A	14	GLN	15	−14.750	−14.779
A	15	CYS	11	−15.830	−15.274
A	16	VAL	23	−12.565	−13.765
A	17	ASN	2	−11.092	−10.046
A	18	LEU	34	−11.059	−13.697
A	19	THR	6	−8.123	−7.879
A	20	THR	20	−7.043	−8.533
A	21	ARG	26	−6.887	−9.085
A	22	THR	16	−6.290	−7.407
A	23	GLN	1	−4.867	−4.422
A	24	LEU	20	−4.867	−6.608
A	25	PRO	3	−5.079	−4.840
A	26	PRO	8	−8.080	−8.071
A	27	ALA	19	−8.867	−10.032
A	28	TYR	9	−10.772	−10.568
A	29	THR	21	−12.327	−13.325
A	30	ASN	9	−15.186	−14.474
A	31	SER	31	−16.578	−18.236
A	32	PHE	14	−16.694	−16.384
A	33	THR	17	−17.867	−17.768
A	34	ARG	34	−17.646	−19.527
A	35	GLY	40	−20.492	−22.735
A	36	VAL	30	−19.851	−21.018
A	37	TYR	35	−16.359	−18.503
A	38	TYR	21	−14.332	−15.099
A	39	PRO	25	−14.505	−15.712
A	40	ASP	12	−11.019	−11.131
A	41	LYS	7	−6.717	−6.749
A	42	VAL	9	−12.036	−11.687
A	43	PHE	5	−10.925	−10.244
A	44	ARG	23	−14.428	−15.414
A	45	SER	11	−14.326	−13.943
A	46	SER	12	−15.768	−15.335
A	47	VAL	18	−18.903	−18.799
A	48	LEU	20	−19.832	−19.851
A	49	HIS	26	−19.395	−20.155
A	50	SER	16	−19.150	−18.788
A	51	THR	22	−17.429	−17.955
A	52	GLN	7	−14.990	−14.071
A	53	ASP	23	−14.225	−15.234
A	54	LEU	21	−16.609	−17.114
A	55	PHE	33	−19.438	−20.998
A	56	LEU	34	−18.957	−20.687
A	57	PRO	22	−20.664	−20.817
A	58	PHE	26	−20.933	−21.516
A	59	PHE	12	−19.360	−18.513
A	60	SER	26	−17.318	−18.316
A	61	ASN	5	−15.668	−14.441
A	62	VAL	36	−15.846	−18.164
A	63	THR	21	−12.825	−13.765

A	64	TRP	21	-13.166	-14.067	
A	65	PHE	23	-14.611	-15.576	
A	66	HIS	21	-12.329	-13.326	
A	67	ALA	29	-11.908	-13.874	
A	68	ILE	15	-7.438	-8.308	
A	69	HIS	25	-3.591	-6.053	
A	70	VAL	11	-2.276	-3.279	<=B
A	71	SER	7	-1.262	-1.922	<=B
A	72	GLY	1	-0.567	-0.617	<=B
A	73	THR	11	-0.344	-1.569	<=B
A	74	ASN	6	-0.294	-0.950	<=B
A	75	GLY	11	-1.627	-2.705	<=B
A	76	THR	29	-4.154	-7.011	
A	77	LYS	13	-6.624	-7.357	
A	78	ARG	16	-8.923	-9.737	
A	79	PHE	29	-12.863	-14.719	
A	80	ALA	22	-16.101	-16.779	
A	81	ASN	33	-19.487	-21.041	
A	82	PRO	20	-18.290	-18.487	
A	83	VAL	18	-19.572	-19.391	
A	84	LEU	27	-19.441	-20.310	
A	85	PRO	8	-13.329	-12.716	
A	86	PHE	29	-17.137	-18.501	
A	87	ASN	3	-12.625	-11.518	
A	88	ASP	11	-13.285	-13.022	
A	89	GLY	27	-19.445	-20.314	
A	90	VAL	25	-21.686	-22.067	
A	91	TYR	39	-20.744	-22.843	
A	92	PHE	30	-23.131	-23.921	
A	93	ALA	42	-18.708	-21.387	
A	94	SER	22	-16.573	-17.197	
A	95	THR	25	-12.314	-13.773	
A	96	GLU	25	-10.981	-12.594	
A	97	LYS	21	-4.061	-6.009	
A	98	SER	27	-3.690	-6.371	
A	99	ASN	21	-10.892	-12.054	
A	100	ILE	34	-14.468	-16.714	
A	101	ILE	30	-20.032	-21.179	
A	102	ARG	33	-22.247	-23.483	
A	103	GLY	31	-26.128	-26.688	
A	104	TRP	27	-27.867	-27.767	
A	105	ILE	32	-26.920	-27.505	
A	106	PHE	36	-24.199	-25.556	
A	107	GLY	32	-21.031	-22.293	
A	108	THR	11	-15.246	-14.758	
A	109	THR	13	-13.316	-13.279	
A	110	LEU	26	-17.761	-18.709	
A	111	ASP	5	-14.004	-12.969	
A	112	SER	16	-14.397	-14.581	
A	113	LYS	7	-9.875	-9.544	

A	114	THR	13	−12.249	−12.335	
A	115	GLN	17	−15.811	−15.948	
A	116	SER	33	−19.794	−21.313	
A	117	LEU	28	−21.764	−22.482	
A	118	LEU	38	−25.506	−26.943	
A	119	ILE	24	−25.853	−25.640	
A	120	VAL	27	−24.866	−25.112	
A	121	ASN	14	−20.826	−20.041	
A	122	ASN	25	−18.239	−19.016	
A	123	ALA	15	−12.014	−12.357	
A	124	THR	7	−9.429	−9.150	
A	125	ASN	12	−14.751	−14.434	
A	126	VAL	13	−18.777	−18.112	
A	127	VAL	18	−19.706	−19.510	
A	128	ILE	17	−20.249	−19.875	
A	129	LYS	21	−20.216	−20.306	
A	130	VAL	18	−19.069	−18.946	
A	131	CYS	21	−17.935	−18.288	
A	132	GLU	5	−15.338	−14.149	
A	133	PHE	33	−18.628	−20.280	
A	134	GLN	7	−16.839	−15.708	
A	135	PHE	35	−20.536	−22.199	
A	136	CYS	24	−18.440	−19.080	
A	137	ASN	5	−14.979	−13.832	
A	138	ASP	19	−17.584	−17.747	
A	139	PRO	29	−21.993	−22.799	
A	140	PHE	30	−21.203	−22.215	
A	141	LEU	28	−17.623	−18.816	
A	142	GLY	24	−11.445	−12.889	
A	143	VAL	26	−6.118	−8.404	
A	144	TYR	12	−3.473	−4.454	
A	145	TYR	22	−0.364	−2.852	<=B
A	146	HIS	9	2.116	0.838	<=B
A	147	LYS	12	2.501	0.833	<=B
A	148	ASN	0	3.903	3.454	<=B
A	149	ASN	11	3.034	1.420	<=B
A	150	LYS	0	3.329	2.946	<=B
A	151	SER	9	2.557	1.228	<=B
A	152	TRP	21	0.403	−2.059	<=B
A	153	MET	6	−3.048	−3.388	<=B
A	154	GLU	24	−6.670	−8.663	
A	155	SER	21	−7.069	−8.671	
A	156	GLU	23	−12.395	−13.614	
A	157	PHE	19	−17.015	−17.243	
A	158	ARG	22	−19.407	−19.705	
A	159	VAL	31	−24.410	−25.168	
A	160	TYR	31	−20.981	−22.133	
A	161	SER	11	−16.952	−16.268	
A	162	SER	10	−15.770	−15.106	
A	163	ALA	17	−17.142	−17.125	

