A	14	GLN	10	−16.116	−15.412
A	15	CYS	11	−17.238	−16.521
A	16	VAL	18	−13.807	−14.289
A	17	ASN	2	−12.316	−11.129
A	18	LEU	37	−12.598	−15.404
A	19	THR	4	−9.256	−8.652
A	20	THR	22	−8.206	−9.792
A	21	ARG	24	−7.900	−9.751
A	22	THR	15	−7.203	−8.100
A	23	GLN	0	−5.236	−4.634
A	24	LEU	20	−5.199	−6.901
A	25	PRO	2	−5.219	−4.849
A	26	PRO	8	−8.559	−8.494
A	27	ALA	18	−9.352	−10.346
A	28	TYR	9	−10.534	−10.357
A	29	THR	21	−12.359	−13.352
A	30	ASN	9	−14.180	−13.584
A	31	SER	31	−15.649	−17.414
A	32	PHE	14	−16.424	−16.145
A	33	THR	17	−17.636	−17.563
A	34	ARG	34	−17.413	−19.321
A	35	GLY	40	−20.236	−22.509
A	36	VAL	30	−19.704	−20.888
A	37	TYR	35	−16.258	−18.413
A	38	TYR	21	−14.471	−15.222
A	39	PRO	25	−14.508	−15.714
A	40	ASP	12	−11.018	−11.131
A	41	LYS	7	−6.718	−6.750
A	42	VAL	9	−12.037	−11.688
A	43	PHE	5	−10.924	−10.243
A	44	ARG	23	−14.428	−15.414
A	45	SER	11	−14.327	−13.944
A	46	SER	12	−15.771	−15.337
A	47	VAL	18	−18.905	−18.801
A	48	LEU	20	−19.833	−19.852
A	49	HIS	26	−19.392	−20.152
A	50	SER	16	−19.150	−18.787
A	51	THR	22	−17.723	−18.215
A	52	GLN	7	−14.987	−14.069
A	53	ASP	24	−14.210	−15.336
A	54	LEU	20	−16.601	−16.992
A	55	PHE	33	−19.627	−21.165
A	56	LEU	34	−18.786	−20.535
A	57	PRO	21	−20.546	−20.599
A	58	PHE	26	−20.739	−21.344
A	59	PHE	12	−18.812	−18.028
A	60	SER	26	−16.571	−17.655
A	61	ASN	5	−14.616	−13.510
A	62	VAL	36	−15.446	−17.809
A	63	THR	21	−13.556	−14.412

A	64	TRP	21	-14.130	-14.920	
A	65	PHE	24	-15.959	-16.884	
A	66	HIS	21	-13.269	-14.158	
A	67	ALA	34	-13.739	-16.069	
A	68	ILE	15	-8.923	-9.622	
A	69	HIS	28	-5.348	-7.953	
A	70	VAL	12	-3.128	-4.148	
A	71	SER	7	-2.422	-2.948	<=B
A	72	GLY	1	-1.537	-1.475	<=B
A	73	THR	15	-1.226	-2.810	<=B
A	74	ASN	11	-1.424	-2.525	<=B
A	75	GLY	13	-2.903	-4.064	
A	76	THR	33	-5.247	-8.439	
A	77	LYS	13	-7.892	-8.479	
A	78	ARG	16	-10.168	-10.839	
A	79	PHE	27	-14.568	-15.998	
A	80	ASP	22	-17.423	-17.949	
A	81	ASN	34	-21.239	-22.707	
A	82	PRO	20	-19.202	-19.294	
A	83	VAL	19	-20.789	-20.583	
A	84	LEU	27	-20.724	-21.446	
A	85	PRO	8	-14.311	-13.585	
A	86	PHE	29	-17.258	-18.609	
A	87	ASN	3	-12.363	-11.286	
A	88	ASP	11	-13.297	-13.033	
A	89	GLY	27	-19.832	-20.656	
A	90	VAL	25	-22.084	-22.420	
A	91	TYR	39	-21.609	-23.609	
A	92	PHE	32	-24.820	-25.646	
A	93	ALA	42	-20.329	-22.822	
A	94	SER	23	-18.361	-18.895	
A	95	THR	25	-13.790	-15.079	
A	96	GLU	26	-12.901	-14.408	
A	97	LYS	21	-6.198	-7.900	
A	98	SER	29	-5.988	-8.634	
A	99	ASN	20	-12.878	-13.697	
A	100	ILE	34	-17.289	-19.211	
A	101	ILE	30	-22.518	-23.379	
A	102	ARG	37	-24.129	-25.609	
A	103	GLY	33	-28.378	-28.910	
A	104	TRP	27	-30.097	-29.741	
A	105	ILE	32	-28.855	-29.217	
A	106	PHE	35	-26.104	-27.127	
A	107	GLY	31	-22.040	-23.071	
A	108	THR	11	-15.407	-14.901	
A	109	THR	13	-13.450	-13.398	
A	110	LEU	25	-18.768	-19.485	
A	111	ASP	4	-14.120	-12.956	
A	112	SER	17	-14.965	-15.199	
A	113	LYS	7	-9.869	-9.539	

A	114	THR	13	−11.952	−12.072	
A	115	GLN	17	−15.489	−15.662	
A	116	SER	32	−20.868	−22.149	
A	117	LEU	31	−23.565	−24.420	
A	118	LEU	38	−27.549	−28.751	
A	119	ILE	23	−28.008	−27.432	
A	120	VAL	28	−27.106	−27.208	
A	121	ASN	16	−23.596	−22.722	
A	122	ASN	24	−20.793	−21.161	
A	123	ALA	16	−14.010	−14.239	
A	124	THR	7	−11.434	−10.924	
A	125	ASN	11	−17.085	−16.385	
A	126	VAL	13	−21.697	−20.697	
A	127	VAL	17	−22.447	−21.821	
A	128	ILE	17	−22.822	−22.152	
A	129	LYS	21	−22.047	−21.927	
A	130	VAL	18	−20.492	−20.206	
A	131	CYS	22	−18.901	−19.258	
A	132	GLU	6	−15.944	−14.801	
A	133	PHE	33	−19.721	−21.248	
A	134	GLN	7	−18.073	−16.800	
A	135	PHE	34	−22.022	−23.399	
A	136	CYS	22	−19.663	−19.932	
A	137	ASN	5	−16.036	−14.767	
A	138	ASP	19	−19.272	−19.241	
A	139	PRO	28	−24.022	−24.480	
A	140	PHE	29	−24.439	−24.963	
A	141	LEU	28	−20.941	−21.753	
A	142	GLY	24	−14.774	−15.835	
A	143	VAL	28	−8.642	−10.868	
A	144	TYR	9	−5.348	−5.768	
A	145	TYR	23	−2.121	−4.522	
A	146	HIS	10	0.424	−0.775	<=B
A	147	LYS	15	0.860	−0.964	<=B
A	148	ASN	0	3.235	2.863	<=B
A	149	ASN	10	2.676	1.218	<=B
A	150	LYS	0	2.568	2.272	<=B
A	151	SER	9	1.217	0.042	<=B
A	152	TRP	23	−1.889	−4.317	
A	153	MET	6	−5.851	−5.868	
A	154	GLU	24	−9.550	−11.212	
A	155	SER	16	−9.334	−10.101	
A	156	GLU	31	−14.127	−16.067	
A	157	PHE	19	−19.306	−19.271	
A	158	ARG	22	−20.896	−21.023	
A	159	VAL	35	−26.183	−27.197	
A	160	TYR	31	−22.008	−23.042	
A	161	SER	11	−18.081	−17.267	
A	162	SER	10	−17.225	−16.394	
A	163	ALA	17	−18.025	−17.907	

