

BcePred Prediction Server

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

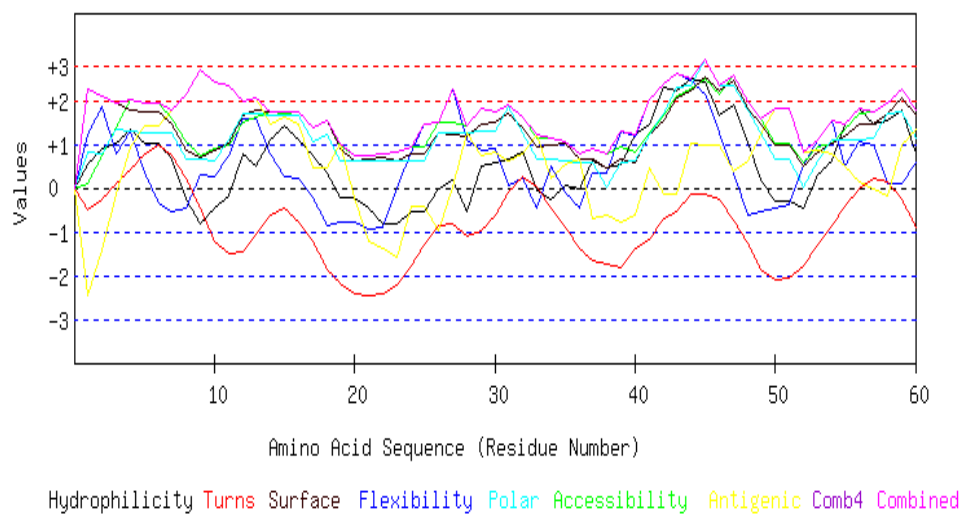
seqname=

Seq=MSPKTHTLVSVLVEDKPGVLRVAALFSRRGFNIESLAVGATECKDRSRMTIVVSAEDTPLEQITKQLNKLINVIKIVEQ
DDEHSVSRELALIKVQADAGSRSQVIEAVNLFNANVIDVSPESLTVEATGNRGGLEALLRVLEPFGIREIAQSGMVLSLRG
PRGIGTAK