A	164	ASN	14	−14.860	−14.761	
A	165	ASN	12	−12.877	−12.776	
A	166	CYS	16	−15.960	−15.965	
A	167	THR	14	−13.795	−13.818	
A	168	PHE	19	−16.248	−16.564	
A	169	GLU	8	−16.745	−15.739	
A	170	TYR	15	−15.427	−15.377	
A	171	VAL	9	−15.010	−14.319	
A	172	SER	17	−12.063	−12.631	
A	173	GLN	0	−8.882	−7.861	
A	174	PRO	1	−7.892	−7.099	
A	175	PHE	12	−4.052	−4.966	
A	176	LEU	7	−2.927	−3.395	<=B
A	177	MET	18	−3.941	−5.558	
A	178	ASP	9	−2.660	−3.389	<=B
A	179	LEU	28	−4.808	−7.475	
A	180	GLU	10	−1.075	−2.101	<=B
A	181	GLY	17	0.287	−1.701	<=B
A	182	LYS	13	1.431	−0.229	<=B
A	183	GLN	14	1.626	−0.171	<=B
A	184	GLY	1	−0.093	−0.197	<=B
A	185	ASN	9	−2.472	−3.223	<=B
A	186	PHE	29	−4.351	−7.186	
A	187	LYS	9	−4.559	−5.069	
A	188	ASN	24	−8.820	−10.566	
A	189	LEU	25	−11.622	−13.161	
A	190	ARG	17	−15.491	−15.665	
A	191	GLU	33	−18.604	−20.260	
A	192	PHE	26	−21.636	−22.138	
A	193	VAL	29	−20.255	−21.260	
A	194	PHE	34	−22.657	−23.961	
A	195	LYS	25	−20.407	−20.935	
A	196	ASN	22	−14.207	−15.103	
A	197	ILE	18	−11.284	−12.057	
A	198	ASP	1	−7.025	−6.332	
A	199	GLY	3	−10.770	−9.877	
A	200	TYR	10	−13.267	−12.891	
A	201	PHE	28	−15.620	−17.043	
A	202	LYS	22	−17.172	−17.727	
A	203	ILE	22	−18.278	−18.706	
A	204	TYR	27	−16.716	−17.899	
A	205	SER	20	−15.767	−16.254	
A	206	LYS	23	−13.786	−14.845	
A	207	HIS	7	−9.908	−9.574	
A	208	THR	18	−7.525	−8.729	
A	209	PRO	0	−3.935	−3.482	<=B
A	210	ILE	27	−4.555	−7.136	
A	211	ASN	0	−3.071	−2.717	<=B
A	212	LEU	17	−5.062	−6.435	
A	213	VAL	1	−3.240	−2.983	<=B

A	214	ARG	6	−5.609	−5.654	
A	215	GLY	8	−9.203	−9.064	
A	216	LEU	31	−13.177	−15.226	
A	217	PRO	23	−10.562	−11.993	
A	218	GLN	1	−11.864	−10.615	
A	219	GLY	17	−13.245	−13.677	
A	220	PHE	20	−14.737	−15.342	
A	221	SER	20	−14.167	−14.838	
A	222	ALA	25	−15.283	−16.401	
A	223	LEU	28	−17.021	−18.283	
A	224	GLU	8	−11.892	−11.445	
A	225	PRO	14	−12.336	−12.527	
A	226	LEU	15	−11.655	−12.039	
A	227	VAL	11	−13.962	−13.622	
A	228	ASP	9	−12.310	−11.929	
A	229	LEU	31	−15.696	−17.456	
A	230	PRO	0	−11.659	−10.318	
A	231	ILE	32	−15.908	−17.758	
A	232	GLY	7	−12.841	−12.170	
A	233	ILE	39	−15.430	−18.140	
A	234	ASN	9	−14.427	−13.803	
A	235	ILE	33	−17.367	−19.165	
A	236	THR	7	−14.122	−13.303	
A	237	ARG	12	−18.859	−18.070	
A	238	PHE	33	−23.019	−24.167	
A	239	GLN	29	−24.514	−25.030	
A	240	THR	28	−26.089	−26.308	
A	241	LEU	30	−24.352	−25.002	
A	242	HIS	31	−20.764	−21.941	
A	243	ARG	32	−15.050	−16.999	
A	244	SER	39	−12.202	−15.284	
A	245	TYR	21	−8.135	−9.615	
A	246	LEU	14	−7.688	−8.414	
A	247	THR	10	−4.695	−5.305	
A	248	PRO	0	−3.371	−2.984	<=B
A	249	GLY	0	−3.873	−3.427	<=B
A	250	ASP	0	−2.081	−1.842	<=B
A	251	SER	5	−3.584	−3.746	
A	252	SER	18	−6.152	−7.514	
A	253	SER	12	−6.538	−7.166	
A	254	GLY	7	−4.277	−4.590	
A	255	TRP	29	−4.187	−7.040	
A	256	THR	18	−3.005	−4.730	
A	257	ALA	31	−8.883	−11.426	
A	258	GLY	32	−7.396	−10.225	
A	259	ALA	19	−6.691	−8.106	
A	260	ALA	32	−9.623	−12.197	
A	261	ALA	24	−13.131	−14.381	
A	262	TYR	32	−17.497	−19.165	
A	263	TYR	32	−16.303	−18.108	

A	264	VAL	26	−19.816	−20.527
A	265	GLY	31	−19.973	−21.241
A	266	TYR	14	−18.367	−17.864
A	267	LEU	31	−18.668	−20.086
A	268	GLN	22	−14.528	−15.387
A	269	PRO	7	−14.090	−13.275
A	270	ARG	31	−16.316	−18.005
A	271	THR	19	−18.129	−18.229
A	272	PHE	27	−19.609	−20.459
A	273	LEU	21	−19.666	−19.819
A	274	LEU	32	−17.747	−19.386
A	275	LYS	18	−17.006	−17.121
A	276	TYR	22	−16.295	−16.951
A	277	ASN	8	−12.027	−11.564
A	278	GLU	3	−9.999	−9.194
A	279	ASN	5	−7.342	−7.073
A	280	GLY	10	−11.376	−11.218
A	281	THR	8	−12.293	−11.799
A	282	ILE	29	−15.127	−16.722
A	283	THR	14	−13.897	−13.909
A	284	ASP	13	−15.730	−15.416
A	285	ALA	32	−18.369	−19.936
A	286	VAL	26	−19.078	−19.874
A	287	ASP	24	−21.163	−21.489
A	288	CYS	25	−22.293	−22.604
A	289	ALA	23	−25.044	−24.809
A	290	LEU	28	−24.107	−24.554
A	291	ASP	21	−24.237	−23.865
A	292	PRO	32	−26.369	−27.017
A	293	LEU	22	−26.276	−25.784
A	294	SER	23	−23.261	−23.231
A	295	GLU	26	−24.457	−24.634
A	296	THR	26	−23.737	−23.997
A	297	LYS	30	−18.638	−19.945
A	298	CYS	23	−21.095	−21.314
A	299	THR	23	−19.397	−19.812
A	300	LEU	23	−18.109	−18.671
A	301	LYS	12	−19.136	−18.315
A	302	SER	12	−19.671	−18.789
A	303	PHE	15	−17.815	−17.492
A	304	THR	5	−15.902	−14.649
A	305	VAL	30	−19.997	−21.147
A	306	GLU	7	−18.985	−17.607
A	307	LYS	17	−19.291	−19.027
A	308	GLY	11	−20.890	−19.753
A	309	ILE	29	−24.083	−24.649
A	310	TYR	27	−23.429	−23.840
A	311	GLN	8	−22.842	−21.135
A	312	THR	32	−23.423	−24.409
A	313	SER	20	−23.459	−23.061

