



Full wwPDB EM Validation Report ⓘ

Jun 17, 2025 – 12:38 AM JST

PDB ID : 7BR8 / pdb_00007br8
EMDB ID : EMD-30159
Title : Epstein-Barr virus, C5 penton vertex, CATC absent.
Authors : Li, Z.; Yu, X.
Deposited on : 2020-03-26
Resolution : 3.80 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev118
MolProbity : 4-5-2 with Phenix2.0rc1
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.44

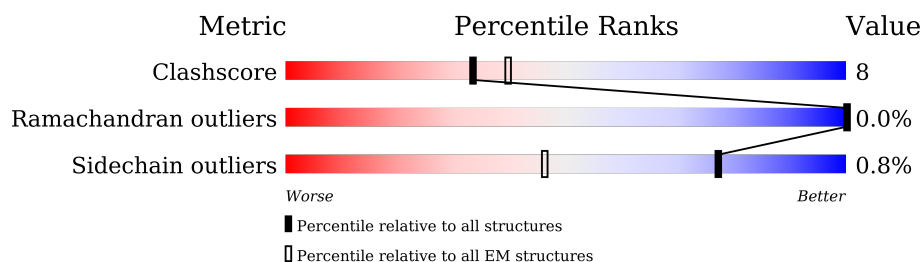
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.80 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	2	176	39% 33% 9% . 58%
1	Y	176	35% 40% . 58%
1	Z	176	37% 39% . 58%
1	m	176	38% 34% 6% 60%
1	y	176	36% 32% 9% . 58%
2	S	1381	54% 79% 16% . .
2	T	1381	49% 76% 19% .
2	W	1381	43% 78% 18% . .

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	l	1381	
2	x	1381	
3	5	364	
3	e	364	
4	6	301	
4	7	301	
4	f	301	
4	g	301	

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 68602 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Small capsomere-interacting protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	m	71	Total	C	N	O	S	0	0
			600	381	111	107	1		
1	Y	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	Z	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	2	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	y	74	Total	C	N	O	S	0	0
			621	394	114	112	1		

- Molecule 2 is a protein called Major capsid protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	S	1333	Total	C	N	O	S	0	0
			10491	6665	1820	1946	60		
2	T	1323	Total	C	N	O	S	0	0
			10398	6600	1808	1929	61		
2	W	1331	Total	C	N	O	S	0	0
			10463	6650	1810	1944	59		
2	x	1325	Total	C	N	O	S	0	0
			10404	6607	1803	1935	59		
2	l	1251	Total	C	N	O	S	0	0
			9883	6283	1717	1824	59		

- Molecule 3 is a protein called Triplex capsid protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	e	319	Total	C	N	O	S	0	0
			2505	1608	444	446	7		
3	5	311	Total	C	N	O	S	0	0
			2446	1568	435	436	7		

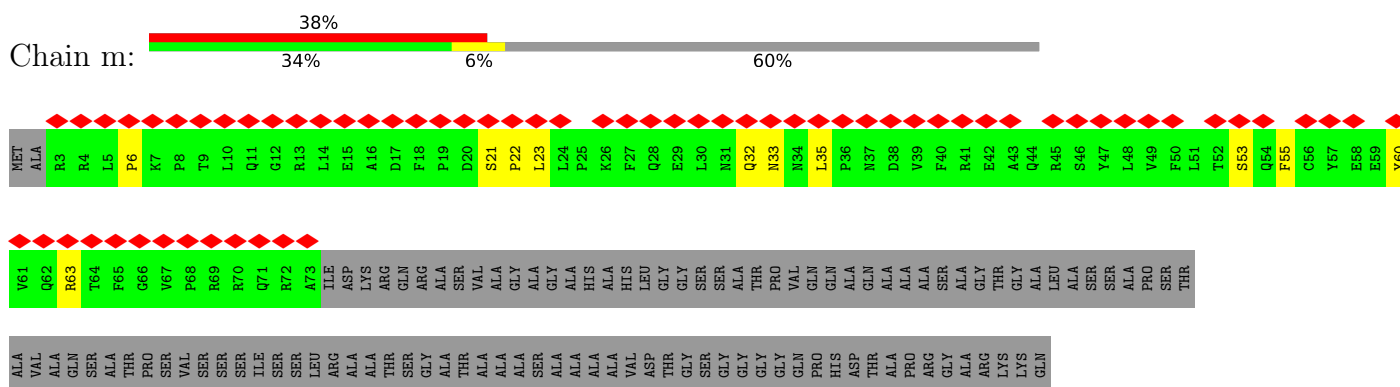
- Molecule 4 is a protein called Triplex capsid protein 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	f	290	Total	C	N	O	S	0	0
			2279	1466	378	419	16		
4	g	281	Total	C	N	O	S	0	0
			2190	1413	358	401	18		
4	6	289	Total	C	N	O	S	0	0
			2272	1461	377	418	16		
4	7	279	Total	C	N	O	S	0	0
			2187	1406	358	405	18		

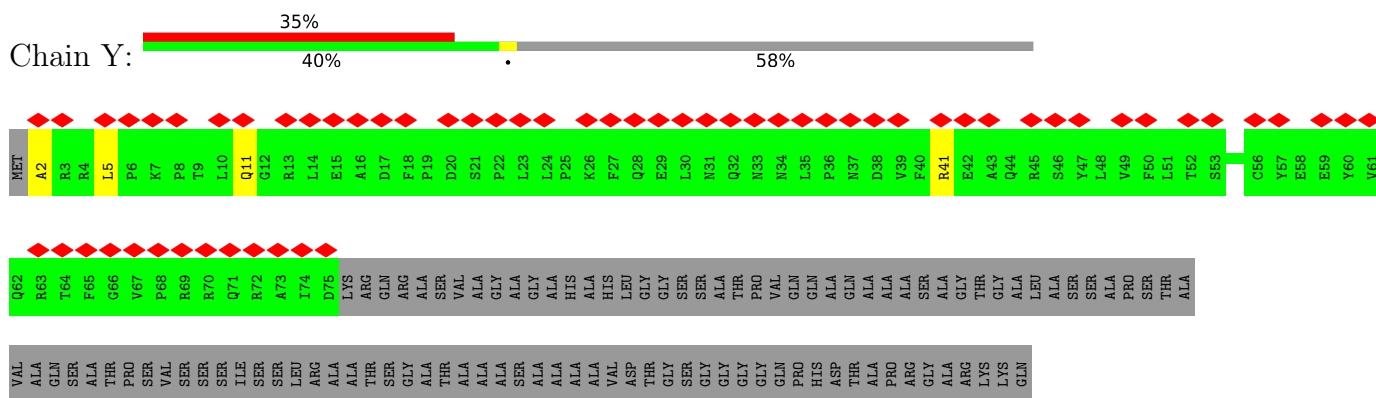
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

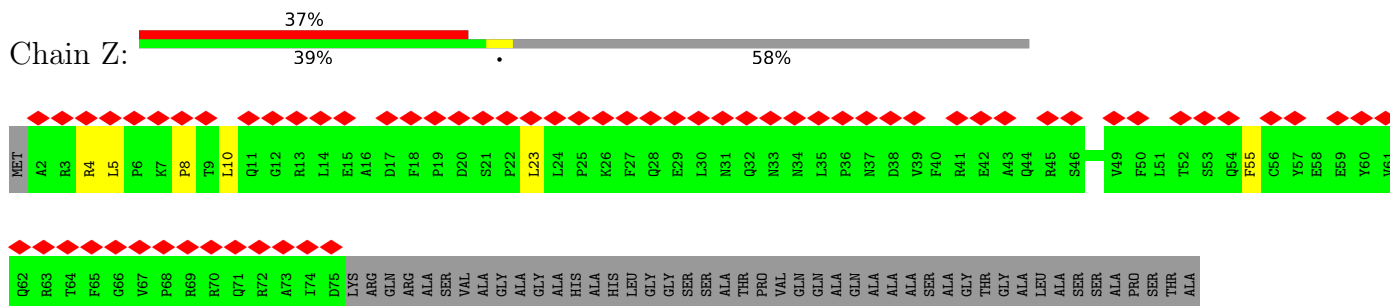
- Molecule 1: Small capsomere-interacting protein



- Molecule 1: Small capsomere-interacting protein



- Molecule 1: Small capsomere-interacting protein



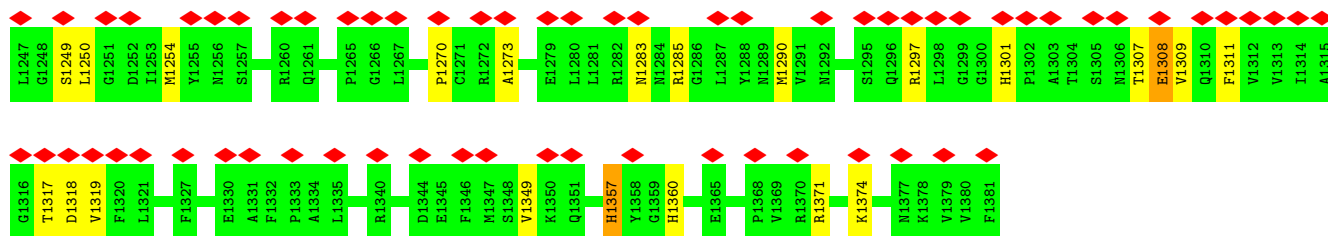
- Molecule 1: Small capsomere-interacting protein

- Molecule 1: Small capsomere-interacting protein

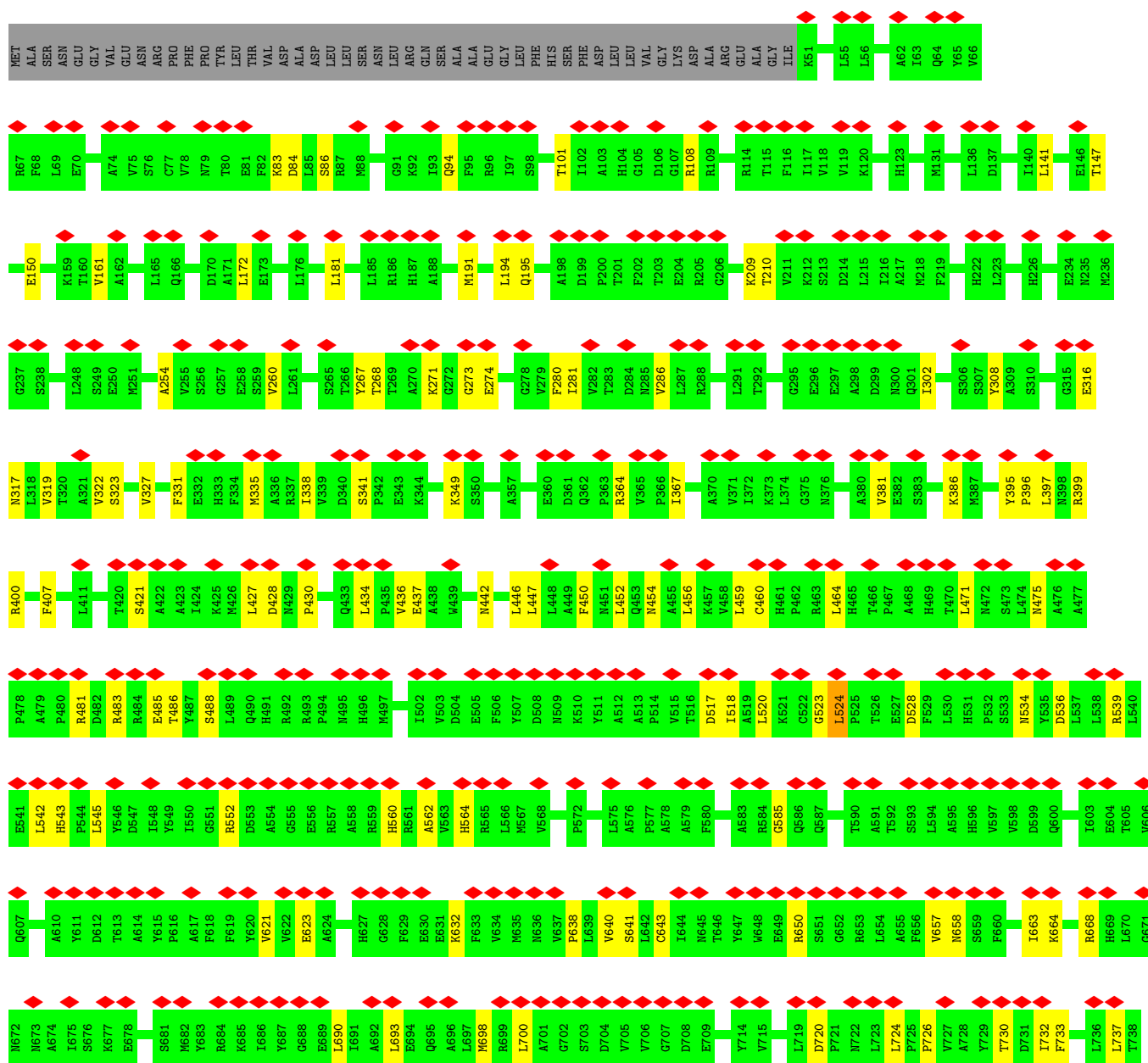
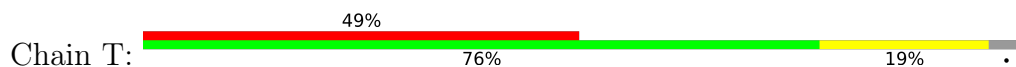
- Molecule 2: Major capsid protein

