1.270 0.909

145V	0.427	0.776	1.160	-0.783	1.175	0.549	1.732	1.732
-0.783	0.719							
146Q	1.293	1.499	1.290	-0.431	1.148	0.547	1.410	1.499
-0.431	0.965							
147D	1.198	0.912	1.730	-0.628	1.668	1.172	1.409	1.730
-0.628	1.066							
148I	1.179	0.373	1.393	-1.125	1.248	1.129	1.246	1.393
-1.125	0.778							
149G	1.179	1.511	1.393	-1.706	1.248	1.129	1.246	1.511
-1.706	0.857							
150R	0.933	0.884	1.066	-2.038	0.875	1.087	0.073	1.087
-2.038	0.411							
151G	0.566	-0.254	1.225	-2.288	1.030	1.223	0.081	1.225
-2.288	0.226							
152V	1.205	-0.068	1.365	-2.238	1.048	1.221	-1.251	1.365
-2.238	0.183							
153A	0.338	0.519	1.234	-2.424	1.075	1.223	-0.929	1.234
-2.424	0.148							
154R	0.338	0.519	1.234	-2.590	1.075	1.223	-0.929	1.234
-2.590	0.124							
155A	0.307	0.197	1.440	-2.655	1.276	1.242	-0.889	1.440
-2.655	0.131							
156I	0.673	1.052	1.561	-2.546	1.285	1.241	-2.488	1.561
-2.546	0.111							
157R	0.869	2.004	1.758	-2.121	1.440	1.261	-1.437	2.004
-2.121	0.539							
158T	1.015	2.004	1.477	-1.402	1.121	0.656	-1.276	2.004
-1.402	0.514							
159A	1.242	1.872	1.468	-0.742	1.075	0.656	-0.266	1.872
-0.742	0.758							
160T	2.014	2.499	2.038	-0.314	1.567	1.279	-0.588	2.499
-0.588	1.214							
161S	1.881	2.635	1.851	-0.174	1.367	0.673	-0.368	2.635
-0.368	1.124							
162G	1.913	1.684	1.646	-0.484	1.166	0.654	-0.408	1.913
-0.484	0.881							
163R	2.140	0.650	1.636	-0.758	1.121	0.654	0.602	2.140
-0.758	0.863							
164P	1.578	-0.368	1.318	-1.043	0.957	0.635	1.150	1.578
-1.043	0.604							
165G	1.046	-0.188	1.421	-1.256	1.039	0.634	1.323	1.421
-1.256	0.574							
166G	0.104	-1.140	1.346	-1.477	1.093	0.640	1.757	1.757
-1.477	0.332							
167V	0.471	-1.408	1.188	-1.344	0.938	0.504	1.749	1.749
-1.408	0.300							
168Y	-0.167	-0.685	0.804	-1.337	0.647	0.487	1.851	1.851
-1.337	0.229							
169L	-0.395	0.261	1.057	-0.897	0.966	0.506	2.071	2.071
-0.897	0.510							
170D	-0.395	0.369	1.057	-0.726	0.966	0.506	2.071	2.071
-0.726	0.550							
171I	0.471	-0.374	1.449	-0.367	1.294	0.993	1.473	1.473
-0.374	0.706							
172P	0.357	0.578	1.075	-0.313	1.048	0.975	1.730	1.730
-0.313	0.779							
173G	0.357	0.710	1.075	-0.139	1.048	0.975	1.730	1.730
-0.139	0.822							
174D	0.085	0.083	0.795	-0.463	0.683	0.487	1.739	1.739

-0.463 0.487
175V 0.971 -0.552 1.262 -0.712 1.075 0.527 1.580 1.580
-0.712 0.593
176L 0.971 0.119 1.019 -1.243 0.802 0.508 0.350 1.019
-1.243 0.361
177G 0.376 0.323 0.907 -1.421 0.838 0.510 0.939 0.939
-1.421 0.353
178Q 0.237 0.552 0.963 -1.649 0.884 0.620 0.921 0.963
-1.649 0.361
179A 0.604 0.061 1.085 -1.755 0.893 0.619 -0.677 1.085
-1.755 0.118
180V 1.597 0.061 1.318 -1.708 1.039 0.633 -0.953 1.597
-1.708 0.284
181E 1.369 1.012 1.328 -1.562 1.084 0.633 -1.963 1.369
-1.963 0.272
182A 1.122 1.064 1.001 -1.236 0.711 0.591 -3.136 1.122
-3.136 0.017
183S 1.401 1.064 1.150 -0.783 0.866 0.611 -1.966 1.401
-1.966 0.335
184A 1.995 -0.116 1.262 -0.571 0.829 0.610 -2.555 1.995
-2.555 0.208
185A 1.634 -0.619 0.935 -0.519 0.465 0.010 -3.539 1.634
-3.539 -0.233
186S 0.996 0.195 0.795 -0.719 0.446 0.012 -2.207 0.996
-2.207 -0.069
187G -0.047 -0.302 0.664 -1.255 0.310 0.017 -2.344 0.664
-2.344 -0.423
188A 0.085 -1.025 1.094 -1.912 0.784 0.642 -1.335 1.094
-1.912 -0.238
189I 0.085 -0.486 1.337 -2.241 1.057 0.661 -0.105 1.337
-2.241 0.044
190W -0.559 0.197 1.066 -2.361 0.893 0.642 0.324 1.066
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191R -0.288 0.700 1.346 -1.675 1.257 1.131 0.314 1.346
-1.675 0.398
192P -0.288 0.245 1.589 -0.863 1.531 1.150 1.545 1.589
-0.863 0.701
193V 0.351 0.700 1.730 -0.086 1.549 1.148 0.213 1.730
-0.086 0.801
194D 1.116 0.592 1.954 0.350 1.804 1.142 0.410 1.954
0.350 1.053
195P 1.116 -0.152 1.954 0.281 1.804 1.142 0.410 1.954
-0.152 0.937
196A 0.402 -0.152 1.627 -0.279 1.540 1.128 0.625 1.627
-0.279 0.699
197P 0.054 -0.152 1.664 -0.945 1.558 1.132 0.472 1.664
-0.945 0.540
198R -0.446 -0.152 1.636 -1.491 1.513 0.662 0.701 1.636
-1.491 0.346
199L -0.446 -0.390 1.393 -1.772 1.239 0.643 -0.529 1.393
-1.772 0.020
200L -0.446 -0.186 1.636 -1.453 1.513 0.662 0.701 1.636
-1.453 0.347
201P -0.085 -0.306 1.720 -1.215 1.604 1.243 0.454 1.720
-1.215 0.488
202A -0.218 -0.126 1.290 -0.938 1.130 0.618 -0.555 1.290
-0.938 0.172
203P -0.142 0.688 1.234 -1.174 1.103 0.615 -0.668 1.234
-1.174 0.236