A	314	ASN	9	−21.176	−19.776
A	315	PHE	34	−23.502	−24.709
A	316	ARG	13	−19.871	−19.081
A	317	VAL	29	−19.552	−20.639
A	318	GLN	12	−14.966	−14.625
A	319	PRO	17	−12.745	−13.235
A	320	THR	16	−10.538	−11.166
A	321	GLU	12	−10.413	−10.596
A	322	SER	7	−12.533	−11.897
A	323	ILE	27	−12.739	−14.379
A	324	VAL	17	−14.694	−14.959
A	325	ARG	31	−13.551	−15.558
A	326	PHE	26	−13.669	−15.087
A	327	PRO	21	−12.113	−13.135
A	328	ASN	4	−11.953	−11.039
A	329	ILE	25	−14.220	−15.460
A	330	THR	1	−12.130	−10.850
A	331	ASN	10	−14.184	−13.703
A	332	LEU	12	−20.839	−19.823
A	333	CYS	33	−25.133	−26.037
A	334	PRO	17	−24.653	−23.773
A	335	PHE	18	−27.366	−26.289
A	336	GLY	5	−20.439	−18.663
A	337	GLU	15	−20.689	−20.035
A	338	VAL	30	−24.906	−25.492
A	339	PHE	25	−22.572	−22.851
A	340	ASN	8	−16.827	−15.812
A	341	ALA	21	−13.618	−14.466
A	342	THR	1	−8.795	−7.899
A	343	ARG	13	−9.675	−10.058
A	344	PHE	38	−13.483	−16.302
A	345	ALA	23	−11.219	−12.574
A	346	SER	24	−7.595	−9.482
A	347	VAL	39	−9.934	−13.276
A	348	TYR	19	−7.188	−8.546
A	349	ALA	12	−7.321	−7.859
A	350	TRP	34	−10.612	−13.302
A	351	ASN	21	−13.799	−14.627
A	352	ARG	17	−20.687	−20.263
A	353	LYS	21	−23.374	−23.101
A	354	ARG	7	−22.634	−20.836
A	355	ILE	34	−25.965	−26.889
A	356	SER	11	−22.418	−21.105
A	357	ASN	0	−17.989	−15.920
A	358	CYS	20	−20.811	−20.717
A	359	VAL	12	−22.541	−21.329
A	360	ALA	31	−26.577	−27.085
A	361	ASP	14	−24.755	−23.518
A	362	TYR	30	−27.761	−28.018
A	363	SER	9	−22.292	−20.764

A	364	VAL	13	−21.677	−20.679	
A	365	LEU	35	−25.143	−26.277	
A	366	TYR	16	−23.309	−22.469	
A	367	ASN	5	−19.127	−17.502	
A	368	SER	18	−18.215	−18.190	
A	369	ALA	0	−13.061	−11.559	
A	370	SER	19	−13.364	−14.012	
A	371	PHE	24	−17.554	−18.295	
A	372	SER	17	−13.515	−13.916	
A	373	THR	31	−17.128	−18.724	
A	374	PHE	17	−23.441	−22.700	
A	375	LYS	15	−22.371	−21.524	
A	376	CYS	18	−25.240	−24.407	
A	377	TYR	24	−21.312	−21.621	
A	378	GLY	22	−20.975	−21.093	
A	379	VAL	24	−23.121	−23.223	
A	380	SER	5	−22.175	−20.200	
A	381	PRO	15	−23.058	−22.131	
A	382	THR	0	−21.739	−19.239	
A	383	LYS	13	−22.623	−21.516	
A	384	LEU	27	−25.762	−25.904	
A	385	ASN	11	−23.747	−22.281	
A	386	ASP	5	−20.811	−18.993	
A	387	LEU	24	−23.567	−23.617	
A	388	CYS	20	−24.762	−24.214	
A	389	PHE	31	−25.289	−25.946	
A	390	THR	11	−21.684	−20.455	
A	391	ASN	6	−23.536	−21.520	
A	392	VAL	31	−27.354	−27.773	
A	393	TYR	13	−26.742	−25.162	
A	394	ALA	28	−27.429	−27.494	
A	395	ASP	26	−23.813	−24.064	
A	396	SER	22	−20.715	−20.863	
A	397	PHE	34	−14.188	−16.466	
A	398	VAL	30	−12.744	−14.729	
A	399	ILE	35	−10.063	−12.931	
A	400	ARG	25	−7.391	−9.416	
A	401	GLY	17	−8.021	−9.053	
A	402	ASP	11	−5.264	−5.924	
A	403	GLU	29	−6.215	−8.835	
A	404	VAL	23	−10.679	−12.096	
A	405	ARG	6	−10.000	−9.540	
A	406	GLN	27	−8.864	−10.950	
A	407	ILE	35	−13.375	−15.862	
A	408	ALA	11	−13.806	−13.484	
A	409	PRO	18	−10.235	−11.128	
A	410	GLY	5	−5.390	−5.345	
A	411	GLN	21	−5.162	−6.984	
A	412	THR	2	−3.529	−3.353	<=B
A	413	GLY	17	−4.403	−5.852	

A	414	ASN	18	-3.815	-5.447	
A	415	ILE	25	-7.293	-9.329	
A	416	ALA	17	-7.020	-8.168	
A	417	ASP	10	-4.342	-4.992	
A	418	TYR	23	-4.753	-6.852	
A	419	ASN	32	-7.349	-10.184	
A	420	TYR	31	-8.892	-11.435	
A	421	LYS	19	-8.307	-9.537	
A	422	LEU	32	-13.073	-15.250	
A	423	PRO	14	-9.677	-10.174	
A	424	ASP	0	-6.233	-5.516	
A	425	ASP	4	-10.573	-9.817	
A	426	PHE	27	-18.445	-19.428	
A	427	THR	14	-23.520	-22.425	
A	428	GLY	31	-27.745	-28.120	
A	429	CYS	27	-28.112	-27.984	
A	430	VAL	24	-25.842	-25.631	
A	431	ILE	31	-24.482	-25.232	
A	432	ALA	25	-17.372	-18.249	
A	433	TRP	20	-15.770	-16.257	
A	434	ASN	14	-8.945	-9.526	
A	435	SER	34	-8.669	-11.582	
A	436	ASN	20	-3.835	-5.694	
A	437	ASN	4	-3.382	-3.453	<=B
A	438	LEU	20	-5.248	-6.945	
A	439	ASP	34	-4.932	-8.275	
A	440	SER	23	-1.916	-4.340	
A	441	LYS	9	0.793	-0.334	<=B
A	442	VAL	1	2.404	2.012	<=B
A	443	GLY	1	2.533	2.127	<=B
A	444	GLY	9	1.045	-0.110	<=B
A	445	ASN	26	-1.358	-4.191	
A	446	TYR	5	-1.806	-2.173	<=B
A	447	ASN	18	-1.978	-3.821	
A	448	TYR	31	-5.968	-8.847	
A	449	LEU	19	-5.415	-6.977	
A	450	TYR	28	-6.101	-8.619	
A	451	ARG	30	-3.419	-6.476	
A	452	LEU	16	-3.747	-5.156	
A	453	PHE	14	-3.504	-4.711	
A	454	ARG	24	-2.175	-4.685	
A	455	LYS	10	-1.165	-2.181	<=B
A	456	SER	5	-0.423	-0.949	<=B
A	457	ASN	14	-0.927	-2.431	<=B
A	458	LEU	26	-3.303	-5.913	
A	459	LYS	1	-2.564	-2.384	<=B
A	460	PRO	11	-7.375	-7.792	
A	461	PHE	18	-10.743	-11.578	
A	462	GLU	16	-5.406	-6.624	
A	463	ARG	13	-5.549	-6.406	

