A	14	GLN	10	−15.374	−14.756
A	15	CYS	11	−16.407	−15.785
A	16	VAL	18	−13.078	−13.644
A	17	ASN	2	−11.045	−10.005
A	18	LEU	38	−11.460	−14.512
A	19	ARG	6	−7.740	−7.540
A	20	THR	22	−6.770	−8.522
A	21	ARG	23	−6.568	−8.457
A	22	THR	15	−6.325	−7.323
A	23	GLN	0	−4.256	−3.767
A	24	LEU	20	−4.270	−6.079
A	25	PRO	2	−4.691	−4.382
A	26	PRO	8	−8.060	−8.053
A	27	ALA	18	−8.955	−9.995
A	28	TYR	9	−10.075	−9.952
A	29	THR	21	−12.369	−13.362
A	30	ASN	8	−14.156	−13.448
A	31	SER	30	−15.635	−17.287
A	32	PHE	14	−16.221	−15.965
A	33	THR	17	−17.639	−17.566
A	34	ARG	33	−17.428	−19.219
A	35	GLY	39	−20.230	−22.389
A	36	VAL	30	−19.681	−20.867
A	37	TYR	36	−16.380	−18.637
A	38	TYR	21	−14.462	−15.214
A	39	PRO	25	−14.607	−15.802
A	40	ASP	12	−11.045	−11.155
A	41	LYS	7	−6.734	−6.764
A	42	VAL	9	−12.036	−11.687
A	43	PHE	5	−10.915	−10.235
A	44	ARG	22	−14.410	−15.283
A	45	SER	12	−14.147	−13.900
A	46	SER	12	−15.766	−15.333
A	47	VAL	18	−18.914	−18.809
A	48	LEU	20	−19.829	−19.849
A	49	HIS	25	−19.407	−20.050
A	50	SER	16	−19.181	−18.815
A	51	THR	22	−17.728	−18.219
A	52	GLN	6	−14.964	−13.933
A	53	ASP	23	−14.209	−15.220
A	54	LEU	20	−16.619	−17.008
A	55	PHE	33	−19.615	−21.154
A	56	LEU	35	−18.776	−20.642
A	57	PRO	22	−20.258	−20.458
A	58	PHE	27	−20.975	−21.668
A	59	PHE	11	−19.036	−18.112
A	60	SER	25	−16.560	−17.530
A	61	ASN	5	−14.583	−13.481
A	62	VAL	36	−15.449	−17.812
A	63	THR	21	−13.556	−14.412

A	64	TRP	19	−13.758	−14.361	
A	65	PHE	24	−15.336	−16.332	
A	66	HIS	21	−12.533	−13.507	
A	67	ALA	33	−12.742	−15.071	
A	68	ILE	16	−8.125	−9.030	
A	69	HIS	27	−4.834	−7.383	
A	70	VAL	13	−2.748	−3.927	
A	71	SER	7	−2.385	−2.916	<=B
A	72	GLY	1	−1.385	−1.341	<=B
A	73	THR	16	−1.353	−3.037	<=B
A	74	ASN	14	−0.900	−2.406	<=B
A	75	GLY	14	−2.152	−3.514	<=B
A	76	THR	34	−4.512	−7.903	
A	77	LYS	13	−6.659	−7.389	
A	78	ARG	16	−9.185	−9.969	
A	79	PHE	29	−13.563	−15.338	
A	80	ASP	23	−16.371	−17.134	
A	81	ASN	35	−20.285	−21.977	
A	82	PRO	20	−18.401	−18.585	
A	83	VAL	18	−20.126	−19.882	
A	84	LEU	27	−20.275	−21.048	
A	85	PRO	9	−14.177	−13.581	
A	86	PHE	29	−17.254	−18.604	
A	87	ASN	3	−11.998	−10.963	
A	88	ASP	11	−13.200	−12.947	
A	89	GLY	27	−19.634	−20.481	
A	90	VAL	25	−22.045	−22.385	
A	91	TYR	37	−21.460	−23.247	
A	92	PHE	32	−24.704	−25.543	
A	93	ALA	41	−20.164	−22.560	
A	94	SER	24	−18.211	−18.876	
A	95	THR	26	−13.713	−15.126	
A	96	GLU	26	−12.536	−14.084	
A	97	LYS	22	−5.828	−7.688	
A	98	SER	25	−5.942	−8.133	
A	99	ASN	19	−12.729	−13.450	
A	100	ILE	34	−16.650	−18.646	
A	101	ILE	28	−21.921	−22.620	
A	102	ARG	36	−23.346	−24.801	
A	103	GLY	33	−28.133	−28.693	
A	104	TRP	26	−29.588	−29.175	
A	105	ILE	32	−28.452	−28.860	
A	106	PHE	35	−26.013	−27.047	
A	107	GLY	30	−22.029	−22.946	
A	108	THR	11	−15.466	−14.953	
A	109	THR	12	−13.503	−13.330	
A	110	LEU	25	−18.451	−19.204	
A	111	ASP	4	−13.691	−12.577	
A	112	SER	16	−15.004	−15.118	
A	113	LYS	7	−9.888	−9.556	

A	114	THR	13	−11.951	−12.071	
A	115	GLN	17	−15.511	−15.683	
A	116	SER	32	−20.919	−22.193	
A	117	LEU	32	−23.476	−24.456	
A	118	LEU	37	−27.409	−28.512	
A	119	ILE	23	−27.862	−27.303	
A	120	VAL	26	−26.914	−26.809	
A	121	ASN	16	−22.734	−21.960	
A	122	ASN	23	−20.179	−20.503	
A	123	ALA	15	−13.720	−13.867	
A	124	THR	4	−11.247	−10.413	
A	125	ASN	11	−16.332	−15.718	
A	126	VAL	13	−21.520	−20.540	
A	127	VAL	16	−22.271	−21.550	
A	128	ILE	17	−22.664	−22.013	
A	129	LYS	22	−21.878	−21.892	
A	130	VAL	18	−20.486	−20.200	
A	131	CYS	22	−18.916	−19.270	
A	132	GLU	6	−15.992	−14.843	
A	133	PHE	31	−19.613	−20.922	
A	134	GLN	7	−17.508	−16.300	
A	135	PHE	33	−21.361	−22.699	
A	136	CYS	21	−18.748	−19.007	
A	137	ASN	5	−15.002	−13.851	
A	138	ASP	17	−18.144	−18.012	
A	139	PRO	28	−23.065	−23.632	
A	140	PHE	28	−23.172	−23.727	
A	141	LEU	28	−19.522	−20.497	
A	142	ASP	24	−13.419	−14.635	
A	143	VAL	24	−7.684	−9.560	
A	144	TYR	12	−4.469	−5.335	
A	145	TYR	25	−1.637	−4.323	
A	146	HIS	11	0.385	−0.924	<=B
A	147	LYS	16	1.312	−0.679	<=B
A	148	ASN	0	3.735	3.305	<=B
A	149	ASN	0	3.145	2.784	<=B
A	150	LYS	3	2.475	1.846	<=B
A	151	SER	18	−1.766	−3.633	<=B
A	152	TRP	6	−5.221	−5.311	
A	153	MET	16	−7.980	−8.902	
A	154	GLU	28	−12.755	−14.508	
A	155	SER	18	−18.263	−18.233	
A	156	GLY	22	−19.590	−19.867	
A	157	VAL	34	−25.394	−26.384	
A	158	TYR	30	−21.359	−22.353	
A	159	SER	11	−17.474	−16.729	
A	160	SER	10	−17.072	−16.259	
A	161	ALA	18	−17.877	−17.891	
A	162	ASN	14	−14.900	−14.796	
A	163	ASN	11	−12.739	−12.539	