204E	1.072	0.329	1.589	-1.283	1.412	1.098	-1.112	1.589	-1.283	0.444
205A	1.205	-0.450	1.776	-1.562	1.613	1.704	-1.333	1.776	-1.562	0.422
206I	1.205	0.089	1.776	-1.373	1.613	1.704	-1.333	1.776	-1.373	0.526
207D	0.490	0.317	1.449	-1.392	1.349	1.690	-1.118	1.690	-1.392	0.398
208R	0.629	-0.426	1.393	-1.169	1.303	1.580	-1.101	1.580	-1.169	0.316
209A	0.263	-1.240	1.272	-1.201	1.294	1.581	0.498	1.581	-1.240	0.352
210L	0.187	-0.749	1.328	-0.965	1.321	1.585	0.612	1.585	-0.965	0.474
211D	-0.313	-0.544	1.057	-1.056	1.002	1.096	-0.390	1.096	-1.056	0.122
212V	-0.199	-0.593	0.954	-1.085	0.902	0.514	-0.225	0.954	-1.085	0.038
213L	-0.199	0.317	0.954	-1.418	0.902	0.514	-0.225	0.954	-1.418	0.121
214A	0.762	0.880	1.365	-1.441	1.267	0.551	-0.497	1.365	-1.441	0.412
215Q	0.395	0.676	1.524	-1.539	1.422	0.686	-0.489	1.524	-1.539	0.382
216A	0.762	-0.019	1.889	-1.265	1.704	0.704	-0.858	1.889	-1.265	0.417
217Q	0.762	-0.116	1.889	-1.233	1.704	0.704	-0.858	1.889	-1.233	0.407
218R	0.048	-0.811	1.804	-1.234	1.713	0.709	0.587	1.804	-1.234	0.402
219P	-0.566	-0.769	1.356	-1.470	1.330	0.668	1.013	1.356	-1.470	0.223
220L	-1.280	-0.296	1.272	-1.731	1.339	0.674	2.458	2.458	-1.731	0.348
221L	-1.249	0.536	1.094	-1.850	1.121	0.651	2.454	2.454	-1.850	0.394
222V	-1.154	0.740	1.113	-1.721	1.285	0.621	2.520	2.520	-1.721	0.486
223L	-0.926	0.836	0.860	-1.423	0.966	0.602	2.301	2.301	-1.423	0.459
224S	-0.212	0.634	0.945	-1.199	0.957	0.597	0.856	0.957	-1.199	0.368
225K	0.503	-0.222	1.029	-1.256	0.948	0.592	-0.590	1.029	-1.256	0.143
226G	0.617	-0.562	1.403	-1.545	1.194	0.609	-0.846	1.403	-1.545	0.124
227A	1.331	-1.190	1.487	-1.728	1.185	0.604	-2.291	1.487	-2.291	-0.086
228A	1.299	-0.651	1.664	-1.790	1.403	0.626	-2.288	1.664	-2.288	0.038
229Y	1.072	-0.042	1.216	-1.622	0.765	0.032	-3.363	1.216	-3.363	-0.277
230A	1.344	0.269	1.496	-1.206	1.130	0.521	-3.372	1.496	-3.372	0.026
231Q	1.653	-0.056	1.795	-0.404	1.440	0.561	-2.475	1.795	-2.475	0.359
232A	1.287	0.267	1.674	0.500	1.431	0.563	-0.876	1.674	-0.876	0.692
233D	0.901	0.842	1.281	1.098	1.175	0.545	-0.887	1.281		

-0.887 0.708
234N 1.034 0.129 1.711 0.905 1.649 1.170 0.123 1.711
0.123 0.960
235V 1.148 -0.576 1.711 -0.191 1.640 1.727 -0.067 1.727
-0.576 0.770
236I 0.433 0.095 1.646 -1.328 1.595 1.731 1.194 1.731
-1.328 0.767
237R -0.433 0.509 1.253 -2.044 1.267 1.244 1.792 1.792
-2.044 0.513
238E -0.382 0.187 1.281 -2.174 1.321 1.803 1.879 1.879
-2.174 0.559
239F -0.016 0.239 1.561 -1.518 1.504 2.421 1.557 2.421
-1.518 0.821
240V 0.819 0.089 1.898 -0.817 1.677 2.439 1.276 2.439
-0.817 1.054
241E 0.914 0.544 1.459 -0.100 1.157 1.815 1.277 1.815
-0.100 1.009
242H -0.085 -0.206 0.991 0.193 0.774 1.217 1.625 1.625
-0.206 0.644
243T 0.629 -0.500 1.300 0.049 1.093 1.232 1.594 1.594
-0.500 0.771
244G 0.281 -0.633 1.356 -0.467 1.057 1.234 1.257 1.356
-0.633 0.584
245I -0.793 -1.374 0.945 -0.831 0.701 0.640 1.718 1.718
-1.374 0.144
246P -0.793 -0.194 1.029 -0.954 0.802 0.039 1.671 1.671
-0.954 0.228
247F -1.388 -0.667 0.823 -0.925 0.692 0.036 1.575 1.575
-1.388 0.021
248L -1.337 -0.492 0.982 -0.771 0.893 0.056 1.734 1.734
-1.337 0.152
249P -1.097 0.544 1.113 -0.868 0.957 0.072 1.357 1.357
-1.097 0.297
250M -1.097 0.812 0.870 -0.985 0.683 0.053 0.127 0.870
-1.097 0.066
251S -0.155 0.722 1.384 -1.318 1.367 0.643 -0.059 1.384
-1.318 0.369
252M 0.787 -0.338 1.459 -1.589 1.312 0.638 -0.494 1.459
-1.589 0.254
253A 0.073 0.135 1.132 -2.081 1.048 0.624 -0.279 1.132
-2.081 0.093
254K -0.243 0.674 1.057 -2.207 1.011 0.613 0.212 1.057
-2.207 0.159
255G -0.521 0.698 1.150 -2.228 1.130 0.611 0.272 1.150
-2.228 0.159
256L 0.376 0.161 1.431 -1.649 1.403 1.083 0.318 1.431
-1.649 0.446
257L 0.655 0.724 1.580 -0.745 1.558 1.103 1.488 1.580
-0.745 0.909
258P 0.427 1.419 1.290 0.636 1.093 1.128 1.690 1.690
0.427 1.098
259D 0.199 1.916 1.543 1.856 1.412 1.147 1.910 1.916
0.199 1.426
260S 1.160 1.377 1.954 2.599 1.777 1.184 1.638 2.599
1.160 1.670
261H 2.153 0.521 2.188 2.702 1.923 1.199 1.363 2.702
0.521 1.721
262P 2.153 0.431 1.945 2.090 1.649 1.180 0.133 2.153
0.133 1.369