A	464	ASP	29	−4.157	−7.014	
A	465	ILE	2	−4.211	−3.957	
A	466	SER	20	−3.173	−5.109	
A	467	THR	7	−4.247	−4.563	
A	468	GLU	10	−4.198	−4.865	
A	469	ILE	16	−5.097	−6.351	
A	470	TYR	18	−4.629	−6.167	
A	471	GLN	8	−4.348	−4.768	
A	472	ALA	10	−4.747	−5.351	
A	473	GLY	10	−3.667	−4.395	
A	474	SER	0	−3.375	−2.987	<=B
A	475	THR	9	−4.190	−4.744	
A	476	PRO	1	−3.765	−3.447	<=B
A	477	CYS	18	−4.507	−6.058	
A	478	ASN	0	−3.901	−3.452	<=B
A	479	GLY	5	−3.967	−4.086	
A	480	VAL	0	−5.142	−4.551	
A	481	LYS	1	−5.349	−4.849	
A	482	GLY	17	−5.405	−6.739	
A	483	PHE	2	−4.914	−4.579	
A	484	ASN	5	−4.676	−4.714	
A	485	CYS	20	−6.140	−7.734	
A	486	TYR	11	−5.545	−6.172	
A	487	PHE	9	−5.658	−6.043	
A	488	PRO	21	−4.809	−6.671	
A	489	LEU	21	−4.203	−6.135	
A	490	GLN	13	−3.865	−4.916	
A	491	SER	13	−3.397	−4.502	
A	492	TYR	34	−3.487	−6.996	
A	493	GLY	4	−0.600	−0.991	<=B
A	494	PHE	32	−1.972	−5.425	
A	495	GLN	7	0.244	−0.589	<=B
A	496	PRO	7	0.654	−0.226	<=B
A	497	THR	3	2.044	1.464	<=B
A	498	TYR	27	1.222	−2.024	<=B
A	499	GLY	1	0.479	0.309	<=B
A	500	VAL	7	−2.439	−2.963	<=B
A	501	GLY	4	−5.828	−5.618	
A	502	TYR	9	−2.116	−2.907	<=B
A	503	GLN	18	−4.623	−6.161	
A	504	PRO	32	−7.088	−9.953	
A	505	TYR	26	−10.245	−12.057	
A	506	ARG	27	−15.539	−16.857	
A	507	VAL	37	−19.343	−21.374	
A	508	VAL	26	−25.157	−25.254	
A	509	VAL	30	−27.336	−27.642	
A	510	LEU	37	−30.183	−30.967	
A	511	SER	22	−27.103	−26.516	
A	512	PHE	38	−28.233	−29.356	
A	513	GLU	10	−24.013	−22.401	

A	514	LEU	16	−22.885	−22.093	
A	515	LEU	10	−19.045	−18.005	
A	516	HIS	7	−15.707	−14.706	
A	517	ALA	11	−15.967	−15.395	
A	518	PRO	9	−16.812	−15.913	
A	519	ALA	29	−20.651	−21.611	
A	520	THR	11	−21.138	−19.972	
A	521	VAL	27	−25.002	−25.232	
A	522	CYS	19	−23.641	−23.107	
A	523	GLY	19	−22.258	−21.884	
A	524	PRO	13	−18.029	−17.451	
A	525	LYS	13	−14.300	−14.150	
A	526	LYS	16	−15.305	−15.385	
A	527	SER	22	−13.338	−14.334	
A	528	THR	12	−11.099	−11.203	
A	529	ASN	3	−8.681	−8.027	
A	530	LEU	21	−9.257	−10.608	
A	531	VAL	16	−6.127	−7.262	
A	532	LYS	13	−8.026	−8.598	
A	533	ASN	3	−10.748	−9.857	
A	534	LYS	13	−11.855	−11.986	
A	535	CYS	19	−13.580	−14.203	
A	536	VAL	23	−12.072	−13.329	
A	537	ASN	4	−13.076	−12.032	
A	538	PHE	32	−12.730	−14.946	
A	539	ASN	17	−14.511	−14.797	
A	540	PHE	29	−13.984	−15.711	
A	541	ASN	20	−15.069	−15.636	
A	542	GLY	18	−16.685	−16.836	
A	543	LEU	20	−13.949	−14.645	
A	544	THR	9	−13.584	−13.057	
A	545	GLY	22	−13.049	−14.078	
A	546	THR	9	−13.322	−12.825	
A	547	GLY	21	−13.159	−14.061	
A	548	VAL	14	−12.723	−12.870	
A	549	LEU	27	−10.531	−12.425	
A	550	THR	15	−9.407	−10.050	
A	551	GLU	6	−6.138	−6.122	
A	552	SER	24	−5.335	−7.482	
A	553	ASN	0	−3.216	−2.846	<=B
A	554	LYS	22	−3.605	−5.720	
A	555	LYS	1	−0.984	−0.985	<=B
A	556	PHE	23	−1.707	−4.155	
A	557	LEU	1	−0.924	−0.933	<=B
A	558	PRO	0	−1.452	−1.285	<=B
A	559	PHE	0	−3.408	−3.016	<=B
A	560	GLN	13	−3.649	−4.725	
A	561	GLN	15	−8.359	−9.123	
A	562	PHE	16	−8.076	−8.987	
A	563	GLY	23	−5.607	−7.608	