A	164	CYS	17	-16.030	-16.141	
A	165	THR	14	-14.399	-14.353	
A	166	PHE	19	-15.644	-16.030	
A	167	GLU	8	-17.111	-16.064	
A	168	TYR	15	-16.464	-16.296	
A	169	VAL	9	-16.467	-15.608	
A	170	SER	18	-13.569	-14.079	
A	171	GLN	0	-9.425	-8.341	
A	172	PRO	1	-8.980	-8.063	
A	173	PHE	13	-5.858	-6.679	
A	174	LEU	3	-4.793	-4.587	
A	175	MET	20	-6.237	-7.820	
A	176	ASP	7	-4.648	-4.919	
A	177	LEU	27	-7.046	-9.341	
A	178	GLU	8	-3.087	-3.652	<=B
A	179	GLY	18	-1.506	-3.403	<=B
A	180	LYS	12	-0.706	-2.005	<=B
A	181	GLN	14	-0.509	-2.060	<=B
A	182	GLY	3	-1.032	-1.258	<=B
A	183	ASN	9	-3.205	-3.871	
A	184	PHE	29	-6.418	-9.015	
A	185	LYS	9	-5.921	-6.275	
A	186	ASN	24	-10.708	-12.237	
A	187	LEU	25	-13.735	-15.031	
A	188	ARG	17	-16.903	-16.914	
A	189	GLU	32	-20.489	-21.813	
A	190	PHE	25	-23.216	-23.422	
A	191	VAL	29	-21.085	-21.995	
A	192	PHE	34	-23.666	-24.854	
A	193	LYS	25	-20.799	-21.282	
A	194	ASN	22	-13.873	-14.808	
A	195	ILE	18	-11.240	-12.017	
A	196	ASP	1	-6.945	-6.261	
A	197	GLY	3	-10.680	-9.797	
A	198	TYR	10	-13.241	-12.869	
A	199	PHE	29	-15.963	-17.462	
A	200	LYS	22	-17.546	-18.058	
A	201	ILE	22	-19.441	-19.736	
A	202	TYR	26	-17.503	-18.480	
A	203	SER	19	-16.942	-17.178	
A	204	LYS	23	-14.834	-15.773	
A	205	HIS	7	-10.969	-10.513	
A	206	THR	18	-8.080	-9.221	
A	207	PRO	0	-4.462	-3.949	
A	208	ILE	28	-5.296	-7.907	
A	209	ASN	0	-3.511	-3.107	<=B
A	210	LEU	17	-5.275	-6.623	
A	211	VAL	1	-3.900	-3.566	<=B
A	212	ARG	6	-6.079	-6.070	
A	213	ASP	10	-9.881	-9.895	

A	214	LEU	32	−13.233	−15.391	
A	215	PRO	23	−10.067	−11.554	
A	216	GLN	2	−11.794	−10.668	
A	217	GLY	18	−12.936	−13.518	
A	218	PHE	19	−14.695	−15.190	
A	219	SER	19	−13.821	−14.417	
A	220	ALA	25	−15.591	−16.673	
A	221	LEU	28	−16.873	−18.153	
A	222	GLU	8	−11.913	−11.463	
A	223	PRO	14	−12.547	−12.714	
A	224	LEU	16	−12.054	−12.507	
A	225	VAL	11	−14.403	−14.011	
A	226	ASP	11	−12.442	−12.276	
A	227	LEU	31	−15.705	−17.464	
A	228	PRO	1	−12.032	−10.764	
A	229	ILE	32	−15.720	−17.592	
A	230	GLY	7	−13.254	−12.535	
A	231	ILE	38	−15.746	−18.305	
A	232	ASN	9	−13.988	−13.414	
A	233	ILE	33	−17.532	−19.311	
A	234	THR	6	−14.507	−13.529	
A	235	ARG	13	−19.833	−19.047	
A	236	PHE	34	−24.533	−25.622	
A	237	GLN	29	−25.403	−25.817	
A	238	THR	30	−27.388	−27.689	
A	239	LEU	28	−26.380	−26.566	
A	240	LEU	34	−23.278	−24.511	
A	241	ALA	27	−17.837	−18.891	
A	242	LEU	33	−13.931	−16.124	
A	243	HIS	29	−7.627	−10.084	
A	244	ARG	21	−4.078	−6.024	
A	245	SER	17	−1.101	−2.929	<=B
A	246	TYR	11	−0.127	−1.377	<=B
A	247	LEU	13	−1.289	−2.636	<=B
A	248	THR	11	−0.060	−1.318	<=B
A	249	PRO	0	0.547	0.485	<=B
A	250	GLY	2	−0.957	−1.077	<=B
A	251	ASP	17	−2.779	−4.415	
A	252	SER	4	−3.960	−3.965	
A	253	SER	12	−5.675	−6.402	
A	254	SER	11	−6.072	−6.639	
A	255	GLY	8	−4.609	−4.999	
A	256	TRP	30	−4.786	−7.686	
A	257	THR	22	−4.343	−6.374	
A	258	ALA	30	−10.397	−12.651	
A	259	GLY	29	−9.332	−11.594	
A	260	ALA	18	−8.055	−9.199	
A	261	ALA	32	−10.900	−13.327	
A	262	ALA	24	−14.472	−15.567	
A	263	TYR	34	−18.536	−20.314	

A	264	TYR	31	−17.456	−19.014
A	265	VAL	26	−21.104	−21.667
A	266	GLY	30	−20.354	−21.463
A	267	TYR	14	−18.565	−18.040
A	268	LEU	30	−18.322	−19.665
A	269	GLN	22	−14.670	−15.513
A	270	PRO	6	−14.066	−13.139
A	271	ARG	32	−16.326	−18.128
A	272	THR	19	−18.166	−18.262
A	273	PHE	27	−19.635	−20.482
A	274	LEU	21	−19.661	−19.815
A	275	LEU	31	−17.734	−19.259
A	276	LYS	18	−17.007	−17.121
A	277	TYR	22	−16.038	−16.724
A	278	ASN	8	−11.999	−11.539
A	279	GLU	3	−10.002	−9.197
A	280	ASN	5	−7.316	−7.049
A	281	GLY	10	−11.340	−11.186
A	282	THR	8	−11.585	−11.172
A	283	ILE	29	−15.127	−16.722
A	284	THR	12	−13.948	−13.724
A	285	ASP	14	−15.338	−15.184
A	286	ALA	32	−18.072	−19.674
A	287	VAL	26	−19.459	−20.211
A	288	ASP	26	−21.184	−21.738
A	289	CYS	24	−22.308	−22.502
A	290	ALA	23	−25.109	−24.866
A	291	LEU	28	−24.007	−24.466
A	292	ASP	21	−24.890	−24.443
A	293	PRO	32	−26.334	−26.986
A	294	LEU	21	−26.236	−25.634
A	295	SER	23	−23.767	−23.679
A	296	GLU	26	−24.968	−25.086
A	297	THR	26	−23.428	−23.724
A	298	LYS	31	−18.963	−20.347
A	299	CYS	23	−21.001	−21.231
A	300	THR	23	−19.245	−19.677
A	301	LEU	23	−17.896	−18.483
A	302	LYS	13	−19.534	−18.783
A	303	SER	12	−19.465	−18.607
A	304	PHE	15	−17.364	−17.092
A	305	THR	6	−15.850	−14.717
A	306	VAL	30	−19.760	−20.938
A	307	GLU	8	−18.455	−17.253
A	308	LYS	18	−19.059	−18.937
A	309	GLY	10	−20.626	−19.404
A	310	ILE	29	−23.566	−24.191
A	311	TYR	26	−23.221	−23.540
A	312	GLN	8	−22.956	−21.236
A	313	THR	32	−23.645	−24.605