263Q	1.653	0.073	1.674	1.186	1.330	0.691	-0.868	1.674	-0.868	0.820
264S	1.375	0.395	1.524	0.227	1.175	0.671	-2.038	1.524	-2.038	0.476
265A	1.375	0.395	1.365	-0.744	1.002	0.051	-3.316	1.375	-3.316	0.018
266A	1.508	0.191	1.552	-1.526	1.203	0.657	-3.536	1.552	-3.536	0.007
267A	1.540	0.191	1.375	-1.744	0.984	0.635	-3.540	1.540	-3.540	-0.080
268A	0.547	0.077	1.141	-1.787	0.838	0.620	-3.265	1.141	-3.265	-0.261
269R	0.547	0.077	1.141	-1.419	0.838	0.620	-3.265	1.141	-3.265	-0.209
270S	0.149	0.077	1.132	-1.360	0.884	0.637	-2.310	1.132	-2.310	-0.113
271L	0.149	-0.779	1.132	-1.567	0.884	0.637	-2.310	1.132	-2.310	-0.265
272A	0.281	-0.036	1.561	-2.102	1.358	1.262	-1.301	1.561	-2.102	0.146
273M	0.149	-0.132	1.132	-2.438	0.884	0.637	-2.310	1.132	-2.438	-0.297
274A	0.370	-0.114	1.253	-2.387	1.048	1.106	-2.479	1.253	-2.479	-0.172
275R	0.718	-0.318	1.216	-1.891	1.030	1.102	-2.325	1.216	-2.325	-0.067
276A	0.351	-1.336	1.094	-1.286	1.020	1.104	-0.726	1.104	-1.336	0.032
277D	0.035	-1.432	1.019	-0.986	0.984	1.092	-0.236	1.092	-1.432	0.068
278V	-0.680	-1.344	0.935	-1.182	0.993	1.097	1.209	1.209	-1.344	0.147
279V	-1.179	-1.248	0.384	-1.702	0.510	0.474	1.799	1.799	-1.702	-0.137
280L	-0.951	-0.338	0.375	-2.089	0.465	0.474	2.809	2.809	-2.089	0.106
281L	-1.451	-0.338	0.104	-2.351	0.146	-0.015	1.808	1.808	-2.351	-0.300
282V	-0.951	0.475	0.655	-2.281	0.629	0.608	1.219	1.219	-2.281	0.050
283G	-1.299	0.069	0.692	-2.262	0.647	0.612	1.065	1.065	-2.262	-0.068
284A	-0.275	-0.763	1.075	-1.847	0.948	0.647	0.517	1.075	-1.847	0.043
285R	-0.325	-0.967	1.178	-1.389	0.957	0.667	0.104	1.178	-1.389	0.032
286L	-0.673	-1.154	1.216	-0.710	0.975	0.671	-0.050	1.216	-1.154	0.039
287N	-1.615	-0.340	1.141	-0.464	1.030	0.677	0.385	1.141	-1.615	0.116
288W	-1.388	-0.322	1.132	-0.707	0.984	0.677	1.395	1.395	-1.388	0.253
289L	-1.211	0.756	1.001	-0.923	0.820	0.093	1.283	1.283	-1.211	0.260
290L	-0.269	1.816	1.075	-0.783	0.765	0.087	0.849	1.816	-0.783	0.506
291G	-0.218	2.379	1.103	-0.376	0.820	0.646	0.935	2.379	-0.376	0.756
292N	0.825	2.243	1.234	0.279	0.957	0.641	1.073	2.243		

