A	14	GLN	10	−16.113	−15.410
A	15	CYS	11	−17.240	−16.522
A	16	VAL	18	−14.165	−14.606
A	17	ASN	2	−12.324	−11.137
A	18	LEU	37	−12.557	−15.368
A	19	THR	4	−9.156	−8.563
A	20	THR	22	−8.016	−9.624
A	21	ARG	24	−7.696	−9.571
A	22	THR	16	−6.937	−7.979
A	23	GLN	0	−5.020	−4.442
A	24	LEU	19	−4.982	−6.594
A	25	PRO	2	−4.827	−4.502
A	26	PRO	8	−8.500	−8.442
A	27	ALA	18	−9.243	−10.250
A	28	TYR	9	−10.525	−10.349
A	29	THR	21	−12.637	−13.599
A	30	ASN	9	−14.161	−13.567
A	31	SER	31	−15.490	−17.274
A	32	PHE	14	−16.414	−16.137
A	33	THR	17	−17.627	−17.555
A	34	ARG	34	−17.407	−19.315
A	35	GLY	40	−20.230	−22.503
A	36	VAL	30	−19.699	−20.884
A	37	TYR	35	−16.258	−18.413
A	38	TYR	21	−14.472	−15.223
A	39	PRO	25	−14.503	−15.710
A	40	ASP	12	−11.026	−11.138
A	41	LYS	7	−6.718	−6.751
A	42	VAL	9	−12.036	−11.687
A	43	PHE	5	−10.921	−10.240
A	44	ARG	23	−14.423	−15.409
A	45	SER	12	−14.321	−14.054
A	46	SER	12	−15.761	−15.329
A	47	VAL	18	−18.903	−18.799
A	48	LEU	20	−19.831	−19.850
A	49	HIS	26	−19.392	−20.152
A	50	SER	16	−19.153	−18.791
A	51	THR	22	−17.721	−18.213
A	52	GLN	6	−14.988	−13.954
A	53	ASP	23	−14.221	−15.230
A	54	LEU	20	−16.602	−16.992
A	55	PHE	33	−19.623	−21.161
A	56	LEU	34	−18.786	−20.536
A	57	PRO	22	−20.230	−20.433
A	58	PHE	26	−20.726	−21.332
A	59	PHE	12	−18.799	−18.017
A	60	SER	26	−16.566	−17.651
A	61	ASN	5	−14.600	−13.496
A	62	VAL	36	−15.425	−17.792
A	63	THR	21	−13.849	−14.672

A	64	TRP	21	−14.051	−14.850	
A	65	PHE	23	−15.938	−16.750	
A	66	HIS	21	−13.408	−14.281	
A	67	ALA	32	−13.328	−15.476	
A	68	ILE	14	−8.679	−9.291	
A	69	SER	28	−5.067	−7.704	
A	70	GLY	4	−1.880	−2.123	<=B
A	71	THR	0	−0.984	−0.871	<=B
A	72	ASN	5	−1.332	−1.754	<=B
A	73	GLY	16	−2.764	−4.286	
A	74	THR	33	−5.401	−8.575	
A	75	LYS	11	−7.533	−7.932	
A	76	ARG	16	−9.759	−10.477	
A	77	PHE	29	−14.478	−16.148	
A	78	ASP	21	−17.381	−17.797	
A	79	ASN	35	−21.269	−22.848	
A	80	PRO	20	−19.221	−19.311	
A	81	VAL	19	−21.047	−20.812	
A	82	LEU	27	−20.692	−21.418	
A	83	PRO	8	−14.304	−13.579	
A	84	PHE	29	−17.252	−18.603	
A	85	ASN	3	−12.581	−11.479	
A	86	ASP	11	−13.294	−13.030	
A	87	GLY	27	−19.825	−20.651	
A	88	VAL	25	−22.072	−22.408	
A	89	TYR	39	−21.451	−23.469	
A	90	PHE	32	−24.649	−25.494	
A	91	ALA	42	−20.636	−23.093	
A	92	SER	23	−18.264	−18.808	
A	93	THR	25	−14.024	−15.286	
A	94	GLU	26	−12.974	−14.472	
A	95	LYS	22	−6.276	−8.084	
A	96	SER	29	−6.106	−8.739	
A	97	ASN	20	−13.019	−13.822	
A	98	ILE	34	−17.389	−19.300	
A	99	ILE	29	−22.643	−23.374	
A	100	ARG	37	−24.443	−25.887	
A	101	GLY	33	−28.691	−29.187	
A	102	TRP	27	−30.334	−29.950	
A	103	ILE	32	−28.830	−29.194	
A	104	PHE	35	−26.088	−27.113	
A	105	GLY	31	−22.039	−23.069	
A	106	THR	11	−15.403	−14.897	
A	107	THR	13	−13.449	−13.397	
A	108	LEU	25	−18.386	−19.146	
A	109	ASP	4	−14.118	−12.955	
A	110	SER	16	−14.966	−15.085	
A	111	LYS	7	−9.640	−9.336	
A	112	THR	13	−11.954	−12.075	
A	113	GLN	17	−15.491	−15.665	

A	114	SER	33	−20.866	−22.261	
A	115	LEU	30	−23.546	−24.288	
A	116	LEU	37	−27.529	−28.618	
A	117	ILE	23	−27.980	−27.407	
A	118	VAL	28	−27.081	−27.187	
A	119	ASN	16	−23.575	−22.704	
A	120	ASN	24	−21.061	−21.399	
A	121	ALA	16	−14.263	−14.462	
A	122	THR	7	−11.421	−10.913	
A	123	ASN	11	−17.087	−16.387	
A	124	VAL	13	−21.368	−20.405	
A	125	VAL	17	−22.424	−21.800	
A	126	ILE	17	−22.807	−22.139	
A	127	LYS	21	−22.038	−21.919	
A	128	VAL	18	−20.480	−20.194	
A	129	CYS	21	−18.900	−19.142	
A	130	GLU	5	−15.941	−14.683	
A	131	PHE	33	−19.709	−21.238	
A	132	GLN	7	−18.058	−16.786	
A	133	PHE	34	−22.014	−23.392	
A	134	CYS	22	−19.665	−19.933	
A	135	ASN	5	−16.297	−14.998	
A	136	ASP	18	−19.317	−19.165	
A	137	PRO	28	−24.343	−24.763	
A	138	PHE	29	−24.550	−25.062	
A	139	LEU	29	−20.847	−21.785	
A	140	GLY	24	−14.890	−15.937	
A	141	VAL	28	−8.782	−10.992	
A	142	TYR	8	−5.479	−5.769	
A	143	TYR	23	−2.252	−4.638	
A	144	HIS	8	0.305	−0.650	<=B
A	145	LYS	14	0.743	−0.953	<=B
A	146	ASN	0	2.842	2.515	<=B
A	147	ASN	10	2.189	0.787	<=B
A	148	LYS	0	2.434	2.154	<=B
A	149	SER	9	1.045	−0.111	<=B
A	150	TRP	23	−2.050	−4.459	
A	151	MET	6	−6.003	−6.003	
A	152	GLU	24	−9.757	−11.395	
A	153	SER	16	−9.843	−10.551	
A	154	GLU	30	−14.620	−16.388	
A	155	PHE	19	−19.842	−19.745	
A	156	ARG	22	−21.217	−21.307	
A	157	VAL	35	−26.441	−27.425	
A	158	TYR	31	−22.231	−23.240	
A	159	SER	11	−18.080	−17.266	
A	160	SER	10	−17.205	−16.376	
A	161	ALA	17	−18.019	−17.902	
A	162	ASN	14	−14.809	−14.716	
A	163	ASN	12	−12.659	−12.583	