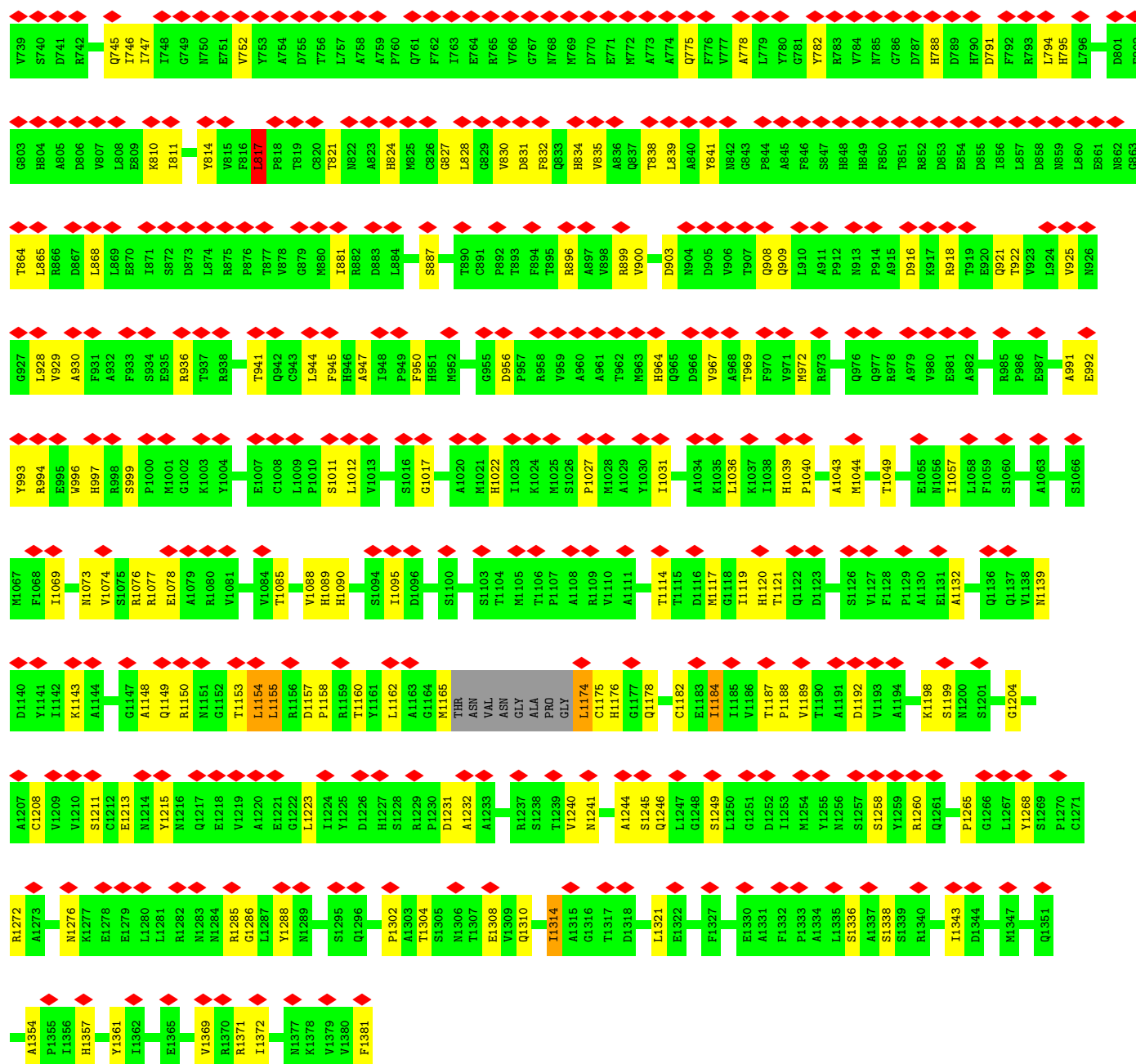


Q1178	A1111	A1034	A968	D905	N942	Y780	D720	V657	H596	G531	T470	L178	Q1179	D1116	K1035	G943	G781	P721	N658	V597	H531	L471	L397
A1180	M1117	K1037	M972	T907	P944	T782	N722	O658	V598	N534	M472	R399	E1181	E1119	I1038	R973	L910	L724	S659	Q600	Y535	L474	M401
E1183	H1120	H1039	N974	A911	F946	V784	L723	F660	D599	E535	M475	R400	E1184	T1121	T1045	Q976	R912	P725	I663	I603	L538	M476	F407
V1186	Q1122	P1040	P975	J913	S947	N785	P726	K664	E604	L540	A476	P408	E1185	T1122	T1046	R976	P912	V727	T605	E541	A477	Y409	
T1187	D1123	M1044	Q977	D916	F950	H788	A728	I666	V606	L542	P478	C410	E1186	Q1123	T1047	R977	A912	A729	T607	E542	A479	L411	
P1188	S1126	R1048	R978	K917	T851	D789	Y729	C667	G606	H543	P480	L411	P1189	V1127	R1049	R978	V980	T730	Q607	P480	P479		
V1189	V1127	T1049	A979	R918	D852	D791	T730	H669	D608	R481			V1190	E1130	D1050	E981	T919	I732	T609	R481			
D1192	A1130	E1055	F983	E920	D855	R792	F733	G671	A610	D482			V1191	E1131	N1056	T922	R733	D612	D483				
V1193	E1131	N1056	N954	Q921	D855	R793	T734	N672	A610	R484			V1194		I1057	P986	R793	D612	E485				
A1194		I1057	R985	T922	L857	H795	H736	N673	T613	R485			Y1195		F1059	Y925	L796	T612	E485				
Y1195		F1059	P986	Y925	D858	L796	L736	I675	A614	R486					S1060	N926	G677	T613	S421				
K1198	N1135	S1060	Q988	G927	E561	Y799	V739	E678	A554	T420					S1061	G527	I678	S421					
S1199	Q1136	R1052	E992	Y933	N962	V800	D741	A679	G555	S421					R1052	F618	F618	S421					
M1200	Q1137	F1059	Y933	L928	G863	D801	R742	S681	E556	A422					S1060	F619	E556	A422					
N1201	V1138	S1060	Q988	N926	L860	T798	T738	K677	D553	I424					S1061	E556	E556	I424					
P1202	M1139	S1061	E992	G927	E561	Y799	V739	E678	A554	K425					R1052	F618	E556	K425					
R1203	Q1140	R1052	Y933	N926	L860	T798	T738	K677	D553	M426					S1061	F618	E556	M426					
G1204	Y1141	A1063	E992	G927	E561	Y799	V739	E678	A554	L427					R1052	F618	E556	L427					
R1205	I1142	A1063	Y933	N926	L860	T798	T738	K677	D553	D428					S1061	F618	E556	D428					
A1206	K1143	S1066	W996	F931	L865	G803	A743	M682	A558	M429					R1052	F618	E556	M429					
	A1144	M1067	H996	F931	L865	G803	A743	M682	A558	P430					S1061	F618	E556	P430					
V1210	K1145	F1068	H996	F931	L865	G803	A743	M682	A558	T431					R1052	F618	E556	T431					
S1211	Y1146	F1068	H996	F931	L865	G803	A743	M682	A558	Q432					S1061	F618	E556	Q432					
C1212	G1147	T1072	P1000	E935	L869	V807	I748	I686	A562	Q433					R1052	F618	E556	Q433					
E1213	A1148	N1073	M1001	R936	E870	V807	I748	I686	A562	L434					S1061	F618	E556	L434					
M1214	GLN	N1073	M1001	R936	E870	V807	I748	I686	A562	P435					R1052	F618	E556	P435					
Y1215	ASN	E1078	K1003	T937	I871	K910	N750	E689	R565	V436					S1061	F618	E556	V436					
N1216	GLY	A1079	G873	A939	S872	K910	N750	E689	R565	E437					R1052	F618	E556	E437					
Q1217	THR	R1080	L874	V940	L874	V815	V752	E694	V568	M442					S1061	F618	E556	M442					
E1218	LEU	V1081	E1007	T941	R875	F816	A754	Q695	G569	K443					R1052	F618	E556	K443					
V1219	LEU	D1082	C1008	T941	R875	F816	A754	Q695	G569	M444					S1061	F618	E556	M444					
A1220	ARG	A1083	L1009	Q942	P876	L817	D755	D695	F633	M445					R1052	F618	E556	M445					
	ASP	V1084	P1010	F945	P876	L817	D755	D695	F633	L446					S1061	F618	E556	L446					
	PRO	H1089	P1010	F945	P876	L817	D755	D695	F633	L447					R1052	F618	E556	L447					
L1223	ARG	H1090	P1010	F945	P876	L817	D755	D695	F633	M448					S1061	F618	E556	M448					
I1224	THR	A1090	P1010	F945	P876	L817	D755	D695	F633						R1052	F618	E556						
V1225	TYR	L1097	P1010	F945	P876	L817	D755	D695	F633						S1061	F618	E556						
D1226	LEU	T1097	P1010	F945	P876	L817	D755	D695	F633						R1052	F618	E556						
H1227	ALA	D1096	S1016	P950	L884	A823	Q761	G702	L639						S1061	F618	E556						
S1228	GLY	T1097	G1017	H951	S885	A823	Q761	G702	L639						R1052	F618	E556						
R1229	MET	T1097	G1017	H951	S885	A823	Q761	G702	L639						S1061	F618	E556						
	THR	T1097	G1017	H951	S885	A823	Q761	G702	L639						R1052	F618	E556						
	ASN	S1100	A1020	H952	F888	G827	V763	S703	V640						S1061	F618	E556						
A1232	VAL	Y1101	M1021	F953	F888	G827	V763	S703	V640						R1052	F618	E556						
A1233	ASN	S1102	H1022	Y954	M889	L828	A758	A759	V637						S1061	F618	E556						
	GLY	S1103	I1023	G955	T990	G829	V766	D708	N636						R1052	F618	E556						
R1237	ALA	T1104	K1024	P956	C891	V830	G767	E709	G585						S1061	F618	E556						
S1238	PRO	M1025	M1025	P957	R892	S710	Y647	Q646	Q586						R1052	F618	E556						
T1239	GLY	M1105	M1025	P957	R892	S710	Y647	Q646	Q586						S1061	F618	E556						
V1240	L1174	T1106	P1027	R958	T993	D831	M768	V711	Q586						R1052	F618	E556						
M1241	P1107	A1108	M1028	V959	A961	F832	M769	V711	Q586						S1061	F618	E556						
	A1109	R1109	M1028	V959	A961	F832	M769	V711	Q586						R1052	F618	E556						
A1244	V1110	V1110	M1028	V959	A961	F832	M769	V711	Q586						S1061	F618	E556						
S1245			M1028	V959	A961	F832	M769	V711	Q586						R1052	F618	E556						
Q1246			M1028	V959	A961	F832	M769	V711	Q586						S1061	F618	E556						

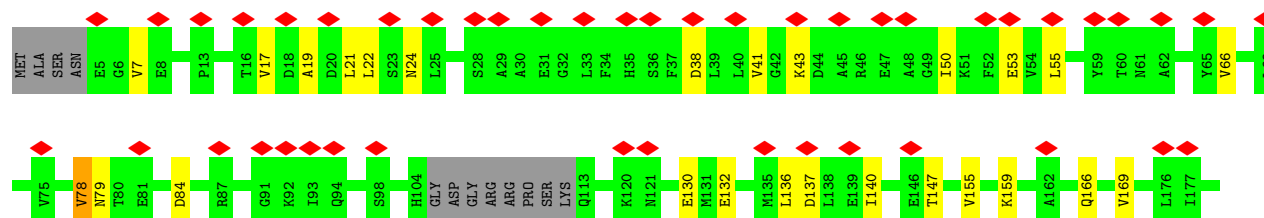
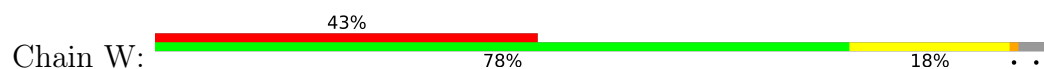