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0.279    1.036
293G          1.540    1.131    1.561    0.496    1.221    0.654    0.858    1.561
0.496    1.066
294E          2.501    1.359    1.973    0.455    1.586    0.691    0.586    2.501
0.455    1.307
295S          1.508    0.784    2.001    0.377    1.649    0.717    0.608    2.001
0.377    1.092
296P          1.476    0.467    1.851    0.261    1.494    0.696    0.881    1.851
0.261    1.018
297Q          1.249    0.109    1.860    0.068    1.540    0.696   -0.129    1.860
-0.129    0.770
298W          1.388    0.449    1.804    0.127    1.494    0.586   -0.112    1.804
-0.112    0.820
299S          1.110    0.778    1.655    0.003    1.339    0.565   -1.282    1.655
-1.282    0.596
300A          1.337   -0.402    1.860    0.018    1.704    1.141   -1.437    1.860
-1.437    0.603
301D          0.376    0.089    1.468   -0.229    1.285    1.103   -1.349    1.468
-1.349    0.392
302A          0.503   -0.546    1.309   -0.705    1.248    1.079   -1.050    1.309
-1.050    0.263
303K          0.471   -0.007    1.487   -1.277    1.467    1.102   -1.046    1.487
-1.277    0.314
304F          0.104   -1.164    1.365   -1.563    1.458    1.103    0.553    1.458
-1.563    0.265
305I          0.104   -0.414    1.365   -1.462    1.458    1.103    0.553    1.458
-1.462    0.387
306Q         -0.534   -0.090    1.225   -1.228    1.440    1.105    1.884    1.884
-1.228    0.543
307V         -0.401    0.275    1.103   -0.904    1.166    1.110    1.793    1.793
-0.904    0.592
308D          0.313    0.946    1.169   -1.076    1.212    1.106    0.532    1.212
-1.076    0.600
309I          1.230    0.233    1.459   -1.110    1.385    1.124    0.370    1.459
-1.110    0.670
310E          1.344    1.097    1.459   -1.355    1.376    1.681    0.180    1.681
-1.355    0.826
311A          0.996    1.377    1.515   -1.034    1.339    1.684   -0.157    1.684
-1.034    0.817
312S          0.996    1.986    1.515   -0.620    1.339    1.684   -0.157    1.986
-0.620    0.963
313E          1.913    1.944    1.804    0.144    1.513    1.702   -0.319    1.944
-0.319    1.243
314F          1.862    1.728    1.776    1.092    1.458    1.143   -0.406    1.862
-0.406    1.236
315D          1.995    1.577    2.206    1.854    1.932    1.768    0.603    2.206
0.603    1.705
316S          1.717    0.942    2.300    2.269    2.050    1.767    0.664    2.300
0.664    1.673
317N          0.718    0.087    1.832    1.830    1.668    1.169    1.012    1.832
0.087    1.188
318R          1.065   -0.164    1.776    0.784    1.704    1.166    1.349    1.776
-0.164    1.097
319P          0.566   -1.182    1.505   -0.609    1.385    0.678    0.348    1.505
-1.182    0.385
320I          0.288   -1.049    1.599   -1.359    1.504    0.676    0.408    1.599
-1.359    0.295
321V         -0.736   -0.098    1.216   -1.824    1.203    0.641    0.956    1.216
-1.824    0.194
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322A	-0.673	0.538	0.982	-1.460	0.884	0.037	0.998	0.998
-1.460	0.186							
323P	-0.446	0.213	0.730	-1.268	0.565	0.018	0.778	0.778
-1.268	0.084							
324L	0.692	0.481	1.141	-0.743	0.902	0.505	0.447	1.141
-0.743	0.489							
325T	0.421	1.541	1.122	-0.606	0.893	0.505	0.180	1.541
-0.606	0.579							
326G	0.648	0.954	1.113	-0.431	0.847	0.505	1.191	1.191
-0.431	0.690							
327D	0.926	0.213	1.019	-0.469	0.729	0.506	1.131	1.131
-0.469	0.579							
328I	1.274	0.529	0.982	-0.524	0.711	0.502	1.284	1.284
-0.524	0.680							
329G	0.680	0.854	0.776	-0.772	0.601	0.499	1.188	1.188
-0.772	0.547							
330S	0.730	0.023	0.935	-0.724	0.802	0.519	1.348	1.348
-0.724	0.519							
331V	0.231	-1.037	0.664	-0.946	0.483	0.031	0.347	0.664
-1.037	-0.033							
332M	0.155	-0.366	0.720	-0.967	0.510	0.034	0.460	0.720
-0.967	0.078							
333S	-0.787	-0.252	0.646	-1.158	0.565	0.040	0.895	0.895
-1.158	-0.008							
334A	-0.705	-1.107	0.823	-1.531	0.774	0.619	0.709	0.823
-1.531	-0.060							
335L	-0.338	-1.107	0.945	-1.926	0.784	0.617	-0.890	0.945
-1.926	-0.274							
336L	0.060	-0.364	0.954	-2.184	0.738	0.600	-1.845	0.954
-2.184	-0.292							
337E	-0.218	0.654	0.804	-2.401	0.583	0.580	-3.015	0.804
-3.015	-0.430							
338A	0.281	0.934	1.075	-2.016	0.902	1.069	-2.014	1.075
-2.016	0.033							
339A	1.129	1.790	1.589	-1.613	1.367	1.688	-2.450	1.790
-2.450	0.500							
340A	2.121	1.694	1.823	-0.870	1.513	1.703	-2.725	2.121
-2.725	0.751							
341D	2.039	1.694	1.646	-0.158	1.303	1.124	-2.539	2.039
-2.539	0.730							
342R	1.672	2.010	1.524	0.373	1.294	1.125	-0.940	2.010
-0.940	1.008							
343S	1.672	1.197	1.524	0.492	1.294	1.125	-0.940	1.672
-0.940	0.909							
344S	1.951	0.341	1.674	0.456	1.449	1.145	0.230	1.951
0.230	1.035							
345V	1.451	-1.017	1.403	-0.063	1.130	0.656	-0.771	1.451
-1.017	0.398							
346A	1.318	-0.430	0.973	-0.336	0.656	0.032	-1.780	1.318
-1.780	0.062							
347S	0.275	0.197	0.842	-0.776	0.519	0.037	-1.918	0.842
-1.918	-0.118							
348A	0.193	-0.084	0.889	-1.088	0.519	0.037	-2.037	0.889
-2.037	-0.225							
349A	0.787	-0.288	1.001	-1.353	0.483	0.035	-2.625	1.001
-2.625	-0.280							
350W	1.148	-0.288	1.328	-1.449	0.847	0.635	-1.642	1.328
-1.642	0.083							
351T	0.155	0.754	1.094	-1.617	0.701	0.620	-1.366	1.094