A	164	CYS	16	-15.988	-15.989	
A	165	THR	14	-14.389	-14.344	
A	166	PHE	19	-15.645	-16.031	
A	167	GLU	8	-17.114	-16.066	
A	168	TYR	15	-16.639	-16.451	
A	169	VAL	9	-16.613	-15.737	
A	170	SER	18	-13.627	-14.130	
A	171	GLN	0	-9.649	-8.539	
A	172	PRO	1	-9.754	-8.748	
A	173	PHE	12	-6.042	-6.727	
A	174	LEU	7	-5.049	-5.274	
A	175	MET	20	-6.629	-8.166	
A	176	ASP	9	-5.597	-5.989	
A	177	LEU	30	-7.401	-10.000	
A	178	GLU	10	-3.245	-4.022	
A	179	GLY	19	-1.644	-3.640	<=B
A	180	LYS	14	-0.509	-2.060	<=B
A	181	GLN	14	-0.061	-1.664	<=B
A	182	GLY	1	-0.770	-0.796	<=B
A	183	ASN	9	-2.826	-3.536	<=B
A	184	PHE	30	-6.454	-9.162	
A	185	LYS	9	-6.098	-6.432	
A	186	ASN	23	-10.665	-12.083	
A	187	LEU	25	-14.020	-15.282	
A	188	ARG	17	-17.509	-17.450	
A	189	GLU	33	-20.162	-21.639	
A	190	PHE	26	-23.213	-23.534	
A	191	VAL	29	-21.070	-21.982	
A	192	PHE	34	-23.670	-24.858	
A	193	LYS	25	-20.828	-21.308	
A	194	ASN	22	-13.912	-14.842	
A	195	ILE	18	-11.281	-12.053	
A	196	ASP	1	-7.016	-6.324	
A	197	GLY	3	-10.765	-9.872	
A	198	TYR	10	-13.502	-13.100	
A	199	PHE	28	-15.985	-17.367	
A	200	LYS	22	-17.568	-18.078	
A	201	ILE	22	-19.209	-19.530	
A	202	TYR	27	-17.355	-18.464	
A	203	SER	20	-16.945	-17.296	
A	204	LYS	23	-14.792	-15.736	
A	205	HIS	7	-11.193	-10.711	
A	206	THR	18	-8.057	-9.201	
A	207	PRO	0	-4.727	-4.183	
A	208	ILE	27	-5.575	-8.039	
A	209	ASN	0	-3.422	-3.029	<=B
A	210	LEU	17	-5.145	-6.509	
A	211	VAL	1	-3.827	-3.502	<=B
A	212	ARG	5	-6.218	-6.078	
A	213	ASP	10	-9.779	-9.805	

A	214	LEU	32	−13.206	−15.367	
A	215	PRO	23	−10.008	−11.502	
A	216	GLN	1	−11.788	−10.548	
A	217	GLY	17	−12.971	−13.434	
A	218	PHE	20	−14.505	−15.137	
A	219	SER	20	−13.971	−14.664	
A	220	ALA	25	−15.609	−16.689	
A	221	LEU	28	−17.254	−18.490	
A	222	GLU	7	−11.905	−11.341	
A	223	PRO	14	−12.557	−12.723	
A	224	LEU	15	−12.058	−12.396	
A	225	VAL	11	−14.371	−13.984	
A	226	ASP	9	−12.342	−11.958	
A	227	LEU	31	−15.688	−17.449	
A	228	PRO	0	−11.663	−10.322	
A	229	ILE	32	−15.895	−17.747	
A	230	GLY	7	−13.186	−12.474	
A	231	ILE	39	−15.673	−18.356	
A	232	ASN	9	−14.428	−13.804	
A	233	ILE	33	−17.626	−19.394	
A	234	THR	7	−14.480	−13.620	
A	235	ARG	13	−19.760	−18.983	
A	236	PHE	35	−24.702	−25.886	
A	237	GLN	29	−26.573	−26.852	
A	238	THR	29	−28.180	−28.274	
A	239	LEU	29	−27.667	−27.820	
A	240	LEU	35	−24.184	−25.428	
A	241	ALA	29	−18.827	−19.997	
A	242	LEU	32	−14.354	−16.383	
A	243	HIS	30	−8.466	−10.942	
A	244	ARG	19	−5.032	−6.638	
A	245	SER	14	−2.008	−3.388	<=B
A	246	TYR	8	−0.715	−1.553	<=B
A	247	LEU	13	−2.086	−3.341	<=B
A	248	THR	11	−1.203	−2.330	<=B
A	249	PRO	0	−0.201	−0.178	<=B
A	250	GLY	2	−2.022	−2.019	<=B
A	251	ASP	18	−4.001	−5.611	
A	252	SER	3	−4.912	−4.692	
A	253	SER	11	−7.255	−7.686	
A	254	SER	12	−7.575	−8.083	
A	255	GLY	9	−6.208	−6.529	
A	256	TRP	29	−5.741	−8.416	
A	257	THR	22	−4.874	−6.844	
A	258	ALA	29	−11.252	−13.293	
A	259	GLY	33	−9.788	−12.458	
A	260	ALA	16	−8.041	−8.956	
A	261	ALA	31	−11.489	−13.733	
A	262	ALA	24	−14.616	−15.695	
A	263	TYR	34	−19.259	−20.954	

A	264	TYR	32	−17.573	−19.232
A	265	VAL	26	−21.395	−21.925
A	266	GLY	31	−20.331	−21.558
A	267	TYR	14	−18.187	−17.706
A	268	LEU	30	−18.324	−19.667
A	269	GLN	22	−14.524	−15.384
A	270	PRO	7	−14.086	−13.271
A	271	ARG	31	−16.298	−17.989
A	272	THR	19	−18.123	−18.224
A	273	PHE	27	−19.608	−20.458
A	274	LEU	21	−19.431	−19.611
A	275	LEU	32	−17.745	−19.384
A	276	LYS	18	−17.005	−17.119
A	277	TYR	22	−16.291	−16.948
A	278	ASN	8	−12.023	−11.560
A	279	GLU	3	−9.990	−9.186
A	280	ASN	5	−7.336	−7.067
A	281	GLY	10	−11.369	−11.212
A	282	THR	8	−12.288	−11.795
A	283	ILE	29	−15.128	−16.723
A	284	THR	14	−13.891	−13.904
A	285	ASP	13	−15.314	−15.048
A	286	ALA	32	−18.030	−19.637
A	287	VAL	26	−19.214	−19.995
A	288	ASP	24	−21.161	−21.487
A	289	CYS	25	−22.289	−22.601
A	290	ALA	23	−25.208	−24.954
A	291	LEU	28	−24.208	−24.644
A	292	ASP	21	−24.457	−24.059
A	293	PRO	32	−26.332	−26.984
A	294	LEU	22	−26.519	−26.000
A	295	SER	23	−23.395	−23.350
A	296	GLU	26	−24.716	−24.864
A	297	THR	26	−24.042	−24.267
A	298	LYS	30	−19.023	−20.286
A	299	CYS	23	−21.260	−21.460
A	300	THR	23	−19.571	−19.965
A	301	LEU	23	−18.288	−18.830
A	302	LYS	13	−19.136	−18.430
A	303	SER	12	−19.671	−18.789
A	304	PHE	15	−17.680	−17.372
A	305	THR	5	−16.081	−14.807
A	306	VAL	29	−20.235	−21.243
A	307	GLU	7	−19.222	−17.816
A	308	LYS	17	−19.378	−19.105
A	309	GLY	11	−21.209	−20.035
A	310	ILE	29	−24.183	−24.737
A	311	TYR	27	−23.779	−24.149
A	312	GLN	8	−23.121	−21.382
A	313	THR	32	−23.680	−24.637