A	164	ASN	14	−14.827	−14.732	
A	165	ASN	12	−12.667	−12.591	
A	166	CYS	16	−15.995	−15.996	
A	167	THR	14	−14.394	−14.349	
A	168	PHE	19	−15.647	−16.033	
A	169	GLU	8	−17.122	−16.073	
A	170	TYR	15	−16.650	−16.460	
A	171	VAL	9	−16.621	−15.745	
A	172	SER	18	−13.629	−14.132	
A	173	GLN	0	−9.651	−8.541	
A	174	PRO	1	−9.764	−8.756	
A	175	PHE	12	−6.053	−6.737	
A	176	LEU	7	−5.056	−5.280	
A	177	MET	19	−6.274	−7.738	
A	178	ASP	9	−4.943	−5.409	
A	179	LEU	30	−7.233	−9.851	
A	180	GLU	10	−3.111	−3.904	
A	181	GLY	19	−1.557	−3.563	<=B
A	182	LYS	16	−0.496	−2.279	<=B
A	183	GLN	14	−0.061	−1.664	<=B
A	184	GLY	1	−0.831	−0.850	<=B
A	185	ASN	9	−2.855	−3.561	<=B
A	186	PHE	30	−6.427	−9.138	
A	187	LYS	9	−5.883	−6.241	
A	188	ASN	23	−10.709	−12.122	
A	189	LEU	25	−13.746	−15.040	
A	190	ARG	17	−17.244	−17.216	
A	191	GLU	33	−20.201	−21.673	
A	192	PHE	26	−23.231	−23.550	
A	193	VAL	29	−21.082	−21.993	
A	194	PHE	34	−23.673	−24.861	
A	195	LYS	25	−20.827	−21.307	
A	196	ASN	22	−13.908	−14.838	
A	197	ILE	18	−11.280	−12.053	
A	198	ASP	1	−7.012	−6.321	
A	199	GLY	3	−10.768	−9.875	
A	200	TYR	10	−13.503	−13.100	
A	201	PHE	28	−15.988	−17.369	
A	202	LYS	22	−17.566	−18.076	
A	203	ILE	22	−19.520	−19.806	
A	204	TYR	27	−17.363	−18.471	
A	205	SER	20	−16.955	−17.305	
A	206	LYS	23	−14.809	−15.751	
A	207	HIS	7	−11.203	−10.719	
A	208	THR	18	−8.072	−9.214	
A	209	PRO	0	−4.738	−4.193	
A	210	ILE	27	−5.303	−7.799	
A	211	ASN	0	−3.513	−3.109	<=B
A	212	LEU	17	−5.285	−6.632	
A	213	VAL	1	−3.892	−3.559	<=B

A	214	ARG	6	-6.305	-6.270	
A	215	ASP	10	-9.916	-9.926	
A	216	LEU	32	-13.261	-15.416	
A	217	PRO	23	-10.025	-11.517	
A	218	GLN	2	-11.561	-10.462	
A	219	GLY	17	-12.981	-13.443	
A	220	PHE	20	-14.506	-15.138	
A	221	SER	20	-13.977	-14.670	
A	222	ALA	25	-15.612	-16.692	
A	223	LEU	28	-17.261	-18.496	
A	224	GLU	8	-11.905	-11.456	
A	225	PRO	14	-12.341	-12.532	
A	226	LEU	15	-12.061	-12.399	
A	227	VAL	11	-14.371	-13.983	
A	228	ASP	9	-12.347	-11.962	
A	229	LEU	31	-15.690	-17.450	
A	230	PRO	0	-11.662	-10.320	
A	231	ILE	32	-15.899	-17.751	
A	232	GLY	7	-13.187	-12.476	
A	233	ILE	39	-15.674	-18.357	
A	234	ASN	9	-14.429	-13.805	
A	235	ILE	33	-17.630	-19.398	
A	236	THR	7	-14.481	-13.620	
A	237	ARG	13	-19.761	-18.983	
A	238	PHE	35	-24.737	-25.917	
A	239	GLN	29	-26.481	-26.770	
A	240	THR	30	-28.091	-28.311	
A	241	LEU	29	-27.352	-27.542	
A	242	LEU	34	-24.113	-25.250	
A	243	ALA	29	-18.765	-19.942	
A	244	LEU	32	-14.788	-16.767	
A	245	HIS	32	-8.556	-11.252	
A	246	ARG	20	-5.174	-6.879	
A	247	SER	18	-1.769	-3.635	<=B
A	248	TYR	11	-0.836	-2.005	<=B
A	249	LEU	13	-1.909	-3.185	<=B
A	250	THR	11	-1.404	-2.508	<=B
A	251	PRO	0	0.013	0.011	<=B
A	252	GLY	2	-2.132	-2.117	<=B
A	253	ASP	17	-4.098	-5.582	
A	254	SER	3	-4.945	-4.721	
A	255	SER	11	-7.268	-7.697	
A	256	SER	11	-7.616	-8.006	
A	257	GLY	9	-5.912	-6.267	
A	258	TRP	30	-5.824	-8.604	
A	259	THR	24	-6.074	-8.135	
A	260	ALA	28	-11.475	-13.375	
A	261	GLY	32	-9.794	-12.347	
A	262	ALA	20	-8.087	-9.457	
A	263	ALA	32	-11.268	-13.653	

A	264	ALA	24	−14.632	−15.709
A	265	TYR	34	−19.059	−20.777
A	266	TYR	32	−17.577	−19.235
A	267	VAL	26	−21.129	−21.689
A	268	GLY	31	−20.352	−21.576
A	269	TYR	14	−18.198	−17.716
A	270	LEU	30	−18.324	−19.667
A	271	GLN	22	−14.528	−15.387
A	272	PRO	7	−14.084	−13.269
A	273	ARG	31	−16.308	−17.997
A	274	THR	19	−18.131	−18.231
A	275	PHE	27	−19.612	−20.461
A	276	LEU	21	−19.664	−19.817
A	277	LEU	32	−17.748	−19.387
A	278	LYS	18	−17.009	−17.123
A	279	TYR	22	−16.296	−16.952
A	280	ASN	8	−12.028	−11.565
A	281	GLU	3	−9.998	−9.194
A	282	ASN	5	−7.342	−7.073
A	283	GLY	10	−11.372	−11.214
A	284	THR	8	−12.294	−11.800
A	285	ILE	29	−15.125	−16.720
A	286	THR	14	−13.880	−13.894
A	287	ASP	13	−15.319	−15.053
A	288	ALA	32	−18.268	−19.847
A	289	VAL	26	−19.082	−19.877
A	290	ASP	24	−21.167	−21.493
A	291	CYS	25	−22.293	−22.604
A	292	ALA	23	−25.048	−24.812
A	293	LEU	28	−23.997	−24.458
A	294	ASP	21	−24.851	−24.408
A	295	PRO	32	−25.974	−26.667
A	296	LEU	22	−26.142	−25.666
A	297	SER	23	−23.120	−23.106
A	298	GLU	26	−24.464	−24.641
A	299	THR	26	−23.739	−23.999
A	300	LYS	30	−18.637	−19.944
A	301	CYS	23	−21.096	−21.315
A	302	THR	23	−19.398	−19.813
A	303	LEU	23	−18.111	−18.673
A	304	LYS	13	−19.137	−18.431
A	305	SER	12	−19.671	−18.789
A	306	PHE	15	−17.493	−17.207
A	307	THR	5	−15.820	−14.576
A	308	VAL	30	−19.909	−21.070
A	309	GLU	7	−18.875	−17.509
A	310	LYS	18	−18.946	−18.837
A	311	GLY	11	−20.777	−19.652
A	312	ILE	29	−23.752	−24.356
A	313	TYR	27	−23.430	−23.840