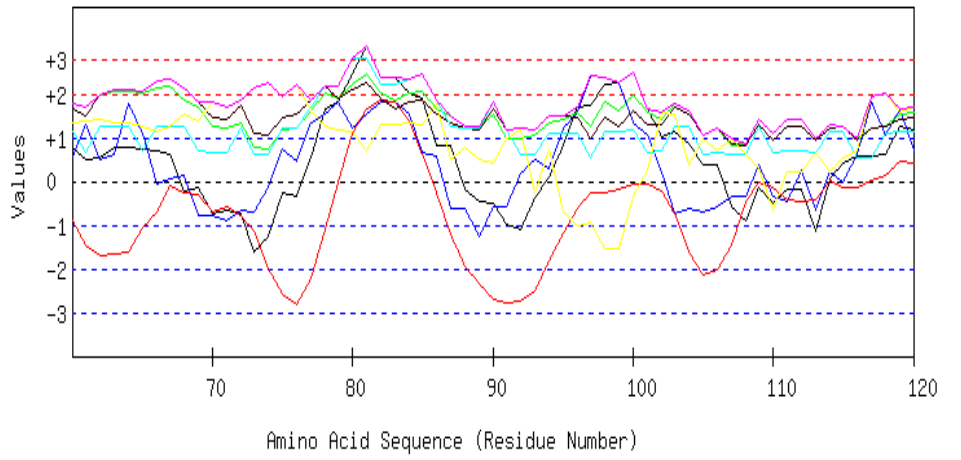
Length=168

GRAPHICAL RESULT

GRAPHICAL RESULT :: SEQ 1 to 60

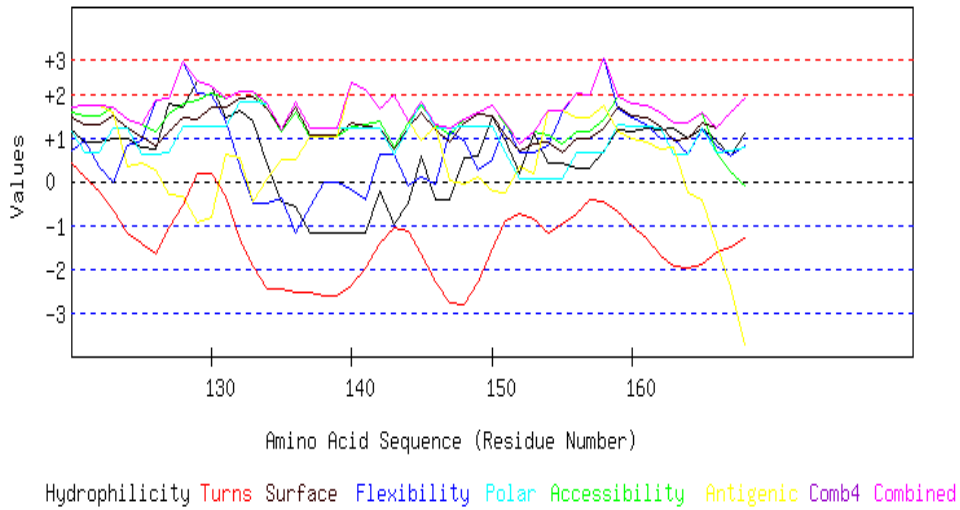


GRAPHICAL RESULT :: SEQ 61 to 120



Hydrophilicity Turns Surface Flexibility Polar Accessibility Antigenic Comb4 Combined

GRAPHICAL RESULT :: SEQ 121 to 180



[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

**MSPKTHTLSVLVEDKPGVLRVAALFSRRGFNIESLAVGATECKDRSRMTIVVSAEDTPL
EQITKQLNKLINVIKIVEQDDEHSVSRELALIKVQADAGSRSQVIEAVNLFRANVIDVSP
ESLTVEATGNRGKLEALLRVLEPFGIREIAQSGMVSLSRGPRGIGTAK**

Length=168

A.A.