A	314	SER	20	−23.256	−22.882
A	315	ASN	9	−21.449	−20.017
A	316	PHE	34	−23.670	−24.858
A	317	ARG	11	−20.442	−19.356
A	318	VAL	27	−19.805	−20.633
A	319	GLN	12	−14.947	−14.608
A	320	PRO	18	−12.780	−13.380
A	321	THR	16	−10.597	−11.219
A	322	GLU	12	−10.431	−10.612
A	323	SER	9	−12.553	−12.144
A	324	ILE	27	−12.752	−14.390
A	325	VAL	17	−14.707	−14.971
A	326	ARG	31	−13.537	−15.545
A	327	PHE	26	−13.616	−15.041
A	328	PRO	21	−12.323	−13.321
A	329	ASN	4	−11.974	−11.057
A	330	ILE	24	−14.203	−15.329
A	331	THR	1	−12.113	−10.835
A	332	ASN	10	−14.168	−13.688
A	333	LEU	12	−20.824	−19.809
A	334	CYS	33	−25.135	−26.039
A	335	PRO	19	−24.986	−24.297
A	336	PHE	18	−27.409	−26.327
A	337	GLY	5	−20.406	−18.635
A	338	GLU	15	−20.058	−19.477
A	339	VAL	30	−24.049	−24.733
A	340	PHE	25	−21.671	−22.054
A	341	ASN	8	−15.778	−14.883
A	342	ALA	21	−12.348	−13.343
A	343	THR	1	−7.344	−6.614
A	344	ARG	12	−7.664	−8.162
A	345	PHE	39	−11.309	−14.493
A	346	ALA	23	−8.897	−10.519
A	347	SER	23	−5.052	−7.116
A	348	VAL	37	−7.306	−10.721
A	349	TYR	19	−5.081	−6.682
A	350	ALA	11	−5.431	−6.071
A	351	TRP	34	−8.723	−11.630
A	352	ASN	21	−12.521	−13.496
A	353	ARG	17	−19.499	−19.211
A	354	LYS	21	−22.610	−22.425
A	355	ARG	7	−22.656	−20.856
A	356	ILE	35	−25.989	−27.025
A	357	SER	10	−22.400	−20.974
A	358	ASN	0	−17.588	−15.565
A	359	CYS	19	−20.852	−20.639
A	360	VAL	12	−22.287	−21.104
A	361	ALA	31	−26.570	−27.079
A	362	ASP	14	−24.733	−23.498
A	363	TYR	30	−27.740	−28.000

A	364	SER	9	−22.276	−20.749	
A	365	VAL	13	−21.683	−20.685	
A	366	LEU	34	−25.184	−26.197	
A	367	TYR	16	−23.254	−22.420	
A	368	ASN	5	−19.094	−17.473	
A	369	SER	19	−18.203	−18.295	
A	370	ALA	0	−12.772	−11.303	
A	371	SER	19	−12.912	−13.612	
A	372	PHE	24	−17.146	−17.935	
A	373	SER	19	−13.071	−13.752	
A	374	THR	31	−16.149	−17.857	
A	375	PHE	17	−23.519	−22.769	
A	376	LYS	15	−22.410	−21.558	
A	377	CYS	17	−25.225	−24.279	
A	378	TYR	24	−21.329	−21.636	
A	379	GLY	23	−21.145	−21.358	
A	380	VAL	24	−23.140	−23.239	
A	381	SER	5	−22.247	−20.264	
A	382	PRO	15	−23.078	−22.149	
A	383	THR	0	−21.732	−19.233	
A	384	LYS	14	−22.794	−21.783	
A	385	LEU	26	−25.804	−25.826	
A	386	ASN	11	−23.818	−22.344	
A	387	ASP	5	−20.882	−19.056	
A	388	LEU	24	−23.574	−23.623	
A	389	CYS	20	−24.792	−24.241	
A	390	PHE	30	−25.320	−25.859	
A	391	THR	11	−21.701	−20.471	
A	392	ASN	6	−23.480	−21.469	
A	393	VAL	31	−27.320	−27.743	
A	394	TYR	12	−26.150	−24.522	
A	395	ALA	29	−26.500	−26.787	
A	396	ASP	26	−22.558	−22.954	
A	397	SER	22	−19.234	−19.552	
A	398	PHE	33	−11.963	−14.382	
A	399	VAL	31	−10.214	−12.604	
A	400	ILE	35	−7.484	−10.649	
A	401	ARG	25	−4.858	−7.174	
A	402	GLY	17	−6.055	−7.313	
A	403	ASP	11	−3.394	−4.269	
A	404	GLU	29	−4.245	−7.092	
A	405	VAL	23	−8.921	−10.540	
A	406	ARG	6	−8.863	−8.534	
A	407	GLN	26	−7.425	−9.561	
A	408	ILE	35	−11.950	−14.601	
A	409	ALA	10	−13.087	−12.732	
A	410	PRO	18	−9.903	−10.834	
A	411	GLY	8	−5.507	−5.794	
A	412	GLN	20	−4.564	−6.339	
A	413	THR	2	−2.248	−2.220	<=B

A	414	GLY	16	-3.223	-4.693	
A	415	LYS	18	-2.006	-3.845	
A	416	ILE	25	-5.289	-7.555	
A	417	ALA	17	-5.634	-6.941	
A	418	ASP	12	-3.313	-4.312	
A	419	TYR	23	-3.367	-5.625	
A	420	ASN	32	-5.564	-8.604	
A	421	TYR	31	-7.329	-10.051	
A	422	LYS	20	-7.140	-8.619	
A	423	LEU	32	-11.914	-14.224	
A	424	PRO	14	-10.031	-10.487	
A	425	ASP	0	-6.305	-5.580	
A	426	ASP	3	-10.639	-9.761	
A	427	PHE	27	-18.496	-19.474	
A	428	THR	14	-23.484	-22.394	
A	429	GLY	31	-27.762	-28.134	
A	430	CYS	26	-28.153	-27.905	
A	431	VAL	23	-25.054	-24.818	
A	432	ILE	31	-23.586	-24.438	
A	433	ALA	24	-15.857	-16.794	
A	434	TRP	19	-14.200	-14.752	
A	435	ASN	14	-7.116	-7.908	
A	436	SER	34	-6.659	-9.803	
A	437	ASN	19	-1.729	-3.715	
A	438	ASN	5	-1.705	-2.084	<=B
A	439	LEU	20	-3.434	-5.339	
A	440	ASP	31	-2.662	-5.921	
A	441	SER	25	0.137	-2.753	<=B
A	442	LYS	9	2.887	1.520	<=B
A	443	VAL	1	4.334	3.720	<=B
A	444	GLY	2	4.573	3.817	<=B
A	445	GLY	9	3.500	2.063	<=B
A	446	ASN	26	1.229	-1.902	<=B
A	447	TYR	5	0.813	0.144	<=B
A	448	ASN	19	0.414	-1.818	<=B
A	449	TYR	32	-2.861	-6.212	
A	450	ARG	18	-2.238	-4.050	
A	451	TYR	25	-3.416	-5.898	
A	452	ARG	31	-1.284	-4.701	
A	453	LEU	14	-1.805	-3.208	<=B
A	454	PHE	14	-1.774	-3.180	<=B
A	455	ARG	24	-0.628	-3.316	<=B
A	456	LYS	10	0.103	-1.058	<=B
A	457	SER	5	0.665	0.013	<=B
A	458	ASN	14	0.072	-1.546	<=B
A	459	LEU	26	-2.441	-5.151	
A	460	LYS	1	-2.028	-1.910	<=B
A	461	PRO	12	-6.538	-7.166	
A	462	PHE	17	-9.439	-10.309	
A	463	GLU	16	-4.287	-5.634	