A	314	GLN	8	−22.844	−21.137
A	315	THR	32	−23.423	−24.409
A	316	SER	20	−23.456	−23.059
A	317	ASN	9	−21.177	−19.776
A	318	PHE	34	−23.501	−24.708
A	319	ARG	13	−19.875	−19.084
A	320	VAL	29	−19.554	−20.640
A	321	GLN	12	−14.967	−14.626
A	322	PRO	17	−12.750	−13.238
A	323	THR	16	−10.545	−11.172
A	324	GLU	12	−10.415	−10.597
A	325	SER	8	−12.534	−12.012
A	326	ILE	27	−12.739	−14.379
A	327	VAL	17	−14.694	−14.959
A	328	ARG	31	−13.548	−15.555
A	329	PHE	26	−13.662	−15.081
A	330	PRO	21	−12.109	−13.131
A	331	ASN	5	−11.954	−11.154
A	332	ILE	25	−14.216	−15.456
A	333	THR	1	−12.128	−10.849
A	334	ASN	10	−14.184	−13.703
A	335	LEU	12	−20.837	−19.820
A	336	CYS	33	−25.133	−26.037
A	337	PRO	18	−24.656	−23.891
A	338	PHE	18	−27.398	−26.317
A	339	GLY	5	−20.432	−18.657
A	340	GLU	15	−20.688	−20.034
A	341	VAL	30	−24.902	−25.489
A	342	PHE	25	−22.572	−22.851
A	343	ASN	8	−16.579	−15.592
A	344	ALA	21	−13.616	−14.465
A	345	THR	1	−8.509	−7.646
A	346	ARG	13	−9.095	−9.544
A	347	PHE	38	−13.137	−15.997
A	348	ALA	23	−10.940	−12.327
A	349	SER	24	−7.265	−9.190
A	350	VAL	38	−9.686	−12.942
A	351	TYR	19	−7.452	−8.780
A	352	ALA	12	−7.528	−8.043
A	353	TRP	34	−10.656	−13.341
A	354	ASN	21	−13.834	−14.658
A	355	ARG	17	−20.715	−20.288
A	356	LYS	21	−23.517	−23.227
A	357	ARG	7	−22.630	−20.833
A	358	ILE	34	−25.967	−26.890
A	359	SER	11	−22.193	−20.906
A	360	ASN	0	−17.985	−15.917
A	361	CYS	20	−20.811	−20.718
A	362	VAL	12	−22.537	−21.326
A	363	ALA	31	−26.579	−27.088

A	364	ASP	13	−24.754	−23.402
A	365	TYR	30	−27.744	−28.004
A	366	SER	9	−22.290	−20.761
A	367	VAL	13	−21.675	−20.677
A	368	LEU	35	−25.146	−26.279
A	369	TYR	16	−23.308	−22.468
A	370	ASN	5	−19.120	−17.496
A	371	SER	19	−18.213	−18.303
A	372	ALA	0	−12.772	−11.303
A	373	SER	19	−12.943	−13.640
A	374	PHE	24	−17.151	−17.938
A	375	SER	17	−13.050	−13.504
A	376	THR	31	−16.784	−18.419
A	377	PHE	17	−23.455	−22.713
A	378	LYS	15	−22.483	−21.622
A	379	CYS	18	−25.241	−24.408
A	380	TYR	24	−21.325	−21.633
A	381	GLY	22	−20.976	−21.094
A	382	VAL	24	−23.121	−23.222
A	383	SER	5	−22.183	−20.207
A	384	PRO	15	−23.064	−22.136
A	385	THR	0	−21.738	−19.238
A	386	LYS	13	−22.849	−21.716
A	387	LEU	27	−25.761	−25.903
A	388	ASN	11	−23.754	−22.287
A	389	ASP	5	−20.816	−18.997
A	390	LEU	24	−23.570	−23.619
A	391	CYS	20	−24.764	−24.217
A	392	PHE	31	−25.292	−25.948
A	393	THR	11	−21.685	−20.456
A	394	ASN	6	−23.531	−21.515
A	395	VAL	31	−27.350	−27.770
A	396	TYR	13	−26.742	−25.162
A	397	ALA	28	−27.449	−27.513
A	398	ASP	26	−24.082	−24.303
A	399	SER	22	−20.751	−20.895
A	400	PHE	34	−13.861	−16.177
A	401	VAL	31	−12.248	−14.404
A	402	ILE	35	−9.520	−12.450
A	403	ARG	25	−6.714	−8.817
A	404	GLY	16	−7.489	−8.468
A	405	ASP	12	−4.719	−5.557
A	406	GLU	29	−5.786	−8.455
A	407	VAL	23	−10.268	−11.732
A	408	ARG	6	−9.701	−9.275
A	409	GLN	27	−8.424	−10.560
A	410	ILE	35	−13.195	−15.703
A	411	ALA	11	−13.868	−13.538
A	412	PRO	18	−10.297	−11.183
A	413	GLY	5	−5.461	−5.408

A	414	GLN	21	-5.234	-7.047	
A	415	THR	2	-3.600	-3.416	<=B
A	416	GLY	17	-4.524	-5.959	
A	417	LYS	18	-3.684	-5.330	
A	418	ILE	25	-7.109	-9.166	
A	419	ALA	17	-7.093	-8.232	
A	420	ASP	11	-4.640	-5.372	
A	421	TYR	23	-5.029	-7.096	
A	422	ASN	32	-7.430	-10.256	
A	423	TYR	31	-8.963	-11.497	
A	424	LYS	19	-8.374	-9.596	
A	425	LEU	32	-13.135	-15.304	
A	426	PRO	14	-9.961	-10.426	
A	427	ASP	0	-6.308	-5.582	
A	428	ASP	3	-10.602	-9.727	
A	429	PHE	27	-18.479	-19.459	
A	430	THR	14	-23.514	-22.419	
A	431	GLY	31	-27.747	-28.121	
A	432	CYS	27	-28.140	-28.009	
A	433	VAL	24	-25.879	-25.663	
A	434	ILE	31	-24.194	-24.977	
A	435	ALA	25	-16.953	-17.878	
A	436	TRP	20	-15.239	-15.786	
A	437	ASN	14	-8.258	-8.918	
A	438	SER	34	-7.964	-10.958	
A	439	ASN	20	-2.996	-4.952	
A	440	ASN	4	-2.677	-2.829	<=B
A	441	LEU	20	-4.643	-6.409	
A	442	ASP	34	-4.283	-7.700	
A	443	SER	23	-1.381	-3.867	
A	444	LYS	9	1.524	0.314	<=B
A	445	VAL	1	3.193	2.711	<=B
A	446	GLY	1	3.255	2.766	<=B
A	447	GLY	9	1.802	0.560	<=B
A	448	ASN	26	-0.695	-3.605	<=B
A	449	TYR	5	-1.423	-1.834	<=B
A	450	ASN	18	-1.686	-3.562	<=B
A	451	TYR	31	-5.472	-8.408	
A	452	LEU	19	-5.261	-6.841	
A	453	TYR	27	-6.017	-8.430	
A	454	ARG	30	-3.539	-6.582	
A	455	LEU	15	-4.140	-5.389	
A	456	PHE	14	-3.933	-5.091	
A	457	ARG	24	-2.571	-5.035	
A	458	LYS	10	-1.515	-2.490	<=B
A	459	SER	5	-0.676	-1.174	<=B
A	460	ASN	14	-1.005	-2.499	<=B
A	461	LEU	26	-3.373	-5.975	
A	462	LYS	1	-2.621	-2.435	<=B
A	463	PRO	11	-7.430	-7.841	