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-1.617    0.049
352G         0.155    1.076    1.094   -1.699    0.701    0.620   -1.366    1.094
-1.699    0.083
353E         0.655    1.281    1.365   -1.651    1.020    1.109   -0.365    1.365
-1.651    0.488
354L         1.552    0.706    1.776   -1.525    1.476    1.708   -0.388    1.776
-1.525    0.758
355A         1.584    1.724    2.029   -1.253    1.959    2.283   -0.364    2.283
-1.253    1.137
356D         1.356    2.333    2.038   -1.151    2.005    2.283   -1.375    2.333
-1.375    1.070
357R         1.129    2.649    2.141   -1.408    2.114    2.308   -1.349    2.649
-1.408    1.083
358K         2.153    1.836    2.524   -1.442    2.415    2.343   -1.897    2.524
-1.897    1.133
359A         2.431    1.836    2.674   -0.956    2.570    2.363   -0.727    2.674
-0.956    1.456
360R         1.932    1.722    2.403   -0.110    2.251    1.874   -1.728    2.403
-1.728    1.192
361N         2.026    1.722    2.421    0.673    2.415    1.844   -1.662    2.421
-1.662    1.348
362S         1.401    1.926    1.963    0.528    1.823    1.267   -1.783    1.963
-1.783    1.018
363A         1.533    1.884    2.393   -0.529    2.296    1.892   -0.773    2.393
-0.773    1.242
364K         1.533    1.680    2.393   -1.726    2.296    1.892   -0.773    2.393
-1.726    1.042
365M         1.356    0.848    2.524   -2.712    2.461    2.476   -0.661    2.524
-2.712    0.899
366R         0.364    1.501    2.290   -3.048    2.315    2.461   -0.386    2.461
-3.048    0.785
367R         0.364    1.227    2.290   -2.975    2.315    2.461   -0.386    2.461
-2.975    0.756
368R         0.636    0.503    2.113   -2.510    1.996    2.355   -0.460    2.355
-2.510    0.662
369L         1.533   -0.220    2.393   -1.626    2.269    2.827   -0.414    2.827
-1.626    0.966
370A         1.401    0.343    2.122   -0.178    1.968    2.822   -0.146    2.822
-0.178    1.190
371D         1.268    0.229    1.851    1.545    1.668    2.817    0.123    2.817
0.123    1.357
372D         1.135    0.503    1.664    2.965    1.467    2.212    0.343    2.965
0.343    1.470
373H         1.451   -0.210    1.739    3.369    1.504    2.224   -0.147    3.369
-0.210    1.419
374H         1.584   -0.707    2.169    2.659    1.977    2.848    0.862    2.848
-0.707    1.628
375P         0.370   -0.188    1.832    1.116    1.613    2.364    1.123    2.364
-0.188    1.176
376M        -0.382   -0.546    1.814   -0.373    1.531    1.894    1.464    1.894
-0.546    0.772
377R        -0.073   -0.637    1.954   -0.809    1.668    1.315    1.083    1.954
-0.809    0.643
378F        -0.073   -0.823    1.795   -0.540    1.494    0.695   -0.194    1.795
-0.823    0.336
379Y        -0.787   -0.649    1.468    0.146    1.230    0.681    0.021    1.468
-0.787    0.301
380N        -0.161   -0.566    1.468    0.332    1.139    0.664    0.076    1.468
-0.566    0.422
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381A	-0.294	-0.362	1.038	-0.159	0.665	0.039	-0.933	1.038	-0.933	-0.001
382L	-0.218	0.493	0.963	-1.167	0.692	0.037	-0.862	0.963	-1.167	-0.009
383G	0.168	0.602	1.141	-1.913	0.929	0.642	-1.195	1.141	-1.913	0.053
384A	0.136	-0.230	0.991	-2.293	0.774	0.622	-0.923	0.991	-2.293	-0.132
385I	-0.231	0.261	0.870	-2.120	0.765	0.623	0.676	0.870	-2.120	0.121
386R	-0.231	1.399	0.870	-1.709	0.765	0.623	0.676	1.399	-1.709	0.342
387S	-0.212	1.195	1.206	-1.334	1.185	0.666	0.839	1.206	-1.334	0.506
388V	-0.079	0.698	1.636	-1.267	1.658	1.290	1.849	1.849	-1.267	0.826
389L	0.869	1.333	2.075	-0.963	1.987	1.329	1.414	2.075	-0.963	1.149
390Q	0.737	1.441	1.889	-0.474	1.786	0.724	1.635	1.889	-0.474	1.105
391R	0.958	0.544	2.010	0.485	1.950	1.192	1.466	2.010	0.485	1.229
392N	0.958	-0.366	2.010	1.295	1.950	1.192	1.466	2.010	-0.366	1.215
393P	1.420	-1.071	2.346	1.624	2.178	1.206	1.363	2.346	-1.071	1.295
394D	0.806	-0.821	1.898	0.951	1.795	1.165	1.788	1.898	-0.821	1.083
395V	0.307	-0.785	1.346	0.051	1.312	0.542	2.378	2.378	-0.785	0.736
396Y	0.307	-0.062	1.346	-0.619	1.312	0.542	2.378	2.378	-0.619	0.744
397V	0.667	0.345	1.431	-0.652	1.403	1.123	2.132	2.132	-0.652	0.921
398V	0.395	1.050	1.150	-0.286	1.039	0.634	2.141	2.141	-0.286	0.875
399N	0.762	1.147	1.272	-0.053	1.048	0.632	0.542	1.272	-0.053	0.764
400E	1.325	0.333	1.318	0.123	1.121	0.654	0.097	1.325	0.097	0.710
401G	1.691	0.297	1.440	-0.030	1.130	0.652	-1.502	1.691	-1.502	0.526
402A	1.344	-0.534	1.477	0.142	1.148	0.656	-1.655	1.477	-1.655	0.368
403N	1.533	-0.534	1.449	0.194	1.157	1.104	-1.551	1.533	-1.551	0.479
404A	0.459	-0.330	1.038	0.186	0.802	0.510	-1.090	1.038	-1.090	0.225
405L	0.231	0.279	1.047	-0.160	0.847	0.510	-2.101	1.047	-2.101	0.093
406D	0.364	0.159	1.477	-0.613	1.321	1.135	-1.091	1.477	-1.091	0.393
407L	0.364	-0.705	1.477	-0.821	1.321	1.135	-1.091	1.477	-1.091	0.240
408A	-0.275	0.039	1.337	-0.855	1.303	1.137	0.240	1.337	-0.855	0.418
409R	-0.199	-0.076	1.281	-0.623	1.276	1.133	0.127	1.281	-0.623	0.417
410N	-0.199	-0.799	1.281	-0.536	1.276	1.133	0.127	1.281		

-0.799 0.326
411I 0.117 -1.612 1.356 -0.642 1.312 1.145 -0.363 1.356
-1.612 0.187
412I 0.117 -0.929 1.515 -0.543 1.485 1.765 0.914 1.765
-0.929 0.618
413D -0.730 0.209 1.001 -0.344 1.020 1.145 1.350 1.350
-0.730 0.522
414M -1.040 -0.240 0.945 0.019 0.984 1.124 1.683 1.683
-1.040 0.496
415H -0.269 0.688 1.515 0.162 1.476 1.747 1.361 1.747
-0.269 0.954
416L 0.370 0.393 1.814 0.407 1.668 2.365 1.306 2.365
0.370 1.189
417P 0.003 1.137 1.973 0.048 1.823 2.500 1.314 2.500
0.003 1.257
418R -0.313 1.633 1.898 0.129 1.786 2.489 1.805 2.489
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419H 0.187 1.447 2.010 -0.063 1.932 2.358 1.528 2.358
-0.063 1.343
420R 1.179 1.848 2.244 0.131 2.078 2.372 1.253 2.372
0.131 1.586
421L 1.407 0.532 1.991 0.184 1.759 2.353 1.034 2.353
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422D 1.470 1.363 1.758 0.589 1.440 1.749 1.075 1.758
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423S 0.705 0.728 1.617 0.431 1.285 1.154 0.830 1.617
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424G 0.800 -0.242 1.178 0.097 0.765 0.529 0.831 1.178
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425T 1.148 -0.242 1.141 -0.606 0.747 0.526 0.985 1.148
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426W 0.250 -1.057 0.860 -1.409 0.474 0.054 0.939 0.939
-1.409 0.016
427G 0.199 0.073 0.702 -1.969 0.273 0.034 0.779 0.779
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428V -0.667 -0.669 0.571 -2.335 0.300 0.036 1.101 1.101
-2.335 -0.238
429M -0.635 0.055 0.365 -2.568 0.100 0.016 1.060 1.060
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430G -0.269 -0.238 0.337 -2.701 0.127 0.008 0.983 0.983
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431I -0.269 -0.865 0.337 -2.686 0.127 0.008 0.983 0.983
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432G -0.155 -0.865 0.711 -2.592 0.373 0.025 0.726 0.726
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433M 0.244 -1.492 0.720 -2.344 0.328 0.008 -0.229 0.720
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436A -0.212 -1.695 0.739 -2.299 0.419 0.008 -2.250 0.739
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437I 0.187 -1.119 0.748 -2.408 0.373 -0.009 -3.205 0.748
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438A -0.408 -0.304 0.636 -2.464 0.410 -0.007 -2.616 0.636
-2.616 -0.679
439A 0.206 0.323 0.711 -2.402 0.537 0.573 -2.975 0.711
-2.975 -0.432