A	464	ARG	12	−4.080	−4.991	
A	465	ASP	27	−2.756	−5.544	
A	466	ILE	2	−2.747	−2.661	<=B
A	467	SER	20	−1.609	−3.724	
A	468	THR	6	−2.826	−3.191	<=B
A	469	GLU	9	−2.796	−3.509	<=B
A	470	ILE	16	−3.711	−5.124	
A	471	TYR	17	−2.944	−4.560	
A	472	GLN	8	−3.087	−3.652	<=B
A	473	ALA	11	−3.287	−4.174	
A	474	GLY	10	−3.011	−3.814	
A	475	SER	0	−2.553	−2.259	<=B
A	476	LYS	9	−3.245	−3.907	
A	477	PRO	1	−3.073	−2.835	<=B
A	478	CYS	18	−4.058	−5.661	
A	479	ASN	0	−3.608	−3.193	<=B
A	480	GLY	5	−3.826	−3.961	
A	481	VAL	0	−4.245	−3.757	
A	482	GLU	1	−4.499	−4.097	
A	483	GLY	16	−4.562	−5.878	
A	484	PHE	2	−4.617	−4.316	
A	485	ASN	5	−3.681	−3.833	
A	486	CYS	20	−4.895	−6.632	
A	487	TYR	11	−4.110	−4.902	
A	488	PHE	9	−3.968	−4.547	
A	489	PRO	21	−2.912	−4.992	
A	490	LEU	21	−1.752	−3.966	
A	491	GLN	13	−1.437	−2.766	<=B
A	492	SER	14	−0.589	−2.132	<=B
A	493	TYR	34	−0.651	−4.486	
A	494	GLY	5	2.022	1.214	<=B
A	495	PHE	32	0.707	−3.055	<=B
A	496	GLN	7	2.621	1.514	<=B
A	497	PRO	7	2.696	1.581	<=B
A	498	THR	3	3.937	3.139	<=B
A	499	ASN	27	3.595	0.077	<=B
A	500	GLY	1	2.379	1.991	<=B
A	501	VAL	7	−0.655	−1.384	<=B
A	502	GLY	3	−3.840	−3.743	
A	503	TYR	8	0.284	−0.669	<=B
A	504	GLN	17	−2.460	−4.132	
A	505	PRO	32	−4.614	−7.763	
A	506	TYR	25	−8.024	−9.976	
A	507	ARG	27	−13.074	−14.676	
A	508	VAL	37	−17.529	−19.769	
A	509	VAL	26	−23.747	−24.006	
A	510	VAL	30	−26.396	−26.811	
A	511	LEU	37	−29.557	−30.413	
A	512	SER	21	−26.887	−26.210	
A	513	PHE	38	−28.272	−29.391	

A	514	GLU	10	−24.012	−22.401	
A	515	LEU	16	−22.908	−22.114	
A	516	LEU	11	−19.071	−18.143	
A	517	HIS	8	−15.715	−14.828	
A	518	ALA	11	−15.725	−15.182	
A	519	PRO	9	−16.740	−15.850	
A	520	ALA	30	−20.592	−21.674	
A	521	THR	11	−21.113	−19.950	
A	522	VAL	27	−24.596	−24.873	
A	523	CYS	20	−23.649	−23.230	
A	524	GLY	19	−22.176	−21.810	
A	525	PRO	12	−17.991	−17.302	
A	526	LYS	13	−14.331	−14.178	
A	527	LYS	16	−15.332	−15.409	
A	528	SER	22	−13.346	−14.342	
A	529	THR	12	−11.089	−11.194	
A	530	ASN	2	−8.682	−7.914	
A	531	LEU	21	−9.288	−10.635	
A	532	VAL	16	−6.134	−7.269	
A	533	LYS	13	−8.045	−8.615	
A	534	ASN	3	−10.780	−9.885	
A	535	LYS	13	−12.084	−12.189	
A	536	CYS	19	−13.638	−14.254	
A	537	VAL	23	−12.073	−13.329	
A	538	ASN	5	−13.321	−12.364	
A	539	PHE	32	−12.975	−15.163	
A	540	ASN	17	−14.491	−14.779	
A	541	PHE	29	−13.970	−15.699	
A	542	ASN	20	−15.064	−15.631	
A	543	GLY	18	−16.670	−16.823	
A	544	LEU	21	−14.169	−14.955	
A	545	THR	9	−13.972	−13.400	
A	546	GLY	22	−13.051	−14.080	
A	547	THR	9	−13.325	−12.828	
A	548	GLY	21	−13.170	−14.070	
A	549	VAL	14	−12.793	−12.932	
A	550	LEU	28	−10.541	−12.548	
A	551	THR	15	−9.384	−10.030	
A	552	GLU	5	−6.117	−5.988	
A	553	SER	24	−5.337	−7.483	
A	554	ASN	0	−3.220	−2.850	<=B
A	555	LYS	21	−3.575	−5.579	
A	556	LYS	1	−0.978	−0.980	<=B
A	557	PHE	23	−1.694	−4.144	
A	558	LEU	1	−0.920	−0.930	<=B
A	559	PRO	0	−1.455	−1.288	<=B
A	560	PHE	0	−3.399	−3.008	<=B
A	561	GLN	13	−3.642	−4.718	
A	562	GLN	14	−8.357	−9.006	
A	563	PHE	17	−8.091	−9.115	

A	564	GLY	23	-5.591	-7.593	
A	565	ARG	6	-5.534	-5.588	
A	566	ASP	10	-4.279	-4.937	
A	567	ILE	0	-3.665	-3.243	<=B
A	568	ALA	2	-4.103	-3.861	
A	569	ASP	0	-4.279	-3.787	
A	570	THR	10	-6.291	-6.717	
A	571	THR	26	-7.646	-9.757	
A	572	ASP	11	-7.116	-7.563	
A	573	ALA	20	-7.587	-9.015	
A	574	VAL	28	-9.294	-11.445	
A	575	ARG	15	-8.142	-8.930	
A	576	ASP	21	-8.300	-9.761	
A	577	PRO	23	-9.832	-11.346	
A	578	GLN	15	-8.667	-9.396	
A	579	THR	11	-4.772	-5.488	
A	580	LEU	9	-4.064	-4.632	
A	581	GLU	12	-3.668	-4.626	
A	582	ILE	17	-5.132	-6.497	
A	583	LEU	34	-6.812	-9.939	
A	584	ASP	11	-7.684	-8.066	
A	585	ILE	26	-10.354	-12.153	
A	586	THR	17	-12.095	-12.659	
A	587	PRO	10	-13.198	-12.830	
A	588	CYS	25	-16.958	-17.883	
A	589	SER	19	-19.646	-19.572	
A	590	PHE	13	-21.846	-20.829	
A	591	GLY	24	-23.638	-23.679	
A	592	GLY	13	-24.370	-23.063	
A	593	VAL	29	-27.297	-27.493	
A	594	SER	24	-25.617	-25.431	
A	595	VAL	32	-27.861	-28.337	
A	596	ILE	33	-25.945	-26.756	
A	597	THR	28	-22.910	-23.495	
A	598	PRO	18	-16.338	-16.529	
A	599	GLY	6	-16.612	-15.392	
A	600	THR	17	-16.359	-16.433	
A	601	ASN	7	-12.658	-12.008	
A	602	THR	18	-10.907	-11.723	
A	603	SER	24	-15.122	-16.143	
A	604	ASN	11	-18.058	-17.247	
A	605	GLN	21	-20.008	-20.122	
A	606	VAL	33	-24.494	-25.472	
A	607	ALA	37	-26.739	-27.919	
A	608	VAL	32	-28.630	-29.018	
A	609	LEU	30	-27.912	-28.152	
A	610	TYR	26	-27.921	-27.700	
A	611	GLN	16	-24.967	-23.936	
A	612	GLY	10	-22.445	-21.014	
A	613	VAL	28	-22.399	-23.043	