Parameter

Combined

	Hydro	Flexi	Access	Turns	Surface	Polar	AntiPro	MAX	MIN	AVG
1 M	0.560	1.239	0.104	-0.487	2.269	0.801	-2.459	2.269	-2.459	0.289
2 S	0.888	1.844	0.758	-0.274	2.105	0.761	-1.408	2.105	-1.408	0.668
3 P	1.021	0.784	1.375	0.115	1.959	1.321	-0.131	1.959	-0.131	0.920
4 K	1.350	1.281	2.029	0.410	1.795	1.280	0.920	2.029	0.410	1.295
5 T	1.034	0.353	1.954	0.789	1.759	1.269	1.410	1.954	0.353	1.224
6 H	1.034	-0.342	1.954	0.978	1.759	1.269	1.410	1.954	-0.342	1.152
7 T	0.667	-0.528	1.589	0.729	1.476	1.251	1.779	1.779	-0.528	0.995
8 L	-0.275	-0.444	1.057	0.234	0.847	0.662	2.149	2.149	-0.444	0.604
9 S	-0.838	0.299	0.739	-0.477	0.683	0.644	2.697	2.697	-0.838	0.535
10 V	-0.477	0.275	0.907	-1.234	0.875	0.623	2.403	2.403	-1.234	0.482
11 L	-0.174	0.730	0.982	-1.493	1.039	1.092	2.354	2.354	-1.493	0.647
12 V	0.768	1.561	1.515	-1.458	1.668	1.682	1.984	1.984	-1.458	1.103
13 E	0.490	1.561	1.608	-1.058	1.786	1.680	2.044	2.044	-1.058	1.159
14 D	1.084	0.782	1.720	-0.632	1.750	1.679	1.456	1.750	-0.632	1.120
15 K	1.432	0.243	1.683	-0.460	1.731	1.675	1.609	1.731	-0.460	1.131
16 P	1.084	0.225	1.720	-0.779	1.750	1.679	1.456	1.750	-0.779	1.019
17 G	0.724	-0.230	1.393	-1.203	1.385	1.079	0.472	1.393	-1.203	0.517
18 V	0.357	-0.857	1.552	-1.860	1.540	1.215	0.480	1.552	-1.860	0.347
19 L	-0.237	-0.761	0.982	-2.161	0.893	0.622	1.003	1.003	-2.161	0.049
20 A	-0.237	-0.761	0.739	-2.429	0.619	0.603	-0.227	0.739	-2.429	-0.242
21 R	-0.465	-0.935	0.748	-2.446	0.665	0.603	-1.237	0.748	-2.446	-0.438
22 V	-0.812	-0.893	0.786	-2.413	0.683	0.607	-1.391	0.786	-2.413	-0.490
23 A	-0.812	0.017	0.804	-2.225	0.629	0.606	-1.575	0.804	-2.225	-0.365
24 A	-0.534	0.830	0.954	-1.797	0.784	0.626	-0.405	0.954	-1.797	0.065
25 L	-0.534	1.457	0.954	-1.296	0.784	0.626	-0.405	1.457	-1.296	0.227
26 F	-0.035	1.487	1.505	-0.874	1.267	1.249	-0.994	1.505	-0.994	0.515
27 S	0.193	2.271	1.496	-0.837	1.221	1.249	0.016	2.271	-0.837	0.801
28 R	-0.521	1.091	1.431	-1.096	1.175	1.253	1.277	1.431	-1.096	0.659
29 R	0.503	0.852	1.814	-0.974	1.476	1.288	0.730	1.814	-0.974	0.813
30 G	0.579	0.894	1.739	-0.630	1.504	1.286	0.800	1.739	-0.630	0.882
31 F	0.661	0.063	1.917	-0.089	1.713	1.865	0.614	1.917	-0.089	0.963
32 N	0.806	0.237	1.636	0.269	1.394	1.261	0.775	1.636	0.237	0.911
33 I	-0.041	-0.468	1.122	0.013	0.929	0.641	1.210	1.210	-0.468	0.487
34 E	-0.269	0.483	1.132	-0.480	0.975	0.641	0.200	1.132	-0.480	0.383
35 S	0.079	-0.092	1.075	-0.899	1.011	0.639	0.538	1.075	-0.899	0.336
36 L	-0.003	-0.456	0.767	-1.386	0.656	0.598	0.651	0.767	-1.386	0.118
37 A	0.636	0.323	0.907	-1.655	0.674	0.596	-0.681	0.907	-1.655	0.114
38 V	0.471	0.359	0.776	-1.737	0.465	0.017	-0.614	0.776	-1.737	-0.038
39 G	0.553	1.287	0.954	-1.806	0.674	0.596	-0.800	1.287	-1.806	0.208
40 A	1.224	1.199	0.823	-1.396	0.574	0.609	-0.613	1.224	-1.396	0.346
41 T	1.451	2.012	1.272	-1.175	1.212	1.203	0.462	2.012	-1.175	0.920
42 E	2.317	2.377	1.664	-0.709	1.540	1.691	-0.135	2.377	-0.709	1.249
43 C	2.222	2.615	2.103	-0.552	2.060	2.315	-0.136	2.615	-0.552	1.518
44 K	2.501	2.465	2.253	-0.129	2.214	2.335	1.034	2.501	-0.129	1.810
45 D	2.437	2.124	2.487	-0.160	2.533	2.940	0.992	2.940	-0.160	1.908
46 R	1.679	1.261	2.150	-0.256	2.214	2.358	0.963	2.358	-0.256	1.481
47 S	1.919	0.351	2.561	-0.758	2.461	2.360	0.382	2.561	-0.758	1.325