440A	0.402	1.137	0.907	-2.184	0.692	0.593	-1.924	1.137
-2.184	-0.054							
441V	1.268	1.495	1.038	-1.929	0.665	0.591	-2.245	1.495
-2.245	0.126							
442E	1.401	1.495	1.468	-1.730	1.139	1.216	-1.236	1.495
-1.730	0.536							
443T	1.401	0.824	1.711	-1.459	1.412	1.235	-0.006	1.711
-1.459	0.731							
444G	1.034	0.333	1.589	-1.351	1.403	1.236	1.593	1.593
-1.351	0.834							
445R	1.034	-0.619	1.589	-1.309	1.403	1.236	1.593	1.593
-1.309	0.704							
446P	0.673	-0.857	1.262	-1.380	1.039	0.637	0.609	1.262
-1.380	0.283							
447V	-0.161	-0.589	0.926	-1.686	0.866	0.618	0.890	0.926
-1.686	0.123							
448V	-0.028	0.047	1.262	-2.075	1.276	1.218	0.864	1.276
-2.075	0.366							
449A	0.067	0.998	0.823	-2.369	0.756	0.593	0.865	0.998
-2.369	0.248							
450I	0.566	0.998	0.851	-2.274	0.802	1.063	0.636	1.063
-2.274	0.377							
451E	1.211	1.149	1.122	-1.541	0.966	1.082	0.207	1.211
-1.541	0.599							
452G	1.578	1.201	1.244	-0.560	0.975	1.080	-1.392	1.578
-1.392	0.589							
453D	0.863	0.399	1.178	0.282	0.929	1.084	-0.131	1.178
-0.131	0.658							
454S	1.729	0.716	1.309	0.495	0.902	1.083	-0.452	1.729
-0.452	0.826							
455A	0.655	0.487	0.917	0.180	0.492	0.487	-0.175	0.917
-0.175	0.435							
456F	0.705	0.373	1.075	-0.106	0.692	0.507	-0.015	1.075
-0.106	0.462							
457G	0.433	1.123	0.795	-0.239	0.328	0.018	-0.006	1.123
-0.239	0.350							
458F	-0.243	0.321	0.636	-0.267	0.218	0.015	-0.221	0.636
-0.267	0.066							
459S	0.117	1.070	0.963	-0.443	0.583	0.615	0.763	1.070
-0.443	0.524							
460G	0.117	0.706	0.963	-0.968	0.583	0.615	0.763	0.963
-0.968	0.397							
461M	0.250	-0.246	1.300	-1.531	0.993	1.215	0.736	1.300
-1.531	0.388							
462E	1.160	-0.096	1.561	-1.670	1.194	1.230	0.526	1.561
-1.670	0.558							
463F	0.244	0.143	1.272	-1.711	1.020	1.212	0.688	1.272
-1.711	0.410							
464E	-0.028	-0.090	1.066	-1.393	0.975	1.230	1.310	1.310
-1.393	0.439							
465T	0.503	0.149	1.505	-1.342	1.403	1.837	1.364	1.837
-1.342	0.774							
466I	-0.111	-0.546	1.431	-1.249	1.276	1.257	1.723	1.723
-1.249	0.540							
467C	0.737	0.137	1.926	-1.426	1.795	1.878	1.471	1.926
-1.426	0.931							
468R	-0.338	0.005	1.515	-1.550	1.440	1.283	1.932	1.932
-1.550	0.612							
469Y	-0.534	-0.318	1.561	-1.756	1.558	1.282	2.111	2.111

-1.756 0.558
470R -0.262 -0.007 1.580 -1.733 1.567 1.282 2.378 2.378
-1.733 0.686
471L -0.022 -0.917 1.991 -1.560 1.813 1.284 1.797 1.991
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472P -0.521 -1.037 1.440 -1.251 1.330 0.661 2.386 2.386
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473V -0.635 -1.600 1.066 -1.126 1.084 0.644 2.643 2.643
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474T -1.407 -0.895 0.496 -1.356 0.592 0.021 2.965 2.965
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475V -1.407 -0.777 0.496 -1.761 0.592 0.021 2.965 2.965
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476V -1.097 -0.054 0.552 -1.852 0.629 0.042 2.632 2.632
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477I -0.420 0.670 0.973 -1.058 0.948 0.081 1.931 1.931
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478L -0.389 0.898 0.767 0.209 0.747 0.061 1.890 1.890
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479N 0.206 0.696 0.879 1.482 0.711 0.060 1.302 1.482
0.060 0.762
480N 0.206 0.900 0.879 1.719 0.711 0.060 1.302 1.719
0.060 0.825
481G 0.591 0.918 1.272 0.931 0.966 0.077 1.312 1.312
0.077 0.867
482G 1.438 0.830 1.786 -0.336 1.431 0.697 0.876 1.786
-0.336 0.960
483V 1.356 0.778 1.477 -1.363 1.075 0.656 0.990 1.477
-1.363 0.710
484Y 1.546 0.874 1.449 -1.609 1.084 1.104 1.094 1.546
-1.609 0.792
485R 1.679 1.772 1.786 -1.336 1.494 1.704 1.067 1.786
-1.336 1.167
486G 1.451 0.634 1.795 -0.951 1.540 1.704 0.057 1.795
-0.951 0.890
487D 2.014 -0.168 2.113 -0.681 1.704 1.722 -0.491 2.113
-0.681 0.888
488E 1.628 0.107 1.720 -0.864 1.449 1.705 -0.502 1.720
-0.864 0.749
489A 0.781 0.387 1.225 -1.110 0.929 1.084 -0.250 1.225
-1.110 0.435
490T 0.686 0.387 1.664 -1.445 1.449 1.709 -0.251 1.709
-1.445 0.600
491I 0.465 -0.104 1.543 -1.457 1.285 1.240 -0.082 1.543
-1.457 0.413
492F 0.104 0.580 1.216 -1.278 0.920 0.641 -1.066 1.216
-1.278 0.160
493R 0.104 0.658 1.216 -0.967 0.920 0.641 -1.066 1.216
-1.066 0.215
494S -0.092 -0.659 1.262 -0.821 1.039 0.640 -0.887 1.262
-0.887 0.069
495A 0.180 -0.701 1.281 -0.756 1.048 0.639 -0.620 1.281
-0.756 0.153
496A 0.130 -0.611 1.365 -0.990 1.112 0.660 -0.849 1.365
-0.990 0.117
497P 0.130 -0.072 1.365 -1.232 1.112 0.660 -0.849 1.365
-1.232 0.159
498V -0.148 -0.072 1.375 -1.276 1.130 1.260 -0.741 1.375
-1.276 0.218