A	614	ASN	4	−20.959	−19.009
A	615	CYS	18	−22.735	−22.190
A	616	THR	2	−18.777	−16.847
A	617	GLU	26	−20.562	−21.187
A	618	VAL	33	−24.008	−25.042
A	619	PRO	10	−19.165	−18.111
A	620	VAL	24	−19.138	−19.697
A	621	ALA	31	−19.796	−21.084
A	622	ILE	10	−16.899	−16.105
A	623	HIS	7	−14.291	−13.453
A	624	ALA	25	−14.959	−16.114
A	625	ASP	6	−11.640	−10.991
A	626	GLN	14	−16.704	−16.393
A	627	LEU	17	−20.130	−19.770
A	628	THR	27	−22.521	−23.036
A	629	PRO	18	−22.878	−22.317
A	630	THR	33	−24.396	−25.385
A	631	TRP	30	−25.310	−25.849
A	632	ARG	11	−20.480	−19.390
A	633	VAL	17	−19.653	−19.348
A	634	TYR	37	−23.246	−24.827
A	635	SER	16	−19.413	−19.021
A	636	THR	10	−15.102	−14.516
A	637	GLY	16	−17.437	−17.271
A	638	SER	2	−14.350	−12.930
A	639	ASN	21	−16.456	−16.979
A	640	VAL	20	−20.589	−20.521
A	641	PHE	28	−20.926	−21.740
A	642	GLN	8	−20.604	−19.154
A	643	THR	31	−21.328	−22.440
A	644	ARG	9	−19.258	−18.078
A	645	ALA	25	−20.695	−21.190
A	646	GLY	28	−23.371	−23.904
A	647	CYS	29	−24.231	−24.779
A	648	LEU	30	−26.766	−27.138
A	649	ILE	31	−25.742	−26.347
A	650	GLY	27	−23.230	−23.663
A	651	ALA	39	−20.697	−22.802
A	652	GLU	16	−15.716	−15.748
A	653	HIS	17	−15.341	−15.532
A	654	VAL	27	−12.905	−14.526
A	655	ASN	2	−9.325	−8.482
A	656	ASN	13	−8.014	−8.588
A	657	SER	8	−9.874	−9.659
A	658	TYR	21	−10.285	−11.518
A	659	GLU	2	−11.233	−10.171
A	660	CYS	14	−14.202	−14.179
A	661	ASP	22	−15.500	−16.248
A	662	ILE	29	−18.944	−20.101
A	663	PRO	3	−18.262	−16.507

A	664	ILE	41	-20.521	-22.876	
A	665	GLY	22	-19.066	-19.403	
A	666	ALA	13	-17.307	-16.811	
A	667	GLY	10	-16.407	-15.670	
A	668	ILE	30	-18.540	-19.858	
A	669	CYS	17	-18.887	-18.670	
A	670	ALA	36	-19.450	-21.353	
A	671	SER	18	-16.694	-16.844	
A	672	TYR	22	-13.522	-14.497	
A	673	GLN	21	-9.718	-11.015	
A	674	THR	10	-4.893	-5.480	
A	675	GLN	15	-5.652	-6.727	
A	676	THR	14	-4.476	-5.571	
A	677	ASN	8	-1.384	-2.145	<=B
A	678	SER	15	0.855	-0.968	<=B
A	679	ARG	2	2.980	2.408	<=B
A	680	ARG	1	2.564	2.154	<=B
A	681	ARG	0	2.723	2.410	<=B
A	682	ALA	5	2.314	1.473	<=B
A	683	ARG	13	2.386	0.617	<=B
A	684	SER	1	1.722	1.409	<=B
A	685	VAL	6	-1.553	-2.065	<=B
A	686	ALA	1	-2.615	-2.429	<=B
A	687	SER	11	-3.518	-4.378	
A	688	GLN	16	-6.550	-7.637	
A	689	SER	21	-11.331	-12.443	
A	690	ILE	36	-16.838	-19.041	
A	691	ILE	21	-15.347	-15.997	
A	692	ALA	29	-18.022	-19.284	
A	693	TYR	21	-15.880	-16.469	
A	694	THR	7	-14.896	-13.988	
A	695	MET	16	-13.790	-14.044	
A	696	SER	11	-10.067	-10.174	
A	697	LEU	4	-8.944	-8.376	
A	698	GLY	3	-7.538	-7.016	
A	699	ALA	2	-5.861	-5.417	
A	700	GLU	5	-4.735	-4.766	
A	701	ASN	5	-2.294	-2.605	<=B
A	702	SER	1	-1.682	-1.604	<=B
A	703	VAL	8	-2.890	-3.477	<=B
A	704	ALA	10	-3.943	-4.639	
A	705	TYR	3	-4.150	-4.017	
A	706	SER	11	-5.497	-6.130	
A	707	ASN	5	-6.056	-5.935	
A	708	ASN	14	-7.066	-7.864	
A	709	SER	8	-6.219	-6.424	
A	710	ILE	23	-7.663	-9.426	
A	711	ALA	12	-3.493	-4.471	
A	712	ILE	27	-3.545	-6.243	
A	713	PRO	18	-3.972	-5.586	