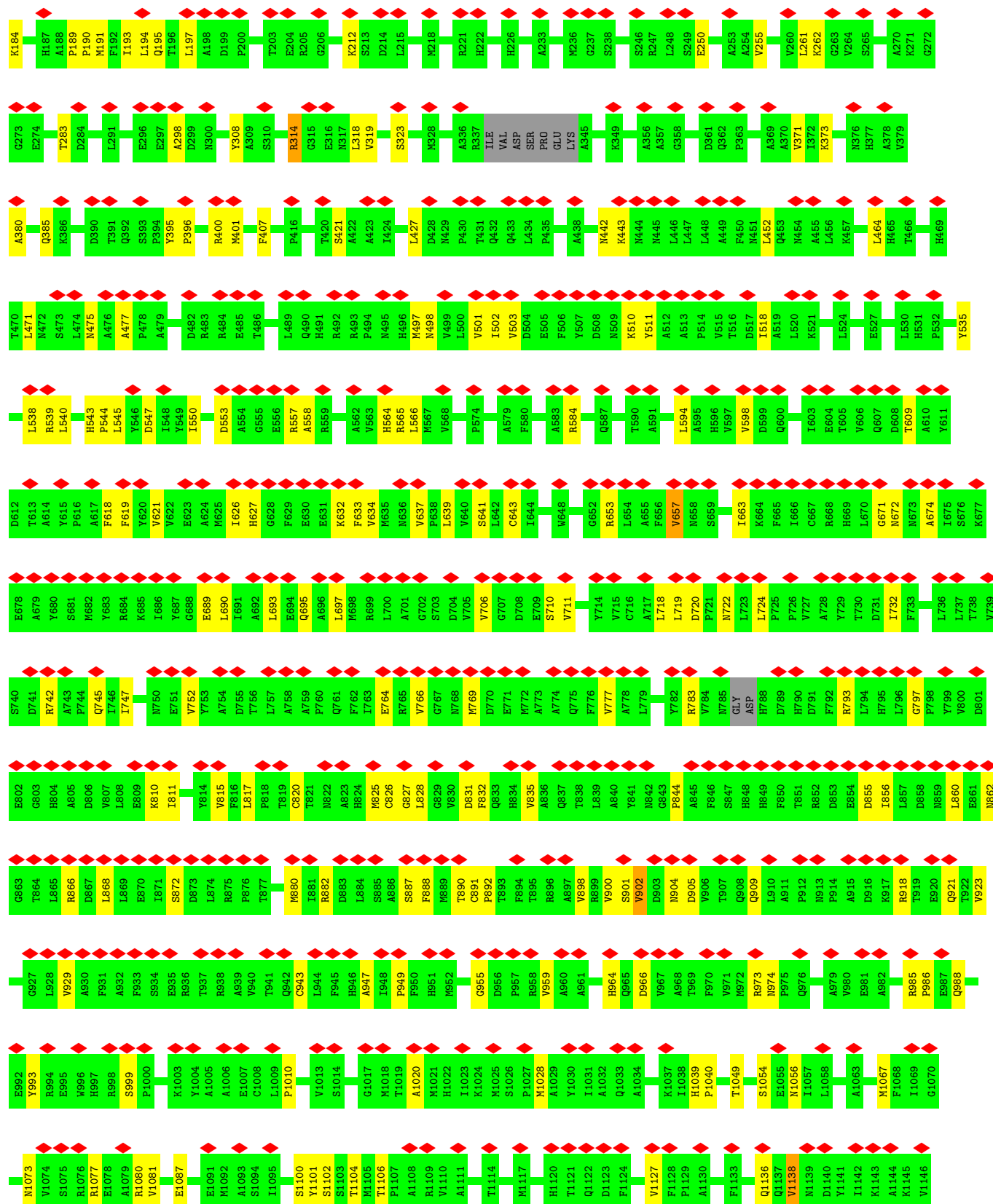
• Molecule 2: Major capsid protein

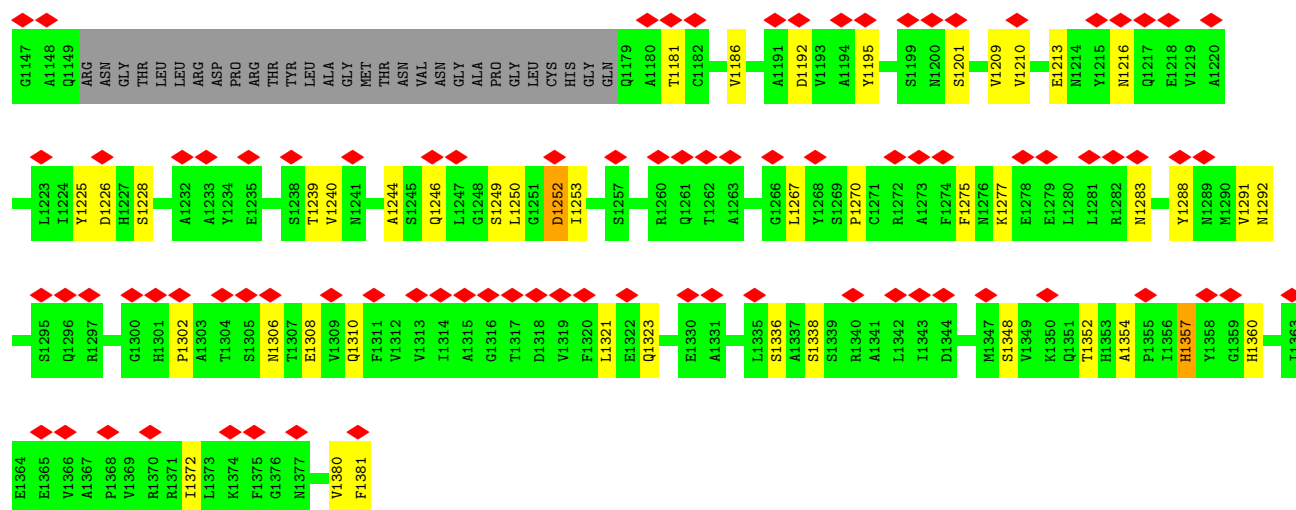




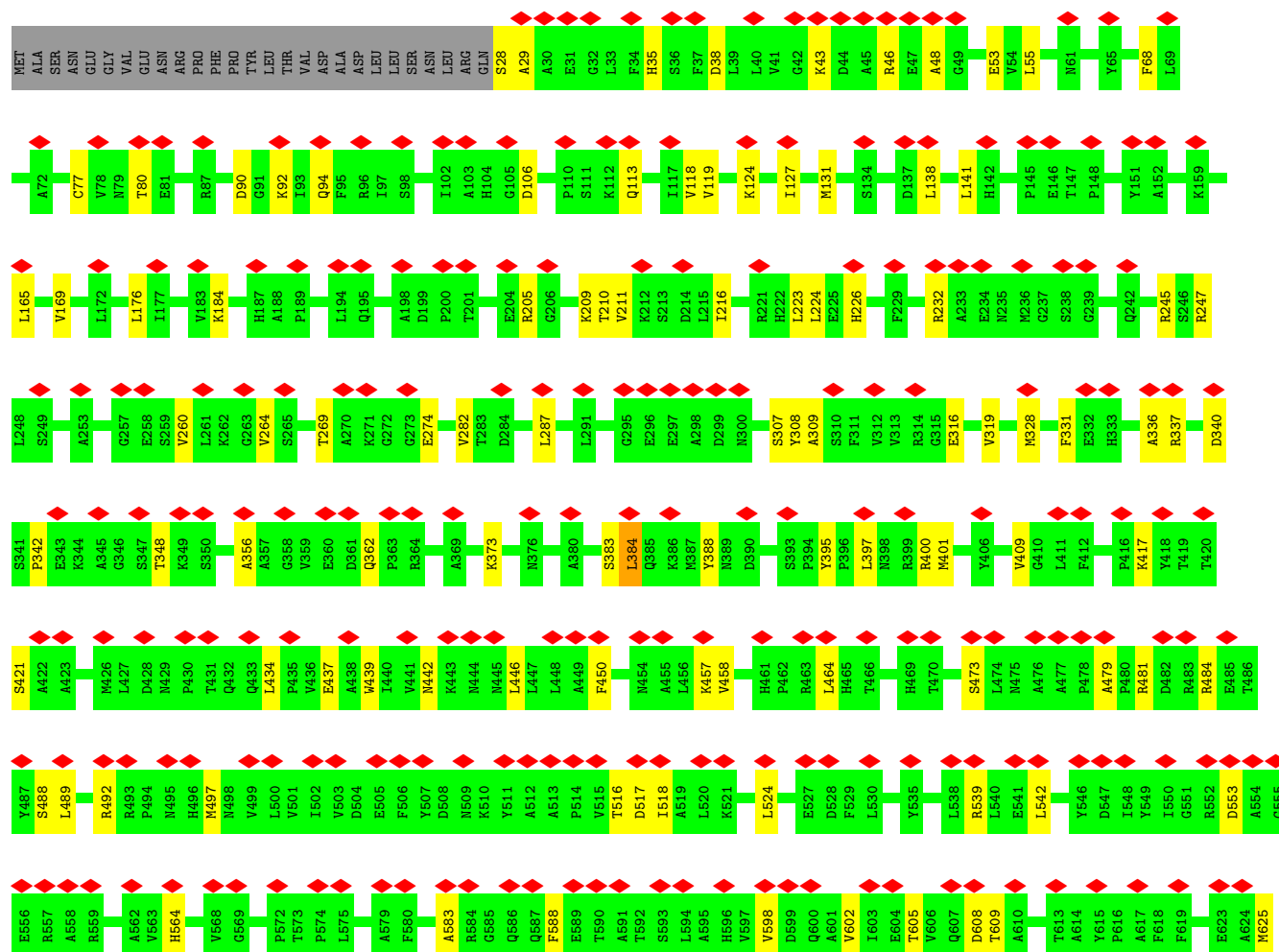
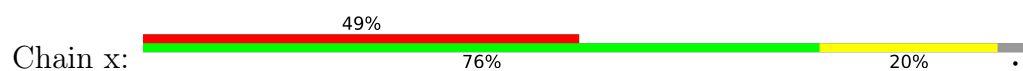
• Molecule 2: Major capsid protein

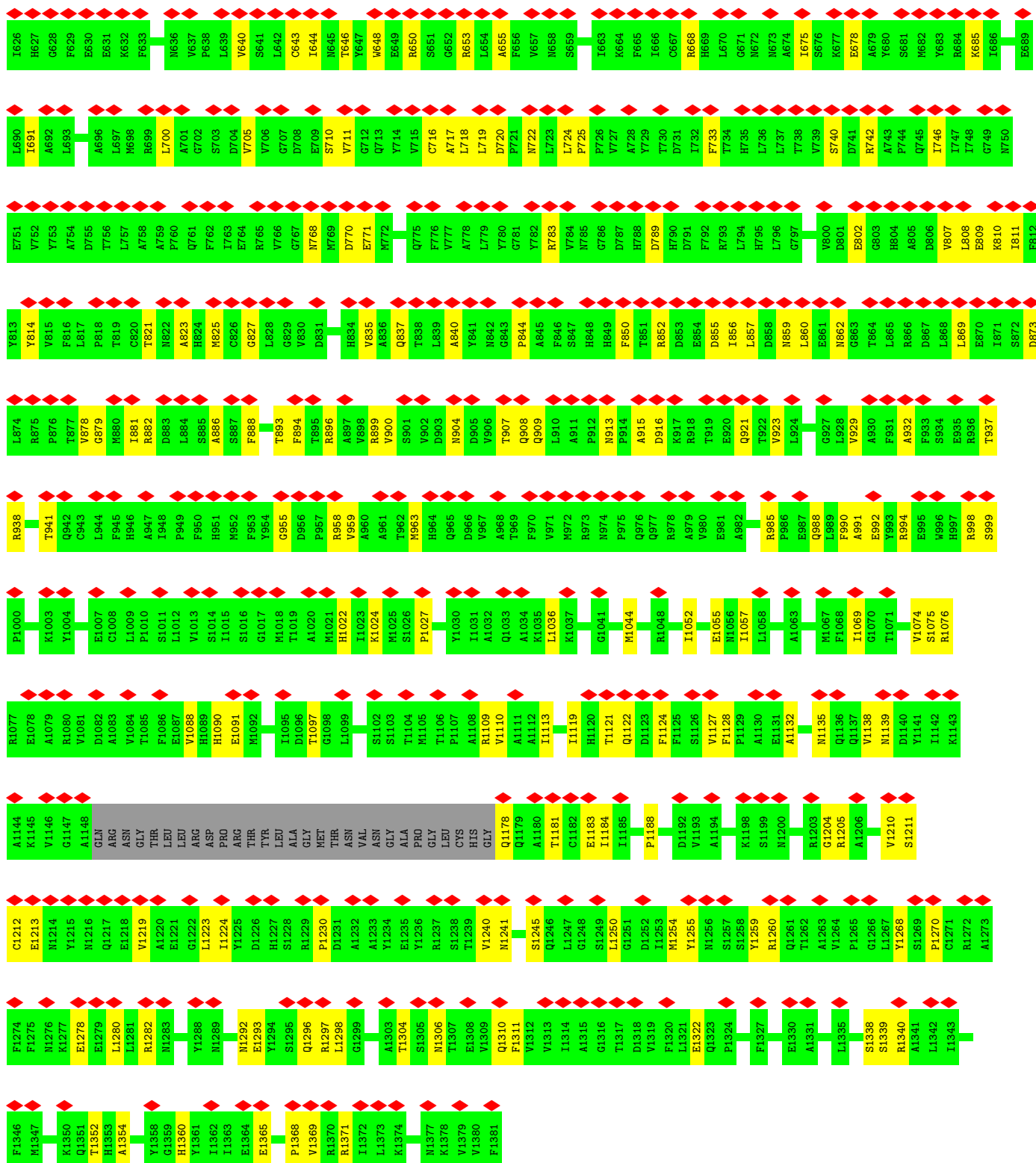




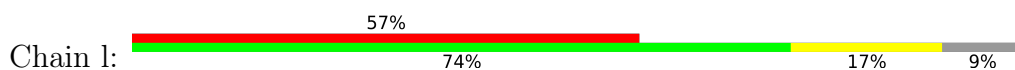


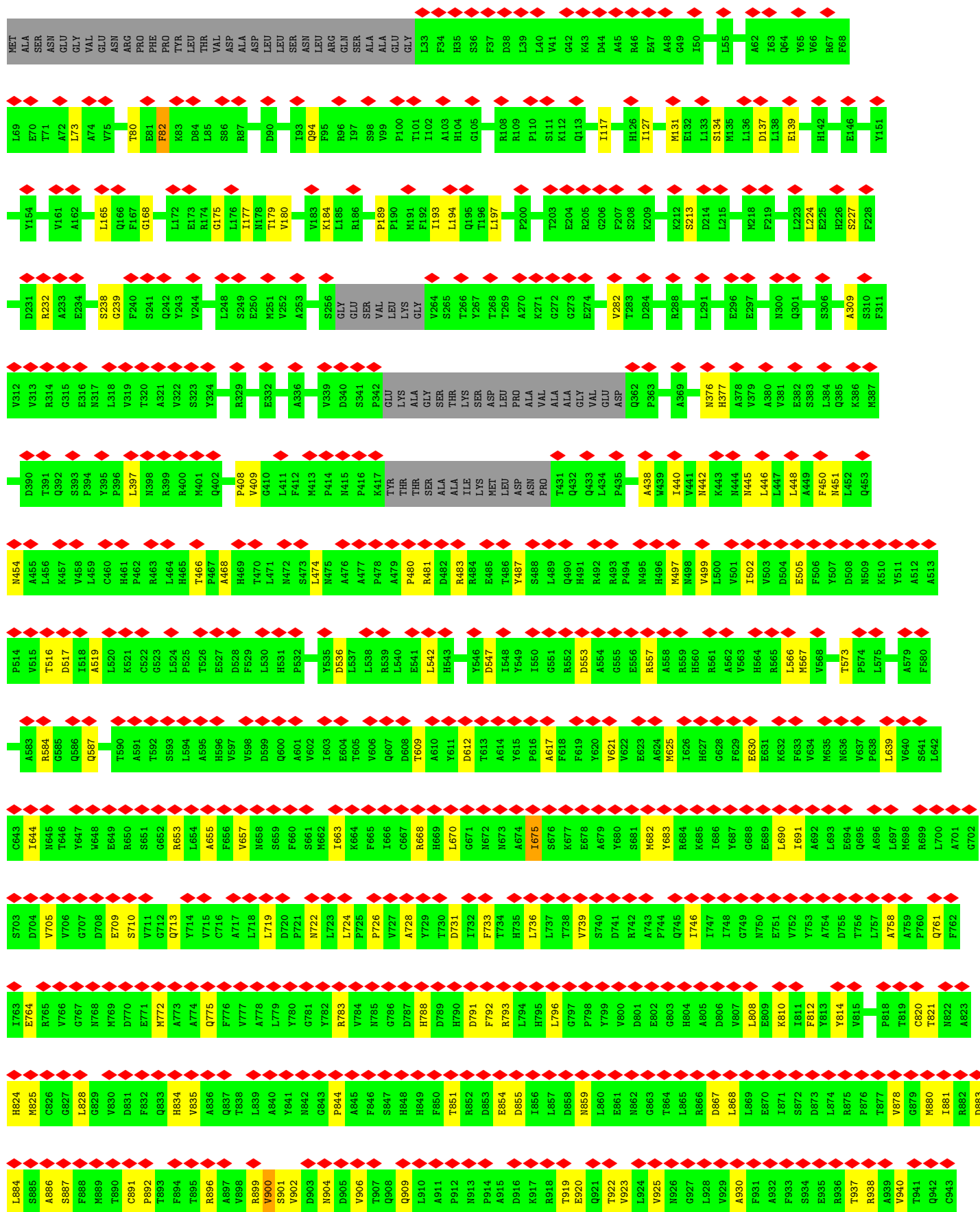
• Molecule 2: Major capsid protein

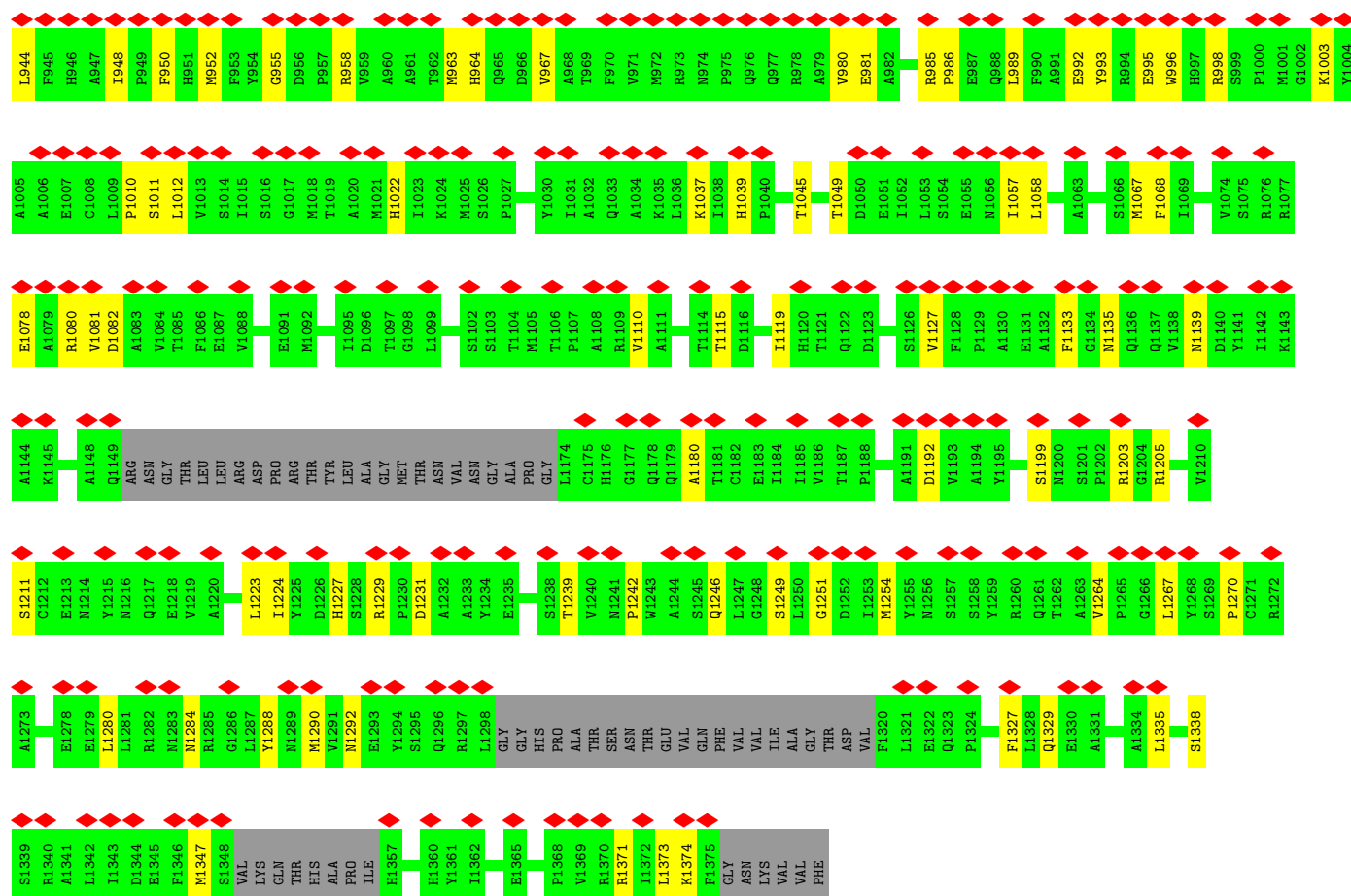




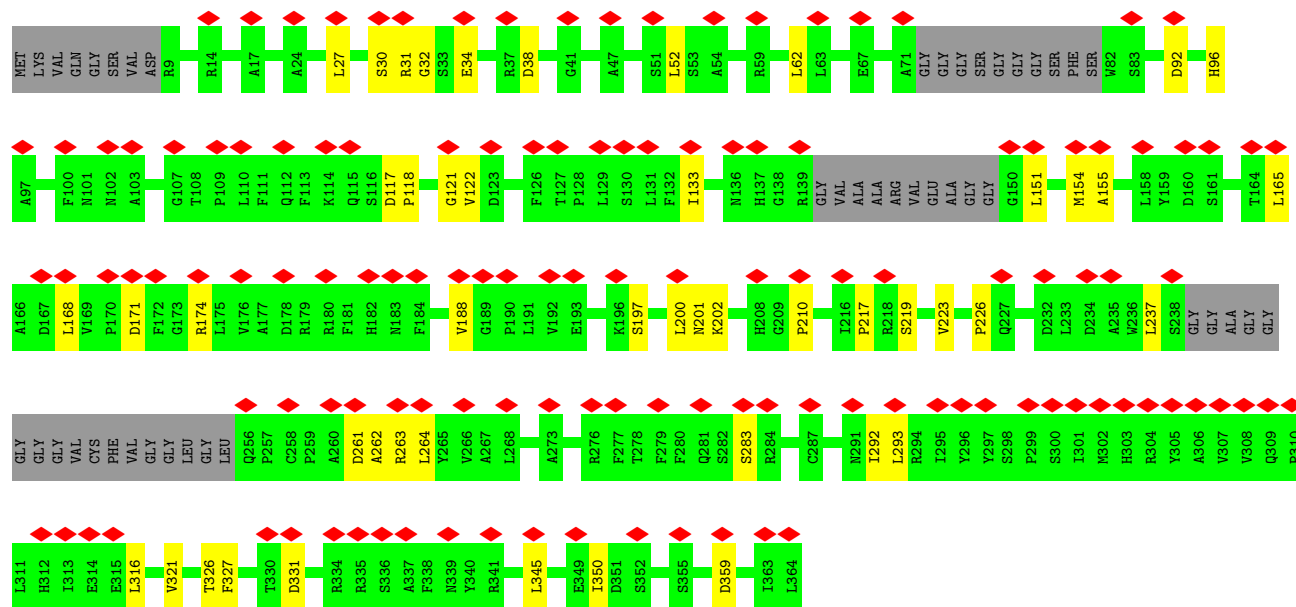
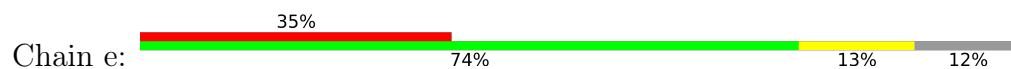
• Molecule 2: Major capsid protein