48 R	1.053	-0.601	1.973	-1.273	1.804	1.767	0.638	1.973	-1.273	0.766
49 M	0.187	-0.558	1.580	-1.874	1.476	1.280	1.236	1.580	-1.874	0.475
50 T	-0.313	-0.444	1.029	-2.102	0.993	0.657	1.825	1.825	-2.102	0.235
51 I	-0.313	-0.360	1.029	-2.059	0.993	0.657	1.825	1.825	-2.059	0.253
52 V	-0.446	0.503	0.599	-1.763	0.519	0.032	0.816	0.816	-1.763	0.037
53 V	0.313	1.091	0.935	-1.283	0.838	0.614	0.845	1.091	-1.283	0.479
54 S	0.617	1.545	1.010	-0.854	1.002	1.083	0.795	1.545	-0.854	0.743
55 A	1.451	0.485	1.346	-0.438	1.175	1.101	0.514	1.451	-0.438	0.805
56 E	1.818	1.060	1.711	-0.040	1.458	1.119	0.146	1.818	-0.040	1.039
57 D	1.470	0.976	1.748	0.237	1.476	1.123	-0.008	1.748	-0.008	1.003
58 T	1.552	0.113	1.926	0.133	1.686	1.702	-0.194	1.926	-0.194	0.988
59 P	1.799	0.113	2.253	-0.255	2.060	1.745	0.979	2.253	-0.255	1.242
60 L	0.800	0.586	1.786	-0.919	1.677	1.147	1.327	1.786	-0.919	0.915
61 E	0.496	1.281	1.711	-1.456	1.513	0.678	1.377	1.711	-1.456	0.800
62 Q	0.528	0.501	1.963	-1.703	1.996	1.253	1.401	1.996	-1.703	0.849
63 I	0.775	0.620	2.047	-1.662	2.096	1.276	1.345	2.096	-1.662	0.928
64 T	0.775	1.776	2.047	-1.607	2.096	1.276	1.345	2.096	-1.607	1.101
65 K	0.724	1.080	2.019	-1.061	2.041	0.717	1.258	2.041	-1.061	0.968
66 Q	0.705	-0.076	2.141	-0.699	2.306	1.269	1.160	2.306	-0.699	0.972
67 L	0.629	0.043	2.197	-0.110	2.333	1.273	1.273	2.333	-0.110	1.091
68 N	-0.205	0.151	1.860	-0.259	2.160	1.255	1.554	2.160	-0.259	0.931
69 K	-0.123	-0.783	1.711	-0.302	1.832	0.701	1.376	1.832	-0.783	0.630
70 L	-0.736	-0.783	1.262	-0.717	1.449	0.660	1.801	1.801	-0.783	0.419
71 I	-0.661	-0.903	1.206	-0.584	1.422	0.656	1.688	1.688	-0.903	0.403
72 N	-0.743	-0.675	1.356	-0.785	1.750	1.210	1.866	1.866	-0.785	0.568
73 V	-1.609	-0.709	0.767	-1.136	1.093	0.617	2.123	2.123	-1.609	0.164
74 I	-1.261	-0.122	0.730	-1.971	1.075	0.614	2.276	2.276	-1.971	0.192
75 K	-0.262	0.742	1.197	-2.569	1.458	1.211	1.928	1.928	-2.569	0.529
76 I	-0.325	0.449	1.225	-2.837	1.522	1.213	2.205	2.205	-2.837	0.493
77 V	0.541	1.349	1.617	-2.206	1.850	1.701	1.607	1.850	-2.206	0.923
78 E	1.679	1.535	2.029	-1.089	2.187	2.188	1.276	2.188	-1.089	1.401
79 Q	1.812	1.816	1.907	-0.030	1.914	2.193	1.185	2.193	-0.030	1.542
80 D	2.450	1.229	2.206	1.088	2.105	2.811	1.131	2.811	1.088	1.860
81 D	3.095	1.545	2.477	1.671	2.269	2.829	0.702	3.095	0.702	2.084
82 E	2.368	1.820	2.029	1.854	1.895	2.231	1.317	2.368	1.317	1.931
83 H	2.399	1.820	1.851	1.835	1.677	2.209	1.313	2.399	1.313	1.872
84 S	2.033	1.525	2.010	1.369	1.832	2.345	1.321	2.345	1.321	1.776
85 V	1.894	0.670	2.066	0.613	1.877	2.455	1.304	2.455	0.613	1.554
86 S	0.819	0.562	1.655	-0.249	1.522	1.861	1.765	1.861	-0.249	1.133
87 R	0.819	-0.619	1.496	-1.219	1.349	1.241	0.488	1.496	-1.219	0.508
88 E	-0.174	-0.601	1.262	-1.955	1.203	1.227	0.763	1.262	-1.955	0.247
89 L	-0.446	-1.272	1.244	-2.329	1.194	1.227	0.496	1.244	-2.329	0.016
90 A	-0.496	-0.576	1.543	-2.685	1.677	1.801	0.401	1.801	-2.685	0.238
91 L	-0.996	-0.576	0.991	-2.785	1.194	1.178	0.991	1.194	-2.785	-0.000
92 I	-1.109	0.167	0.991	-2.721	1.203	0.621	1.180	1.203	-2.721	0.047
93 K	-0.395	0.491	1.075	-2.489	1.194	0.616	-0.265	1.194	-2.489	0.033
94 V	0.104	0.287	1.346	-1.811	1.513	1.105	0.736	1.513	-1.811	0.469
95 Q	0.819	1.239	1.431	-1.190	1.504	1.099	-0.709	1.504	-1.190	0.599
96 A	1.685	1.561	1.561	-0.606	1.476	1.097	-1.030	1.685	-1.030	0.821
97 D	1.736	2.417	1.262	-0.264	0.993	0.523	-0.935	2.417	-0.935	0.819
98 A	2.235	2.369	1.814	-0.254	1.476	1.146	-1.525	2.369	-1.525	1.037
99 G	2.267	2.273	1.636	-0.196	1.257	1.124	-1.528	2.273	-1.528	0.976
100 S	2.513	1.321	1.963	-0.058	1.631	1.166	-0.355	2.513	-0.355	1.169