499W	0.351	0.025	1.646	-0.838	1.449	1.749	0.260	1.749
-0.838	0.663							
500R	0.351	0.886	1.889	0.150	1.722	1.768	1.490	1.889
0.150	1.179							
501H	0.351	0.564	1.646	0.986	1.449	1.749	0.260	1.749
0.260	1.001							
502D	0.718	0.377	2.010	1.481	1.731	1.766	-0.109	2.010
-0.109	1.139							
503P	1.679	-0.366	2.188	1.160	1.868	1.761	-0.090	2.188
-0.366	1.171							
504A	1.179	-0.116	1.636	0.551	1.385	1.138	0.499	1.636
-0.116	0.896							
505P	0.465	-0.116	1.393	-0.227	1.221	0.524	0.667	1.393
-0.227	0.561							
506T	0.275	-0.384	1.421	-0.339	1.212	0.075	0.563	1.421
-0.384	0.403							
507V	0.275	-0.875	1.178	-0.361	0.938	0.056	-0.667	1.178
-0.875	0.078							
508L	0.275	0.035	1.337	0.370	1.112	0.676	0.610	1.337
0.035	0.631							
509N	0.275	0.329	1.094	0.836	0.838	0.657	-0.620	1.094
-0.620	0.487							
510A	0.212	0.295	1.328	1.090	1.157	1.262	-0.661	1.328
-0.661	0.669							
511H	0.579	0.091	1.608	0.986	1.339	1.880	-0.983	1.880
-0.983	0.786							
512A	1.653	-0.324	2.019	0.612	1.695	2.474	-1.444	2.474
-1.444	0.955							
513R	0.629	-0.324	1.636	0.071	1.394	2.439	-0.896	2.439
-0.896	0.707							
514H	-0.009	-0.562	1.496	-0.299	1.376	2.441	0.436	2.441
-0.562	0.697							
515E	-0.009	-0.653	1.337	-1.055	1.203	1.821	-0.842	1.821
-1.055	0.257							
516L	0.351	-1.402	1.664	-1.836	1.567	2.421	0.142	2.421
-1.836	0.415							
517I	0.218	-0.570	1.234	-2.326	1.093	1.796	-0.867	1.796
-2.326	0.083							
518A	-0.496	0.381	1.010	-2.531	0.875	1.180	-0.883	1.180
-2.531	-0.066							
519E	-0.629	1.213	0.674	-2.172	0.465	0.581	-0.857	1.213
-2.172	-0.104							
520A	0.313	1.265	0.748	-1.766	0.410	0.575	-1.291	1.265
-1.766	0.036							
521F	1.179	0.858	1.337	-1.524	1.066	1.168	-1.548	1.337
-1.548	0.362							
522G	1.407	1.123	1.328	-1.518	1.020	1.168	-0.538	1.407
-1.518	0.570							
523G	0.794	0.399	1.253	-1.649	0.893	0.588	-0.179	1.253
-1.649	0.300							
524K	0.794	0.628	1.412	-1.340	1.066	1.208	1.098	1.412
-1.340	0.695							
525G	1.141	0.287	1.356	-0.913	1.103	1.205	1.436	1.436
-0.913	0.802							
526Y	1.192	0.019	1.515	0.017	1.303	1.225	1.595	1.595
0.017	0.981							
527H	1.160	0.916	1.720	0.633	1.504	1.245	1.636	1.720
0.633	1.259							
528V	0.933	1.401	1.515	1.037	1.139	0.670	1.791	1.791

0.670 1.212
529S 0.901 1.293 1.720 0.984 1.339 0.690 1.831 1.831
0.690 1.251
530T 1.514 1.012 1.795 0.777 1.467 1.270 1.473 1.795
0.777 1.330
531P 0.800 1.377 1.552 0.136 1.303 0.655 1.640 1.640
0.136 1.066
532T 1.527 1.018 2.001 -0.488 1.677 1.253 1.025 2.001
-0.488 1.145
533E 1.527 0.323 2.001 -1.081 1.677 1.253 1.025 2.001
-1.081 0.961
534L 1.331 0.239 1.804 -1.353 1.522 1.233 -0.025 1.804
-1.353 0.679
535E 0.617 0.982 1.477 -1.262 1.257 1.220 0.190 1.477
-1.262 0.640
536S 0.617 0.407 1.477 -1.065 1.257 1.220 0.190 1.477
-1.065 0.586
537A 0.756 -0.653 1.421 -0.733 1.212 1.109 0.207 1.421
-0.733 0.474
538L 1.470 -0.653 1.505 -0.552 1.203 1.104 -1.238 1.505
-1.238 0.406
539T 0.395 0.407 1.094 -0.301 0.847 0.510 -0.777 1.094
-0.777 0.311
540D 0.117 0.525 0.945 -0.453 0.692 0.490 -1.947 0.945
-1.947 0.053
541A 0.395 0.614 1.094 -0.593 0.847 0.510 -0.777 1.094
-0.777 0.299
542L 1.420 0.972 1.477 -0.438 1.148 0.545 -1.325 1.477
-1.325 0.543
543A 1.451 2.032 1.272 0.102 0.948 0.525 -1.365 2.032
-1.365 0.709
544S 0.952 1.828 1.244 0.968 0.902 0.055 -1.136 1.828
-1.136 0.687
545N 1.230 0.648 1.393 1.653 1.057 0.075 0.034 1.653
0.034 0.870
546G 1.230 0.578 1.393 1.568 1.057 0.075 0.034 1.568
0.034 0.848
547P 0.591 -0.013 1.253 0.887 1.039 0.077 1.365 1.365
-0.013 0.743
548S 0.813 0.203 1.375 0.212 1.203 0.546 1.197 1.375
0.203 0.792
549L 0.459 -0.857 0.860 -0.335 0.802 0.523 1.932 1.932
-0.857 0.483
550I 0.591 -0.114 1.197 -0.330 1.212 1.122 1.905 1.905
-0.330 0.798
551D -0.123 0.570 0.870 -0.269 0.948 1.109 2.120 2.120
-0.269 0.746
552C 0.098 0.031 0.991 -0.171 1.112 1.578 1.951 1.951
-0.171 0.799
553E 0.813 0.534 1.318 -0.151 1.376 1.591 1.736 1.736
-0.151 1.031
554L 1.451 0.586 1.459 -0.055 1.394 1.589 0.405 1.589
-0.055 0.976
555D 1.451 0.694 1.459 0.210 1.394 1.589 0.405 1.589
0.210 1.029
556P 1.723 0.730 1.664 0.388 1.440 1.572 -0.217 1.723
-0.217 1.043
557A 0.996 1.227 1.216 0.361 1.066 0.974 0.398 1.227
0.361 0.891