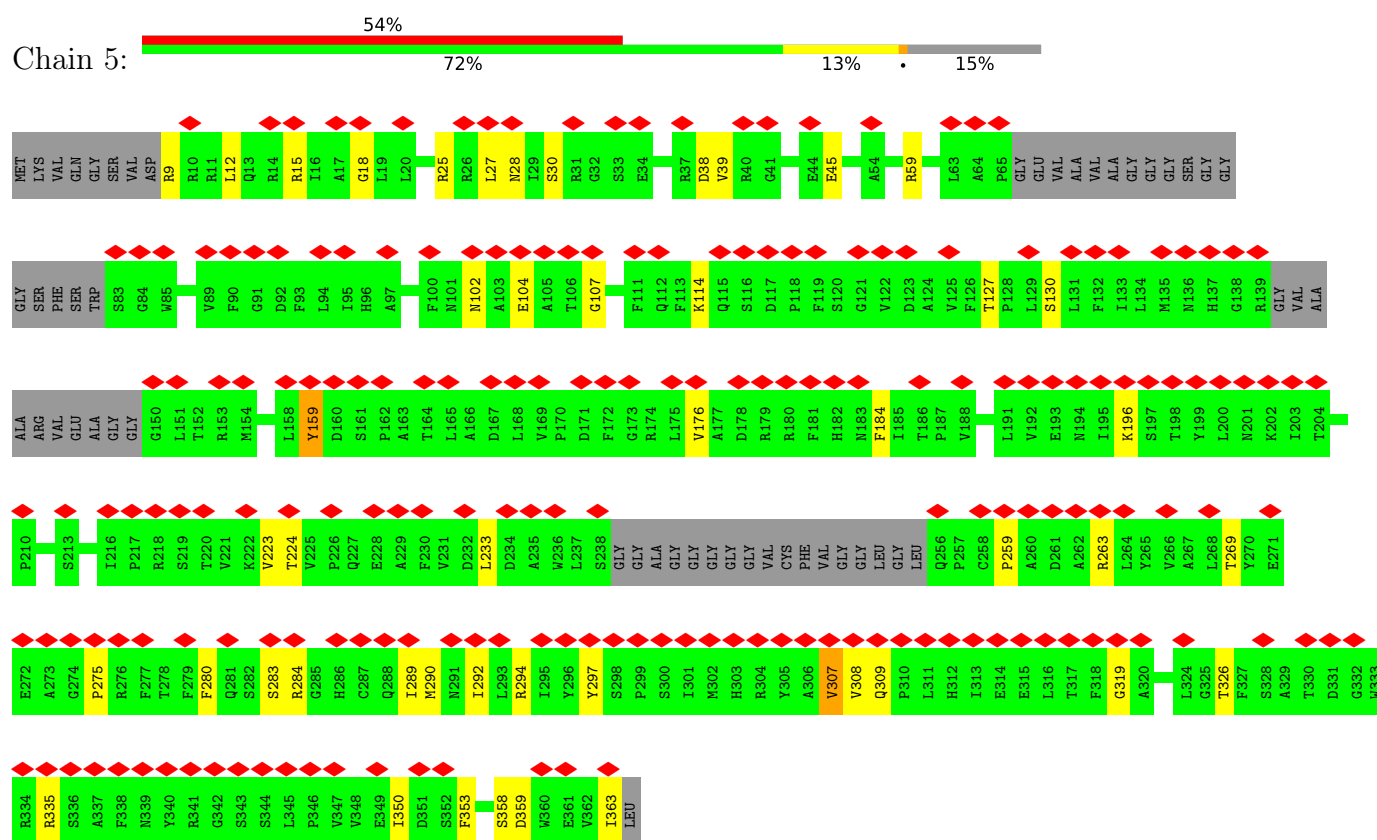




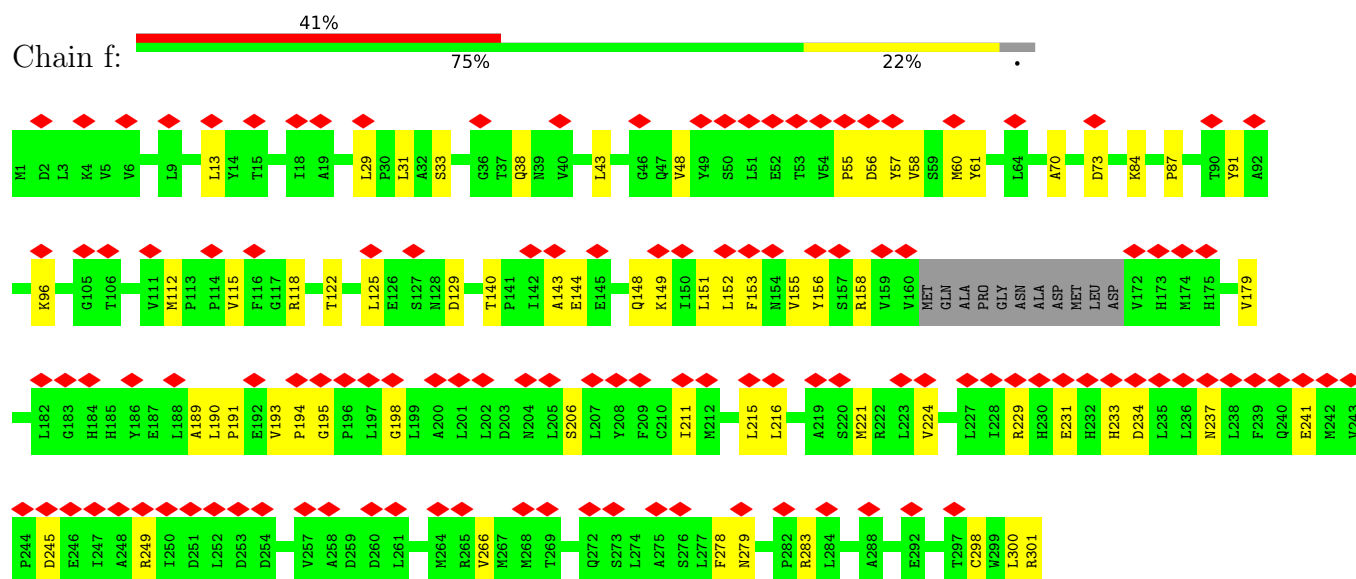
• Molecule 3: Triplex capsid protein 1



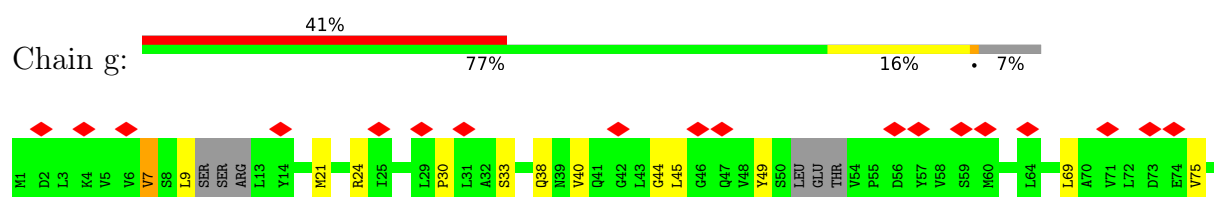
• Molecule 3: Triplex capsid protein 1

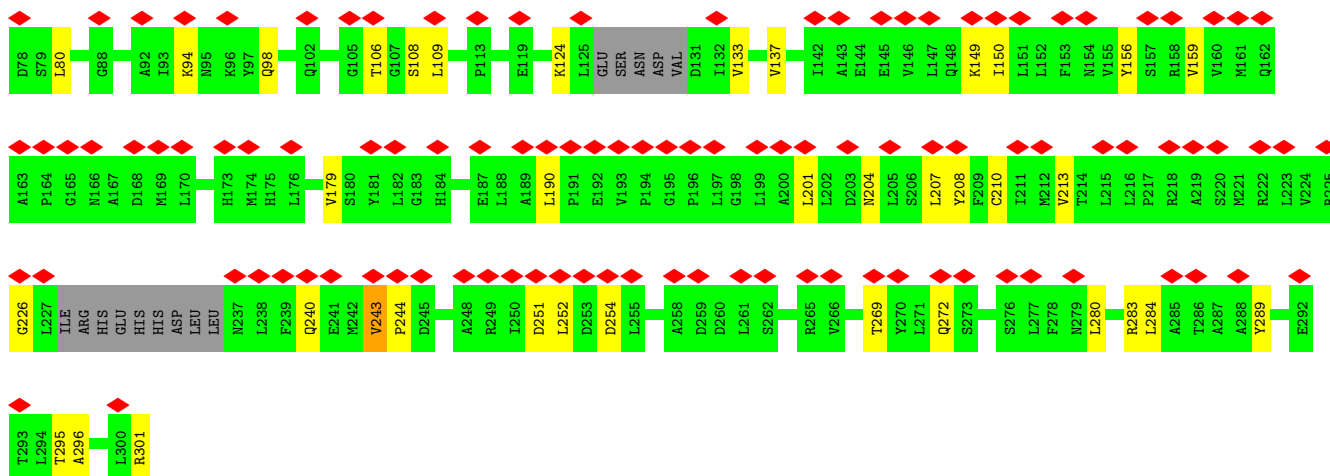


- Molecule 4: Triplex capsid protein 2



- Molecule 4: Triplex capsid protein 2





V123	K124	L125	E126	S127	N128	D129	V130	D131	I132	V133	F134	P135	G136	V137	L138	P139	I142	A143	E144	E145	V146	L147	Q148	K149	I150	L151	L152	F153	N154	V155	Y156	S157	R158	V159	V160	M161	Q162	A163	P164	G165	N166	A167	D168	M169	L170	D171	V172	H173	M174	H175	L176	G177	S178	V179	S180	Y181	L182	G183
H184	H185	Y186	E187	L188	A189	L190	P191	GLU	VAL	PRO	GLY	PRO	LEU	GLY	LEU	A200	L201	L202	D203	N204	L205	S206	L207	Y208	F209	C210	I211	M212	V213	T214	L215	L216	A219	S220	M221	R222	L223	V224	R225	G226	L227	I228	ARG	HIS	GLU	HIS	HIS	ASP	LEU	LEU	N237	L238	F239	Q240	E241	M242	V243	P244
D245	E246	I247	A248	R249	I250	D251	L252	D253	D254	L255	S256	V257	A258	D259	D260	L261	S262	R263	M264	R265	V266	M267	M268	T269	Y270	L271	Q272	S273	L274	A275	S276	L277	F278	N279	L280	G281	P282	R283	L284	A285	T286	A287	A288	Y289	S290	Q291	E292	T293	L294	T295	A296	T297	C298	W299	L300	R301		

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C5	Depositor
Number of particles used	137356	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	48	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.064	Depositor
Minimum map value	-0.033	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.011	Depositor
Map size (Å)	392.99997, 392.99997, 392.99997	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.31, 1.31, 1.31	Depositor

5 Model quality

5.1 Standard geometry

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	2	0.24	0/636	0.61	1/861 (0.1%)
1	Y	0.20	0/636	0.53	0/861
1	Z	0.21	0/636	0.53	0/861
1	m	0.30	0/615	0.58	0/832
1	y	0.27	0/636	0.54	0/861
2	S	0.32	0/10737	0.55	2/14589 (0.0%)
2	T	0.32	0/10642	0.57	4/14463 (0.0%)
2	W	0.28	0/10706	0.53	1/14549 (0.0%)
2	l	0.25	0/10114	0.57	2/13734 (0.0%)
2	x	0.30	0/10648	0.54	1/14471 (0.0%)
3	5	0.23	0/2511	0.62	2/3418 (0.1%)
3	e	0.30	0/2572	0.61	0/3503
4	6	0.24	0/2320	0.59	0/3159
4	7	0.23	0/2228	0.58	0/3029
4	f	0.24	0/2327	0.59	0/3169
4	g	0.26	0/2233	0.57	0/3037
All	All	0.29	0/70197	0.56	13/95397 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	S	0	1
2	T	0	2
2	W	0	1
3	5	0	1
4	6	0	1
4	7	0	1
All	All	0	7

There are no bond length outliers.

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	T	523	GLY	CA-C-N	8.24	133.20	120.68
2	T	523	GLY	C-N-CA	8.24	133.20	120.68
2	T	1314	ILE	N-CA-C	-6.44	107.59	113.71
3	5	159	TYR	CA-C-N	6.41	129.15	120.38
3	5	159	TYR	C-N-CA	6.41	129.15	120.38
2	W	657	VAL	N-CA-C	-6.33	106.34	112.29
2	x	211	VAL	N-CA-C	-5.60	107.36	112.96
2	T	817	LEU	CA-CB-CG	5.47	135.45	116.30
2	S	1179	GLN	CA-C-N	-5.35	114.65	122.78
2	S	1179	GLN	C-N-CA	-5.35	114.65	122.78
2	l	82	PHE	CA-C-N	5.19	131.45	121.54
2	l	82	PHE	C-N-CA	5.19	131.45	121.54
1	2	67	VAL	N-CA-C	5.12	119.94	108.88

There are no chirality outliers.

All (7) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	5	307	VAL	Peptide
4	6	122	THR	Peptide
4	7	278	PHE	Peptide
2	S	1357	HIS	Peptide
2	T	1357	HIS	Peptide
2	T	817	LEU	Peptide
2	W	1357	HIS	Peptide

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	621	0	611	15	0
1	Y	621	0	611	4	0
1	Z	621	0	611	6	0
1	m	600	0	591	10	0
1	y	621	0	611	13	0
2	S	10491	0	10318	194	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	T	10398	0	10232	227	0
2	W	10463	0	10288	184	0
2	l	9883	0	9710	150	0
2	x	10404	0	10234	183	0
3	5	2446	0	2422	31	0
3	e	2505	0	2479	42	0
4	6	2272	0	2307	41	0
4	7	2187	0	2222	35	0
4	f	2279	0	2316	42	0
4	g	2190	0	2228	33	0
All	All	68602	0	67791	1104	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 8.