A	464	PHE	18	−10.792	−11.621	
A	465	GLU	16	−5.462	−6.674	
A	466	ARG	13	−5.608	−6.458	
A	467	ASP	28	−4.428	−7.139	
A	468	ILE	2	−4.529	−4.238	
A	469	SER	20	−3.585	−5.473	
A	470	THR	7	−4.753	−5.012	
A	471	GLU	10	−4.747	−5.351	
A	472	ILE	16	−5.721	−6.903	
A	473	TYR	17	−5.196	−6.554	
A	474	GLN	8	−4.884	−5.242	
A	475	ALA	11	−5.235	−5.898	
A	476	GLY	10	−4.110	−4.787	
A	477	SER	0	−3.728	−3.300	<=B
A	478	THR	9	−4.609	−5.114	
A	479	PRO	1	−4.235	−3.863	
A	480	CYS	17	−5.081	−6.452	
A	481	ASN	0	−4.467	−3.953	
A	482	GLY	5	−4.564	−4.615	
A	483	VAL	0	−5.799	−5.132	
A	484	GLU	1	−6.147	−5.555	
A	485	GLY	16	−6.110	−7.247	
A	486	PHE	2	−5.493	−5.091	
A	487	ASN	5	−5.225	−5.199	
A	488	CYS	19	−6.756	−8.164	
A	489	TYR	11	−6.136	−6.695	
A	490	PHE	9	−6.258	−6.574	
A	491	PRO	21	−5.470	−7.256	
A	492	LEU	20	−4.402	−6.196	
A	493	GLN	13	−3.861	−4.912	
A	494	SER	13	−3.157	−4.289	
A	495	TYR	36	−2.979	−6.776	
A	496	GLY	4	0.060	−0.406	<=B
A	497	PHE	32	−1.100	−4.653	
A	498	GLN	7	1.199	0.256	<=B
A	499	PRO	7	1.621	0.630	<=B
A	500	THR	3	2.786	2.121	<=B
A	501	ASN	27	2.505	−0.888	<=B
A	502	GLY	1	1.530	1.239	<=B
A	503	VAL	7	−1.530	−2.159	<=B
A	504	GLY	5	−4.994	−4.995	
A	505	TYR	8	−1.117	−1.909	<=B
A	506	GLN	17	−3.683	−5.214	
A	507	PRO	32	−6.314	−9.268	
A	508	TYR	25	−9.589	−11.361	
A	509	ARG	27	−15.032	−16.408	
A	510	VAL	37	−18.967	−21.041	
A	511	VAL	26	−24.935	−25.057	
A	512	VAL	30	−27.377	−27.679	
A	513	LEU	37	−30.208	−30.989	

A	514	SER	22	−27.128	−26.538	
A	515	PHE	38	−28.232	−29.356	
A	516	GLU	11	−24.016	−22.519	
A	517	LEU	16	−22.887	−22.095	
A	518	LEU	10	−19.048	−18.008	
A	519	HIS	7	−15.710	−14.708	
A	520	ALA	11	−15.968	−15.397	
A	521	PRO	9	−16.804	−15.907	
A	522	ALA	30	−20.643	−21.719	
A	523	THR	11	−21.133	−19.967	
A	524	VAL	27	−24.994	−25.225	
A	525	CYS	19	−23.643	−23.109	
A	526	GLY	20	−22.246	−21.988	
A	527	PRO	13	−18.022	−17.445	
A	528	LYS	13	−14.307	−14.157	
A	529	LYS	16	−15.302	−15.383	
A	530	SER	22	−13.339	−14.335	
A	531	THR	12	−11.097	−11.201	
A	532	ASN	3	−8.681	−8.028	
A	533	LEU	21	−9.260	−10.610	
A	534	VAL	16	−6.127	−7.263	
A	535	LYS	13	−8.028	−8.600	
A	536	ASN	3	−10.753	−9.861	
A	537	LYS	13	−11.856	−11.987	
A	538	CYS	19	−13.582	−14.205	
A	539	VAL	23	−12.073	−13.329	
A	540	ASN	5	−13.076	−12.148	
A	541	PHE	32	−12.729	−14.945	
A	542	ASN	17	−14.508	−14.794	
A	543	PHE	29	−13.982	−15.709	
A	544	ASN	20	−15.067	−15.634	
A	545	GLY	18	−16.681	−16.833	
A	546	LEU	20	−13.947	−14.643	
A	547	THR	9	−13.586	−13.059	
A	548	GLY	22	−13.049	−14.079	
A	549	THR	9	−13.323	−12.826	
A	550	GLY	21	−13.162	−14.064	
A	551	VAL	14	−12.727	−12.873	
A	552	LEU	27	−10.529	−12.423	
A	553	THR	15	−9.402	−10.045	
A	554	GLU	6	−6.137	−6.121	
A	555	SER	24	−5.342	−7.487	
A	556	ASN	0	−3.216	−2.846	<=B
A	557	LYS	22	−3.601	−5.717	
A	558	LYS	1	−0.982	−0.984	<=B
A	559	PHE	23	−1.704	−4.153	
A	560	LEU	1	−0.922	−0.931	<=B
A	561	PRO	0	−1.451	−1.285	<=B
A	562	PHE	0	−3.405	−3.014	<=B
A	563	GLN	13	−3.647	−4.723	

A	564	GLN	15	-8.358	-9.121	
A	565	PHE	16	-8.074	-8.986	
A	566	GLY	23	-5.604	-7.604	
A	567	ARG	6	-5.539	-5.592	
A	568	ASP	10	-4.296	-4.952	
A	569	ILE	0	-3.671	-3.249	<=B
A	570	ALA	3	-4.335	-4.181	
A	571	ASP	0	-4.254	-3.765	
A	572	THR	10	-6.272	-6.701	
A	573	THR	26	-7.636	-9.748	
A	574	ASP	11	-7.136	-7.581	
A	575	ALA	20	-7.601	-9.027	
A	576	VAL	28	-9.301	-11.452	
A	577	ARG	13	-8.149	-8.707	
A	578	ASP	22	-8.303	-9.878	
A	579	PRO	23	-9.853	-11.365	
A	580	GLN	15	-8.669	-9.397	
A	581	THR	11	-4.776	-5.492	
A	582	LEU	9	-4.077	-4.643	
A	583	GLU	12	-3.669	-4.627	
A	584	ILE	17	-5.131	-6.496	
A	585	LEU	33	-6.820	-9.831	
A	586	ASP	11	-7.938	-8.290	
A	587	ILE	25	-10.359	-12.043	
A	588	THR	17	-12.087	-12.652	
A	589	PRO	11	-13.407	-13.130	
A	590	CYS	26	-16.947	-17.988	
A	591	SER	19	-19.621	-19.549	
A	592	PHE	13	-21.485	-20.509	
A	593	GLY	23	-23.685	-23.606	
A	594	GLY	13	-24.330	-23.027	
A	595	VAL	30	-27.242	-27.559	
A	596	SER	23	-25.675	-25.368	
A	597	VAL	32	-27.672	-28.169	
A	598	ILE	33	-26.249	-27.025	
A	599	THR	28	-23.559	-24.070	
A	600	PRO	17	-16.917	-16.927	
A	601	GLY	7	-17.206	-16.033	
A	602	THR	17	-16.489	-16.548	
A	603	ASN	6	-13.336	-12.493	
A	604	THR	19	-11.507	-12.368	
A	605	SER	24	-15.166	-16.182	
A	606	ASN	11	-18.066	-17.253	
A	607	GLN	21	-20.057	-20.165	
A	608	VAL	33	-24.766	-25.713	
A	609	ALA	37	-26.805	-27.978	
A	610	VAL	32	-28.522	-28.922	
A	611	LEU	31	-27.869	-28.229	
A	612	TYR	26	-27.898	-27.680	
A	613	GLN	16	-24.928	-23.901	