A	314	SER	20	−23.609	−23.194
A	315	ASN	9	−21.177	−19.776
A	316	PHE	34	−23.665	−24.854
A	317	ARG	13	−19.870	−19.080
A	318	VAL	29	−19.550	−20.637
A	319	GLN	12	−14.962	−14.622
A	320	PRO	18	−12.745	−13.349
A	321	THR	16	−10.541	−11.168
A	322	GLU	12	−10.416	−10.598
A	323	SER	8	−12.534	−12.012
A	324	ILE	27	−12.741	−14.381
A	325	VAL	17	−14.694	−14.959
A	326	ARG	31	−13.549	−15.556
A	327	PHE	26	−13.663	−15.082
A	328	PRO	21	−12.108	−13.130
A	329	ASN	4	−11.957	−11.042
A	330	ILE	25	−14.218	−15.458
A	331	THR	1	−12.125	−10.846
A	332	ASN	10	−14.180	−13.699
A	333	LEU	12	−20.836	−19.820
A	334	CYS	33	−25.136	−26.040
A	335	PRO	17	−24.661	−23.780
A	336	PHE	18	−27.368	−26.290
A	337	GLY	5	−20.434	−18.659
A	338	GLU	15	−20.690	−20.035
A	339	VAL	30	−25.204	−25.756
A	340	PHE	25	−22.877	−23.121
A	341	ASN	8	−16.810	−15.797
A	342	ALA	21	−13.940	−14.752
A	343	THR	1	−8.851	−7.948
A	344	ARG	14	−9.596	−10.103
A	345	PHE	38	−13.750	−16.538
A	346	ALA	23	−11.682	−12.984
A	347	SER	24	−8.164	−9.985
A	348	VAL	38	−10.636	−13.783
A	349	TYR	19	−8.440	−9.654
A	350	ALA	12	−8.360	−8.779
A	351	TRP	34	−11.428	−14.024
A	352	ASN	21	−14.447	−15.201
A	353	ARG	17	−21.205	−20.721
A	354	LYS	21	−23.861	−23.532
A	355	ARG	7	−22.642	−20.843
A	356	ILE	34	−25.967	−26.891
A	357	SER	11	−22.197	−20.909
A	358	ASN	0	−17.986	−15.918
A	359	CYS	20	−20.816	−20.722
A	360	VAL	12	−22.542	−21.330
A	361	ALA	31	−26.577	−27.085
A	362	ASP	13	−24.760	−23.407
A	363	TYR	30	−27.753	−28.011

A	364	SER	9	−22.291	−20.762
A	365	VAL	13	−21.676	−20.678
A	366	LEU	34	−25.146	−26.164
A	367	TYR	16	−23.309	−22.468
A	368	ASN	5	−19.120	−17.496
A	369	SER	19	−18.214	−18.305
A	370	ALA	0	−12.777	−11.307
A	371	SER	19	−12.951	−13.646
A	372	PHE	24	−17.152	−17.939
A	373	SER	17	−13.293	−13.719
A	374	THR	31	−17.075	−18.676
A	375	PHE	17	−23.454	−22.712
A	376	LYS	15	−22.482	−21.621
A	377	CYS	18	−25.247	−24.413
A	378	TYR	24	−21.315	−21.623
A	379	GLY	22	−20.972	−21.090
A	380	VAL	24	−23.124	−23.225
A	381	SER	5	−22.174	−20.199
A	382	PRO	15	−23.063	−22.136
A	383	THR	0	−21.731	−19.232
A	384	LYS	13	−22.850	−21.717
A	385	LEU	27	−25.807	−25.944
A	386	ASN	11	−23.752	−22.286
A	387	ASP	5	−20.820	−19.001
A	388	LEU	24	−23.564	−23.614
A	389	CYS	20	−24.761	−24.213
A	390	PHE	31	−25.292	−25.949
A	391	THR	11	−21.681	−20.452
A	392	ASN	6	−23.531	−21.515
A	393	VAL	31	−27.351	−27.771
A	394	TYR	13	−27.001	−25.391
A	395	ALA	28	−27.814	−27.836
A	396	ASP	26	−24.607	−24.768
A	397	SER	22	−21.348	−21.423
A	398	PHE	34	−14.594	−16.826
A	399	VAL	31	−13.021	−15.089
A	400	ILE	35	−10.346	−13.181
A	401	ARG	25	−7.459	−9.476
A	402	GLY	16	−8.094	−9.003
A	403	ASP	12	−5.338	−6.104
A	404	GLU	29	−6.505	−9.092
A	405	VAL	23	−10.899	−12.291
A	406	ARG	6	−10.229	−9.743
A	407	GLN	27	−9.048	−11.113
A	408	ILE	35	−13.812	−16.248
A	409	ALA	11	−14.322	−13.940
A	410	PRO	18	−10.682	−11.524
A	411	GLY	5	−5.844	−5.747
A	412	GLN	21	−5.719	−7.476
A	413	THR	2	−4.176	−3.926

A	414	GLY	17	-5.185	-6.544	
A	415	LYS	18	-4.491	-6.045	
A	416	ILE	25	-7.973	-9.931	
A	417	ALA	17	-7.796	-8.855	
A	418	ASP	11	-5.325	-5.978	
A	419	TYR	23	-5.827	-7.802	
A	420	ASN	32	-8.291	-11.017	
A	421	TYR	31	-9.727	-12.173	
A	422	LYS	19	-8.987	-10.138	
A	423	LEU	32	-13.613	-15.727	
A	424	PRO	14	-10.293	-10.719	
A	425	ASP	0	-6.310	-5.585	
A	426	ASP	4	-10.608	-9.848	
A	427	PHE	27	-18.474	-19.454	
A	428	THR	14	-23.512	-22.418	
A	429	GLY	31	-27.749	-28.123	
A	430	CYS	27	-28.382	-28.223	
A	431	VAL	24	-26.258	-25.998	
A	432	ILE	31	-24.595	-25.332	
A	433	ALA	25	-17.396	-18.271	
A	434	TRP	20	-15.631	-16.133	
A	435	ASN	14	-8.662	-9.276	
A	436	SER	34	-8.410	-11.352	
A	437	ASN	20	-3.416	-5.323	
A	438	ASN	4	-2.958	-3.078	<=B
A	439	LEU	20	-5.002	-6.727	
A	440	ASP	33	-4.779	-8.025	
A	441	SER	23	-1.623	-4.081	
A	442	LYS	9	1.120	-0.044	<=B
A	443	VAL	1	2.868	2.423	<=B
A	444	GLY	1	2.864	2.419	<=B
A	445	GLY	9	1.258	0.079	<=B
A	446	ASN	26	-1.308	-4.147	
A	447	TYR	5	-2.149	-2.477	<=B
A	448	ASN	18	-2.425	-4.216	
A	449	TYR	31	-6.342	-9.178	
A	450	LEU	19	-6.269	-7.733	
A	451	PHE	27	-7.204	-9.481	
A	452	ARG	30	-4.553	-7.480	
A	453	LEU	14	-5.034	-6.066	
A	454	PHE	14	-4.694	-5.764	
A	455	ARG	24	-3.241	-5.629	
A	456	LYS	10	-2.030	-2.946	<=B
A	457	SER	5	-1.179	-1.619	<=B
A	458	ASN	14	-1.569	-2.998	<=B
A	459	LEU	26	-3.960	-6.494	
A	460	LYS	1	-3.087	-2.847	<=B
A	461	PRO	11	-7.890	-8.248	
A	462	PHE	18	-11.311	-12.081	
A	463	GLU	16	-6.029	-7.176	