A	564	ARG	6	-5.544	-5.597	
A	565	ASP	10	-4.300	-4.956	
A	566	ILE	0	-3.673	-3.250	<=B
A	567	ALA	3	-4.335	-4.181	
A	568	ASP	0	-4.254	-3.764	
A	569	THR	10	-6.272	-6.701	
A	570	THR	26	-7.636	-9.748	
A	571	ASP	11	-7.140	-7.584	
A	572	ALA	20	-7.604	-9.030	
A	573	VAL	28	-9.304	-11.454	
A	574	ARG	13	-8.124	-8.685	
A	575	ASP	22	-8.304	-9.879	
A	576	PRO	23	-9.861	-11.372	
A	577	GLN	15	-8.671	-9.399	
A	578	THR	11	-4.775	-5.491	
A	579	LEU	9	-4.079	-4.644	
A	580	GLU	13	-3.672	-4.745	
A	581	ILE	17	-5.131	-6.496	
A	582	LEU	33	-7.117	-10.094	
A	583	ASP	11	-7.943	-8.294	
A	584	ILE	25	-10.365	-12.048	
A	585	THR	17	-12.084	-12.649	
A	586	PRO	11	-13.405	-13.128	
A	587	CYS	25	-16.945	-17.871	
A	588	SER	19	-19.854	-19.755	
A	589	PHE	13	-21.482	-20.507	
A	590	GLY	23	-23.686	-23.607	
A	591	GLY	13	-24.327	-23.024	
A	592	VAL	30	-27.239	-27.556	
A	593	SER	24	-25.675	-25.482	
A	594	VAL	32	-28.007	-28.466	
A	595	ILE	33	-26.375	-27.137	
A	596	THR	28	-23.364	-23.897	
A	597	PRO	18	-16.664	-16.818	
A	598	GLY	7	-16.972	-15.825	
A	599	THR	17	-16.486	-16.545	
A	600	ASN	6	-13.146	-12.324	
A	601	THR	19	-10.922	-11.851	
A	602	SER	24	-14.928	-15.972	
A	603	ASN	11	-17.752	-16.975	
A	604	GLN	21	-19.792	-19.931	
A	605	VAL	33	-23.987	-25.023	
A	606	ALA	37	-26.632	-27.824	
A	607	VAL	32	-28.908	-29.264	
A	608	LEU	31	-27.840	-28.203	
A	609	TYR	26	-27.755	-27.553	
A	610	GLN	16	-24.928	-23.901	
A	611	GLY	11	-22.412	-21.100	
A	612	VAL	28	-22.383	-23.029	
A	613	ASN	4	-20.705	-18.784	

A	614	CYS	18	−22.706	−22.165
A	615	THR	3	−18.904	−17.075
A	616	GLU	27	−20.546	−21.288
A	617	VAL	34	−23.980	−25.133
A	618	PRO	10	−18.920	−17.894
A	619	VAL	24	−19.404	−19.932
A	620	ALA	30	−19.947	−21.103
A	621	ILE	11	−16.834	−16.163
A	622	HIS	7	−13.893	−13.101
A	623	ALA	26	−15.069	−16.326
A	624	ASP	6	−11.919	−11.238
A	625	GLN	13	−16.091	−15.736
A	626	LEU	17	−20.054	−19.702
A	627	THR	26	−22.705	−23.084
A	628	PRO	17	−22.916	−22.236
A	629	THR	32	−23.770	−24.716
A	630	TRP	28	−25.344	−25.649
A	631	ARG	12	−20.155	−19.217
A	632	VAL	17	−19.672	−19.365
A	633	TYR	38	−23.630	−25.282
A	634	SER	16	−19.139	−18.778
A	635	THR	10	−14.903	−14.339
A	636	GLY	15	−17.220	−16.965
A	637	SER	2	−14.028	−12.645
A	638	ASN	19	−16.114	−16.446
A	639	VAL	20	−20.989	−20.875
A	640	PHE	28	−21.081	−21.877
A	641	GLN	8	−20.851	−19.373
A	642	THR	32	−21.135	−22.385
A	643	ARG	9	−19.261	−18.081
A	644	ALA	24	−20.671	−21.054
A	645	GLY	28	−23.355	−23.889
A	646	CYS	29	−24.181	−24.735
A	647	LEU	30	−27.104	−27.437
A	648	ILE	31	−25.773	−26.375
A	649	GLY	26	−22.993	−23.339
A	650	ALA	38	−20.172	−22.222
A	651	GLU	15	−15.761	−15.674
A	652	HIS	17	−15.019	−15.247
A	653	VAL	26	−12.905	−14.411
A	654	ASN	1	−9.974	−8.942
A	655	ASN	12	−8.511	−8.913
A	656	SER	9	−10.963	−10.737
A	657	TYR	19	−11.497	−12.360
A	658	GLU	3	−12.323	−11.251
A	659	CYS	14	−15.103	−14.976
A	660	ASP	20	−16.466	−16.873
A	661	ILE	29	−19.183	−20.312
A	662	PRO	3	−18.427	−16.652
A	663	ILE	41	−20.650	−22.990

A	664	GLY	21	-19.064	-19.286	
A	665	ALA	12	-17.272	-16.666	
A	666	GLY	10	-16.052	-15.356	
A	667	ILE	29	-18.820	-19.991	
A	668	CYS	17	-19.057	-18.820	
A	669	ALA	37	-20.224	-22.153	
A	670	SER	16	-16.925	-16.819	
A	671	TYR	21	-13.693	-14.533	
A	672	GLN	19	-10.007	-11.041	
A	673	THR	9	-5.106	-5.554	
A	674	GLN	18	-5.642	-7.063	
A	675	THR	10	-2.632	-3.479	<=B
A	676	ASN	1	0.634	0.446	<=B
A	677	SER	16	1.350	-0.645	<=B
A	678	PRO	0	2.691	2.382	<=B
A	679	ARG	7	2.678	1.565	<=B
A	680	ARG	3	2.814	2.145	<=B
A	681	ALA	1	2.676	2.254	<=B
A	682	ARG	6	1.774	0.880	<=B
A	683	SER	3	1.478	0.963	<=B
A	684	VAL	6	-3.019	-3.361	<=B
A	685	ALA	6	-2.440	-2.849	<=B
A	686	SER	11	-3.150	-4.053	
A	687	GLN	16	-6.594	-7.676	
A	688	SER	22	-11.330	-12.557	
A	689	ILE	36	-17.028	-19.210	
A	690	ILE	21	-16.004	-16.578	
A	691	ALA	29	-18.114	-19.366	
A	692	TYR	22	-16.925	-17.509	
A	693	THR	7	-14.881	-13.975	
A	694	MET	16	-13.838	-14.086	
A	695	SER	10	-10.316	-10.279	
A	696	LEU	4	-8.841	-8.284	
A	697	GLY	3	-7.460	-6.947	
A	698	VAL	2	-5.795	-5.359	
A	699	GLU	5	-4.747	-4.776	
A	700	ASN	6	-2.262	-2.692	<=B
A	701	SER	1	-1.653	-1.578	<=B
A	702	VAL	8	-2.874	-3.464	<=B
A	703	ALA	10	-3.708	-4.432	
A	704	TYR	3	-4.139	-4.008	
A	705	SER	12	-5.486	-6.235	
A	706	ASN	5	-6.063	-5.941	
A	707	ASN	13	-7.058	-7.741	
A	708	SER	8	-6.221	-6.426	
A	709	ILE	24	-7.655	-9.535	
A	710	ALA	12	-3.485	-4.464	
A	711	ILE	26	-3.398	-5.997	
A	712	PRO	18	-3.955	-5.570	
A	713	THR	8	-2.995	-3.571	<=B