A	614	GLY	11	−22.413	−21.101
A	615	VAL	28	−22.381	−23.027
A	616	ASN	4	−20.705	−18.784
A	617	CYS	18	−22.712	−22.170
A	618	THR	3	−18.906	−17.077
A	619	GLU	27	−20.549	−21.291
A	620	VAL	34	−23.983	−25.135
A	621	PRO	10	−18.927	−17.901
A	622	VAL	23	−19.045	−19.500
A	623	ALA	30	−19.948	−21.104
A	624	ILE	11	−16.841	−16.170
A	625	HIS	7	−13.909	−13.114
A	626	ALA	26	−15.079	−16.334
A	627	ASP	7	−11.926	−11.359
A	628	GLN	14	−16.095	−15.854
A	629	LEU	17	−20.067	−19.714
A	630	THR	26	−22.552	−22.949
A	631	PRO	17	−22.926	−22.245
A	632	THR	31	−23.747	−24.581
A	633	TRP	28	−25.345	−25.650
A	634	ARG	12	−20.156	−19.218
A	635	VAL	17	−19.080	−18.840
A	636	TYR	38	−22.891	−24.628
A	637	SER	16	−18.880	−18.548
A	638	THR	10	−14.994	−14.420
A	639	GLY	15	−17.359	−17.088
A	640	SER	3	−14.401	−13.090
A	641	ASN	21	−16.530	−17.044
A	642	VAL	20	−21.156	−21.023
A	643	PHE	28	−20.660	−21.504
A	644	GLN	7	−20.848	−19.256
A	645	THR	32	−21.288	−22.519
A	646	ARG	9	−19.261	−18.081
A	647	ALA	25	−20.668	−21.166
A	648	GLY	27	−23.360	−23.778
A	649	CYS	29	−24.177	−24.731
A	650	LEU	30	−26.777	−27.147
A	651	ILE	30	−25.878	−26.352
A	652	GLY	26	−23.674	−23.942
A	653	ALA	38	−20.697	−22.687
A	654	GLU	14	−15.997	−15.767
A	655	HIS	16	−15.400	−15.469
A	656	VAL	26	−13.319	−14.777
A	657	ASN	0	−9.868	−8.733
A	658	ASN	11	−8.624	−8.897
A	659	SER	9	−10.877	−10.661
A	660	TYR	19	−11.611	−12.460
A	661	GLU	3	−12.097	−11.051
A	662	CYS	14	−14.571	−14.505
A	663	ASP	22	−16.434	−17.074

A	664	ILE	29	−18.837	−20.006	
A	665	PRO	3	−18.391	−16.621	
A	666	ILE	41	−20.610	−22.955	
A	667	GLY	21	−19.074	−19.296	
A	668	ALA	12	−17.286	−16.678	
A	669	GLY	10	−16.028	−15.335	
A	670	ILE	29	−18.822	−19.993	
A	671	CYS	17	−18.864	−18.650	
A	672	ALA	37	−20.242	−22.169	
A	673	SER	16	−17.293	−17.145	
A	674	TYR	22	−13.846	−14.784	
A	675	GLN	17	−10.152	−10.940	
A	676	THR	9	−5.315	−5.739	
A	677	GLN	19	−5.939	−7.441	
A	678	THR	12	−2.535	−3.623	<=B
A	679	ASN	2	0.062	−0.175	<=B
A	680	SER	5	2.610	1.735	<=B
A	681	PRO	0	3.122	2.763	<=B
A	682	ARG	0	3.168	2.803	<=B
A	683	ARG	9	2.489	1.168	<=B
A	684	ALA	4	1.920	1.239	<=B
A	685	ARG	0	1.614	1.428	<=B
A	686	SER	9	1.942	0.684	<=B
A	687	VAL	4	−0.053	−0.507	<=B
A	688	ALA	4	−2.215	−2.420	<=B
A	689	SER	11	−4.122	−4.913	
A	690	GLN	16	−6.797	−7.855	
A	691	SER	20	−11.559	−12.530	
A	692	ILE	36	−17.202	−19.363	
A	693	ILE	19	−16.175	−16.500	
A	694	ALA	29	−18.677	−19.864	
A	695	TYR	21	−16.769	−17.256	
A	696	THR	7	−14.942	−14.028	
A	697	MET	16	−14.092	−14.311	
A	698	SER	10	−10.282	−10.250	
A	699	LEU	4	−8.878	−8.317	
A	700	GLY	3	−7.501	−6.984	
A	701	ALA	2	−5.854	−5.411	
A	702	GLU	5	−4.783	−4.808	
A	703	ASN	6	−2.297	−2.723	<=B
A	704	SER	1	−1.683	−1.604	<=B
A	705	VAL	8	−2.899	−3.485	<=B
A	706	ALA	10	−3.728	−4.449	
A	707	TYR	3	−4.152	−4.019	
A	708	SER	12	−5.495	−6.243	
A	709	ASN	5	−6.061	−5.939	
A	710	ASN	13	−7.056	−7.740	
A	711	SER	8	−6.221	−6.426	
A	712	ILE	24	−7.662	−9.540	
A	713	ALA	12	−3.495	−4.473	