A	714	THR	8	-2.997	-3.572	<=B
A	715	ASN	5	-4.049	-4.158	
A	716	PHE	35	-8.345	-11.411	
A	717	THR	13	-9.028	-9.485	
A	718	ILE	30	-13.052	-15.001	
A	719	SER	18	-18.383	-18.339	
A	720	VAL	31	-23.877	-24.696	
A	721	THR	19	-24.833	-24.162	
A	722	THR	31	-26.661	-27.160	
A	723	GLU	28	-26.930	-27.053	
A	724	ILE	22	-25.956	-25.501	
A	725	LEU	31	-26.351	-26.886	
A	726	PRO	24	-26.168	-25.919	
A	727	VAL	33	-26.260	-27.035	
A	728	SER	32	-24.987	-25.793	
A	729	MET	34	-22.214	-23.569	
A	730	THR	32	-24.171	-25.071	
A	731	LYS	21	-23.945	-23.607	
A	732	THR	35	-24.941	-26.098	
A	733	SER	16	-25.483	-24.392	
A	734	VAL	40	-28.474	-29.799	
A	735	ASP	17	-27.553	-26.340	
A	736	CYS	26	-28.820	-28.496	
A	737	THR	14	-28.057	-26.440	
A	738	MET	13	-28.293	-26.534	
A	739	TYR	33	-30.489	-30.778	
A	740	ILE	34	-29.265	-29.810	
A	741	CYS	21	-28.015	-27.209	
A	742	GLY	23	-26.726	-26.298	
A	743	ASP	6	-21.720	-19.913	
A	744	SER	29	-19.444	-20.543	
A	745	THR	3	-17.082	-15.462	
A	746	GLU	21	-17.538	-17.936	
A	747	CYS	29	-21.245	-22.137	
A	748	SER	8	-21.145	-19.633	
A	749	ASN	9	-17.035	-16.111	
A	750	LEU	28	-19.560	-20.530	
A	751	LEU	27	-22.277	-22.820	
A	752	LEU	7	-19.215	-17.810	
A	753	GLN	13	-16.376	-15.988	
A	754	TYR	27	-18.293	-19.294	
A	755	GLY	0	-16.194	-14.331	
A	756	SER	3	-16.060	-14.558	
A	757	PHE	26	-21.543	-22.055	
A	758	CYS	24	-24.379	-24.335	
A	759	THR	5	-20.039	-18.310	
A	760	GLN	13	-18.235	-17.633	
A	761	LEU	30	-22.840	-23.663	
A	762	ASN	15	-22.630	-21.752	
A	763	ARG	5	-17.793	-16.322	

A	764	ALA	21	−16.974	−17.437	
A	765	LEU	26	−21.793	−22.277	
A	766	THR	8	−18.874	−17.623	
A	767	GLY	16	−16.466	−16.412	
A	768	ILE	27	−18.815	−19.756	
A	769	ALA	18	−21.452	−21.055	
A	770	VAL	6	−16.934	−15.676	
A	771	GLU	19	−16.247	−16.564	
A	772	GLN	33	−19.011	−20.620	
A	773	ASP	16	−17.443	−17.277	
A	774	LYS	14	−15.613	−15.428	
A	775	ASN	31	−21.428	−22.529	
A	776	THR	27	−22.842	−23.320	
A	777	GLN	9	−20.420	−19.107	
A	778	GLU	21	−20.607	−20.652	
A	779	VAL	39	−25.522	−27.072	
A	780	PHE	34	−24.781	−25.841	
A	781	ALA	14	−19.945	−19.261	
A	782	GLN	34	−20.577	−22.120	
A	783	VAL	31	−17.281	−18.859	
A	784	LYS	4	−12.226	−11.280	
A	785	GLN	17	−11.853	−12.445	
A	786	ILE	11	−11.071	−11.063	
A	787	TYR	29	−13.049	−14.883	
A	788	LYS	6	−9.632	−9.214	
A	789	THR	28	−11.035	−12.986	
A	790	PRO	17	−4.777	−6.182	
A	791	PRO	0	−1.771	−1.568	<=B
A	792	ILE	3	−1.834	−1.968	<=B
A	793	LYS	13	−6.037	−6.838	
A	794	ASP	5	−6.671	−6.479	
A	795	PHE	26	−10.589	−12.361	
A	796	GLY	19	−9.259	−10.379	
A	797	GLY	18	−7.622	−8.815	
A	798	PHE	31	−13.709	−15.698	
A	799	ASN	17	−13.173	−13.614	
A	800	PHE	32	−16.821	−18.566	
A	801	SER	13	−10.799	−11.052	
A	802	GLN	25	−13.730	−15.026	
A	803	ILE	39	−20.296	−22.447	
A	804	LEU	20	−16.526	−16.926	
A	805	PRO	28	−11.995	−13.835	
A	806	ASP	14	−6.005	−6.924	
A	807	PRO	5	−1.454	−1.861	<=B
A	808	SER	4	0.948	0.379	<=B
A	809	LYS	20	−2.109	−4.166	
A	810	PRO	1	−1.502	−1.444	<=B
A	811	SER	22	−6.173	−7.993	
A	812	LYS	14	−6.854	−7.676	
A	813	ARG	22	−13.731	−14.682	

A	814	SER	34	−17.130	−19.070
A	815	PHE	14	−14.557	−14.493
A	816	ILE	35	−21.152	−22.744
A	817	GLU	33	−20.694	−22.110
A	818	ASP	15	−14.878	−14.892
A	819	LEU	26	−16.679	−17.751
A	820	LEU	36	−20.467	−22.253
A	821	PHE	22	−16.845	−17.438
A	822	ASN	15	−13.752	−13.895
A	823	LYS	29	−14.384	−16.065
A	824	VAL	37	−15.984	−18.400
A	825	THR	5	−18.282	−16.754
A	826	LEU	23	−21.690	−21.840
A	827	ALA	24	−22.340	−22.530
A	828	ASP	27	−20.927	−21.626
A	829	ALA	14	−20.059	−19.362
A	830	GLY	22	−17.071	−17.638
A	831	PHE	9	−13.331	−12.833
A	832	ILE	3	−13.533	−12.322
A	833	LYS	24	−13.684	−14.870
A	834	GLN	3	−9.810	−9.027
A	835	TYR	1	−11.460	−10.257
A	836	GLY	2	−8.339	−7.610
A	837	ASP	7	−10.920	−10.469
A	838	CYS	16	−15.841	−15.859
A	839	LEU	5	−12.412	−11.559
A	840	GLY	5	−8.002	−7.656
A	841	ASP	2	−8.850	−8.062
A	842	ILE	11	−12.893	−12.675
A	843	ALA	10	−15.515	−14.880
A	844	ALA	13	−15.557	−15.263
A	845	ARG	10	−17.328	−16.486
A	846	ASP	19	−18.089	−18.194
A	847	LEU	17	−21.525	−21.005
A	848	ILE	24	−22.136	−22.350
A	849	CYS	15	−21.116	−20.413
A	850	ALA	23	−24.789	−24.583
A	851	GLN	28	−26.424	−26.606
A	852	LYS	22	−26.191	−25.709
A	853	PHE	17	−26.306	−25.236
A	854	ASN	25	−29.106	−28.634
A	855	GLY	26	−29.088	−28.733
A	856	LEU	31	−29.569	−29.733
A	857	THR	17	−26.960	−25.815
A	858	VAL	29	−23.063	−23.746
A	859	LEU	19	−22.830	−22.390
A	860	PRO	11	−18.478	−17.618
A	861	PRO	28	−17.352	−18.576
A	862	LEU	18	−13.278	−13.821
A	863	LEU	29	−15.118	−16.714