A	714	ASN	7	−4.042	−4.382
A	715	PHE	36	−8.337	−11.518
A	716	THR	13	−9.026	−9.483
A	717	ILE	30	−13.080	−15.026
A	718	SER	18	−18.078	−18.069
A	719	VAL	31	−23.929	−24.742
A	720	THR	19	−25.261	−24.541
A	721	THR	31	−26.840	−27.318
A	722	GLU	28	−27.170	−27.265
A	723	ILE	22	−26.014	−25.553
A	724	LEU	31	−26.682	−27.179
A	725	PRO	24	−26.537	−26.245
A	726	VAL	33	−26.549	−27.291
A	727	SER	33	−25.301	−26.186
A	728	MET	32	−22.560	−23.645
A	729	THR	31	−24.463	−25.215
A	730	LYS	21	−24.386	−23.997
A	731	THR	35	−24.926	−26.085
A	732	SER	15	−25.596	−24.378
A	733	VAL	41	−28.292	−29.754
A	734	ASP	17	−27.550	−26.337
A	735	CYS	25	−28.806	−28.369
A	736	THR	14	−28.014	−26.402
A	737	MET	13	−28.255	−26.501
A	738	TYR	33	−30.431	−30.726
A	739	ILE	34	−29.226	−29.775
A	740	CYS	22	−27.969	−27.283
A	741	GLY	23	−26.540	−26.133
A	742	ASP	6	−21.675	−19.872
A	743	SER	28	−19.404	−20.393
A	744	THR	3	−17.051	−15.435
A	745	GLU	21	−17.550	−17.947
A	746	CYS	29	−21.249	−22.140
A	747	SER	9	−21.161	−19.763
A	748	ASN	9	−17.048	−16.123
A	749	LEU	28	−19.561	−20.531
A	750	LEU	27	−22.280	−22.823
A	751	LEU	7	−19.213	−17.809
A	752	GLN	13	−16.362	−15.975
A	753	TYR	27	−18.282	−19.285
A	754	GLY	0	−16.419	−14.531
A	755	SER	3	−16.028	−14.529
A	756	PHE	26	−21.510	−22.026
A	757	CYS	24	−24.340	−24.301
A	758	THR	5	−19.978	−18.256
A	759	GLN	13	−18.239	−17.637
A	760	LEU	29	−22.859	−23.565
A	761	ASN	15	−22.433	−21.579
A	762	ARG	5	−17.813	−16.339
A	763	ALA	22	−17.107	−17.670

A	764	LEU	27	-21.936	-22.518	
A	765	THR	8	-18.877	-17.626	
A	766	GLY	16	-16.477	-16.422	
A	767	ILE	28	-18.997	-20.033	
A	768	ALA	18	-21.631	-21.214	
A	769	VAL	6	-17.052	-15.781	
A	770	GLU	19	-16.405	-16.704	
A	771	GLN	33	-19.212	-20.798	
A	772	ASP	17	-17.599	-17.530	
A	773	LYS	14	-15.523	-15.348	
A	774	ASN	31	-21.621	-22.700	
A	775	THR	27	-23.015	-23.473	
A	776	GLN	9	-20.575	-19.244	
A	777	GLU	21	-20.607	-20.652	
A	778	VAL	39	-25.670	-27.203	
A	779	PHE	33	-24.807	-25.749	
A	780	ALA	14	-19.890	-19.213	
A	781	GLN	34	-20.486	-22.040	
A	782	VAL	31	-17.291	-18.867	
A	783	LYS	3	-12.240	-11.177	
A	784	GLN	18	-12.255	-12.915	
A	785	ILE	11	-11.060	-11.053	
A	786	TYR	29	-13.074	-14.906	
A	787	LYS	5	-10.324	-9.711	
A	788	THR	31	-11.475	-13.720	
A	789	PRO	17	-4.762	-6.169	
A	790	PRO	0	-1.442	-1.276	<=B
A	791	ILE	3	-1.828	-1.963	<=B
A	792	LYS	13	-6.075	-6.871	
A	793	ASP	6	-6.669	-6.592	
A	794	PHE	27	-10.275	-12.198	
A	795	GLY	21	-9.294	-10.640	
A	796	GLY	17	-7.580	-8.663	
A	797	PHE	32	-13.687	-15.793	
A	798	ASN	17	-13.154	-13.596	
A	799	PHE	32	-16.756	-18.509	
A	800	SER	13	-10.975	-11.208	
A	801	GLN	24	-13.697	-14.882	
A	802	ILE	39	-20.288	-22.440	
A	803	LEU	21	-16.484	-17.003	
A	804	PRO	28	-11.998	-13.839	
A	805	ASP	14	-6.005	-6.925	
A	806	PRO	5	-1.445	-1.854	<=B
A	807	SER	4	0.939	0.371	<=B
A	808	LYS	20	-2.131	-4.186	
A	809	PRO	0	-1.495	-1.323	<=B
A	810	SER	21	-5.823	-7.568	
A	811	LYS	15	-6.899	-7.830	
A	812	ARG	22	-13.553	-14.525	
A	813	SER	33	-17.300	-19.105	

A	814	PHE	14	−14.527	−14.466
A	815	ILE	35	−20.879	−22.503
A	816	GLU	33	−20.850	−22.248
A	817	ASP	15	−14.972	−14.975
A	818	LEU	26	−17.048	−18.077
A	819	LEU	35	−21.130	−22.725
A	820	PHE	21	−17.079	−17.530
A	821	ASN	14	−13.992	−13.993
A	822	LYS	29	−14.721	−16.363
A	823	VAL	38	−16.338	−18.829
A	824	THR	5	−18.643	−17.074
A	825	LEU	23	−22.021	−22.134
A	826	ALA	25	−22.611	−22.886
A	827	ASP	27	−21.141	−21.815
A	828	ALA	14	−20.305	−19.580
A	829	GLY	22	−17.452	−17.975
A	830	PHE	9	−13.412	−12.905
A	831	ILE	3	−13.909	−12.654
A	832	LYS	24	−13.428	−14.644
A	833	GLN	3	−9.795	−9.014
A	834	TYR	1	−11.386	−10.192
A	835	GLY	1	−8.360	−7.514
A	836	ASP	8	−10.934	−10.596
A	837	CYS	16	−15.815	−15.837
A	838	LEU	4	−12.367	−11.405
A	839	GLY	5	−8.008	−7.662
A	840	ASP	2	−8.831	−8.045
A	841	ILE	12	−12.851	−12.753
A	842	ALA	10	−15.304	−14.694
A	843	ALA	13	−15.460	−15.177
A	844	ARG	11	−17.379	−16.645
A	845	ASP	21	−18.362	−18.665
A	846	LEU	18	−21.520	−21.115
A	847	ILE	24	−22.640	−22.796
A	848	CYS	15	−20.936	−20.253
A	849	ALA	24	−24.586	−24.519
A	850	GLN	28	−26.537	−26.705
A	851	LYS	23	−26.150	−25.788
A	852	PHE	17	−26.271	−25.205
A	853	ASN	25	−29.054	−28.588
A	854	GLY	26	−28.891	−28.559
A	855	LEU	30	−29.656	−29.696
A	856	THR	18	−27.044	−26.004
A	857	VAL	28	−23.207	−23.758
A	858	LEU	19	−22.948	−22.494
A	859	PRO	11	−18.406	−17.555
A	860	PRO	28	−17.482	−18.692
A	861	LEU	18	−13.253	−13.799
A	862	LEU	29	−15.196	−16.784
A	863	THR	9	−12.959	−12.504