A	714	ILE	26	-3.404	-6.003	
A	715	PRO	18	-3.964	-5.579	
A	716	THR	8	-2.996	-3.571	<=B
A	717	ASN	7	-4.042	-4.382	
A	718	PHE	36	-8.336	-11.518	
A	719	THR	13	-9.032	-9.489	
A	720	ILE	30	-13.077	-15.023	
A	721	SER	18	-18.079	-18.070	
A	722	VAL	31	-23.922	-24.736	
A	723	THR	19	-25.271	-24.550	
A	724	THR	31	-26.842	-27.320	
A	725	GLU	28	-27.171	-27.266	
A	726	ILE	22	-26.015	-25.553	
A	727	LEU	31	-26.684	-27.180	
A	728	PRO	24	-26.538	-26.246	
A	729	VAL	33	-26.548	-27.290	
A	730	SER	33	-25.300	-26.186	
A	731	MET	33	-22.559	-23.760	
A	732	THR	31	-24.464	-25.216	
A	733	LYS	21	-24.386	-23.997	
A	734	THR	34	-24.929	-25.972	
A	735	SER	15	-25.592	-24.374	
A	736	VAL	40	-28.294	-29.641	
A	737	ASP	17	-27.549	-26.336	
A	738	CYS	25	-28.807	-28.369	
A	739	THR	14	-28.018	-26.406	
A	740	MET	13	-28.256	-26.501	
A	741	TYR	33	-30.435	-30.730	
A	742	ILE	34	-29.227	-29.776	
A	743	CYS	22	-27.971	-27.285	
A	744	GLY	23	-26.537	-26.130	
A	745	ASP	6	-21.672	-19.870	
A	746	SER	28	-19.421	-20.408	
A	747	THR	3	-17.052	-15.436	
A	748	GLU	21	-17.546	-17.944	
A	749	CYS	29	-21.248	-22.139	
A	750	SER	8	-21.156	-19.643	
A	751	ASN	9	-17.054	-16.128	
A	752	LEU	28	-19.559	-20.530	
A	753	LEU	27	-22.279	-22.822	
A	754	LEU	7	-19.213	-17.809	
A	755	GLN	13	-16.365	-15.978	
A	756	TYR	27	-18.281	-19.284	
A	757	GLY	0	-16.201	-14.338	
A	758	SER	3	-16.032	-14.533	
A	759	PHE	26	-21.513	-22.029	
A	760	CYS	24	-24.346	-24.306	
A	761	THR	5	-19.988	-18.264	
A	762	GLN	13	-18.239	-17.637	
A	763	LEU	29	-22.858	-23.565	

A	764	ASN	15	-22.434	-21.579	
A	765	ARG	5	-17.810	-16.337	
A	766	ALA	22	-17.108	-17.671	
A	767	LEU	27	-21.936	-22.518	
A	768	THR	8	-18.876	-17.625	
A	769	GLY	16	-16.473	-16.419	
A	770	ILE	28	-18.997	-20.032	
A	771	ALA	18	-21.630	-21.212	
A	772	VAL	6	-17.052	-15.781	
A	773	GLU	19	-16.403	-16.702	
A	774	GLN	33	-19.228	-20.812	
A	775	ASP	17	-17.598	-17.529	
A	776	LYS	14	-15.520	-15.346	
A	777	ASN	31	-21.620	-22.698	
A	778	THR	27	-23.019	-23.477	
A	779	GLN	9	-20.574	-19.243	
A	780	GLU	21	-20.608	-20.653	
A	781	VAL	39	-25.671	-27.204	
A	782	PHE	33	-24.811	-25.752	
A	783	ALA	14	-19.896	-19.218	
A	784	GLN	34	-20.495	-22.048	
A	785	VAL	31	-17.294	-18.870	
A	786	LYS	3	-12.243	-11.180	
A	787	GLN	17	-12.256	-12.802	
A	788	ILE	11	-11.065	-11.058	
A	789	TYR	29	-13.071	-14.903	
A	790	LYS	5	-10.319	-9.707	
A	791	THR	31	-11.469	-13.715	
A	792	PRO	17	-4.763	-6.171	
A	793	PRO	0	-1.446	-1.279	<=B
A	794	ILE	3	-1.829	-1.964	<=B
A	795	LYS	13	-6.073	-6.870	
A	796	ASP	6	-6.675	-6.597	
A	797	PHE	27	-10.276	-12.199	
A	798	GLY	21	-9.286	-10.633	
A	799	GLY	17	-7.583	-8.666	
A	800	PHE	32	-13.689	-15.795	
A	801	ASN	17	-13.156	-13.598	
A	802	PHE	32	-16.758	-18.511	
A	803	SER	13	-10.979	-11.212	
A	804	GLN	24	-13.700	-14.885	
A	805	ILE	39	-20.287	-22.439	
A	806	LEU	21	-16.489	-17.008	
A	807	PRO	28	-11.996	-13.836	
A	808	ASP	14	-5.991	-6.912	
A	809	PRO	5	-1.448	-1.857	<=B
A	810	SER	4	0.935	0.368	<=B
A	811	LYS	20	-2.132	-4.187	
A	812	PRO	0	-1.495	-1.323	<=B
A	813	SER	21	-6.037	-7.757	

A	814	LYS	15	−6.895	−7.827
A	815	ARG	22	−13.553	−14.524
A	816	SER	34	−17.289	−19.210
A	817	PHE	14	−14.530	−14.469
A	818	ILE	35	−20.887	−22.510
A	819	GLU	33	−20.823	−22.223
A	820	ASP	15	−14.990	−14.991
A	821	LEU	26	−17.053	−18.082
A	822	LEU	35	−21.129	−22.724
A	823	PHE	21	−17.075	−17.527
A	824	ASN	14	−13.993	−13.994
A	825	LYS	29	−14.719	−16.361
A	826	VAL	38	−16.339	−18.830
A	827	THR	5	−18.642	−17.074
A	828	LEU	23	−22.022	−22.134
A	829	ALA	25	−22.612	−22.887
A	830	ASP	27	−21.139	−21.813
A	831	ALA	14	−20.304	−19.579
A	832	GLY	23	−17.229	−17.892
A	833	PHE	9	−13.410	−12.902
A	834	ILE	3	−13.908	−12.653
A	835	LYS	24	−13.426	−14.642
A	836	GLN	3	−9.796	−9.014
A	837	TYR	1	−11.393	−10.198
A	838	GLY	1	−8.357	−7.511
A	839	ASP	8	−10.929	−10.592
A	840	CYS	16	−15.820	−15.840
A	841	LEU	4	−12.371	−11.408
A	842	GLY	5	−8.008	−7.662
A	843	ASP	2	−8.832	−8.046
A	844	ILE	12	−12.859	−12.760
A	845	ALA	10	−15.443	−14.817
A	846	ALA	13	−15.474	−15.190
A	847	ARG	11	−17.375	−16.642
A	848	ASP	21	−18.354	−18.658
A	849	LEU	18	−21.516	−21.111
A	850	ILE	24	−22.638	−22.794
A	851	CYS	15	−20.940	−20.257
A	852	ALA	24	−24.590	−24.522
A	853	GLN	28	−26.540	−26.708
A	854	LYS	23	−26.154	−25.791
A	855	PHE	17	−26.274	−25.208
A	856	ASN	25	−29.058	−28.591
A	857	GLY	26	−28.895	−28.562
A	858	LEU	31	−29.660	−29.814
A	859	THR	18	−27.052	−26.011
A	860	VAL	29	−23.210	−23.876
A	861	LEU	19	−22.962	−22.506
A	862	PRO	11	−18.405	−17.554
A	863	PRO	28	−17.485	−18.694