558D	2.071	1.854	1.627	-0.051	1.422	1.568	-0.064	2.071
-0.064	1.204							
559G	1.849	1.405	1.505	-0.491	1.257	1.099	0.105	1.849
-0.491	0.961							
560V	2.077	0.574	1.253	-0.851	0.938	1.080	-0.114	2.077
-0.851	0.708							
561E	2.077	0.670	1.412	-0.394	1.112	1.700	1.163	2.077
-0.394	1.106							
562S	0.863	0.926	1.057	-0.037	0.802	1.216	1.607	1.607
-0.037	0.919							
563G	0.636	-0.134	1.066	0.455	0.847	1.216	0.597	1.216
-0.134	0.669							
564H	1.230	-0.152	1.636	0.210	1.494	1.809	0.073	1.809
-0.152	0.900							
565L	0.155	0.249	1.225	-0.474	1.139	1.215	0.534	1.225
-0.474	0.578							
566A	0.187	0.944	1.375	-1.039	1.294	1.236	0.261	1.375
-1.039	0.608							
567K	0.155	1.800	1.580	-0.891	1.494	1.256	0.302	1.800
-0.891	0.814							
568L	0.351	0.968	1.617	-0.227	1.476	0.656	0.075	1.617
-0.227	0.702							
569N	1.344	1.173	1.851	0.786	1.622	0.670	-0.200	1.851
-0.200	1.035							
570T	1.344	1.054	1.851	1.194	1.622	0.670	-0.200	1.851
-0.200	1.076							
571T	1.116	0.922	1.403	0.928	0.984	0.076	-1.275	1.403
-1.275	0.593							
572S	2.026	0.431	1.683	0.388	1.130	0.090	-1.669	2.026
-1.669	0.583							
573A	1.717	-0.749	1.627	-0.276	1.093	0.069	-1.336	1.717
-1.336	0.306							
574A	1.521	0.107	1.431	-0.566	0.938	0.049	-2.387	1.521
-2.387	0.156							
575T	0.686	0.734	1.094	-0.742	0.765	0.031	-2.106	1.094
-2.106	0.066							
576P	0.686	0.782	1.094	-0.823	0.765	0.031	-2.106	1.094
-2.106	0.061							
577A	0.914	1.050	1.085	-0.938	0.720	0.031	-1.096	1.085
-1.096	0.252							
578I	1.413	1.305	1.356	-0.672	1.039	0.520	-0.095	1.413
-0.672	0.695							
579S	1.445	1.884	1.150	-0.360	0.838	0.500	-0.135	1.884
-0.360	0.760							
580G	1.312	1.283	0.449	0.088	0.884	0.541	-1.365	1.312
-1.365	0.456							
581D	1.179	0.910	-0.009	0.204	1.203	0.601	-1.365	1.203
-1.365	0.389							
582G	1.685	0.626	-0.326	0.140	1.540	0.659	-2.697	1.685
-2.697	0.232							

TOP

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	[1]MTTRSASPCTVLTDGCHLVVDALKANDVDTIYGVVGIPITDLARAAQASGIR YIGFRHEASAGNAAAAAGFLTARPGVCLTTSGPGFLNGLPALANATTNCFPMI QISGSSSRPMVDLQRGDYQDLDQLNAARPFVKAAYRIGQVQDIGRGVARAIRT ATSGRPGGVYLDIPGDVLGQAVEASAASGAIWRPVDPAPRLLPAPEAIDRALD VLAQAQRPLLVLSKGAAYAQADNVIREFVEHTGIPFLPMSMAKGLLPDSHPQS AAAARSLAMARADVVLLVGARLNWLLGNGESPQWSADAKFIQVDIEASEFD SNRPIVAPLTGDIGSVMSALLEAAADRSSVASAAWTGELADRKARNSAKMRR RLADDHHPMRFYNALGAIRSVLQRNPDVYVVNEGANALDLARNIIDMHLPR HRLDSGTWGVMGIGMGYAIAAAVETGRPVVAIEGDSAFGFSGMEFETICRYRL PVTVVILNNGGVYRGDEATIFRSAAPVWRHDPAPTVLNAHARHELIAEAFGGK GYHVSTPTELESALTDALASNGPSLIDCELDPADGVESGHLAKLNTTSAATPAI SGDG[582]
Hydrophilicity	[1]MTTRSASPCTVLTDGCHLVVDALKANDVDTIYGVVGIPITDLARAAQASGIR YIGFRHEASAGNAAAAAGFLTARPGVCLTTSGPGFLNGLPALANATTNCFPMI QISGSSSRPMVDLQRGDYQDLDQLNAARPFVKAAYRIGQVQDIGRGVARAIRT ATSGRPGGVYLDIPGDVLGQAVEASAASGAIWRPVDPAPRLLPAPEAIDRALD VLAQAQRPLLVLSKGAAYAQADNVIREFVEHTGIPFLPMSMAKGLLPDSHPQS AAAARSLAMARADVVLLVGARLNWLLGNGESPQWSADAKFIQVDIEASEFD SNRPIVAPLTGDIGSVMSALLEAAADRSSVASAAWTGELADRKARNSAKMRR RLADDHHPMRFYNALGAIRSVLQRNPDVYVVNEGANALDLARNIIDMHLPR HRLDSGTWGVMGIGMGYAIAAAVETGRPVVAIEGDSAFGFSGMEFETICRYRL PVTVVILNNGGVYRGDEATIFRSAAPVWRHDPAPTVLNAHARHELIAEAFGGK GYHVSTPTELESALTDALASNGPSLIDCELDPADGVESGHLAKLNTTSAATPAI SGDG[582]
Flexibility	[1]