A	464	ARG	13	-6.281	-7.054	
A	465	ASP	28	-5.152	-7.779	
A	466	ILE	2	-5.240	-4.867	
A	467	SER	20	-4.298	-6.104	
A	468	THR	7	-5.429	-5.609	
A	469	GLU	10	-5.301	-5.842	
A	470	ILE	16	-6.250	-7.371	
A	471	TYR	17	-5.740	-7.035	
A	472	GLN	8	-5.272	-5.586	
A	473	ALA	11	-5.629	-6.247	
A	474	GLY	10	-4.111	-4.788	
A	475	SER	0	-3.729	-3.300	<=B
A	476	THR	9	-4.609	-5.114	
A	477	PRO	1	-4.233	-3.861	
A	478	CYS	17	-5.081	-6.451	
A	479	ASN	0	-4.465	-3.952	
A	480	GLY	5	-4.563	-4.614	
A	481	VAL	0	-6.143	-5.437	
A	482	GLU	1	-6.506	-5.873	
A	483	GLY	16	-6.398	-7.502	
A	484	PHE	2	-5.728	-5.300	
A	485	ASN	5	-5.553	-5.489	
A	486	CYS	19	-7.206	-8.562	
A	487	TYR	11	-6.740	-7.230	
A	488	PHE	9	-6.952	-7.188	
A	489	PRO	21	-6.281	-7.974	
A	490	LEU	20	-5.337	-7.023	
A	491	GLN	12	-4.797	-5.625	
A	492	SER	13	-4.065	-5.092	
A	493	TYR	37	-3.808	-7.625	
A	494	GLY	4	-0.440	-0.849	<=B
A	495	PHE	32	-1.728	-5.209	
A	496	GLN	7	0.734	-0.156	<=B
A	497	PRO	7	1.288	0.335	<=B
A	498	THR	3	2.522	1.887	<=B
A	499	ASN	27	2.125	-1.224	<=B
A	500	GLY	1	1.219	0.964	<=B
A	501	VAL	7	-1.869	-2.459	<=B
A	502	GLY	5	-5.508	-5.450	
A	503	TYR	8	-1.663	-2.392	<=B
A	504	GLN	17	-4.213	-5.683	
A	505	PRO	32	-6.944	-9.825	
A	506	TYR	26	-10.185	-12.004	
A	507	ARG	27	-15.617	-16.926	
A	508	VAL	37	-19.550	-21.557	
A	509	VAL	26	-25.422	-25.489	
A	510	VAL	30	-27.827	-28.077	
A	511	LEU	37	-30.512	-31.258	
A	512	SER	22	-27.387	-26.767	
A	513	PHE	38	-28.235	-29.358	

A	514	GLU	11	−24.015	−22.518	
A	515	LEU	16	−22.888	−22.096	
A	516	LEU	10	−19.047	−18.007	
A	517	HIS	7	−15.716	−14.713	
A	518	ALA	11	−15.970	−15.398	
A	519	PRO	9	−16.806	−15.908	
A	520	ALA	30	−20.646	−21.722	
A	521	THR	11	−21.137	−19.971	
A	522	VAL	27	−25.002	−25.232	
A	523	CYS	19	−23.636	−23.103	
A	524	GLY	19	−22.256	−21.881	
A	525	PRO	13	−18.025	−17.447	
A	526	LYS	13	−14.298	−14.149	
A	527	LYS	16	−15.308	−15.387	
A	528	SER	22	−13.337	−14.333	
A	529	THR	12	−11.100	−11.204	
A	530	ASN	2	−8.681	−7.912	
A	531	LEU	21	−9.261	−10.611	
A	532	VAL	16	−6.127	−7.262	
A	533	LYS	13	−8.028	−8.600	
A	534	ASN	3	−10.754	−9.862	
A	535	LYS	13	−11.856	−11.988	
A	536	CYS	19	−13.582	−14.205	
A	537	VAL	23	−12.072	−13.329	
A	538	ASN	5	−13.075	−12.146	
A	539	PHE	32	−12.731	−14.947	
A	540	ASN	17	−14.508	−14.795	
A	541	PHE	29	−13.982	−15.709	
A	542	ASN	20	−15.068	−15.635	
A	543	GLY	18	−16.684	−16.836	
A	544	LEU	20	−13.948	−14.644	
A	545	THR	9	−13.953	−13.384	
A	546	GLY	22	−13.050	−14.080	
A	547	THR	9	−13.323	−12.826	
A	548	GLY	21	−13.161	−14.063	
A	549	VAL	14	−12.729	−12.876	
A	550	LEU	27	−10.532	−12.426	
A	551	THR	15	−9.405	−10.049	
A	552	GLU	6	−6.130	−6.115	
A	553	SER	24	−5.342	−7.487	
A	554	ASN	0	−3.211	−2.841	<=B
A	555	LYS	22	−3.600	−5.716	
A	556	LYS	1	−0.984	−0.986	<=B
A	557	PHE	23	−1.705	−4.154	
A	558	LEU	1	−0.924	−0.932	<=B
A	559	PRO	0	−1.451	−1.285	<=B
A	560	PHE	0	−3.408	−3.016	<=B
A	561	GLN	13	−3.648	−4.724	
A	562	GLN	15	−8.359	−9.123	
A	563	PHE	16	−8.079	−8.990	

A	564	GLY	23	−5.608	−7.608	
A	565	ARG	6	−5.543	−5.596	
A	566	ASP	10	−4.298	−4.954	
A	567	ILE	0	−3.672	−3.250	<=B
A	568	ALA	3	−4.335	−4.182	
A	569	ASP	0	−4.255	−3.765	
A	570	THR	10	−6.272	−6.701	
A	571	THR	26	−7.636	−9.748	
A	572	ASP	11	−7.135	−7.580	
A	573	ALA	20	−7.600	−9.026	
A	574	VAL	28	−9.304	−11.454	
A	575	ARG	13	−8.124	−8.685	
A	576	ASP	21	−8.300	−9.761	
A	577	PRO	23	−9.858	−11.369	
A	578	GLN	15	−8.669	−9.397	
A	579	THR	11	−4.777	−5.493	
A	580	LEU	9	−4.076	−4.643	
A	581	GLU	12	−3.673	−4.631	
A	582	ILE	17	−5.130	−6.495	
A	583	LEU	33	−7.114	−10.091	
A	584	ASP	11	−7.941	−8.293	
A	585	ILE	25	−10.363	−12.046	
A	586	THR	17	−12.089	−12.654	
A	587	PRO	11	−13.406	−13.130	
A	588	CYS	26	−16.950	−17.991	
A	589	SER	19	−19.859	−19.761	
A	590	PHE	13	−21.483	−20.508	
A	591	GLY	23	−23.844	−23.747	
A	592	GLY	13	−24.545	−23.217	
A	593	VAL	30	−27.539	−27.822	
A	594	SER	24	−26.060	−25.823	
A	595	VAL	32	−28.115	−28.562	
A	596	ILE	33	−26.777	−27.492	
A	597	THR	27	−24.116	−24.447	
A	598	PRO	17	−17.462	−17.409	
A	599	GLY	7	−17.649	−16.425	
A	600	THR	17	−16.887	−16.900	
A	601	ASN	6	−13.688	−12.804	
A	602	THR	19	−11.947	−12.758	
A	603	SER	24	−15.658	−16.617	
A	604	ASN	11	−18.528	−17.662	
A	605	GLN	20	−20.586	−20.519	
A	606	VAL	33	−25.293	−26.179	
A	607	ALA	37	−27.596	−28.677	
A	608	VAL	32	−29.289	−29.601	
A	609	LEU	31	−28.293	−28.604	
A	610	TYR	26	−28.080	−27.840	
A	611	GLN	16	−25.204	−24.146	
A	612	GLY	11	−22.599	−21.265	
A	613	VAL	28	−22.590	−23.212	