A	864	ASP	24	−15.968	−16.891	
A	865	GLU	8	−11.917	−11.467	
A	866	MET	14	−14.378	−14.334	
A	867	ILE	31	−20.820	−21.991	
A	868	ALA	23	−18.850	−19.328	
A	869	GLN	11	−15.694	−15.154	
A	870	TYR	27	−20.510	−21.256	
A	871	THR	39	−23.397	−25.191	
A	872	SER	23	−19.072	−19.524	
A	873	ALA	22	−18.204	−18.640	
A	874	LEU	36	−24.399	−25.734	
A	875	LEU	32	−23.741	−24.691	
A	876	ALA	25	−19.944	−20.525	
A	877	GLY	35	−22.122	−23.603	
A	878	THR	32	−23.781	−24.726	
A	879	ILE	29	−20.373	−21.365	
A	880	THR	20	−16.363	−16.781	
A	881	SER	27	−16.789	−17.963	
A	882	GLY	17	−20.521	−20.116	
A	883	TRP	22	−21.521	−21.576	
A	884	THR	15	−16.527	−16.352	
A	885	PHE	31	−17.901	−19.407	
A	886	GLY	25	−19.681	−20.293	
A	887	ALA	13	−14.088	−13.963	
A	888	GLY	4	−11.106	−10.289	
A	889	ALA	2	−11.759	−10.637	
A	890	ALA	22	−13.765	−14.712	
A	891	LEU	11	−11.758	−11.671	
A	892	GLN	10	−11.141	−11.010	
A	893	ILE	19	−11.097	−12.006	
A	894	PRO	11	−11.389	−11.344	
A	895	PHE	26	−14.571	−15.886	
A	896	ALA	19	−12.999	−13.689	
A	897	MET	9	−11.246	−10.988	
A	898	GLN	31	−13.965	−15.924	
A	899	MET	28	−14.553	−16.099	
A	900	ALA	15	−10.725	−11.217	
A	901	TYR	17	−11.042	−11.727	
A	902	ARG	38	−14.981	−17.628	
A	903	PHE	27	−10.984	−12.826	
A	904	ASN	10	−8.810	−8.947	
A	905	GLY	30	−11.081	−13.257	
A	906	ILE	33	−9.656	−12.340	
A	907	GLY	21	−6.689	−8.335	
A	908	VAL	36	−7.629	−10.892	
A	909	THR	19	−3.715	−5.472	
A	910	GLN	11	−5.125	−5.800	
A	911	ASN	7	−1.213	−1.879	<=B
A	912	VAL	29	−3.247	−6.209	
A	913	LEU	26	−7.411	−9.549	

A	914	TYR	9	−2.637	−3.369	<=B
A	915	GLU	11	−2.041	−3.072	<=B
A	916	ASN	23	−2.783	−5.108	
A	917	GLN	19	−5.064	−6.667	
A	918	LYS	1	−4.487	−4.086	
A	919	LEU	14	−4.180	−5.309	
A	920	ILE	28	−8.950	−11.141	
A	921	ALA	20	−10.809	−11.866	
A	922	ASN	7	−7.570	−7.505	
A	923	GLN	23	−11.134	−12.498	
A	924	PHE	30	−15.072	−16.788	
A	925	ASN	12	−14.145	−13.898	
A	926	SER	11	−12.960	−12.735	
A	927	ALA	28	−17.509	−18.715	
A	928	ILE	25	−19.121	−19.797	
A	929	GLY	10	−15.621	−14.974	
A	930	LYS	14	−14.932	−14.825	
A	931	ILE	35	−19.426	−21.217	
A	932	GLN	15	−15.582	−15.515	
A	933	ASP	8	−11.798	−11.361	
A	934	SER	18	−13.964	−14.428	
A	935	LEU	30	−15.241	−16.939	
A	936	SER	8	−10.136	−9.890	
A	937	SER	6	−8.500	−8.213	
A	938	THR	10	−10.341	−10.302	
A	939	ALA	3	−10.780	−9.886	
A	940	SER	4	−14.960	−13.699	
A	941	ALA	27	−19.417	−20.289	
A	942	LEU	33	−20.512	−21.948	
A	943	GLY	7	−18.256	−16.961	
A	944	LYS	21	−19.846	−19.979	
A	945	LEU	32	−23.898	−24.830	
A	946	GLN	12	−19.202	−18.374	
A	947	ASP	15	−20.551	−19.912	
A	948	VAL	35	−21.745	−23.269	
A	949	VAL	21	−23.923	−23.586	
A	950	ASN	11	−21.881	−20.629	
A	951	GLN	23	−20.135	−20.464	
A	952	ASN	36	−24.586	−25.899	
A	953	ALA	17	−24.182	−23.356	
A	954	GLN	11	−23.765	−22.297	
A	955	ALA	29	−24.349	−24.884	
A	956	LEU	30	−26.572	−26.966	
A	957	ASN	15	−26.560	−25.231	
A	958	THR	20	−26.202	−25.489	
A	959	LEU	38	−29.447	−30.431	
A	960	VAL	19	−29.386	−28.192	
A	961	LYS	12	−26.684	−24.995	
A	962	GLN	27	−25.505	−25.677	
A	963	LEU	28	−27.812	−27.833	

A	964	SER	11	−23.640	−22.187
A	965	SER	21	−21.138	−21.122
A	966	ASN	4	−16.901	−15.417
A	967	PHE	23	−15.846	−16.668
A	968	GLY	7	−10.998	−10.538
A	969	ALA	30	−13.732	−15.603
A	970	ILE	13	−10.343	−10.649
A	971	SER	12	−13.127	−12.997
A	972	SER	9	−20.054	−18.783
A	973	VAL	4	−20.898	−18.955
A	974	LEU	24	−21.823	−22.073
A	975	ASN	4	−18.244	−16.606
A	976	ASP	11	−12.147	−12.015
A	977	ILE	31	−14.987	−16.828
A	978	LEU	17	−13.661	−14.045
A	979	SER	7	−10.258	−9.883
A	980	ARG	12	−9.362	−9.666
A	981	LEU	20	−10.703	−11.772
A	982	ASP	1	−9.801	−8.789
A	983	LYS	2	−10.245	−9.297
A	984	VAL	0	−10.342	−9.153
A	985	GLU	10	−11.230	−11.088
A	986	ALA	20	−14.577	−15.201
A	987	GLU	7	−15.390	−14.425
A	988	VAL	6	−14.592	−13.604
A	989	GLN	22	−15.843	−16.551
A	990	ILE	31	−19.846	−21.129
A	991	ASP	10	−19.194	−18.137
A	992	ARG	18	−18.294	−18.260
A	993	LEU	35	−21.527	−23.077
A	994	ILE	23	−23.312	−23.276
A	995	THR	10	−20.766	−19.528
A	996	GLY	22	−20.868	−20.998
A	997	ARG	34	−24.743	−25.808
A	998	LEU	21	−25.475	−24.960
A	999	GLN	9	−21.026	−19.643
A	1000	SER	32	−23.423	−24.410
A	1001	LEU	32	−25.907	−26.608
A	1002	GLN	10	−21.701	−20.356
A	1003	THR	19	−19.972	−19.860
A	1004	TYR	39	−22.984	−24.826
A	1005	VAL	25	−22.333	−22.640
A	1006	THR	7	−15.349	−14.388
A	1007	GLN	20	−14.943	−15.525
A	1008	GLN	39	−21.428	−23.448
A	1009	LEU	14	−16.245	−15.987
A	1010	ILE	8	−13.267	−12.661
A	1011	ARG	28	−17.492	−18.700
A	1012	ALA	22	−19.196	−19.518
A	1013	ALA	6	−15.804	−14.676