A	864	THR	9	−12.833	−12.393	
A	865	ASP	25	−15.840	−16.894	
A	866	GLU	7	−11.794	−11.242	
A	867	MET	15	−14.408	−14.476	
A	868	ILE	31	−20.710	−21.894	
A	869	ALA	22	−18.861	−19.222	
A	870	GLN	11	−15.483	−14.967	
A	871	TYR	27	−20.495	−21.243	
A	872	THR	39	−23.423	−25.214	
A	873	SER	22	−19.087	−19.422	
A	874	ALA	22	−18.254	−18.685	
A	875	LEU	37	−24.101	−25.584	
A	876	LEU	32	−23.706	−24.660	
A	877	ALA	23	−19.892	−20.250	
A	878	GLY	34	−21.845	−23.242	
A	879	THR	32	−23.752	−24.701	
A	880	ILE	30	−20.376	−21.482	
A	881	THR	20	−16.319	−16.742	
A	882	SER	27	−16.779	−17.955	
A	883	GLY	18	−20.347	−20.077	
A	884	TRP	22	−21.515	−21.571	
A	885	THR	15	−16.488	−16.317	
A	886	PHE	31	−17.688	−19.218	
A	887	GLY	24	−19.590	−20.097	
A	888	ALA	12	−14.080	−13.841	
A	889	GLY	4	−11.135	−10.314	
A	890	ALA	1	−11.784	−10.544	
A	891	ALA	22	−13.775	−14.721	
A	892	LEU	11	−11.751	−11.664	
A	893	GLN	10	−11.123	−10.994	
A	894	ILE	16	−11.070	−11.637	
A	895	PRO	11	−11.371	−11.328	
A	896	PHE	26	−14.554	−15.870	
A	897	ALA	20	−12.810	−13.637	
A	898	MET	8	−11.240	−10.867	
A	899	GLN	31	−13.872	−15.842	
A	900	MET	29	−14.544	−16.207	
A	901	ALA	14	−10.716	−11.093	
A	902	TYR	17	−10.802	−11.515	
A	903	ARG	38	−14.968	−17.617	
A	904	PHE	27	−10.969	−12.813	
A	905	ASN	10	−8.790	−8.930	
A	906	GLY	29	−11.019	−13.087	
A	907	ILE	32	−9.658	−12.228	
A	908	GLY	21	−6.674	−8.321	
A	909	VAL	36	−7.617	−10.881	
A	910	THR	19	−3.723	−5.479	
A	911	GLN	11	−5.335	−5.986	
A	912	ASN	7	−1.218	−1.883	<=B
A	913	VAL	29	−3.248	−6.209	

A	914	LEU	26	-7.292	-9.443	
A	915	TYR	9	-2.624	-3.357	<=B
A	916	GLU	11	-2.053	-3.082	<=B
A	917	ASN	23	-2.797	-5.120	
A	918	GLN	19	-5.133	-6.727	
A	919	LYS	1	-4.496	-4.094	
A	920	LEU	13	-4.190	-5.203	
A	921	ILE	28	-8.961	-11.150	
A	922	ALA	20	-10.814	-11.870	
A	923	ASN	7	-7.568	-7.502	
A	924	GLN	23	-11.143	-12.507	
A	925	PHE	30	-15.304	-16.994	
A	926	ASN	12	-14.180	-13.930	
A	927	SER	11	-12.973	-12.746	
A	928	ALA	28	-17.503	-18.710	
A	929	ILE	25	-19.114	-19.791	
A	930	GLY	10	-15.599	-14.955	
A	931	LYS	14	-15.612	-15.427	
A	932	ILE	36	-19.305	-21.225	
A	933	GLN	14	-15.571	-15.391	
A	934	ASP	8	-11.827	-11.387	
A	935	SER	19	-14.075	-14.641	
A	936	LEU	30	-15.008	-16.732	
A	937	SER	9	-9.958	-9.848	
A	938	SER	6	-8.343	-8.073	
A	939	THR	9	-10.118	-9.989	
A	940	ALA	4	-10.461	-9.718	
A	941	SER	3	-14.354	-13.048	
A	942	ALA	26	-19.124	-19.915	
A	943	LEU	33	-20.122	-21.603	
A	944	GLY	7	-17.866	-16.617	
A	945	LYS	20	-18.953	-19.074	
A	946	LEU	32	-23.442	-24.426	
A	947	GLN	12	-18.734	-17.959	
A	948	ASN	14	-18.664	-18.128	
A	949	VAL	35	-21.261	-22.841	
A	950	VAL	22	-23.493	-23.321	
A	951	ASN	10	-21.448	-20.131	
A	952	GLN	23	-19.719	-20.097	
A	953	ASN	36	-24.223	-25.577	
A	954	ALA	18	-23.900	-23.221	
A	955	GLN	11	-23.429	-21.999	
A	956	ALA	27	-24.065	-24.403	
A	957	LEU	30	-26.308	-26.733	
A	958	ASN	15	-26.342	-25.037	
A	959	THR	20	-25.801	-25.134	
A	960	LEU	38	-29.162	-30.178	
A	961	VAL	20	-29.285	-28.217	
A	962	LYS	11	-26.575	-24.784	
A	963	GLN	27	-25.896	-26.023	

A	964	LEU	28	−27.848	−27.865
A	965	SER	11	−23.904	−22.420
A	966	SER	21	−21.438	−21.388
A	967	ASN	4	−16.874	−15.394
A	968	PHE	22	−15.868	−16.573
A	969	GLY	7	−10.996	−10.536
A	970	ALA	30	−13.765	−15.632
A	971	ILE	13	−10.314	−10.623
A	972	SER	12	−12.721	−12.638
A	973	SER	10	−20.098	−18.937
A	974	VAL	4	−20.890	−18.948
A	975	LEU	24	−21.825	−22.075
A	976	ASN	4	−18.275	−16.633
A	977	ASP	11	−12.167	−12.033
A	978	ILE	30	−15.011	−16.735
A	979	LEU	17	−13.710	−14.089
A	980	SER	7	−10.277	−9.900
A	981	ARG	12	−9.397	−9.697
A	982	LEU	21	−10.739	−11.919
A	983	ASP	1	−9.847	−8.830
A	984	LYS	2	−10.232	−9.285
A	985	VAL	0	−10.341	−9.151
A	986	GLU	10	−11.240	−11.098
A	987	ALA	20	−14.580	−15.204
A	988	GLU	7	−15.326	−14.368
A	989	VAL	6	−14.556	−13.572
A	990	GLN	22	−15.843	−16.551
A	991	ILE	31	−19.855	−21.136
A	992	ASP	11	−19.352	−18.391
A	993	ARG	18	−18.299	−18.265
A	994	LEU	35	−21.531	−23.080
A	995	ILE	23	−23.285	−23.253
A	996	THR	10	−20.698	−19.468
A	997	GLY	22	−20.842	−20.975
A	998	ARG	33	−24.731	−25.682
A	999	LEU	21	−25.444	−24.933
A	1000	GLN	9	−20.638	−19.299
A	1001	SER	32	−23.959	−24.884
A	1002	LEU	32	−25.835	−26.544
A	1003	GLN	10	−21.749	−20.398
A	1004	THR	19	−19.837	−19.741
A	1005	TYR	39	−22.785	−24.650
A	1006	VAL	25	−22.154	−22.482
A	1007	THR	7	−15.042	−14.118
A	1008	GLN	19	−14.878	−15.352
A	1009	GLN	39	−21.162	−23.213
A	1010	LEU	14	−16.038	−15.804
A	1011	ILE	8	−12.984	−12.411
A	1012	ARG	29	−17.156	−18.518
A	1013	ALA	22	−18.916	−19.271