A	614	ASN	4	−20.895	−18.952
A	615	CYS	18	−22.955	−22.385
A	616	THR	2	−19.069	−17.106
A	617	GLU	27	−20.551	−21.293
A	618	VAL	34	−24.170	−25.300
A	619	PRO	10	−19.074	−18.031
A	620	VAL	24	−19.406	−19.934
A	621	ALA	29	−19.953	−20.994
A	622	ILE	11	−16.834	−16.163
A	623	HIS	7	−13.879	−13.088
A	624	ALA	26	−15.076	−16.332
A	625	ASP	7	−11.623	−11.092
A	626	GLN	14	−16.085	−15.846
A	627	LEU	17	−20.062	−19.710
A	628	THR	26	−22.846	−23.209
A	629	PRO	17	−23.058	−22.361
A	630	THR	32	−24.014	−24.933
A	631	TRP	28	−25.613	−25.888
A	632	ARG	12	−20.689	−19.690
A	633	VAL	17	−19.394	−19.118
A	634	TYR	38	−22.909	−24.644
A	635	SER	16	−19.183	−18.817
A	636	THR	10	−15.311	−14.701
A	637	GLY	15	−17.740	−17.425
A	638	SER	4	−14.780	−13.541
A	639	ASN	20	−17.009	−17.353
A	640	VAL	20	−21.599	−21.415
A	641	PHE	28	−21.089	−21.884
A	642	GLN	7	−21.193	−19.561
A	643	THR	32	−21.428	−22.644
A	644	ARG	9	−19.515	−18.306
A	645	ALA	25	−20.962	−21.427
A	646	GLY	27	−23.669	−24.052
A	647	CYS	29	−24.527	−25.041
A	648	LEU	30	−27.250	−27.566
A	649	ILE	30	−26.365	−26.783
A	650	GLY	26	−24.236	−24.439
A	651	ALA	38	−21.330	−23.247
A	652	GLU	14	−16.588	−16.290
A	653	HIS	16	−15.914	−15.924
A	654	VAL	26	−13.804	−15.206
A	655	ASN	0	−10.252	−9.073
A	656	ASN	11	−9.009	−9.238
A	657	SER	9	−11.242	−10.984
A	658	TYR	19	−12.007	−12.811
A	659	GLU	3	−12.461	−11.373
A	660	CYS	14	−14.970	−14.858
A	661	ASP	21	−16.891	−17.364
A	662	ILE	29	−19.315	−20.429
A	663	PRO	3	−18.807	−16.989

A	664	ILE	41	-21.032	-23.328	
A	665	GLY	22	-19.403	-19.702	
A	666	ALA	12	-17.556	-16.917	
A	667	GLY	10	-16.631	-15.869	
A	668	ILE	29	-19.234	-20.357	
A	669	CYS	17	-19.479	-19.194	
A	670	ALA	37	-20.830	-22.689	
A	671	SER	16	-17.902	-17.683	
A	672	TYR	22	-14.490	-15.353	
A	673	GLN	17	-10.745	-11.464	
A	674	THR	9	-5.841	-6.204	
A	675	GLN	19	-6.463	-7.904	
A	676	THR	12	-2.974	-4.012	
A	677	ASN	2	-0.295	-0.491	<=B
A	678	SER	5	2.325	1.483	<=B
A	679	PRO	0	2.857	2.528	<=B
A	680	ARG	0	2.950	2.611	<=B
A	681	ARG	9	2.182	0.896	<=B
A	682	ALA	4	1.550	0.912	<=B
A	683	ARG	0	1.250	1.106	<=B
A	684	SER	9	1.588	0.371	<=B
A	685	VAL	4	-0.742	-1.117	<=B
A	686	ALA	4	-2.642	-2.798	<=B
A	687	SER	11	-4.597	-5.334	
A	688	GLN	16	-7.408	-8.396	
A	689	SER	20	-12.223	-13.118	
A	690	VAL	36	-18.057	-20.121	
A	691	ILE	19	-16.621	-16.895	
A	692	ALA	29	-19.256	-20.377	
A	693	TYR	20	-17.262	-17.577	
A	694	THR	7	-15.334	-14.376	
A	695	MET	16	-14.452	-14.630	
A	696	SER	10	-10.564	-10.499	
A	697	LEU	4	-9.072	-8.489	
A	698	GLY	3	-7.654	-7.119	
A	699	ALA	2	-5.855	-5.412	
A	700	GLU	5	-4.785	-4.809	
A	701	ASN	6	-2.298	-2.724	<=B
A	702	SER	1	-1.683	-1.604	<=B
A	703	VAL	8	-2.898	-3.485	<=B
A	704	ALA	10	-3.947	-4.643	
A	705	TYR	3	-4.154	-4.021	
A	706	SER	12	-5.496	-6.244	
A	707	ASN	5	-6.062	-5.940	
A	708	ASN	13	-7.059	-7.742	
A	709	SER	8	-6.219	-6.424	
A	710	ILE	24	-7.663	-9.542	
A	711	ALA	12	-3.495	-4.473	
A	712	ILE	26	-3.405	-6.003	
A	713	PRO	18	-3.964	-5.578	