A	864	LEU	18	−13.256	−13.802
A	865	LEU	29	−15.198	−16.786
A	866	THR	8	−12.962	−12.391
A	867	ASP	24	−15.969	−16.893
A	868	GLU	8	−11.928	−11.476
A	869	MET	14	−14.379	−14.336
A	870	ILE	31	−20.820	−21.991
A	871	ALA	23	−18.854	−19.331
A	872	GLN	11	−15.696	−15.156
A	873	TYR	27	−20.510	−21.257
A	874	THR	39	−23.403	−25.196
A	875	SER	23	−19.076	−19.527
A	876	ALA	22	−18.204	−18.641
A	877	LEU	36	−24.398	−25.732
A	878	LEU	32	−23.737	−24.688
A	879	ALA	25	−19.943	−20.525
A	880	GLY	35	−22.118	−23.600
A	881	THR	32	−23.780	−24.725
A	882	ILE	29	−20.371	−21.363
A	883	THR	19	−16.355	−16.659
A	884	SER	27	−16.821	−17.991
A	885	GLY	17	−20.526	−20.121
A	886	TRP	22	−21.517	−21.572
A	887	THR	15	−16.524	−16.349
A	888	PHE	31	−17.899	−19.406
A	889	GLY	25	−19.684	−20.296
A	890	ALA	13	−14.087	−13.962
A	891	GLY	4	−11.110	−10.292
A	892	ALA	2	−11.762	−10.640
A	893	ALA	22	−13.766	−14.713
A	894	LEU	11	−11.758	−11.671
A	895	GLN	10	−11.142	−11.011
A	896	ILE	19	−11.094	−12.003
A	897	PRO	11	−11.388	−11.344
A	898	PHE	26	−14.566	−15.881
A	899	ALA	19	−12.999	−13.689
A	900	MET	9	−11.245	−10.987
A	901	GLN	31	−13.893	−15.861
A	902	MET	28	−14.551	−16.098
A	903	ALA	15	−10.726	−11.218
A	904	TYR	17	−11.034	−11.720
A	905	ARG	38	−14.979	−17.626
A	906	PHE	27	−10.982	−12.824
A	907	ASN	10	−8.807	−8.944
A	908	GLY	30	−11.076	−13.252
A	909	ILE	33	−9.655	−12.340
A	910	GLY	21	−6.687	−8.333
A	911	VAL	36	−7.626	−10.889
A	912	THR	19	−3.714	−5.472
A	913	GLN	11	−5.124	−5.799

A	914	ASN	7	-1.214	-1.879	<=B
A	915	VAL	29	-3.246	-6.208	
A	916	LEU	26	-7.406	-9.544	
A	917	TYR	9	-2.636	-3.368	<=B
A	918	GLU	11	-2.041	-3.072	<=B
A	919	ASN	23	-2.783	-5.108	
A	920	GLN	19	-5.067	-6.669	
A	921	LYS	1	-4.487	-4.086	
A	922	LEU	14	-4.180	-5.309	
A	923	ILE	28	-8.952	-11.142	
A	924	ALA	20	-10.808	-11.865	
A	925	ASN	7	-7.570	-7.505	
A	926	GLN	23	-11.135	-12.499	
A	927	PHE	30	-15.069	-16.786	
A	928	ASN	12	-14.172	-13.922	
A	929	SER	11	-12.964	-12.738	
A	930	ALA	28	-17.511	-18.717	
A	931	ILE	25	-19.120	-19.796	
A	932	GLY	10	-15.618	-14.972	
A	933	LYS	14	-14.935	-14.827	
A	934	ILE	35	-19.426	-21.217	
A	935	GLN	15	-15.581	-15.514	
A	936	ASP	8	-11.798	-11.361	
A	937	SER	18	-13.971	-14.434	
A	938	LEU	30	-15.238	-16.936	
A	939	SER	8	-10.133	-9.888	
A	940	SER	6	-8.499	-8.212	
A	941	THR	10	-10.344	-10.305	
A	942	ALA	3	-10.779	-9.885	
A	943	SER	4	-14.964	-13.703	
A	944	ALA	27	-19.421	-20.292	
A	945	LEU	33	-20.514	-21.950	
A	946	GLY	7	-18.262	-16.967	
A	947	LYS	21	-19.443	-19.622	
A	948	LEU	32	-23.896	-24.828	
A	949	GLN	12	-19.207	-18.379	
A	950	ASP	15	-20.549	-19.911	
A	951	VAL	35	-21.745	-23.269	
A	952	VAL	22	-23.923	-23.702	
A	953	ASN	11	-21.882	-20.631	
A	954	GLN	23	-20.136	-20.465	
A	955	ASN	36	-24.588	-25.900	
A	956	ALA	17	-24.184	-23.358	
A	957	GLN	11	-23.762	-22.294	
A	958	ALA	29	-24.351	-24.885	
A	959	LEU	30	-26.573	-26.967	
A	960	ASN	15	-26.564	-25.234	
A	961	THR	21	-25.988	-25.414	
A	962	LEU	38	-29.448	-30.431	
A	963	VAL	20	-29.390	-28.310	

A	964	LYS	12	−26.658	−24.972
A	965	GLN	27	−25.881	−26.010
A	966	LEU	28	−27.814	−27.835
A	967	SER	11	−23.640	−22.187
A	968	SER	21	−21.136	−21.121
A	969	ASN	4	−16.896	−15.413
A	970	PHE	23	−15.849	−16.671
A	971	GLY	7	−10.999	−10.539
A	972	ALA	30	−13.732	−15.603
A	973	ILE	13	−10.338	−10.644
A	974	SER	12	−13.122	−12.993
A	975	SER	10	−20.058	−18.901
A	976	VAL	4	−20.894	−18.952
A	977	LEU	24	−21.821	−22.071
A	978	ASN	4	−18.245	−16.607
A	979	ASP	11	−12.147	−12.015
A	980	ILE	31	−14.988	−16.829
A	981	LEU	17	−13.661	−14.045
A	982	SER	7	−10.259	−9.884
A	983	ARG	12	−9.364	−9.667
A	984	LEU	20	−10.704	−11.773
A	985	ASP	1	−9.810	−8.797
A	986	LYS	2	−10.239	−9.291
A	987	VAL	0	−10.344	−9.154
A	988	GLU	10	−11.233	−11.092
A	989	ALA	20	−14.578	−15.201
A	990	GLU	7	−15.383	−14.419
A	991	VAL	6	−14.588	−13.600
A	992	GLN	22	−15.841	−16.549
A	993	ILE	31	−19.845	−21.128
A	994	ASP	10	−19.210	−18.151
A	995	ARG	18	−18.295	−18.261
A	996	LEU	35	−21.528	−23.077
A	997	ILE	23	−23.310	−23.274
A	998	THR	10	−20.756	−19.519
A	999	GLY	22	−20.869	−20.999
A	1000	ARG	34	−24.743	−25.808
A	1001	LEU	21	−25.470	−24.956
A	1002	GLN	9	−21.024	−19.641
A	1003	SER	32	−23.425	−24.411
A	1004	LEU	32	−25.911	−26.611
A	1005	GLN	10	−21.701	−20.355
A	1006	THR	19	−19.969	−19.858
A	1007	TYR	39	−22.990	−24.831
A	1008	VAL	25	−22.329	−22.636
A	1009	THR	7	−15.348	−14.388
A	1010	GLN	20	−14.908	−15.493
A	1011	GLN	39	−21.425	−23.446
A	1012	LEU	14	−16.245	−15.987
A	1013	ILE	8	−13.266	−12.660