All (1104) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:1160:THR:HG21	2:T:1314:ILE:CD1	1.05	1.50
2:T:1160:THR:CG2	2:T:1314:ILE:CD1	1.93	1.47
2:T:1160:THR:CG2	2:T:1314:ILE:HD11	1.47	1.41
2:S:788:HIS:NE2	2:S:893:THR:CG2	1.84	1.38
2:W:518:ILE:HD11	2:W:547:ASP:OD2	1.27	1.31
2:S:788:HIS:NE2	2:S:893:THR:HG21	0.91	1.24
2:T:209:LYS:HE3	2:T:1213:GLU:HA	1.25	1.11
2:S:1175:CYS:HB2	2:T:1223:LEU:HD13	1.27	1.10
2:W:1372:ILE:HG22	2:W:1381:PHE:HD2	1.12	1.10
2:S:788:HIS:CE1	2:S:893:THR:HG21	1.87	1.09
2:S:1120:HIS:CD2	2:S:1179:GLN:OE1	2.07	1.07
2:x:316:GLU:HG2	2:x:331:PHE:CE2	1.90	1.06
2:T:209:LYS:CE	2:T:1213:GLU:HA	1.87	1.05
2:S:1175:CYS:HB2	2:T:1223:LEU:CD1	1.87	1.03
2:T:1160:THR:HG21	2:T:1314:ILE:HD12	1.02	1.02
2:W:518:ILE:CD1	2:W:547:ASP:OD2	2.07	1.02
2:T:1160:THR:HG21	2:T:1314:ILE:CG1	1.90	1.01
2:T:1372:ILE:CD1	2:T:1381:PHE:HD1	1.72	1.01
2:S:788:HIS:CD2	2:S:893:THR:HG21	1.95	1.00
2:T:1155:LEU:O	2:T:1265:PRO:O	1.79	1.00
2:W:1372:ILE:HG22	2:W:1381:PHE:CD2	1.96	0.99
2:x:1132:ALA:HB1	2:x:1139:ASN:ND2	1.78	0.99
2:S:1178:GLN:HG2	2:S:1307:THR:O	1.63	0.99