A	714	THR	8	-2.996	-3.571	<=B
A	715	ASN	7	-4.042	-4.382	
A	716	PHE	36	-8.338	-11.519	
A	717	THR	13	-9.034	-9.490	
A	718	ILE	30	-13.078	-15.024	
A	719	SER	18	-18.075	-18.066	
A	720	VAL	31	-23.922	-24.736	
A	721	THR	19	-25.268	-24.547	
A	722	THR	31	-26.840	-27.318	
A	723	GLU	28	-27.169	-27.265	
A	724	ILE	22	-26.015	-25.553	
A	725	LEU	31	-26.677	-27.175	
A	726	PRO	24	-26.537	-26.246	
A	727	VAL	33	-26.549	-27.291	
A	728	SER	33	-25.301	-26.187	
A	729	MET	34	-22.561	-23.876	
A	730	THR	31	-24.467	-25.218	
A	731	LYS	21	-24.388	-23.998	
A	732	THR	35	-24.932	-26.090	
A	733	SER	15	-25.599	-24.380	
A	734	VAL	40	-28.298	-29.644	
A	735	ASP	17	-27.556	-26.342	
A	736	CYS	25	-28.805	-28.367	
A	737	THR	14	-28.021	-26.408	
A	738	MET	13	-28.256	-26.502	
A	739	TYR	33	-30.435	-30.730	
A	740	ILE	34	-29.228	-29.777	
A	741	CYS	22	-27.970	-27.284	
A	742	GLY	23	-26.543	-26.136	
A	743	ASP	6	-21.675	-19.873	
A	744	SER	28	-19.420	-20.407	
A	745	THR	3	-17.048	-15.433	
A	746	GLU	21	-17.553	-17.949	
A	747	CYS	29	-21.245	-22.137	
A	748	SER	9	-21.160	-19.761	
A	749	ASN	9	-17.046	-16.121	
A	750	LEU	28	-19.558	-20.529	
A	751	LEU	27	-22.280	-22.823	
A	752	LEU	7	-19.213	-17.809	
A	753	GLN	13	-16.358	-15.972	
A	754	TYR	27	-18.283	-19.285	
A	755	GLY	0	-16.420	-14.532	
A	756	SER	3	-16.029	-14.530	
A	757	PHE	26	-21.515	-22.031	
A	758	CYS	24	-24.344	-24.304	
A	759	THR	5	-19.982	-18.259	
A	760	GLN	13	-18.240	-17.638	
A	761	LEU	29	-22.858	-23.564	
A	762	ASN	15	-22.432	-21.578	
A	763	ARG	5	-17.810	-16.337	

A	764	ALA	22	-17.107	-17.669	
A	765	LEU	27	-21.937	-22.520	
A	766	THR	8	-18.879	-17.628	
A	767	GLY	16	-16.480	-16.425	
A	768	ILE	28	-18.999	-20.034	
A	769	ALA	18	-21.633	-21.215	
A	770	VAL	6	-17.052	-15.781	
A	771	GLU	19	-16.408	-16.706	
A	772	GLN	33	-19.212	-20.798	
A	773	ASP	17	-17.598	-17.529	
A	774	LYS	14	-15.759	-15.557	
A	775	ASN	31	-21.619	-22.698	
A	776	THR	27	-23.020	-23.478	
A	777	GLN	9	-20.572	-19.241	
A	778	GLU	21	-20.607	-20.652	
A	779	VAL	39	-25.670	-27.203	
A	780	PHE	33	-24.810	-25.752	
A	781	ALA	14	-19.895	-19.217	
A	782	GLN	34	-20.495	-22.048	
A	783	VAL	31	-17.289	-18.866	
A	784	LYS	3	-12.243	-11.180	
A	785	GLN	17	-12.259	-12.804	
A	786	ILE	11	-11.062	-11.055	
A	787	TYR	29	-13.076	-14.907	
A	788	LYS	5	-10.321	-9.709	
A	789	THR	31	-11.473	-13.719	
A	790	PRO	17	-4.763	-6.171	
A	791	PRO	0	-1.447	-1.281	<=B
A	792	ILE	3	-1.830	-1.964	<=B
A	793	LYS	13	-6.079	-6.875	
A	794	ASP	6	-6.673	-6.596	
A	795	PHE	27	-10.275	-12.199	
A	796	GLY	21	-9.290	-10.637	
A	797	GLY	17	-7.585	-8.667	
A	798	PHE	32	-13.688	-15.794	
A	799	ASN	17	-13.160	-13.602	
A	800	PHE	32	-16.761	-18.514	
A	801	SER	13	-10.980	-11.212	
A	802	GLN	24	-13.699	-14.884	
A	803	ILE	39	-20.290	-22.442	
A	804	LEU	21	-16.488	-17.007	
A	805	PRO	28	-11.997	-13.838	
A	806	ASP	14	-5.996	-6.917	
A	807	PRO	5	-1.442	-1.851	<=B
A	808	SER	4	0.936	0.368	<=B
A	809	LYS	20	-2.131	-4.186	
A	810	PRO	0	-1.495	-1.323	<=B
A	811	SER	21	-5.822	-7.567	
A	812	LYS	15	-6.893	-7.826	
A	813	ARG	22	-13.771	-14.717	

A	814	SER	33	−17.295	−19.101
A	815	PHE	14	−14.526	−14.466
A	816	ILE	35	−20.885	−22.508
A	817	GLU	33	−20.821	−22.221
A	818	ASP	15	−14.980	−14.982
A	819	LEU	26	−17.050	−18.079
A	820	LEU	35	−21.130	−22.725
A	821	PHE	21	−17.078	−17.529
A	822	ASN	14	−13.995	−13.995
A	823	LYS	29	−14.721	−16.363
A	824	VAL	38	−16.339	−18.830
A	825	THR	5	−18.642	−17.073
A	826	LEU	23	−22.021	−22.134
A	827	ALA	25	−22.615	−22.889
A	828	ASP	27	−21.150	−21.823
A	829	ALA	14	−20.303	−19.578
A	830	GLY	23	−17.230	−17.894
A	831	PHE	9	−13.421	−12.912
A	832	ILE	3	−13.908	−12.654
A	833	LYS	24	−13.433	−14.648
A	834	GLN	3	−9.798	−9.016
A	835	TYR	1	−11.390	−10.196
A	836	GLY	1	−8.361	−7.514
A	837	ASP	8	−10.934	−10.596
A	838	CYS	16	−15.830	−15.849
A	839	LEU	4	−12.372	−11.409
A	840	GLY	5	−8.013	−7.667
A	841	ASP	2	−8.826	−8.041
A	842	ILE	12	−12.857	−12.758
A	843	ALA	10	−15.441	−14.815
A	844	ALA	13	−15.463	−15.179
A	845	ARG	11	−17.379	−16.645
A	846	ASP	21	−18.355	−18.659
A	847	LEU	18	−21.518	−21.114
A	848	ILE	24	−22.637	−22.793
A	849	CYS	15	−20.941	−20.258
A	850	ALA	24	−24.590	−24.522
A	851	GLN	28	−26.543	−26.711
A	852	LYS	23	−26.155	−25.792
A	853	PHE	17	−26.274	−25.207
A	854	ASN	25	−29.059	−28.592
A	855	GLY	26	−28.896	−28.563
A	856	LEU	30	−29.662	−29.701
A	857	THR	18	−27.049	−26.009
A	858	VAL	29	−23.213	−23.879
A	859	LEU	19	−23.178	−22.697
A	860	PRO	11	−18.410	−17.558
A	861	PRO	28	−17.490	−18.699
A	862	LEU	18	−13.253	−13.798
A	863	LEU	29	−15.203	−16.789