101R	1.647	1.040	1.571	-0.041	1.303	0.679	0.243	1.647	-0.041	0.920
102S	1.009	0.227	1.431	-0.232	1.285	0.680	1.575	1.575	-0.232	0.853
103Q	1.141	-0.725	1.767	-0.733	1.695	1.280	1.548	1.767	-0.733	0.853
104V	0.863	-0.607	1.617	-1.603	1.540	1.260	0.378	1.617	-1.603	0.493
105I	0.364	-0.715	1.066	-2.139	1.057	0.637	0.968	1.066	-2.139	0.177
106E	0.395	-0.564	1.216	-2.021	1.212	0.657	0.695	1.216	-2.021	0.227
107A	-0.566	-0.326	0.804	-1.442	0.847	0.620	0.966	0.966	-1.442	0.129
108V	-0.913	-0.326	0.860	-0.464	0.811	0.623	0.629	0.860	-0.913	0.174
109N	-0.142	0.379	1.431	-0.010	1.303	1.246	0.306	1.431	-0.142	0.645
110L	-0.503	-0.326	1.103	-0.145	0.938	0.646	-0.677	1.103	-0.677	0.148
111F	-0.193	-0.446	1.403	-0.404	1.248	0.687	0.220	1.403	-0.446	0.359
112R	-0.193	0.267	1.403	-0.462	1.248	0.687	0.220	1.403	-0.462	0.453
113A	-1.141	-0.643	0.963	-0.411	0.920	0.648	0.654	0.963	-1.141	0.142
114N	0.073	0.213	1.318	0.011	1.230	1.132	0.210	1.318	0.011	0.598
115V	0.421	-0.038	1.262	-0.128	1.267	1.129	0.548	1.267	-0.128	0.637
116I	0.566	0.634	0.982	-0.143	0.948	0.524	0.709	0.982	-0.143	0.603
117D	0.566	1.814	1.225	0.025	1.221	0.543	1.939	1.939	0.025	1.048
118V	0.617	1.070	1.253	0.142	1.276	1.102	2.025	2.025	0.142	1.069
119S	1.261	1.658	1.524	0.463	1.440	1.121	1.597	1.658	0.463	1.295
120P	1.186	0.706	1.580	0.412	1.467	1.124	1.710	1.710	0.412	1.169
121E	0.882	0.922	1.505	0.098	1.303	0.655	1.760	1.760	0.098	1.018
122S	0.882	0.347	1.505	-0.221	1.303	0.655	1.760	1.760	-0.221	0.890
123L	0.964	-0.017	1.683	-0.659	1.513	1.235	1.573	1.683	-0.659	0.899
124T	0.964	0.814	1.440	-1.172	1.239	1.216	0.343	1.440	-1.172	0.692
125V	0.800	0.932	1.309	-1.407	1.030	0.636	0.410	1.309	-1.407	0.530
126E	0.749	1.842	1.150	-1.670	0.829	0.616	0.251	1.842	-1.670	0.538
127A	1.774	1.894	1.533	-1.068	1.130	0.651	-0.297	1.894	-1.068	0.802
128T	1.710	2.725	1.767	-0.521	1.449	1.256	-0.339	2.725	-0.521	1.150
129G	2.305	2.030	1.879	0.173	1.412	1.255	-0.927	2.305	-0.927	1.161
130N	2.172	1.978	2.001	0.175	1.686	1.250	-0.836	2.172	-0.836	1.204
131R	1.457	1.369	1.917	-0.358	1.695	1.255	0.609	1.917	-0.358	1.135
132G	1.622	0.351	2.047	-1.335	1.905	1.835	0.542	2.047	-1.335	0.995
133K	1.394	-0.480	2.057	-1.959	1.950	1.835	-0.468	2.057	-1.959	0.618
134L	0.370	-0.498	1.674	-2.474	1.649	1.800	0.080	1.800	-2.474	0.371
135E	-0.477	-0.390	1.160	-2.467	1.185	1.180	0.516	1.185	-2.467	0.101
136A	-0.572	-1.170	1.599	-2.525	1.704	1.805	0.514	1.805	-2.525	0.194
137L	-1.166	-0.595	1.029	-2.551	1.057	1.212	1.038	1.212	-2.551	0.003
138L	-1.166	-0.032	1.029	-2.607	1.057	1.212	1.038	1.212	-2.607	0.076
139R	-1.166	-0.001	1.029	-2.613	1.057	1.212	1.038	1.212	-2.613	0.079
140V	-1.166	-0.188	1.272	-2.397	1.330	1.231	2.268	2.268	-2.397	0.336
141L	-1.166	-0.416	1.290	-1.972	1.276	1.230	2.084	2.084	-1.972	0.332
142E	-0.224	0.602	1.365	-1.419	1.221	1.224	1.650	1.650	-1.419	0.631
143P	-0.996	0.602	0.795	-1.072	0.729	0.601	1.972	1.972	-1.072	0.376
144F	-0.496	-0.082	1.346	-1.150	1.212	1.224	1.383	1.383	-1.150	0.491
145G	0.579	0.093	1.758	-1.658	1.567	1.819	0.921	1.819	-1.658	0.726
146I	-0.420	-0.044	1.290	-2.302	1.185	1.221	1.269	1.290	-2.302	0.314
147R	-0.420	1.137	1.047	-2.780	0.911	1.202	0.039	1.202	-2.780	0.162
148E	0.541	0.950	1.440	-2.809	1.330	1.240	-0.049	1.440	-2.809	0.378
149I	0.591	0.261	1.599	-2.307	1.531	1.260	0.111	1.599	-2.307	0.435
150A	1.457	0.489	1.730	-1.556	1.504	1.258	-0.210	1.730	-1.556	0.667
151Q	0.926	1.345	1.290	-0.905	1.075	0.651	-0.265	1.345	-0.905	0.588
152S	0.199	0.650	0.842	-0.745	0.701	0.053	0.350	0.842	-0.745	0.293
153G	1.116	0.650	1.132	-0.850	0.875	0.071	0.188	1.132	-0.850	0.455