A	1014	ARG	28	−17.488	−18.697
A	1015	ALA	22	−19.195	−19.518
A	1016	ALA	6	−15.802	−14.675
A	1017	GLU	18	−16.525	−16.695
A	1018	ILE	34	−20.521	−22.071
A	1019	ARG	13	−20.433	−19.578
A	1020	ALA	8	−17.192	−16.135
A	1021	SER	24	−22.167	−22.378
A	1022	ALA	27	−22.885	−23.358
A	1023	ASN	7	−19.079	−17.690
A	1024	LEU	21	−20.426	−20.492
A	1025	ALA	35	−25.565	−26.650
A	1026	ALA	19	−23.940	−23.372
A	1027	THR	12	−21.768	−20.645
A	1028	LYS	35	−26.232	−27.240
A	1029	MET	34	−29.219	−29.769
A	1030	SER	12	−22.831	−21.585
A	1031	GLU	16	−23.302	−22.462
A	1032	CYS	38	−28.346	−29.456
A	1033	VAL	33	−28.635	−29.137
A	1034	LEU	25	−26.041	−25.921
A	1035	GLY	15	−23.945	−22.916
A	1036	GLN	24	−22.697	−22.847
A	1037	SER	25	−21.464	−21.871
A	1038	LYS	9	−13.208	−12.724
A	1039	ARG	16	−13.006	−13.350
A	1040	VAL	2	−12.537	−11.325
A	1041	ASP	1	−16.223	−14.472
A	1042	PHE	21	−19.184	−19.393
A	1043	CYS	33	−26.045	−26.845
A	1044	GLY	27	−24.192	−24.515
A	1045	LYS	2	−19.303	−17.313
A	1046	GLY	26	−14.600	−15.911
A	1047	TYR	21	−13.059	−13.973
A	1048	HIS	27	−19.871	−20.691
A	1049	LEU	36	−20.408	−22.201
A	1050	MET	34	−26.754	−27.587
A	1051	SER	37	−28.817	−29.758
A	1052	PHE	35	−28.487	−29.236
A	1053	PRO	42	−28.579	−30.123
A	1054	GLN	36	−24.903	−26.179
A	1055	SER	29	−25.724	−26.101
A	1056	ALA	33	−24.590	−25.557
A	1057	PRO	25	−24.007	−24.121
A	1058	HIS	38	−26.395	−27.730
A	1059	GLY	32	−26.558	−27.184
A	1060	VAL	44	−28.029	−29.866
A	1061	VAL	35	−27.080	−27.991
A	1062	PHE	36	−30.638	−31.254
A	1063	LEU	36	−29.062	−29.860

A	1064	HIS	28	−28.776	−28.687	
A	1065	VAL	36	−25.700	−26.885	
A	1066	THR	21	−20.286	−20.368	
A	1067	TYR	32	−13.294	−15.445	
A	1068	VAL	17	−10.872	−11.577	
A	1069	PRO	17	−8.168	−9.183	
A	1070	ALA	12	−6.216	−6.881	
A	1071	GLN	6	−3.310	−3.620	<=B
A	1072	GLU	15	−3.179	−4.538	
A	1073	LYS	16	−3.004	−4.498	
A	1074	ASN	9	−2.941	−3.638	<=B
A	1075	PHE	30	−5.528	−8.342	
A	1076	THR	12	−6.595	−7.217	
A	1077	THR	25	−8.165	−10.101	
A	1078	ALA	27	−9.347	−11.377	
A	1079	PRO	12	−9.876	−10.120	
A	1080	ALA	20	−10.237	−11.359	
A	1081	ILE	30	−9.350	−11.725	
A	1082	CYS	13	−9.350	−9.770	
A	1083	HIS	23	−7.683	−9.444	
A	1084	ASP	13	−7.502	−8.135	
A	1085	GLY	0	−8.175	−7.235	
A	1086	LYS	13	−8.545	−9.057	
A	1087	ALA	15	−9.275	−9.933	
A	1088	HIS	29	−8.753	−11.081	
A	1089	PHE	13	−8.557	−9.068	
A	1090	PRO	20	−5.941	−7.558	
A	1091	ARG	11	−5.580	−6.204	
A	1092	GLU	16	−4.257	−5.607	
A	1093	GLY	31	−5.681	−8.592	
A	1094	VAL	22	−7.522	−9.187	
A	1095	PHE	33	−8.247	−11.094	
A	1096	VAL	24	−7.267	−9.191	
A	1097	SER	18	−6.228	−7.582	
A	1098	ASN	12	−3.620	−4.584	
A	1099	GLY	2	−4.129	−3.884	
A	1100	THR	0	−3.894	−3.446	<=B
A	1101	HIS	9	−3.286	−3.943	
A	1102	TRP	26	−5.483	−7.842	
A	1103	PHE	19	−4.884	−6.508	
A	1104	VAL	24	−6.152	−8.204	
A	1105	THR	26	−5.646	−7.987	
A	1106	GLN	18	−3.850	−5.477	
A	1107	ARG	13	−5.609	−6.459	
A	1108	ASN	23	−4.802	−6.895	
A	1109	PHE	22	−4.481	−6.495	
A	1110	TYR	21	−3.522	−5.532	
A	1111	GLU	20	−1.611	−3.726	
A	1112	PRO	20	−2.886	−4.854	
A	1113	GLN	23	−2.214	−4.604	

A	1114	ILE	7	−3.319	−3.742	
A	1115	ILE	31	−5.127	−8.103	
A	1116	THR	10	−5.180	−5.735	
A	1117	THR	8	−4.700	−5.080	
A	1118	ASP	8	−3.103	−3.666	<=B
A	1119	ASN	26	−5.406	−7.774	
A	1120	THR	32	−6.374	−9.321	
A	1121	PHE	4	−7.124	−6.765	
A	1122	VAL	15	−7.813	−8.639	
A	1123	SER	8	−8.296	−8.262	
A	1124	GLY	9	−8.755	−8.783	
A	1125	ASN	3	−8.641	−7.992	
A	1126	CYS	12	−10.651	−10.806	
A	1127	ASP	0	−9.607	−8.502	
A	1128	VAL	8	−9.386	−9.227	
A	1129	VAL	23	−10.701	−12.115	
A	1130	ILE	2	−10.128	−9.193	
A	1131	GLY	11	−10.187	−10.281	
A	1132	ILE	23	−10.565	−11.995	
A	1133	VAL	21	−9.502	−10.824	
A	1134	ASN	2	−8.070	−7.372	
A	1135	ASN	33	−6.902	−9.903	
A	1136	THR	4	−6.326	−6.058	
A	1137	VAL	25	−6.852	−8.939	
A	1138	TYR	14	−3.955	−5.110	
A	1139	ASP	11	−3.139	−4.043	
A	1140	PRO	8	−1.024	−1.826	<=B
A	1141	LEU	3	−0.665	−0.934	<=B
A	1142	GLN	7	−0.239	−1.017	<=B
A	1143	PRO	6	0.810	0.027	<=B
A	1144	GLU	5	0.685	0.031	<=B
A	1145	LEU	5	0.972	0.285	<=B
A	1146	ASP	6	1.983	1.065	<=B
A	1147	SER	5	1.068	0.370	<=B
A	1148	PHE	6	1.137	0.317	<=B
A	1149	LYS	6	1.732	0.843	<=B
A	1150	GLU	5	2.624	1.747	<=B
A	1151	GLU	6	2.409	1.442	<=B
A	1152	LEU	7	2.170	1.116	<=B
A	1153	ASP	6	2.852	1.834	<=B
A	1154	LYS	5	2.857	1.954	<=B
A	1155	TYR	5	2.672	1.790	<=B
A	1156	PHE	6	3.000	1.965	<=B
A	1157	LYS	6	3.276	2.210	<=B
A	1158	ASN	6	3.171	2.117	<=B
A	1159	HIS	7	2.974	1.827	<=B
A	1160	THR	5	3.207	2.263	<=B
A	1161	SER	5	3.112	2.179	<=B
A	1162	PRO	4	3.211	2.381	<=B

Identified 101 B-Cell epitope residues out of 1149 total residues