A	864	THR	8	−12.946	−12.377	
A	865	ASP	24	−15.972	−16.896	
A	866	GLU	8	−11.920	−11.469	
A	867	MET	14	−14.383	−14.339	
A	868	ILE	31	−20.825	−21.995	
A	869	ALA	23	−18.850	−19.327	
A	870	GLN	11	−15.695	−15.155	
A	871	TYR	27	−20.508	−21.255	
A	872	THR	39	−23.397	−25.191	
A	873	SER	24	−19.072	−19.639	
A	874	ALA	22	−18.204	−18.640	
A	875	LEU	36	−24.397	−25.731	
A	876	LEU	32	−23.736	−24.686	
A	877	ALA	25	−19.940	−20.522	
A	878	GLY	35	−22.118	−23.600	
A	879	THR	33	−23.779	−24.839	
A	880	ILE	29	−20.370	−21.363	
A	881	THR	19	−16.355	−16.659	
A	882	SER	27	−16.822	−17.992	
A	883	GLY	17	−20.523	−20.118	
A	884	TRP	22	−21.515	−21.571	
A	885	THR	15	−16.522	−16.347	
A	886	PHE	31	−17.901	−19.408	
A	887	GLY	25	−19.685	−20.297	
A	888	ALA	13	−14.087	−13.962	
A	889	GLY	4	−11.110	−10.292	
A	890	ALA	2	−11.761	−10.638	
A	891	ALA	22	−13.766	−14.713	
A	892	LEU	11	−11.754	−11.668	
A	893	GLN	10	−11.141	−11.010	
A	894	ILE	19	−11.095	−12.004	
A	895	PRO	11	−11.387	−11.342	
A	896	PHE	26	−14.568	−15.882	
A	897	ALA	19	−13.001	−13.691	
A	898	MET	9	−11.242	−10.984	
A	899	GLN	31	−13.892	−15.860	
A	900	MET	28	−14.551	−16.098	
A	901	ALA	15	−10.721	−11.213	
A	902	TYR	17	−11.040	−11.726	
A	903	ARG	38	−14.981	−17.628	
A	904	PHE	27	−10.981	−12.823	
A	905	ASN	10	−8.809	−8.946	
A	906	GLY	30	−11.074	−13.250	
A	907	ILE	33	−9.655	−12.339	
A	908	GLY	21	−6.686	−8.332	
A	909	VAL	36	−7.628	−10.891	
A	910	THR	19	−3.714	−5.472	
A	911	GLN	11	−5.127	−5.802	
A	912	ASN	7	−1.213	−1.879	<=B
A	913	VAL	29	−3.247	−6.208	

A	914	LEU	26	−7.410	−9.548	
A	915	TYR	9	−2.637	−3.369	<=B
A	916	GLU	11	−2.043	−3.073	<=B
A	917	ASN	23	−2.785	−5.109	
A	918	GLN	19	−5.065	−6.668	
A	919	LYS	1	−4.489	−4.087	
A	920	LEU	14	−4.180	−5.309	
A	921	ILE	28	−8.951	−11.141	
A	922	ALA	20	−10.811	−11.868	
A	923	ASN	7	−7.569	−7.504	
A	924	GLN	23	−11.133	−12.498	
A	925	PHE	30	−15.073	−16.790	
A	926	ASN	12	−14.175	−13.925	
A	927	SER	11	−12.961	−12.735	
A	928	ALA	28	−17.507	−18.714	
A	929	ILE	25	−19.119	−19.795	
A	930	GLY	10	−15.617	−14.971	
A	931	LYS	14	−14.935	−14.828	
A	932	ILE	35	−19.427	−21.218	
A	933	GLN	15	−15.579	−15.512	
A	934	ASP	8	−11.796	−11.360	
A	935	SER	18	−13.969	−14.432	
A	936	LEU	31	−15.240	−17.053	
A	937	SER	8	−10.132	−9.886	
A	938	SER	6	−8.500	−8.213	
A	939	THR	10	−10.345	−10.305	
A	940	ALA	3	−10.780	−9.885	
A	941	SER	4	−14.965	−13.704	
A	942	ALA	27	−19.419	−20.290	
A	943	LEU	33	−20.513	−21.949	
A	944	GLY	7	−18.258	−16.963	
A	945	LYS	21	−19.442	−19.621	
A	946	LEU	32	−23.898	−24.830	
A	947	GLN	12	−19.205	−18.376	
A	948	ASP	15	−20.550	−19.912	
A	949	VAL	35	−21.751	−23.274	
A	950	VAL	22	−23.927	−23.706	
A	951	ASN	11	−21.883	−20.632	
A	952	GLN	23	−20.135	−20.465	
A	953	ASN	36	−24.589	−25.901	
A	954	ALA	17	−24.186	−23.360	
A	955	GLN	11	−23.763	−22.296	
A	956	ALA	29	−24.351	−24.886	
A	957	LEU	30	−26.578	−26.972	
A	958	ASN	15	−26.565	−25.235	
A	959	THR	19	−26.194	−25.367	
A	960	LEU	38	−29.446	−30.429	
A	961	VAL	20	−29.391	−28.311	
A	962	LYS	12	−26.656	−24.971	
A	963	GLN	27	−25.502	−25.674	

A	964	LEU	28	−27.813	−27.835
A	965	SER	11	−23.642	−22.189
A	966	SER	21	−21.138	−21.122
A	967	ASN	4	−16.894	−15.411
A	968	PHE	23	−15.846	−16.669
A	969	GLY	7	−10.999	−10.539
A	970	ALA	30	−13.734	−15.604
A	971	ILE	13	−10.339	−10.645
A	972	SER	12	−13.126	−12.997
A	973	SER	9	−20.059	−18.787
A	974	VAL	4	−20.888	−18.945
A	975	LEU	24	−21.822	−22.072
A	976	ASN	4	−18.244	−16.606
A	977	ASP	11	−12.146	−12.015
A	978	ILE	31	−14.985	−16.827
A	979	LEU	17	−13.662	−14.046
A	980	SER	7	−10.257	−9.882
A	981	ARG	12	−9.366	−9.669
A	982	LEU	20	−10.706	−11.775
A	983	ASP	1	−9.804	−8.792
A	984	LYS	2	−10.241	−9.293
A	985	VAL	0	−10.341	−9.152
A	986	GLU	10	−11.231	−11.089
A	987	ALA	20	−14.580	−15.203
A	988	GLU	7	−15.387	−14.422
A	989	VAL	6	−14.582	−13.595
A	990	GLN	22	−15.842	−16.551
A	991	ILE	31	−19.847	−21.130
A	992	ASP	10	−19.201	−18.143
A	993	ARG	18	−18.290	−18.256
A	994	LEU	35	−21.525	−23.074
A	995	ILE	23	−23.307	−23.272
A	996	THR	10	−20.756	−19.519
A	997	GLY	22	−20.863	−20.994
A	998	ARG	34	−24.742	−25.806
A	999	LEU	21	−25.472	−24.958
A	1000	GLN	9	−21.025	−19.642
A	1001	SER	32	−23.423	−24.410
A	1002	LEU	32	−25.911	−26.611
A	1003	GLN	10	−21.704	−20.358
A	1004	THR	19	−19.972	−19.860
A	1005	TYR	39	−22.986	−24.828
A	1006	VAL	25	−22.336	−22.642
A	1007	THR	7	−15.351	−14.390
A	1008	GLN	20	−14.944	−15.525
A	1009	GLN	38	−21.432	−23.337
A	1010	LEU	14	−16.247	−15.988
A	1011	ILE	8	−13.268	−12.663
A	1012	ARG	28	−17.498	−18.706
A	1013	ALA	22	−19.200	−19.522