154M	0.402	0.836	1.047	-1.192	0.884	0.077	1.634	1.634	-1.192	0.527
155V	0.433	1.577	0.870	-0.966	0.665	0.054	1.630	1.630	-0.966	0.609
156S	0.288	<u>2.032</u>	1.150	-0.739	0.984	0.659	1.469	2.032	-0.739	0.835
157L	0.288	1.990	1.150	-0.434	0.984	0.659	1.469	1.990	-0.434	0.872
158S	0.686	<u>2.822</u>	1.403	-0.449	1.212	0.661	1.745	2.822	-0.449	1.154
159R	1.186	1.641	<u>1.954</u>	-0.687	1.695	1.284	1.155	1.954	-0.687	1.175
160G	1.135	1.455	1.795	-1.036	1.494	1.264	0.995	1.795	-1.036	1.015
161P	1.211	1.319	1.739	-1.293	1.467	1.260	0.882	1.739	-1.293	0.941
162R	1.160	0.960	1.580	-1.717	1.267	1.240	0.723	1.580	-1.717	0.745
163G	1.224	0.978	1.346	-1.927	0.948	0.635	0.764	1.346	-1.927	0.567
164I	0.996	0.606	1.356	-1.967	0.993	0.635	-0.246	1.356	-1.967	0.339
165G	1.224	1.185	1.561	-1.890	1.358	1.211	-0.401	1.561	-1.890	0.607
166T	0.958	0.812	0.674	-1.618	1.203	0.646	-1.410	1.203	-1.618	0.181
167A	0.598	0.576	0.225	-1.503	1.567	0.706	-2.421	1.567	-2.421	-0.036
168K	1.103	0.830	-0.093	-1.304	1.905	0.765	-3.753	1.905	-3.753	-0.078