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:385:GLN:HG3	2:W:395:TYR:HD2	1.29	0.98
2:x:316:GLU:HG2	2:x:331:PHE:CD2	1.99	0.97
2:T:1154:LEU:HD13	2:T:1165:MET:HE2	1.45	0.96
2:T:1160:THR:HG21	2:T:1314:ILE:HD11	1.01	0.96
2:T:1160:THR:CG2	2:T:1314:ILE:CG1	2.42	0.96
2:W:385:GLN:HG3	2:W:395:TYR:CD2	2.01	0.95
2:T:1157:ASP:OD1	2:T:1158:PRO:HD2	1.67	0.93
2:T:1132:ALA:HB1	2:T:1139:ASN:HD21	1.34	0.93
2:S:998:ARG:HG2	2:S:998:ARG:HH11	1.33	0.92
2:S:1175:CYS:CB	2:T:1223:LEU:HD13	1.98	0.92
2:S:1120:HIS:CG	2:S:1179:GLN:OE1	2.22	0.92
2:T:1160:THR:O	3:e:121:GLY:HA3	1.70	0.91
2:T:1372:ILE:HD13	2:T:1381:PHE:HD1	1.35	0.90
2:W:518:ILE:CD1	2:W:993:TYR:CE1	2.56	0.88
2:T:1120:HIS:NE2	2:T:1150:ARG:NH1	2.23	0.87
2:T:1178:GLN:HE21	2:T:1310:GLN:HG2	1.38	0.86
2:W:385:GLN:CG	2:W:395:TYR:HD2	1.87	0.86
2:W:395:TYR:HD1	2:W:396:PRO:HD2	1.39	0.85
2:S:706:VAL:HG11	2:S:1138:VAL:HG23	1.59	0.85
2:S:780:TYR:O	2:S:784:VAL:HG22	1.76	0.85
2:T:1160:THR:CG2	2:T:1314:ILE:HG13	2.07	0.85
2:T:1372:ILE:CD1	2:T:1381:PHE:CD1	2.60	0.84
2:W:314:ARG:HG3	2:W:314:ARG:HH11	1.40	0.84
2:T:1178:GLN:NE2	2:T:1310:GLN:HG2	1.92	0.84
2:T:1160:THR:HG23	2:T:1314:ILE:HD11	1.59	0.82
2:T:319:VAL:O	2:T:323:SER:HB3	1.80	0.82
2:S:788:HIS:CD2	2:S:893:THR:OG1	2.32	0.81
2:W:518:ILE:HD12	2:W:993:TYR:CE1	2.15	0.81
2:S:781:GLY:O	2:S:785:ASN:O	1.97	0.81
2:T:1174:LEU:HG	2:T:1308:GLU:HG2	1.60	0.81
2:S:1177:GLY:HA2	2:T:210:THR:HG22	1.61	0.81
2:S:783:ARG:NH1	2:S:888:PHE:O	2.12	0.80
2:T:209:LYS:HE3	2:T:1213:GLU:CA	2.07	0.80
2:S:1175:CYS:HG	2:T:1208:CYS:HG	1.11	0.79
2:S:788:HIS:HD2	2:S:893:THR:OG1	1.65	0.79
2:S:497:MET:HE2	2:S:788:HIS:O	1.81	0.79
1:Y:2:ALA:N	2:S:789:ASP:OD2	2.16	0.79
2:W:1372:ILE:CG2	2:W:1381:PHE:HD2	1.96	0.79
2:W:385:GLN:CG	2:W:395:TYR:CD2	2.63	0.79
2:x:316:GLU:CG	2:x:331:PHE:CE2	2.65	0.79
2:S:1176:HIS:CD2	2:T:1232:ALA:CB	2.67	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:x:1132:ALA:HB1	2:x:1139:ASN:HD22	1.45	0.78
2:l:772:MET:HE3	2:l:775:GLN:HB2	1.66	0.77
2:T:1372:ILE:HD11	2:T:1381:PHE:CD1	2.19	0.77
2:W:314:ARG:HG3	2:W:314:ARG:NH1	1.98	0.77
2:S:998:ARG:HG2	2:S:998:ARG:NH1	1.99	0.76
2:T:1155:LEU:N	2:T:1155:LEU:HD12	2.01	0.76
2:x:1292:ASN:O	2:x:1296:GLN:HB2	1.84	0.76
2:S:788:HIS:CD2	2:S:893:THR:CG2	2.60	0.75
2:W:1028:MET:CE	2:W:1138:VAL:HG22	2.17	0.75
2:l:127:ILE:HD11	2:l:179:THR:HG23	1.69	0.74
2:l:1288:TYR:CE2	2:l:1292:ASN:ND2	2.56	0.73
2:S:706:VAL:CG1	2:S:1138:VAL:HG23	2.19	0.73
2:W:1136:GLN:HA	2:W:1136:GLN:NE2	2.03	0.73
2:T:1160:THR:CB	2:T:1314:ILE:HD11	2.18	0.73
2:S:1308:GLU:CD	2:S:1308:GLU:H	1.96	0.72
2:T:1132:ALA:HB1	2:T:1139:ASN:ND2	2.03	0.72
2:S:1176:HIS:CD2	2:T:1232:ALA:HB3	2.25	0.71
4:7:172:VAL:O	4:7:176:LEU:HB2	1.91	0.71
2:T:1372:ILE:HD11	2:T:1381:PHE:HD1	1.51	0.70
2:x:316:GLU:CG	2:x:331:PHE:CD2	2.75	0.70
2:T:1174:LEU:HD13	2:T:1174:LEU:N	2.06	0.70
2:S:1116:ASP:HB2	2:S:1178:GLN:O	1.91	0.70
2:W:395:TYR:CD1	2:W:396:PRO:HD2	2.26	0.70
2:T:1154:LEU:N	2:T:1154:LEU:HD22	2.07	0.70
2:T:427:LEU:O	2:T:428:ASP:OD1	2.10	0.70
2:S:788:HIS:NE2	2:S:893:THR:CB	2.55	0.69
1:y:10:LEU:HB3	1:y:45:ARG:HH22	1.58	0.69
2:x:316:GLU:OE2	2:x:316:GLU:N	2.26	0.68
2:W:79:ASN:HB3	2:W:308:TYR:HD1	1.59	0.68
2:x:216:ILE:HG13	2:x:1210:VAL:HG21	1.74	0.68
2:T:1154:LEU:HD11	2:T:1165:MET:HG2	1.75	0.68
2:W:518:ILE:HD11	2:W:993:TYR:CE1	2.29	0.68
2:T:395:TYR:HD1	2:T:396:PRO:HD2	1.58	0.68
2:l:193:ILE:HG22	2:l:197:LEU:HD12	1.74	0.68
2:T:664:LYS:HE2	2:T:668:ARG:HH22	1.60	0.67
2:W:1028:MET:HE1	2:W:1138:VAL:HG22	1.77	0.66
2:S:395:TYR:HD1	2:S:396:PRO:HD2	1.59	0.66
2:x:938:ARG:HG3	2:x:963:MET:HA	1.78	0.65
2:x:916:ASP:HB3	2:x:994:ARG:HH21	1.62	0.65
2:T:1157:ASP:CG	2:T:1304:THR:HG21	2.22	0.65
2:T:1157:ASP:OD1	2:T:1158:PRO:CD	2.44	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:x:395:TYR:CE2	2:x:397:LEU:HB2	2.32	0.65
2:W:905:ASP:O	2:W:909:GLN:HB2	1.98	0.64
2:x:1132:ALA:HB1	2:x:1139:ASN:HD21	1.63	0.64
2:W:79:ASN:HB3	2:W:308:TYR:CD1	2.32	0.64
2:S:817:LEU:HB3	2:S:825:MET:HE1	1.79	0.64
2:T:1153:THR:C	2:T:1154:LEU:HD22	2.22	0.64
2:x:827:GLY:HA2	2:x:929:VAL:HA	1.79	0.64
4:g:252:LEU:HG	4:g:254:ASP:H	1.63	0.64
2:S:1175:CYS:SG	2:T:1223:LEU:HD13	2.38	0.63
2:T:1372:ILE:HD13	2:T:1381:PHE:CD1	2.26	0.63
2:W:518:ILE:CD1	2:W:993:TYR:HE1	2.09	0.63
2:x:400:ARG:HH22	2:x:1306:ASN:HD21	1.47	0.63
2:W:395:TYR:HD1	2:W:396:PRO:CD	2.09	0.63
2:S:1178:GLN:CG	2:S:1307:THR:O	2.43	0.63
2:S:1174:LEU:HD12	2:S:1174:LEU:N	2.14	0.63
3:e:316:LEU:HB3	4:f:211:ILE:HD11	1.80	0.63
2:W:1136:GLN:HA	2:W:1136:GLN:HE21	1.64	0.62
2:x:1338:SER:HG	2:x:1360:HIS:HD1	1.45	0.62
2:S:1176:HIS:CD2	2:T:1232:ALA:HB1	2.33	0.62
2:W:609:THR:HA	2:W:653:ARG:HD3	1.81	0.62
2:S:1309:VAL:HG13	2:S:1311:PHE:CE2	2.35	0.62
2:l:127:ILE:HD11	2:l:179:THR:CG2	2.29	0.62
2:T:209:LYS:HE2	2:T:1213:GLU:HA	1.79	0.62
2:x:316:GLU:CB	2:x:331:PHE:CD2	2.83	0.62
2:S:442:ASN:HD22	2:S:446:LEU:HD12	1.65	0.61
2:l:938:ARG:HG3	2:l:963:MET:HA	1.83	0.61
2:S:1073:ASN:HD22	2:l:1081:VAL:HG13	1.64	0.61
3:5:290:MET:HE3	3:5:294:ARG:HH12	1.66	0.61
2:S:498:ASN:HD22	2:S:501:VAL:HG12	1.65	0.61
2:l:670:LEU:HD23	2:l:675:ILE:HD11	1.82	0.61
3:e:154:MET:HG2	3:e:345:LEU:HD22	1.83	0.61
2:W:518:ILE:HD12	2:W:993:TYR:CD1	2.36	0.61
2:l:828:LEU:HD22	2:l:930:ALA:HB2	1.82	0.60
2:S:780:TYR:O	2:S:784:VAL:CG2	2.48	0.60
2:T:1285:ARG:HH11	2:T:1286:GLY:H	1.48	0.60
2:x:720:ASP:O	2:x:810:LYS:NZ	2.35	0.60
2:x:94:GLN:HG2	2:x:119:VAL:HG12	1.84	0.60
2:W:949:PRO:HB2	2:W:985:ARG:HG2	1.81	0.60
3:5:259:PRO:HG3	3:5:283:SER:HB3	1.84	0.60
2:S:488:SER:HG	2:S:992:GLU:H	1.49	0.60
2:S:791:ASP:O	2:S:896:ARG:NH2	2.35	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:x:1212:CYS:HB3	2:x:1223:LEU:HD12	1.83	0.60
2:T:1162:LEU:HD11	3:e:121:GLY:HA2	1.83	0.59
2:T:486:THR:HG21	2:T:552:ARG:HD2	1.82	0.59
2:T:632:LYS:HE3	2:T:887:SER:HB2	1.84	0.59
2:T:747:ILE:HG12	2:T:752:VAL:HG12	1.84	0.59
2:x:35:HIS:HB3	2:x:55:LEU:HD23	1.84	0.59
2:x:1213:GLU:HB3	2:x:1219:VAL:HG11	1.84	0.59
2:S:1039:HIS:ND1	2:S:1040:PRO:O	2.35	0.59
2:W:718:LEU:HD13	2:W:811:ILE:HG13	1.83	0.59
1:2:67:VAL:HG23	1:2:68:PRO:HD3	1.83	0.59
2:x:814:TYR:HB3	2:x:1022:HIS:HE1	1.66	0.59
2:x:894:PHE:HB2	2:x:896:ARG:HE	1.68	0.59
2:S:518:ILE:HD11	2:S:992:GLU:HG3	1.84	0.59
2:W:194:LEU:HD12	2:W:1104:THR:HG22	1.85	0.59
2:x:955:GLY:O	2:x:985:ARG:NH2	2.35	0.59
2:S:1117:MET:SD	2:S:1371:ARG:NH1	2.75	0.59
2:l:497:MET:HE2	2:l:792:PHE:HA	1.85	0.59
2:S:767:GLY:H	2:S:772:MET:HE3	1.67	0.59
2:T:1174:LEU:HB2	2:T:1308:GLU:CD	2.28	0.59
2:W:855:ASP:OD1	2:W:855:ASP:N	2.36	0.59
2:W:1049:THR:HG23	2:W:1270:PRO:HB3	1.85	0.59
2:x:644:ILE:HG22	2:x:655:ALA:HB3	1.85	0.58
2:T:1117:MET:SD	2:T:1371:ARG:NH1	2.76	0.58
2:W:314:ARG:O	2:W:318:LEU:HB2	2.02	0.58
2:x:269:THR:HG22	2:x:274:GLU:O	2.03	0.58
2:T:903:ASP:OD1	2:T:903:ASP:N	2.36	0.58
2:x:904:ASN:O	2:x:909:GLN:NE2	2.37	0.58
2:x:1212:CYS:HB2	2:x:1219:VAL:HG22	1.85	0.58
2:l:772:MET:CE	2:l:775:GLN:HB2	2.33	0.58
2:T:1049:THR:HG21	2:T:1268:TYR:HE2	1.67	0.58
2:l:964:HIS:HB3	2:l:967:VAL:HG22	1.84	0.58
2:W:724:LEU:HD13	2:W:732:ILE:HD12	1.83	0.58
2:T:281:ILE:HG22	2:T:395:TYR:OH	2.02	0.58
3:e:263:ARG:HG2	3:e:326:THR:HG22	1.84	0.58
2:W:724:LEU:O	2:W:921:GLN:NE2	2.36	0.58
2:x:1052:ILE:HG12	2:x:1369:VAL:HG21	1.86	0.58
4:g:243:VAL:HG23	4:g:244:PRO:HD3	1.85	0.58
2:T:1162:LEU:CD1	3:e:121:GLY:HA2	2.33	0.58
2:W:518:ILE:HD11	2:W:993:TYR:HE1	1.68	0.58
2:x:899:ARG:HH22	2:x:991:ALA:H	1.50	0.58
2:x:442:ASN:HD22	2:x:446:LEU:HD12	1.69	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:132:GLU:H	2:x:113:GLN:HE21	1.52	0.57
2:x:307:SER:O	2:x:362:GLN:NE2	2.37	0.57
2:S:518:ILE:HD11	2:S:992:GLU:CG	2.33	0.57
2:T:903:ASP:HA	2:T:918:ARG:HA	1.87	0.57
3:e:293:LEU:HD13	3:e:321:VAL:HG11	1.86	0.57
2:T:86:SER:HB2	3:e:217:PRO:HD3	1.86	0.57
2:T:839:LEU:HD22	2:T:881:ILE:HD11	1.86	0.57
2:W:783:ARG:NH1	2:W:891:CYS:O	2.37	0.57
2:l:1251:GLY:HA2	2:l:1254:MET:HE2	1.85	0.57
2:S:1285:ARG:HB2	2:S:1290:MET:HE3	1.87	0.57
2:T:1204:GLY:HA2	2:T:1240:VAL:HG12	1.84	0.57
2:W:538:LEU:O	2:W:1246:GLN:NE2	2.37	0.57
2:W:722:ASN:HB3	2:W:902:VAL:HG11	1.86	0.57
2:S:916:ASP:HB3	2:S:994:ARG:HH21	1.69	0.57
2:x:722:ASN:HD21	2:x:742:ARG:HH11	1.51	0.57
2:l:480:PRO:HG3	2:l:557:ARG:HH22	1.68	0.57
2:S:788:HIS:CD2	2:S:893:THR:CB	2.87	0.57
2:W:766:VAL:HG22	2:W:797:GLY:HA2	1.86	0.57
4:7:144:GLU:OE1	4:7:148:GLN:NE2	2.37	0.57
2:W:477:ALA:O	2:W:557:ARG:NH1	2.36	0.57
2:l:481:ARG:HE	2:l:536:ASP:HB2	1.70	0.57
2:S:392:GLN:NE2	2:W:22:LEU:O	2.38	0.57
4:7:1:MET:HE3	4:7:89:GLN:HE22	1.69	0.57
2:x:716:CYS:SG	2:x:717:ALA:N	2.78	0.57
2:S:21:LEU:HD11	2:x:260:VAL:HG12	1.87	0.56
2:S:1297:ARG:NH1	2:S:1319:VAL:O	2.37	0.56
2:W:1288:TYR:O	2:W:1292:ASN:ND2	2.38	0.56
4:f:33:SER:O	4:f:38:GLN:NE2	2.38	0.56
4:6:238:LEU:HD21	4:7:263:ARG:HA	1.88	0.56
2:S:657:VAL:HA	2:S:663:ILE:HD11	1.88	0.56
2:T:814:TYR:HB3	2:T:1022:HIS:HE1	1.70	0.56
4:f:158:ARG:HD3	4:g:226:GLY:HA2	1.87	0.56
4:g:33:SER:O	4:g:38:GLN:NE2	2.38	0.56
2:l:1049:THR:HG23	2:l:1270:PRO:HB3	1.86	0.56
4:6:24:ARG:NH1	4:6:27:CYS:SG	2.77	0.56
2:l:724:LEU:HD21	2:l:900:VAL:HG11	1.86	0.56
2:l:948:ILE:HG22	2:l:950:PHE:HB3	1.87	0.56
2:l:1280:LEU:O	2:l:1284:ASN:ND2	2.39	0.56
2:T:720:ASP:O	2:T:810:LYS:NZ	2.38	0.56
2:x:932:ALA:HA	2:x:959:VAL:HG23	1.87	0.56
2:l:442:ASN:HD22	2:l:446:LEU:HB2	1.68	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:1174:LEU:N	2:T:1174:LEU:HD22	2.21	0.56
2:W:78:VAL:HG11	2:W:261:LEU:HD13	1.87	0.56
2:x:80:THR:HG22	2:x:309:ALA:HB3	1.86	0.56
2:S:1048:ARG:HB3	2:S:1182:CYS:HB3	1.88	0.56
2:S:1175:CYS:CB	2:T:1223:LEU:CD1	2.71	0.56
2:T:941:THR:HG23	2:T:944:LEU:HB2	1.88	0.56
2:l:1078:GLU:HG3	2:l:1080:ARG:HB2	1.88	0.56
2:l:1227:HIS:HD1	2:l:1239:THR:HG1	1.51	0.56
2:S:956:ASP:HB3	2:S:959:VAL:HG12	1.87	0.56
2:l:1242:PRO:O	2:l:1246:GLN:NE2	2.39	0.56
4:6:221:MET:HB3	4:6:247:ILE:HG23	1.86	0.56
2:W:518:ILE:CD1	2:W:993:TYR:CD1	2.89	0.56
2:l:442:ASN:O	2:l:1371:ARG:NH2	2.39	0.56
2:T:623:GLU:HG2	2:T:928:LEU:HD11	1.88	0.55
2:W:817:LEU:HB3	2:W:825:MET:HE1	1.88	0.55
2:T:518:ILE:HG22	2:T:999:SER:OG	2.07	0.55
2:x:176:LEU:HD11	2:x:1069:ILE:HD12	1.88	0.55
2:x:287:LEU:HD22	2:x:383:SER:HB3	1.87	0.55
2:S:172:LEU:HD13	2:S:1090:HIS:HB2	1.89	0.55
2:S:852:ARG:NH1	2:S:883:ASP:OD1	2.38	0.55
2:W:385:GLN:HG2	2:W:395:TYR:CD2	2.40	0.55
2:x:1135:ASN:HB3	2:x:1138:VAL:HB	1.87	0.55
2:W:1209:VAL:HG21	2:W:1283:ASN:HB3	1.88	0.55
2:x:646:THR:O	2:x:650:ARG:HB3	2.06	0.55
4:7:244:PRO:O	4:7:249:ARG:NH2	2.39	0.55
2:T:83:LYS:HD2	2:W:147:THR:HB	1.88	0.55
1:2:69:ARG:HB3	1:2:72:ARG:HB2	1.89	0.55
2:x:625:MET:HE2	2:x:835:VAL:HG23	1.87	0.55
2:x:1224:ILE:HG21	2:x:1280:LEU:HD21	1.87	0.55
4:6:228:ILE:HG22	4:6:229:ARG:HD2	1.89	0.55