A	1014	ALA	6	−15.804	−14.677
A	1015	GLU	17	−16.533	−16.587
A	1016	ILE	34	−20.524	−22.074
A	1017	ARG	13	−20.435	−19.580
A	1018	ALA	8	−17.187	−16.131
A	1019	SER	24	−22.158	−22.370
A	1020	ALA	27	−22.883	−23.356
A	1021	ASN	7	−19.079	−17.690
A	1022	LEU	21	−20.423	−20.489
A	1023	ALA	35	−25.564	−26.649
A	1024	ALA	19	−23.943	−23.374
A	1025	THR	14	−21.765	−20.872
A	1026	LYS	35	−26.232	−27.241
A	1027	MET	34	−29.217	−29.767
A	1028	SER	12	−22.832	−21.586
A	1029	GLU	16	−23.294	−22.455
A	1030	CYS	38	−28.350	−29.460
A	1031	VAL	33	−28.636	−29.138
A	1032	LEU	25	−26.043	−25.923
A	1033	GLY	15	−23.949	−22.920
A	1034	GLN	24	−22.694	−22.844
A	1035	SER	25	−21.463	−21.870
A	1036	LYS	9	−13.209	−12.725
A	1037	ARG	16	−13.007	−13.351
A	1038	VAL	2	−12.535	−11.324
A	1039	ASP	1	−16.223	−14.473
A	1040	PHE	21	−19.176	−19.386
A	1041	CYS	33	−26.045	−26.845
A	1042	GLY	27	−24.193	−24.516
A	1043	LYS	2	−19.304	−17.314
A	1044	GLY	26	−14.603	−15.913
A	1045	TYR	21	−13.057	−13.971
A	1046	HIS	27	−19.865	−20.686
A	1047	LEU	36	−20.405	−22.198
A	1048	MET	34	−26.748	−27.582
A	1049	SER	37	−28.820	−29.761
A	1050	PHE	35	−28.486	−29.235
A	1051	PRO	42	−28.580	−30.124
A	1052	GLN	36	−24.898	−26.175
A	1053	SER	29	−25.693	−26.073
A	1054	ALA	33	−24.589	−25.557
A	1055	PRO	25	−24.005	−24.119
A	1056	HIS	38	−26.393	−27.728
A	1057	GLY	32	−26.558	−27.184
A	1058	VAL	44	−28.030	−29.866
A	1059	VAL	35	−27.080	−27.990
A	1060	PHE	36	−30.637	−31.254
A	1061	LEU	36	−29.064	−29.862
A	1062	HIS	28	−28.779	−28.689
A	1063	VAL	36	−25.703	−26.887

A	1064	THR	21	−20.281	−20.364	
A	1065	TYR	32	−13.293	−15.445	
A	1066	VAL	17	−10.872	−11.577	
A	1067	PRO	17	−8.167	−9.183	
A	1068	ALA	12	−6.217	−6.882	
A	1069	GLN	6	−3.309	−3.619	<=B
A	1070	GLU	15	−3.179	−4.538	
A	1071	LYS	16	−3.005	−4.499	
A	1072	ASN	9	−2.941	−3.638	<=B
A	1073	PHE	30	−5.526	−8.340	
A	1074	THR	12	−6.594	−7.215	
A	1075	THR	25	−8.164	−10.100	
A	1076	ALA	27	−9.348	−11.378	
A	1077	PRO	12	−9.875	−10.119	
A	1078	ALA	20	−10.237	−11.359	
A	1079	ILE	30	−9.348	−11.723	
A	1080	CYS	13	−9.349	−9.769	
A	1081	HIS	22	−7.680	−9.327	
A	1082	ASP	13	−7.502	−8.134	
A	1083	GLY	0	−8.175	−7.235	
A	1084	LYS	13	−8.544	−9.056	
A	1085	ALA	15	−9.274	−9.933	
A	1086	HIS	29	−8.752	−11.081	
A	1087	PHE	13	−8.556	−9.067	
A	1088	PRO	20	−5.941	−7.558	
A	1089	ARG	11	−5.581	−6.204	
A	1090	GLU	16	−4.253	−5.604	
A	1091	GLY	31	−5.681	−8.593	
A	1092	VAL	22	−7.520	−9.185	
A	1093	PHE	33	−8.248	−11.095	
A	1094	VAL	24	−7.267	−9.191	
A	1095	SER	18	−6.228	−7.582	
A	1096	ASN	12	−3.619	−4.583	
A	1097	GLY	2	−4.131	−3.886	
A	1098	THR	0	−3.899	−3.451	<=B
A	1099	HIS	9	−2.983	−3.675	<=B
A	1100	TRP	26	−5.483	−7.842	
A	1101	PHE	19	−4.884	−6.507	
A	1102	VAL	24	−6.152	−8.204	
A	1103	THR	26	−5.645	−7.986	
A	1104	GLN	18	−3.851	−5.478	
A	1105	ARG	13	−5.610	−6.460	
A	1106	ASN	23	−4.801	−6.894	
A	1107	PHE	22	−4.481	−6.496	
A	1108	TYR	21	−3.522	−5.532	
A	1109	GLU	20	−1.613	−3.727	
A	1110	PRO	20	−2.889	−4.856	
A	1111	GLN	23	−2.214	−4.604	
A	1112	ILE	7	−3.318	−3.742	
A	1113	ILE	31	−5.127	−8.102	

A	1114	THR	10	-5.178	-5.733	
A	1115	THR	8	-4.699	-5.079	
A	1116	ASP	8	-3.101	-3.664	<=B
A	1117	ASN	25	-5.403	-7.657	
A	1118	THR	32	-6.370	-9.317	
A	1119	PHE	4	-7.123	-6.764	
A	1120	VAL	15	-7.814	-8.640	
A	1121	SER	8	-8.296	-8.262	
A	1122	GLY	9	-8.757	-8.785	
A	1123	ASN	3	-8.640	-7.992	
A	1124	CYS	12	-10.652	-10.807	
A	1125	ASP	0	-9.607	-8.503	
A	1126	VAL	8	-9.385	-9.226	
A	1127	VAL	23	-10.701	-12.115	
A	1128	ILE	2	-10.127	-9.192	
A	1129	GLY	11	-10.186	-10.280	
A	1130	ILE	23	-10.565	-11.995	
A	1131	VAL	21	-9.501	-10.824	
A	1132	ASN	2	-8.068	-7.370	
A	1133	ASN	33	-6.903	-9.904	
A	1134	THR	4	-6.322	-6.055	
A	1135	VAL	25	-6.852	-8.939	
A	1136	TYR	14	-3.954	-5.109	
A	1137	ASP	11	-3.138	-4.042	
A	1138	PRO	8	-1.025	-1.827	<=B
A	1139	LEU	3	-0.666	-0.934	<=B
A	1140	GLN	7	-0.239	-1.017	<=B
A	1141	PRO	6	0.809	0.026	<=B
A	1142	GLU	5	0.683	0.030	<=B
A	1143	LEU	5	0.971	0.284	<=B
A	1144	ASP	6	1.982	1.064	<=B
A	1145	SER	5	1.069	0.371	<=B
A	1146	PHE	6	1.135	0.315	<=B
A	1147	LYS	6	1.733	0.844	<=B
A	1148	GLU	5	2.624	1.747	<=B
A	1149	GLU	6	2.409	1.442	<=B
A	1150	LEU	7	2.170	1.116	<=B
A	1151	ASP	6	2.853	1.835	<=B
A	1152	LYS	5	2.859	1.955	<=B
A	1153	TYR	5	2.673	1.791	<=B
A	1154	PHE	6	3.001	1.966	<=B
A	1155	LYS	6	3.278	2.211	<=B
A	1156	ASN	6	3.173	2.118	<=B
A	1157	HIS	7	2.975	1.828	<=B
A	1158	THR	5	3.209	2.265	<=B
A	1159	SER	5	3.114	2.181	<=B
A	1160	PRO	4	3.212	2.383	<=B

Identified 97 B-Cell epitope residues out of 1147 total residues