[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	<u>¹MSPKTHTLSVLVEDKPGVLARVAALFSRRGFNIESLAVGATECKDRSRMTIVVSAEDTPLEQITK</u> <u>QLNKLINVIKIVEQDDEHSVSRELALIKVQADAGSRSQVIEAVNLFNANVIDVSPESLTV</u> <u>EATGNRG</u> <u>KLEALLRVLEPFGIREIAQSGMVSLSRGPRGIGTAK</u> ¹⁶⁸
Hydrophilicity	¹ MSPKTHTLSVLVEDKPGVLARVAALFSRRGFNIESLAV <u>GATECKDRSRMT</u> IVVSAEDTPLEQITK QLNKLINVIK <u>VEQDDEHSVS</u> RELALIKV <u>QADAGSRSQ</u> VIEAVNLFNANVIDVSPESLTV <u>EATGNRG</u> <u>KLEALLRVLEPFGIREIAQSGMVSLSRGPRGIGTAK</u> ¹⁶⁸
Flexibility	¹ MSPKTHTLSVLVEDKPGVLARVA <u>ALFSRRGFNIESLAVGATECKDRSR</u> MTIVVSAEDTPLEQITK QLNKLINVIKIVEQDDEHSVSRELALIK <u>VQADAGSRSQ</u> VIEAVNLFNANVIDVSPESLTV <u>EATGNRG</u> KLEALLRVLEPFGIREIAQS <u>GMVSLSRGPRGIGTAK</u> ¹⁶⁸
Accessibility	¹ <u>MSPKTHTLSVLVEDKPGVLARVAALFSRRGFNIE</u> SLAVG <u>ATECKDRSRMT</u> IVV <u>SAEDTPLEQITK</u> <u>QLNKLINVIKIVEQDDEHSVSRE</u> LALIKVQADAGSRSQVIEAVNLFNANVIDVSPESLTV <u>EATGNRG</u> <u>KLEA</u> LLRVLEPFGIREIAQSGMV <u>SLSRGPR</u> GIGTAK ¹⁶⁸

Turns	¹ MSPKTHTLSVLVEDKPGVLARVAALFSRRGFNIESLAVGATECKDRSRMTIVVSAEDTPLEQITK QLNKLINVIKIVEQDDEHSVSRELALIKVQADAGSRSQVIEAVNLFRANVIDVSPESLTVEATGNRG KLEALLRVLEPFGIREIAQSGMVSLSRGPRGIGTAK ¹⁶⁸
Exposed Surface	¹ MSPKTHTLSVLVEDKPGVLARVAALFSRRGFNIESLAVGAT ECKDRSRMT IVVSAEDTPLEQITK QLNKL INVIKIVEQDDEHSVSRELALIKVQADAGSRSQVIEAVNLFRANVIDVSPESLTVEATGNRG KLEALLRVLEPFGIREIAQSGMVSLSRGPRGIGTAK ¹⁶⁸
Polarity	¹ MSPKTHTLSVLVEDKPGVLARVAALFS RRGFNIE SLAVGAT ECKDRSRMT IVVSAEDTPLEQITK QLNKLINVI KIVEQDDEHSVSRELALIK VQADAGSRSQVIEAVNLFRANVIDVSPESLTVEAT GNRG KLEALLRVLEPFGIRE IAQSGMVSLSRGPRGIGTAK ¹⁶⁸
Antigenic Propensity	¹ MSPK THTLSVLVEDKPG VLARVAALFSRRGFNIESLAVGATECKDRSRMTIVVSAEDTPLEQITK QLNK LINVIKIVEQ DDEHSVSRELALIKVQADAGSRSQVIEAVNLFRANVIDVSPESLTVEATGNRG KLEA LLRVLEPFGI REIAQSGMVSLSRGPRGIGTAK ¹⁶⁸

[TOP](#)

[Home](#)