2:W:212:LYS:HB3	2:W:1210:VAL:HB	1.88	0.55
2:x:245:ARG:NH1	2:x:373:LYS:O	2.40	0.55
4:f:13:LEU:HD11	4:f:125:LEU:HD22	1.89	0.55
1:Z:5:LEU:HD12	2:T:831:ASP:HB2	1.89	0.55
2:T:1160:THR:HG23	2:T:1314:ILE:CG1	2.31	0.55
2:x:518:ILE:HG22	2:x:999:SER:HB2	1.89	0.55
2:l:445:ASN:ND2	2:l:1347:MET:SD	2.80	0.55
2:l:835:VAL:HG12	2:l:944:LEU:HG	1.89	0.55
1:m:60:TYR:HE2	2:l:883:ASP:HB3	1.71	0.55
2:S:282:VAL:HG12	2:S:1057:ILE:HG12	1.88	0.55
2:l:948:ILE:HG23	2:l:989:LEU:HD11	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:l:955:GLY:HA3	2:l:985:ARG:HE	1.71	0.55
2:S:76:SER:HA	2:S:1062:ARG:HA	1.89	0.55
2:W:639:LEU:HB2	2:W:880:MET:HB2	1.89	0.55
2:x:1075:SER:OG	2:x:1076:ARG:N	2.40	0.55
2:S:1175:CYS:HB3	2:T:1232:ALA:HB2	1.89	0.54
2:T:1154:LEU:CD1	2:T:1165:MET:HG2	2.36	0.54
2:W:1372:ILE:CG2	2:W:1381:PHE:CD2	2.79	0.54
2:x:384:LEU:HD12	2:x:395:TYR:HE1	1.72	0.54
2:x:844:PRO:HB2	2:x:878:VAL:HG11	1.89	0.54
2:l:722:ASN:HB3	2:l:902:VAL:HG21	1.88	0.54
2:S:876:PRO:HG2	2:S:881:ILE:HD11	1.89	0.54
2:W:1302:PRO:HB2	2:W:1321:LEU:HD11	1.87	0.54
2:l:705:VAL:HG12	2:l:710:SER:HA	1.89	0.54
2:T:456:LEU:HD13	2:T:1031:ILE:HD13	1.89	0.54
2:T:964:HIS:HB3	2:T:967:VAL:HG22	1.89	0.54
2:T:1154:LEU:HD13	2:T:1165:MET:CE	2.29	0.54
2:x:1055:GLU:OE2	2:x:1109:ARG:NH1	2.41	0.54
2:x:1204:GLY:H	2:x:1245:SER:HB3	1.73	0.54
4:f:231:GLU:OE1	4:f:233:HIS:NE2	2.36	0.54
2:l:617:ALA:HB2	2:l:937:THR:HG23	1.90	0.54
2:l:824:HIS:HE1	2:l:958:ARG:HE	1.54	0.54
4:6:94:LYS:HD2	4:6:96:LYS:HE3	1.88	0.54
2:l:1327:PHE:O	2:l:1329:GLN:NE2	2.40	0.54
4:7:106:THR:HG21	4:7:139:PRO:HB3	1.90	0.54
2:S:658:ASN:HB2	2:S:929:VAL:HG23	1.89	0.54
4:g:108:SER:OG	4:g:301:ARG:NH2	2.40	0.54
2:T:395:TYR:CZ	2:T:397:LEU:HD12	2.42	0.54
2:T:1039:HIS:ND1	2:T:1040:PRO:O	2.35	0.54
2:W:84:ASP:OD1	2:W:84:ASP:N	2.38	0.54
4:g:30:PRO:HG2	4:g:44:GLY:HA3	1.89	0.54
2:S:1176:HIS:CG	2:T:1232:ALA:HB1	2.42	0.54
2:T:623:GLU:OE2	2:T:658:ASN:ND2	2.40	0.54
2:T:828:LEU:HD22	2:T:930:ALA:HB2	1.89	0.54
2:x:124:LYS:NZ	2:x:1091:GLU:OE1	2.41	0.54
2:x:1188:PRO:HD2	2:x:1241:ASN:HB2	1.90	0.54
4:f:279:ASN:OD1	4:f:283:ARG:NH2	2.41	0.54
4:7:24:ARG:NH1	4:7:98:GLN:OE1	2.40	0.54
2:S:1204:GLY:HA2	2:S:1240:VAL:HG12	1.89	0.54
2:W:619:PHE:HE1	2:W:643:CYS:HB3	1.71	0.54
2:W:742:ARG:NH1	2:W:904:ASN:O	2.40	0.54
2:W:1288:TYR:HA	2:W:1291:VAL:HG12	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:f:55:PRO:HD2	4:f:191:PRO:HB3	1.89	0.54
2:l:644:ILE:HG22	2:l:655:ALA:HB3	1.88	0.54
2:T:1143:LYS:O	2:T:1148:ALA:HB3	2.08	0.54
2:W:827:GLY:HA2	2:W:929:VAL:HA	1.90	0.54
2:l:1288:TYR:CZ	2:l:1292:ASN:ND2	2.75	0.54
2:T:194:LEU:HB3	2:T:254:ALA:HB1	1.90	0.53
2:T:542:LEU:HB3	2:T:1249:SER:HA	1.89	0.53
2:W:1039:HIS:ND1	2:W:1040:PRO:O	2.41	0.53
2:S:589:GLU:HG2	2:S:594:LEU:HB3	1.89	0.53
3:e:188:VAL:HG12	4:g:106:THR:HG21	1.90	0.53
2:S:56:LEU:HD13	2:T:1095:ILE:HG21	1.91	0.53
2:x:226:HIS:O	2:x:247:ARG:NH1	2.42	0.53
4:f:118:ARG:O	4:f:122:THR:OG1	2.25	0.53
2:l:481:ARG:NH2	2:l:483:ARG:O	2.41	0.53
2:x:336:ALA:HA	2:x:340:ASP:HB2	1.90	0.53
2:S:134:SER:HB2	2:W:43:LYS:HB2	1.91	0.53
2:W:319:VAL:O	2:W:323:SER:HB3	2.08	0.53
2:W:1100:SER:OG	2:W:1101:TYR:N	2.41	0.53
2:l:282:VAL:HG12	2:l:1057:ILE:HG12	1.89	0.53
2:S:747:ILE:HG12	2:S:752:VAL:HG12	1.91	0.53
2:S:1183:GLU:HG2	2:S:1270:PRO:HD2	1.91	0.53
2:T:395:TYR:HD1	2:T:396:PRO:CD	2.22	0.53
2:W:584:ARG:NH1	2:W:1020:ALA:O	2.42	0.53
2:x:668:ARG:NH2	2:x:802:GLU:OE1	2.41	0.53
2:l:553:ASP:OD1	2:l:553:ASP:N	2.40	0.53
2:S:141:LEU:HD11	2:S:161:VAL:HG21	1.91	0.53
2:S:672:ASN:HA	2:T:650:ARG:HH11	1.74	0.53
2:T:1174:LEU:HB2	2:T:1308:GLU:OE2	2.08	0.53
2:W:155:VAL:HG21	2:x:342:PRO:HB2	1.91	0.53
2:W:195:GLN:NE2	2:W:250:GLU:OE1	2.41	0.53
2:W:671:GLY:O	2:x:650:ARG:NH1	2.42	0.53
4:g:9:LEU:HD23	4:g:40:VAL:HG22	1.90	0.53
2:x:1132:ALA:CB	2:x:1139:ASN:ND2	2.63	0.53
2:l:189:PRO:HG2	2:l:194:LEU:HD22	1.91	0.53
1:2:5:LEU:HD13	2:W:831:ASP:HB2	1.91	0.53
2:S:43:LYS:NZ	3:e:331:ASP:OD2	2.41	0.53
2:T:788:HIS:HA	2:T:791:ASP:HB3	1.91	0.53
2:x:401:MET:HG2	2:x:1322:GLU:HB3	1.89	0.53
2:x:907:THR:HB	2:x:1027:PRO:HD2	1.91	0.53
2:l:409:VAL:HG12	2:l:438:ALA:HB3	1.91	0.53
2:S:1080:ARG:HG3	2:S:1082:ASP:H	1.73	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:x:224:LEU:O	2:x:232:ARG:NH2	2.40	0.53
2:S:1049:THR:HG23	2:S:1270:PRO:HB3	1.91	0.52
2:T:475:ASN:HD21	2:T:560:HIS:H	1.57	0.52
2:T:916:ASP:OD1	2:T:994:ARG:NH2	2.40	0.52
2:x:1304:THR:HG22	2:x:1311:PHE:H	1.74	0.52
4:f:149:LYS:HE3	4:f:179:VAL:HA	1.91	0.52
2:W:618:PHE:HA	2:W:621:VAL:HG22	1.90	0.52
2:W:1239:THR:OG1	2:W:1240:VAL:N	2.42	0.52
2:x:388:TYR:CD1	2:x:395:TYR:HD1	2.26	0.52
3:e:96:HIS:CD2	3:e:122:VAL:HG11	2.44	0.52
4:6:110:SER:OG	4:6:283:ARG:NH1	2.42	0.52
4:6:268:MET:HG3	4:7:148:GLN:HE21	1.73	0.52
2:S:127:ILE:HB	2:S:1090:HIS:HB3	1.91	0.52
2:l:630:GLU:OE2	2:l:668:ARG:NH1	2.42	0.52
2:x:1298:LEU:N	2:x:1298:LEU:HD22	2.24	0.52
2:l:1203:ARG:NH1	2:l:1224:ILE:O	2.43	0.52
3:5:102:ASN:HD21	3:5:196:LYS:HG2	1.74	0.52
2:S:58:VAL:HG23	2:T:94:GLN:HB3	1.91	0.52
2:S:1297:ARG:NH1	2:S:1317:THR:O	2.42	0.52
2:T:996:TRP:HB3	2:T:997:HIS:HD2	1.75	0.52
2:l:134:SER:OG	2:l:137:ASP:OD2	2.27	0.52
2:S:600:GLN:NE2	2:S:1010:PRO:O	2.42	0.52
2:T:817:LEU:HB2	2:T:821:THR:HG23	1.91	0.52
2:x:68:PHE:HB3	2:x:308:TYR:OH	2.09	0.52
2:l:238:SER:OG	2:l:239:GLY:N	2.43	0.52
2:l:904:ASN:O	2:l:909:GLN:NE2	2.39	0.52
1:m:32:GLN:NE2	1:m:35:LEU:O	2.43	0.52
2:T:1154:LEU:N	2:T:1154:LEU:CD2	2.73	0.52
2:W:1054:SER:OG	2:W:1056:ASN:ND2	2.43	0.52
4:6:33:SER:O	4:6:38:GLN:NE2	2.42	0.52
2:S:7:VAL:HG11	2:S:38:ASP:HB2	1.92	0.52
2:S:121:ASN:HD22	4:6:12:ARG:HB2	1.75	0.52
2:T:460:CYS:HB2	2:T:1027:PRO:HB3	1.91	0.52
2:T:726:PRO:HB3	2:T:950:PHE:HE2	1.75	0.52
2:W:672:ASN:HB2	2:x:873:ASP:HB2	1.91	0.52
2:x:710:SER:OG	2:x:711:VAL:N	2.42	0.52
2:S:391:THR:HG23	2:T:101:THR:HA	1.91	0.52
2:S:932:ALA:HA	2:S:959:VAL:HG23	1.92	0.52
2:T:308:TYR:CE1	2:T:1069:ILE:HG13	2.45	0.52
4:7:94:LYS:HG2	4:7:295:THR:HB	1.91	0.52
2:T:1188:PRO:HD2	2:T:1241:ASN:HB2	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:g:289:TYR:HD1	4:g:296:ALA:HB2	1.75	0.52
1:2:3:ARG:O	2:W:498:ASN:ND2	2.43	0.51
2:S:570:ASN:HA	2:S:1000:PRO:HB2	1.91	0.51
2:S:1120:HIS:HB3	2:S:1179:GLN:HB3	1.92	0.51
2:T:1044:MET:HB2	2:T:1184:ILE:HG23	1.92	0.51
4:6:29:LEU:HD13	4:6:43:LEU:HD11	1.90	0.51
2:S:650:ARG:NH2	2:S:872:SER:O	2.43	0.51
2:T:268:THR:OG1	2:T:364:ARG:NH1	2.43	0.51
2:l:567:MET:HE3	2:l:1022:HIS:HA	1.92	0.51
4:7:108:SER:HB2	4:7:301:ARG:HH22	1.76	0.51
2:S:234:GLU:OE1	2:S:1109:ARG:NH1	2.43	0.51
2:S:1174:LEU:N	2:S:1174:LEU:CD1	2.73	0.51
2:T:1192:ASP:N	2:T:1192:ASP:OD1	2.43	0.51
2:W:769:MET:HE2	2:W:890:THR:HG22	1.93	0.51
2:l:180:VAL:HG22	2:l:1067:MET:HE3	1.92	0.51
4:6:244:PRO:HD2	4:6:247:ILE:HD13	1.93	0.51
2:x:705:VAL:HG12	2:x:710:SER:HA	1.93	0.51
2:x:724:LEU:HD12	2:x:900:VAL:HG11	1.93	0.51
3:e:171:ASP:OD1	3:e:171:ASP:N	2.43	0.51
2:l:584:ARG:NH1	2:l:1039:HIS:O	2.41	0.51
1:y:23:LEU:HD12	1:y:51:LEU:HB3	1.93	0.51
3:e:27:LEU:HD11	3:e:38:ASP:HB3	1.91	0.51
2:l:193:ILE:CG2	2:l:197:LEU:HD12	2.41	0.51
1:m:32:GLN:HG2	1:m:35:LEU:HB3	1.92	0.51
2:T:724:LEU:O	2:T:921:GLN:NE2	2.38	0.51
2:l:906:VAL:HG21	2:l:1135:ASN:HB2	1.92	0.51
3:e:359:ASP:OD2	4:g:283:ARG:NH2	2.44	0.51
4:6:45:LEU:HB3	4:6:133:VAL:HG23	1.92	0.51
4:7:24:ARG:HH12	4:7:97:TYR:HA	1.75	0.51
4:7:111:VAL:HG22	4:7:137:VAL:HG22	1.93	0.51
2:W:136:LEU:HD21	3:e:219:SER:HA	1.93	0.51
2:x:43:LYS:HB3	2:x:46:ARG:HB3	1.93	0.51
2:l:573:THR:HG21	2:l:1003:LYS:HD3	1.93	0.51
2:S:567:MET:HE2	2:S:1001:MET:HE1	1.92	0.51
2:S:1175:CYS:O	2:S:1176:HIS:HB2	2.11	0.51
2:T:436:VAL:HG23	2:T:437:GLU:HG3	1.92	0.51
2:W:427:LEU:HD12	2:x:417:LYS:HB2	1.93	0.51
2:x:28:SER:OG	2:x:29:ALA:N	2.40	0.51
4:f:194:PRO:HB2	4:f:198:GLY:HA3	1.93	0.51
2:l:466:THR:HG22	2:l:468:ALA:H	1.76	0.51
3:5:358:SER:OG	3:5:359:ASP:N	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S:474:LEU:HD11	2:S:542:LEU:HD21	1.93	0.50
2:T:700:LEU:HD12	2:T:1036:LEU:HD12	1.93	0.50
2:T:1078:GLU:HB3	2:T:1085:THR:HB	1.93	0.50
4:g:94:LYS:HG2	4:g:295:THR:HG22	1.93	0.50
2:l:127:ILE:CD1	2:l:175:GLY:O	2.59	0.50
2:S:417:LYS:NZ	2:S:431:THR:O	2.41	0.50
2:S:494:PRO:HG3	2:S:988:GLN:HB3	1.93	0.50
2:S:855:ASP:N	2:S:855:ASP:OD1	2.43	0.50
2:T:1155:LEU:N	2:T:1155:LEU:CD1	2.73	0.50
2:W:407:PHE:HB2	2:W:1336:SER:HB2	1.93	0.50
2:W:720:ASP:O	2:W:810:LYS:NZ	2.44	0.50
2:x:450:PHE:HD1	2:x:1119:ILE:HD12	1.76	0.50
2:x:1052:ILE:HG13	2:x:1113:ILE:HG22	1.93	0.50
4:f:234:ASP:O	4:f:237:ASN:ND2	2.43	0.50
4:f:283:ARG:HH11	4:f:301:ARG:HH11	1.58	0.50
4:g:21:MET:HB3	4:g:75:VAL:HG21	1.93	0.50
4:g:49:TYR:HD2	4:g:133:VAL:HG11	1.76	0.50
2:l:517:ASP:OD1	2:l:993:TYR:OH	2.29	0.50
4:6:151:LEU:HD21	4:6:205:LEU:HD22	1.93	0.50
2:x:789:ASP:OD2	1:y:2:ALA:N	2.44	0.50
4:6:111:VAL:HB	4:6:282:PRO:HD2	1.93	0.50
2:W:502:ILE:HD12	2:W:988:GLN:HG3	1.93	0.50
2:x:77:CYS:SG	2:x:184:LYS:NZ	2.82	0.50
2:l:993:TYR:O	2:l:998:ARG:NH1	2.45	0.50
2:T:395:TYR:CD1	2:T:396:PRO:HD2	2.43	0.50
2:T:454:ASN:HD21	2:T:1119:ILE:HB	1.76	0.50
2:W:191:MET:HB2	2:W:1106:THR:HB	1.92	0.50
2:S:8:GLU:OE1	2:x:92:LYS:NZ	2.44	0.50
2:S:109:ARG:HD3	2:S:110:PRO:HD2	1.92	0.50
2:W:511:TYR:O	2:W:974:ASN:ND2	2.45	0.50
4:f:56:ASP:OD1	4:f:56:ASP:N	2.42	0.50
2:l:844:PRO:HB2	2:l:878:VAL:HG11	1.93	0.50
2:l:1011:SER:OG	2:l:1012:LEU:N	2.45	0.50
4:7:95:ASN:ND2	4:7:289:TYR:OH	2.40	0.50
2:W:471:LEU:O	2:W:475:ASN:ND2	2.45	0.50
2:x:609:THR:HG22	2:x:653:ARG:HB3	1.93	0.50
3:e:31:ARG:NH2	3:e:34:GLU:OE1	2.45	0.50
2:l:736:LEU:HA	2:l:739:VAL:HG12	1.93	0.50
2:l:821:THR:HG21	2:l:825:MET:HE3	1.93	0.50
2:l:855:ASP:O	2:l:859:ASN:ND2	2.45	0.50
2:l:919:THR:OG1	2:l:996:TRP:NE1	2.45	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:l:80:THR:HG22	2:l:309:ALA:HB3	1.93	0.50
2:x:38:ASP:HA	2:x:53:GLU:HA	1.94	0.50
2:x:127:ILE:HB	2:x:1090:HIS:HB3	1.94	0.50
2:x:316:GLU:CB	2:x:331:PHE:CG	2.95	0.50
2:x:1183:GLU:HG3	2:x:1270:PRO:HD2	1.93	0.50
4:7:45:LEU:HD13	4:7:64:LEU:HD13	1.93	0.50
2:W:828:LEU:HA	2:W:947:ALA:HA	1.94	0.49
2:x:886:ALA:HA	1:y:53:SER:HB2	1.94	0.49
2:l:497:MET:HE3	2:l:896:ARG:HH11	1.77	0.49
4:7:138:LEU:HD12	4:7:142:ILE:HG22	1.93	0.49
2:T:273:GLY:O	2:T:274:GLU:HG3	2.12	0.49
2:l:227:SER:O	2:l:232:ARG:NH1	2.46	0.49
2:l:1231:ASP:OD1	2:l:1231:ASP:N	2.45	0.49
2:T:1074:VAL:HA	2:T:1088:VAL:HA	1.93	0.49
2:W:1306:ASN:OD1	2:x:210:THR:OG1	2.31	0.49
3:e:261:ASP:OD1	3:e:261:ASP:N	2.45	0.49
2:l:587:GLN:NE2	2:l:1037:LYS:O	2.39	0.49
2:T:657:VAL:HA	2:T:663:ILE:HD11	1.94	0.49
2:W:19:ALA:HB3	2:W:21:LEU:HD22	1.95	0.49
2:x:1278:GLU:HG3	2:x:1282:ARG:HH21	1.77	0.49
3:e:359:ASP:OD1	3:e:359:ASP:N	2.45	0.49
3:5:114:LYS:HB2	3:5:184:PHE:HD1	1.76	0.49
3:5:233:LEU:HD11	3:5:280:PHE:HB3	1.94	0.49