A	1014	GLU	17	−16.529	−16.583
A	1015	ILE	34	−20.522	−22.072
A	1016	ARG	13	−20.442	−19.586
A	1017	ALA	8	−17.188	−16.131
A	1018	SER	24	−22.160	−22.372
A	1019	ALA	27	−22.886	−23.359
A	1020	ASN	7	−19.080	−17.691
A	1021	LEU	21	−20.423	−20.489
A	1022	ALA	35	−25.564	−26.649
A	1023	ALA	19	−23.945	−23.376
A	1024	THR	14	−21.769	−20.876
A	1025	LYS	35	−26.229	−27.237
A	1026	MET	34	−29.219	−29.769
A	1027	SER	12	−22.835	−21.589
A	1028	GLU	16	−23.299	−22.459
A	1029	CYS	38	−28.351	−29.460
A	1030	VAL	33	−28.638	−29.140
A	1031	LEU	25	−26.043	−25.923
A	1032	GLY	15	−24.014	−22.977
A	1033	GLN	24	−22.696	−22.846
A	1034	SER	24	−21.711	−21.974
A	1035	LYS	9	−13.211	−12.726
A	1036	ARG	16	−13.004	−13.349
A	1037	VAL	2	−12.538	−11.326
A	1038	ASP	1	−16.212	−14.463
A	1039	PHE	21	−19.181	−19.390
A	1040	CYS	33	−26.051	−26.850
A	1041	GLY	27	−24.221	−24.540
A	1042	LYS	2	−19.297	−17.308
A	1043	GLY	26	−14.582	−15.895
A	1044	TYR	21	−13.059	−13.973
A	1045	HIS	27	−19.871	−20.691
A	1046	LEU	36	−20.408	−22.202
A	1047	MET	34	−26.754	−27.587
A	1048	SER	37	−28.818	−29.759
A	1049	PHE	35	−28.487	−29.236
A	1050	PRO	42	−28.580	−30.123
A	1051	GLN	36	−24.903	−26.179
A	1052	SER	29	−25.705	−26.084
A	1053	ALA	33	−24.588	−25.555
A	1054	PRO	25	−24.008	−24.122
A	1055	HIS	38	−26.393	−27.728
A	1056	GLY	32	−26.557	−27.183
A	1057	VAL	44	−28.029	−29.866
A	1058	VAL	35	−27.078	−27.989
A	1059	PHE	36	−30.637	−31.254
A	1060	LEU	36	−29.063	−29.861
A	1061	HIS	28	−28.779	−28.689
A	1062	VAL	36	−25.704	−26.888
A	1063	THR	21	−20.283	−20.366

A	1064	TYR	32	-13.293	-15.444	
A	1065	VAL	17	-10.858	-11.565	
A	1066	PRO	17	-8.153	-9.170	
A	1067	ALA	12	-6.203	-6.870	
A	1068	GLN	7	-3.299	-3.725	
A	1069	GLU	15	-3.168	-4.529	
A	1070	LYS	16	-2.996	-4.491	
A	1071	ASN	9	-2.934	-3.632	<=B
A	1072	PHE	30	-5.528	-8.342	
A	1073	THR	12	-6.595	-7.217	
A	1074	THR	25	-8.163	-10.099	
A	1075	ALA	27	-9.346	-11.376	
A	1076	PRO	12	-9.875	-10.119	
A	1077	ALA	20	-10.235	-11.358	
A	1078	ILE	30	-9.346	-11.721	
A	1079	CYS	13	-9.349	-9.769	
A	1080	HIS	22	-7.681	-9.328	
A	1081	ASP	13	-7.500	-8.132	
A	1082	GLY	0	-8.174	-7.234	
A	1083	LYS	13	-8.542	-9.054	
A	1084	ALA	15	-9.271	-9.930	
A	1085	HIS	29	-8.750	-11.079	
A	1086	PHE	13	-8.556	-9.067	
A	1087	PRO	20	-5.941	-7.558	
A	1088	ARG	11	-5.580	-6.203	
A	1089	GLU	16	-4.476	-5.802	
A	1090	GLY	31	-5.677	-8.589	
A	1091	VAL	22	-7.518	-9.184	
A	1092	PHE	33	-8.247	-11.093	
A	1093	VAL	24	-7.268	-9.192	
A	1094	SER	18	-6.228	-7.582	
A	1095	ASN	12	-3.621	-4.585	
A	1096	GLY	2	-4.127	-3.882	
A	1097	THR	0	-3.899	-3.451	<=B
A	1098	HIS	9	-3.285	-3.942	
A	1099	TRP	26	-5.485	-7.844	
A	1100	PHE	19	-4.882	-6.506	
A	1101	VAL	24	-6.148	-8.201	
A	1102	THR	26	-5.645	-7.986	
A	1103	GLN	18	-3.852	-5.479	
A	1104	ARG	13	-5.609	-6.459	
A	1105	ASN	23	-4.802	-6.895	
A	1106	PHE	22	-4.482	-6.496	
A	1107	TYR	21	-3.522	-5.532	
A	1108	GLU	20	-1.612	-3.727	
A	1109	PRO	20	-2.884	-4.853	
A	1110	GLN	23	-2.211	-4.601	
A	1111	ILE	7	-3.316	-3.740	
A	1112	ILE	31	-5.126	-8.101	
A	1113	THR	10	-5.177	-5.732	

A	1114	THR	8	-4.693	-5.073	
A	1115	ASP	8	-3.098	-3.662	<=B
A	1116	ASN	25	-5.399	-7.653	
A	1117	THR	32	-6.365	-9.313	
A	1118	PHE	4	-7.122	-6.763	
A	1119	VAL	15	-7.811	-8.638	
A	1120	SER	8	-8.295	-8.261	
A	1121	GLY	10	-8.759	-8.902	
A	1122	ASN	3	-8.641	-7.992	
A	1123	CYS	12	-10.650	-10.805	
A	1124	ASP	0	-9.609	-8.504	
A	1125	VAL	8	-9.383	-9.224	
A	1126	VAL	23	-10.699	-12.113	
A	1127	ILE	2	-10.127	-9.192	
A	1128	GLY	11	-10.186	-10.279	
A	1129	ILE	23	-10.563	-11.994	
A	1130	VAL	21	-9.501	-10.823	
A	1131	ASN	2	-8.069	-7.371	
A	1132	ASN	33	-6.901	-9.902	
A	1133	THR	4	-6.321	-6.054	
A	1134	VAL	24	-6.849	-8.822	
A	1135	TYR	14	-3.950	-5.106	
A	1136	ASP	11	-3.138	-4.042	
A	1137	PRO	8	-1.023	-1.825	<=B
A	1138	LEU	3	-0.663	-0.932	<=B
A	1139	GLN	7	-0.238	-1.016	<=B
A	1140	PRO	6	0.811	0.027	<=B
A	1141	GLU	5	0.685	0.031	<=B
A	1142	LEU	5	0.972	0.286	<=B
A	1143	ASP	6	1.982	1.064	<=B
A	1144	SER	5	1.068	0.370	<=B
A	1145	PHE	6	1.137	0.316	<=B
A	1146	LYS	6	1.732	0.843	<=B
A	1147	GLU	5	2.624	1.747	<=B
A	1148	GLU	6	2.410	1.442	<=B
A	1149	LEU	7	2.169	1.115	<=B
A	1150	ASP	6	2.852	1.834	<=B
A	1151	LYS	5	2.857	1.953	<=B
A	1152	TYR	5	2.670	1.788	<=B
A	1153	PHE	6	3.000	1.965	<=B
A	1154	LYS	6	3.276	2.210	<=B
A	1155	ASN	6	3.172	2.117	<=B
A	1156	HIS	7	2.974	1.827	<=B
A	1157	THR	5	3.207	2.263	<=B
A	1158	SER	5	3.113	2.180	<=B
A	1159	PRO	4	3.211	2.381	<=B

Identified 106 B-Cell epitope residues out of 1146 total residues