A	1014	ALA	6	−15.555	−14.456
A	1015	GLU	19	−16.212	−16.532
A	1016	ILE	35	−20.191	−21.894
A	1017	ARG	13	−20.146	−19.324
A	1018	ALA	8	−16.578	−15.592
A	1019	SER	26	−21.876	−22.351
A	1020	ALA	26	−22.657	−23.042
A	1021	ASN	7	−18.905	−17.536
A	1022	LEU	22	−20.383	−20.569
A	1023	ALA	36	−25.372	−26.594
A	1024	ALA	19	−23.811	−23.258
A	1025	THR	13	−21.778	−20.769
A	1026	LYS	35	−26.138	−27.157
A	1027	MET	33	−28.931	−29.399
A	1028	SER	12	−22.530	−21.319
A	1029	GLU	16	−23.313	−22.472
A	1030	CYS	38	−28.333	−29.445
A	1031	VAL	32	−28.392	−28.807
A	1032	LEU	25	−25.660	−25.584
A	1033	GLY	15	−23.968	−22.937
A	1034	GLN	24	−22.737	−22.882
A	1035	SER	26	−21.270	−21.814
A	1036	LYS	8	−13.206	−12.607
A	1037	ARG	16	−13.032	−13.373
A	1038	VAL	1	−12.519	−11.195
A	1039	ASP	1	−15.785	−14.085
A	1040	PHE	21	−19.213	−19.419
A	1041	CYS	34	−26.006	−26.925
A	1042	GLY	28	−23.783	−24.268
A	1043	LYS	2	−19.221	−17.240
A	1044	GLY	26	−15.025	−16.287
A	1045	TYR	22	−13.054	−14.083
A	1046	HIS	27	−19.867	−20.687
A	1047	LEU	36	−20.617	−22.386
A	1048	MET	35	−26.741	−27.691
A	1049	SER	37	−28.809	−29.751
A	1050	PHE	34	−28.490	−29.124
A	1051	PRO	42	−28.457	−30.014
A	1052	GLN	35	−24.746	−25.925
A	1053	SER	31	−25.498	−26.131
A	1054	ALA	33	−24.340	−25.336
A	1055	PRO	25	−23.669	−23.822
A	1056	HIS	38	−26.061	−27.434
A	1057	GLY	32	−26.255	−26.916
A	1058	VAL	44	−27.779	−29.644
A	1059	VAL	36	−26.859	−27.910
A	1060	PHE	36	−30.466	−31.103
A	1061	LEU	36	−29.147	−29.935
A	1062	HIS	28	−28.765	−28.677
A	1063	VAL	36	−25.690	−26.876

A	1064	THR	22	-20.597	-20.759	
A	1065	TYR	33	-12.941	-15.248	
A	1066	VAL	17	-11.125	-11.801	
A	1067	PRO	17	-8.193	-9.206	
A	1068	ALA	12	-6.203	-6.869	
A	1069	GLN	5	-3.291	-3.488	<=B
A	1070	GLU	15	-3.165	-4.526	
A	1071	LYS	16	-2.996	-4.492	
A	1072	ASN	10	-2.929	-3.742	
A	1073	PHE	30	-5.517	-8.332	
A	1074	THR	12	-6.601	-7.222	
A	1075	THR	25	-8.182	-10.116	
A	1076	ALA	28	-9.367	-11.509	
A	1077	PRO	12	-9.892	-10.134	
A	1078	ALA	20	-10.251	-11.372	
A	1079	ILE	29	-9.368	-11.626	
A	1080	CYS	14	-9.345	-9.880	
A	1081	HIS	23	-7.670	-9.433	
A	1082	ASP	12	-7.512	-8.028	
A	1083	GLY	0	-8.156	-7.218	
A	1084	LYS	13	-8.559	-9.070	
A	1085	ALA	15	-9.297	-9.953	
A	1086	HIS	29	-8.787	-11.111	
A	1087	PHE	13	-8.565	-9.075	
A	1088	PRO	19	-5.933	-7.436	
A	1089	ARG	11	-5.583	-6.206	
A	1090	GLU	15	-4.224	-5.463	
A	1091	GLY	30	-5.680	-8.477	
A	1092	VAL	22	-7.552	-9.214	
A	1093	PHE	33	-8.273	-11.117	
A	1094	VAL	24	-7.282	-9.204	
A	1095	SER	18	-6.227	-7.581	
A	1096	ASN	12	-3.609	-4.574	
A	1097	GLY	2	-4.141	-3.895	
A	1098	THR	0	-3.878	-3.432	<=B
A	1099	HIS	9	-2.999	-3.689	<=B
A	1100	TRP	26	-5.470	-7.831	
A	1101	PHE	18	-4.912	-6.417	
A	1102	VAL	24	-6.189	-8.237	
A	1103	THR	26	-5.660	-7.999	
A	1104	GLN	18	-3.839	-5.467	
A	1105	ARG	13	-5.613	-6.463	
A	1106	ASN	23	-4.800	-6.893	
A	1107	PHE	22	-4.484	-6.498	
A	1108	TYR	21	-3.524	-5.534	
A	1109	GLU	20	-1.615	-3.729	
A	1110	PRO	20	-2.921	-4.885	
A	1111	GLN	23	-2.246	-4.633	
A	1112	ILE	7	-3.328	-3.750	
A	1113	ILE	31	-5.128	-8.103	

A	1114	THR	11	-5.177	-5.847	
A	1115	THR	9	-4.745	-5.235	
A	1116	ASP	7	-3.141	-3.585	<=B
A	1117	ASN	28	-5.432	-8.027	
A	1118	THR	32	-6.384	-9.330	
A	1119	PHE	4	-7.137	-6.776	
A	1120	VAL	15	-7.832	-8.657	
A	1121	SER	8	-8.319	-8.283	
A	1122	GLY	8	-8.733	-8.648	
A	1123	ASN	3	-8.642	-7.993	
A	1124	CYS	13	-10.664	-10.932	
A	1125	ASP	0	-9.580	-8.478	
A	1126	VAL	8	-9.413	-9.250	
A	1127	VAL	23	-10.719	-12.132	
A	1128	ILE	2	-10.280	-9.328	
A	1129	GLY	10	-10.196	-10.174	
A	1130	ILE	23	-10.580	-12.008	
A	1131	VAL	20	-9.510	-10.717	
A	1132	ASN	2	-8.061	-7.364	
A	1133	ASN	33	-6.898	-9.900	
A	1134	THR	4	-6.336	-6.068	
A	1135	VAL	26	-6.870	-9.070	
A	1136	TYR	14	-3.964	-5.119	
A	1137	ASP	11	-3.147	-4.050	
A	1138	PRO	8	-1.041	-1.841	<=B
A	1139	LEU	3	-0.672	-0.940	<=B
A	1140	GLN	7	-0.241	-1.018	<=B
A	1141	PRO	6	0.807	0.024	<=B
A	1142	GLU	6	0.672	-0.095	<=B
A	1143	LEU	5	0.971	0.284	<=B
A	1144	ASP	6	1.983	1.065	<=B
A	1145	SER	5	1.066	0.369	<=B
A	1146	PHE	6	1.132	0.312	<=B
A	1147	LYS	6	1.733	0.844	<=B
A	1148	GLU	5	2.620	1.743	<=B
A	1149	GLU	6	2.390	1.426	<=B
A	1150	LEU	7	2.169	1.115	<=B
A	1151	ASP	6	2.855	1.836	<=B
A	1152	LYS	5	2.858	1.954	<=B
A	1153	TYR	5	2.678	1.795	<=B
A	1154	PHE	6	3.001	1.966	<=B
A	1155	LYS	6	3.276	2.209	<=B
A	1156	ASN	6	3.172	2.118	<=B
A	1157	HIS	7	2.975	1.828	<=B
A	1158	THR	5	3.212	2.267	<=B
A	1159	SER	5	3.115	2.182	<=B
A	1160	PRO	4	3.213	2.383	<=B

Identified 114 B-Cell epitope residues out of 1147 total residues