2:S:269:THR:OG1	2:S:299:ASP:OD2	2.30	0.49
2:S:710:SER:OG	2:S:711:VAL:N	2.46	0.49
2:S:724:LEU:O	2:S:921:GLN:NE2	2.46	0.49
2:S:899:ARG:NH1	2:S:922:THR:OG1	2.40	0.49
2:T:396:PRO:O	2:T:399:ARG:NH1	2.46	0.49
2:T:485:GLU:OE2	2:T:993:TYR:OH	2.24	0.49
2:x:497:MET:HG3	2:x:896:ARG:HD2	1.95	0.49
2:x:1122:GLN:NE2	2:x:1268:TYR:O	2.45	0.49
3:e:165:LEU:HA	3:e:168:LEU:HD12	1.94	0.49
2:l:542:LEU:HB3	2:l:1249:SER:HA	1.94	0.49
4:6:116:PHE:HA	4:6:188:LEU:HA	1.94	0.49
2:S:427:LEU:HD11	2:T:430:PRO:HB2	1.93	0.49
2:S:1142:ILE:HG22	2:S:1143:LYS:N	2.28	0.49
2:T:181:LEU:HD21	2:T:395:TYR:HE1	1.78	0.49
3:e:264:LEU:HB2	3:e:327:PHE:HE1	1.78	0.49
4:g:30:PRO:HA	4:g:69:LEU:HA	1.95	0.49
2:l:165:LEU:HD11	3:5:39:VAL:HG21	1.94	0.49
2:l:980:VAL:O	2:l:985:ARG:NH1	2.37	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:6:98:GLN:HE21	4:6:120:HIS:HD2	1.61	0.49
4:6:267:MET:HE2	4:6:271:LEU:HG	1.95	0.49
2:T:1074:VAL:HB	3:e:52:LEU:HD13	1.93	0.49
2:W:190:PRO:HD2	2:W:193:ILE:HD12	1.95	0.49
2:l:224:LEU:O	2:l:232:ARG:NH2	2.45	0.49
2:S:553:ASP:HA	2:S:558:ALA:HB2	1.95	0.49
2:S:609:THR:HG22	2:S:653:ARG:HB3	1.93	0.49
2:W:544:PRO:HG3	2:W:1186:VAL:HG11	1.95	0.49
2:x:840:ALA:HB3	1:y:49:VAL:HG13	1.95	0.49
2:S:481:ARG:O	2:S:484:ARG:NH1	2.46	0.49
2:T:1246:GLN:HB2	2:T:1249:SER:HB3	1.95	0.49
2:W:695:GLN:OE1	2:x:958:ARG:NH1	2.46	0.49
2:W:955:GLY:HA3	2:W:985:ARG:HE	1.78	0.49
3:e:92:ASP:HB3	3:e:202:LYS:HE3	1.94	0.49
4:f:144:GLU:HG2	4:g:272:GLN:HG2	1.95	0.49
2:l:1335:LEU:HD22	2:l:1373:LEU:HD13	1.95	0.49
4:6:256:SER:OG	4:6:257:VAL:N	2.46	0.49
2:T:280:PHE:HB2	2:T:381:VAL:HG12	1.95	0.48
2:l:451:ASN:OD1	2:l:454:ASN:ND2	2.46	0.48
2:l:821:THR:HG22	2:l:824:HIS:H	1.77	0.48
2:l:899:ARG:NH1	2:l:922:THR:OG1	2.39	0.48
4:6:9:LEU:HD21	4:6:13:LEU:HD13	1.94	0.48
4:6:110:SER:HB2	4:6:140:THR:HG22	1.94	0.48
2:W:130:GLU:HG2	2:W:1087:GLU:HB2	1.96	0.48
2:W:1073:ASN:OD1	2:W:1073:ASN:N	2.44	0.48
2:x:1124:PHE:HA	2:x:1127:VAL:HG12	1.94	0.48
2:S:617:ALA:HA	2:S:620:TYR:HD2	1.79	0.48
2:x:810:LYS:O	2:x:814:TYR:HB2	2.13	0.48
3:5:233:LEU:HD13	3:5:289:ILE:HD11	1.96	0.48
2:T:1174:LEU:CG	2:T:1308:GLU:HG2	2.39	0.48
2:x:733:PHE:HD2	2:x:746:ILE:HD13	1.79	0.48
2:x:857:LEU:HD11	2:x:869:LEU:HB3	1.95	0.48
4:g:204:ASN:HA	4:g:207:LEU:HB3	1.96	0.48
2:S:485:GLU:HG3	2:S:489:LEU:HD21	1.95	0.48
2:x:1205:ARG:NH2	2:x:1230:PRO:O	2.41	0.48
2:l:820:CYS:HA	2:l:1010:PRO:HB3	1.94	0.48
3:5:223:VAL:HB	3:5:350:ILE:HB	1.95	0.48
1:Z:10:LEU:HD22	2:T:841:TYR:HD2	1.77	0.48
2:S:671:GLY:O	2:T:650:ARG:NH1	2.46	0.48
2:W:1252:ASP:OD1	2:W:1252:ASP:N	2.31	0.48
3:5:45:GLU:HG3	3:5:59:ARG:HH22	1.78	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5:176:VAL:HG21	3:5:275:PRO:HG3	1.95	0.48
4:6:227:LEU:HD21	4:6:233:HIS:HD2	1.78	0.48
2:T:824:HIS:ND1	2:T:956:ASP:OD2	2.47	0.48
2:x:724:LEU:O	2:x:921:GLN:NE2	2.41	0.48
4:g:204:ASN:O	4:g:208:TYR:N	2.46	0.48
3:5:104:GLU:OE2	3:5:159:TYR:OH	2.29	0.48
4:7:9:LEU:HD13	4:7:40:VAL:HG21	1.96	0.48
1:2:35:LEU:HD12	1:2:39:VAL:HG23	1.95	0.48
2:S:497:MET:CE	2:S:788:HIS:O	2.57	0.48
2:W:745:GLN:HG3	2:W:752:VAL:HG13	1.96	0.48
2:x:479:ALA:O	2:x:539:ARG:NH2	2.46	0.48
4:f:215:LEU:HD13	4:f:266:VAL:HG13	1.94	0.48
2:T:442:ASN:HD22	2:T:446:LEU:HD12	1.79	0.48
2:W:706:VAL:HG12	2:W:711:VAL:HG12	1.96	0.48
2:x:1128:PHE:HZ	2:x:1260:ARG:HG2	1.78	0.48
2:x:1132:ALA:CB	2:x:1139:ASN:HD21	2.25	0.48
2:T:1338:SER:HB3	2:T:1361:TYR:H	1.78	0.48
2:W:510:LYS:O	2:W:973:ARG:NH2	2.41	0.48
2:S:1246:GLN:HB2	2:S:1249:SER:HB3	1.96	0.47
2:W:1338:SER:HG	2:W:1360:HIS:HD1	1.59	0.47
2:x:719:LEU:HD23	2:x:807:VAL:HG21	1.96	0.47
2:x:131:MET:HE1	2:x:165:LEU:HD22	1.96	0.47
4:f:216:LEU:HD12	4:g:213:VAL:HG13	1.95	0.47
2:l:887:SER:HG	2:l:891:CYS:HG	1.56	0.47
2:T:830:VAL:HG13	2:T:945:PHE:HE1	1.80	0.47
2:T:1160:THR:HB	3:e:122:VAL:HG23	1.95	0.47
2:x:481:ARG:NH1	2:x:517:ASP:OD2	2.48	0.47
3:5:263:ARG:HG2	3:5:326:THR:HG22	1.96	0.47
2:W:783:ARG:NH2	2:W:888:PHE:O	2.48	0.47
2:x:770:ASP:OD1	1:y:57:TYR:OH	2.32	0.47
2:l:408:PRO:HA	2:l:1045:THR:HA	1.96	0.47
1:m:33:ASN:OD1	1:m:33:ASN:N	2.47	0.47
2:S:507:TYR:OH	2:S:984:ASN:O	2.31	0.47
2:S:720:ASP:O	2:S:810:LYS:NZ	2.46	0.47
2:S:783:ARG:NH1	2:S:888:PHE:CE1	2.78	0.47
2:T:1302:PRO:HB3	2:T:1321:LEU:HD11	1.95	0.47
2:x:282:VAL:HG12	2:x:1057:ILE:HG12	1.95	0.47
3:e:30:SER:OG	3:e:34:GLU:OE2	2.32	0.47
2:l:758:ALA:HB1	2:l:761:GLN:HE21	1.78	0.47
2:l:1199:SER:O	2:l:1199:SER:OG	2.33	0.47
2:W:55:LEU:HD23	2:x:328:MET:HG2	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:x:1074:VAL:HG12	2:x:1088:VAL:HG22	1.97	0.47
2:l:733:PHE:HD2	2:l:746:ILE:HD13	1.80	0.47
1:Z:8:PRO:HB2	1:Z:10:LEU:HG	1.97	0.47
2:S:598:VAL:HG12	2:S:685:LYS:HB3	1.97	0.47
2:S:999:SER:N	2:S:1000:PRO:CD	2.78	0.47
2:T:338:ILE:HD11	2:x:319:VAL:HA	1.96	0.47
2:T:528:ASP:OD2	2:T:534:ASN:ND2	2.48	0.47
2:T:1160:THR:CG2	2:T:1314:ILE:HD12	1.95	0.47
2:T:1160:THR:OG1	2:T:1314:ILE:HD11	2.15	0.47
2:W:564:HIS:HD2	2:W:566:LEU:HA	1.79	0.47
2:W:901:SER:O	2:W:918:ARG:NH2	2.48	0.47
2:l:127:ILE:HD13	2:l:175:GLY:C	2.40	0.47
2:l:502:ILE:HA	2:l:505:GLU:HG2	1.95	0.47
2:l:728:ALA:HB3	2:l:925:VAL:HA	1.97	0.47
4:7:90:THR:HG22	4:7:299:TRP:HB3	1.96	0.47
2:T:341:SER:O	2:T:341:SER:OG	2.32	0.47
2:W:53:GLU:HB2	2:x:90:ASP:HB3	1.96	0.47
2:W:137:ASP:HA	2:W:140:ILE:HG22	1.96	0.47
2:W:1226:ASP:OD1	2:W:1228:SER:OG	2.31	0.47
4:6:16:ASP:N	4:6:16:ASP:OD1	2.47	0.47
4:6:112:MET:HB3	4:6:136:MET:HB3	1.95	0.47
2:T:452:LEU:HD22	2:T:1040:PRO:HD3	1.97	0.47
2:W:298:ALA:HB2	2:W:373:LYS:HB2	1.97	0.47
2:x:725:PRO:HG3	2:x:809:GLU:HG3	1.97	0.47
3:e:151:LEU:HD11	3:e:226:PRO:HB2	1.97	0.47
1:Z:4:ARG:HH21	2:T:834:HIS:HE1	1.63	0.47
2:S:839:LEU:HB3	2:S:885:SER:HB3	1.96	0.47
2:S:1080:ARG:NH2	3:5:353:PHE:O	2.48	0.47
2:T:286:VAL:HG11	2:T:1057:ILE:HD11	1.97	0.47
2:T:827:GLY:HA2	2:T:929:VAL:HA	1.97	0.47
2:T:1011:SER:OG	2:T:1012:LEU:N	2.47	0.47
2:x:1293:GLU:O	2:x:1297:ARG:NH1	2.47	0.47
2:l:474:LEU:HD11	2:l:542:LEU:HD13	1.97	0.47
2:S:724:LEU:HD22	2:S:732:ILE:HD12	1.96	0.46
2:T:400:ARG:HH12	2:T:1114:THR:HG21	1.79	0.46
2:W:1348:SER:HB3	2:x:1352:THR:HA	1.96	0.46
2:x:484:ARG:HH22	2:x:553:ASP:HB2	1.80	0.46
2:x:700:LEU:HD12	2:x:1036:LEU:HD22	1.96	0.46
2:x:1365:GLU:OE1	2:x:1371:ARG:NH1	2.48	0.46
4:f:57:TYR:HA	4:f:60:MET:HE3	1.97	0.46
2:l:213:SER:HA	2:l:1211:SER:HB2	1.95	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:518:ILE:HD11	2:T:993:TYR:CD1	2.51	0.46
2:T:835:VAL:HG12	2:T:944:LEU:HD23	1.97	0.46
2:T:899:ARG:NH2	2:T:922:THR:OG1	2.40	0.46
2:T:1231:ASP:OD1	2:T:1231:ASP:N	2.48	0.46
2:T:488:SER:OG	2:T:992:GLU:N	2.37	0.46
2:W:518:ILE:HD11	2:W:547:ASP:CG	2.25	0.46
2:x:740:SER:OG	2:x:742:ARG:O	2.30	0.46
4:f:31:LEU:HD13	4:f:38:GLN:HE22	1.81	0.46
2:l:867:ASP:HB3	2:l:940:VAL:HG11	1.98	0.46
1:Z:8:PRO:HB3	2:T:864:THR:HG21	1.97	0.46
2:S:395:TYR:CD1	2:S:396:PRO:HD2	2.46	0.46
2:S:1374:LYS:O	2:T:1198:LYS:NZ	2.49	0.46
2:T:421:SER:HB3	2:T:1354:ALA:HB2	1.97	0.46
2:x:646:THR:O	2:x:650:ARG:CB	2.63	0.46
2:x:691:ILE:HG12	2:x:808:LEU:HD21	1.97	0.46
4:g:24:ARG:NH1	4:g:98:GLN:OE1	2.45	0.46
2:l:1205:ARG:NH1	2:l:1223:LEU:O	2.42	0.46
4:7:243:VAL:HG23	4:7:244:PRO:HD3	1.98	0.46
1:2:70:ARG:HH12	1:y:14:LEU:HA	1.79	0.46
2:S:498:ASN:HD21	2:S:500:LEU:HB3	1.79	0.46
2:T:1175:CYS:O	2:T:1175:CYS:SG	2.73	0.46
2:W:1213:GLU:HB3	2:W:1216:ASN:HD21	1.80	0.46
2:x:768:ASN:HB3	2:x:771:GLU:HG2	1.97	0.46
2:W:697:LEU:HB3	2:W:719:LEU:HD11	1.97	0.46
2:x:457:LYS:HE3	2:x:1121:THR:HB	1.97	0.46
2:x:473:SER:HG	2:x:1259:TYR:HH	1.61	0.46
4:f:193:VAL:HG12	4:f:195:GLY:H	1.81	0.46
4:7:58:VAL:HG22	4:7:277:LEU:HD11	1.98	0.46
2:T:1153:THR:O	2:T:1165:MET:CE	2.64	0.46
2:T:1272:ARG:HG2	2:T:1276:ASN:HD21	1.81	0.46
2:x:464:LEU:HG	2:x:1250:LEU:HD11	1.97	0.46
2:l:609:THR:HG22	2:l:653:ARG:HB3	1.97	0.46
2:l:881:ILE:HA	2:l:884:LEU:HB2	1.97	0.46
2:l:986:PRO:HG2	2:l:989:LEU:HD22	1.96	0.46
2:l:1246:GLN:HB2	2:l:1249:SER:HB2	1.97	0.46
2:S:487:TYR:HB2	2:S:514:PRO:HG2	1.98	0.46
2:S:715:VAL:HG23	2:S:1029:ALA:HA	1.98	0.46
2:T:471:LEU:HD21	2:T:562:ALA:HB2	1.97	0.46
2:W:724:LEU:HD12	2:W:900:VAL:HG21	1.98	0.46
2:x:856:ILE:HG12	2:x:860:LEU:HB2	1.98	0.46
2:l:639:LEU:HB2	2:l:880:MET:HB3	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:6:7:VAL:HG22	4:6:38:GLN:HB2	1.97	0.46
2:T:1043:ALA:HB2	2:T:1189:VAL:HG12	1.97	0.46
2:x:106:ASP:OD1	2:x:106:ASP:N	2.49	0.46
4:6:131:ASP:OD1	4:6:131:ASP:N	2.48	0.46
2:S:521:LYS:HA	2:S:524:LEU:HD12	1.97	0.46
2:S:998:ARG:HH11	2:S:998:ARG:CG	2.12	0.46
2:T:459:LEU:HA	2:T:464:LEU:HD13	1.98	0.46
2:T:782:TYR:OH	2:T:791:ASP:OD2	2.32	0.46
2:T:1073:ASN:O	2:T:1089:HIS:N	2.45	0.46
2:W:844:PRO:O	2:W:882:ARG:NH1	2.49	0.46
2:x:434:LEU:HD22	2:x:583:ALA:HB1	1.97	0.46
2:T:794:LEU:HD13	2:T:925:VAL:HG11	1.98	0.45
2:W:1081:VAL:HB	3:e:210:PRO:HB3	1.97	0.45
2:x:169:VAL:HG21	3:5:9:ARG:HG2	1.97	0.45
2:x:488:SER:HB3	2:x:991:ALA:HA	1.97	0.45
2:x:1178:GLN:HE21	2:x:1310:GLN:HG2	1.81	0.45
2:l:440:ILE:HD11	2:l:1119:ILE:HG23	1.98	0.45
1:2:65:PHE:O	2:x:862:ASN:ND2	2.49	0.45
2:S:639:LEU:HD12	2:S:880:MET:HB2	1.98	0.45
2:S:724:LEU:HD12	2:S:900:VAL:HG21	1.98	0.45
2:x:992:GLU:OE2	2:x:999:SER:OG	2.33	0.45
3:e:197:SER:HB2	3:e:201:ASN:HA	1.98	0.45
2:l:487:TYR:OH	2:l:985:ARG:O	2.34	0.45
1:2:72:ARG:HH22	2:x:859:ASN:HA	1.81	0.45
2:S:138:LEU:HD13	2:S:141:LEU:HD12	1.98	0.45
2:S:488:SER:O	2:S:488:SER:OG	2.35	0.45
2:x:852:ARG:HE	2:x:879:GLY:HA3	1.81	0.45
4:g:7:VAL:HG13	4:g:80:LEU:HB2	1.97	0.45
4:6:267:MET:HG2	4:7:209:PHE:HZ	1.82	0.45
2:S:1357:HIS:O	2:S:1360:HIS:N	2.47	0.45
2:W:898:VAL:HG23	2:W:923:VAL:HG13	1.99	0.45
2:W:1077:ARG:HH21	4:f:84:LYS:HE2	1.80	0.45
2:x:886:ALA:HB1	1:y:57:TYR:HB2	1.97	0.45
2:x:899:ARG:HH12	2:x:990:PHE:HA	1.81	0.45
2:x:1297:ARG:H	2:x:1297:ARG:HD3	1.82	0.45
3:5:28:ASN:OD1	3:5:30:SER:OG	2.34	0.45
4:6:127:SER:OG	4:6:128:ASN:N	2.50	0.45
2:S:280:PHE:HB2	2:S:381:VAL:HG22	1.97	0.45
2:S:594:LEU:HD11	2:S:693:LEU:HD23	1.99	0.45
2:S:791:ASP:C	2:S:793:ARG:H	2.25	0.45
2:T:1288:TYR:OH	2:W:24:ASN:ND2	2.50	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:x:850:PHE:O	2:x:882:ARG:NH1	2.50	0.45
1:y:35:LEU:HD12	1:y:39:VAL:HG23	1.98	0.45
2:l:1133:PHE:HB2	2:l:1139:ASN:HD21	1.82	0.45
4:6:21:MET:HE1	4:6:123:VAL:HB	1.96	0.45
4:7:85:ILE:HG13	4:7:91:TYR:HE2	1.81	0.45
2:S:998:ARG:NH1	2:S:998:ARG:CG	2.73	0.45
2:T:450:PHE:HZ	2:T:1184:ILE:HD11	1.80	0.45
2:x:223:LEU:HG	2:x:1368:PRO:HG3	1.99	0.45
4:g:149:LYS:HD2	4:g:179:VAL:HG22	1.99	0.45
3:5:12:LEU:HD12	3:5:12:LEU:HA	1.82	0.45
4:6:218:ARG:HH21	4:6:250:ILE:HD12	1.81	0.45
2:W:169:VAL:HG21	3:e:32:GLY:H	1.82	0.45
2:W:1302:PRO:HB3	2:W:1323:GLN:HE22	1.82	0.45
4:f:112:MET:HE3	4:f:143:ALA:HB1	1.98	0.45
2:l:810:LYS:O	2:l:814:TYR:HB2	2.17	0.45
2:l:682:MET:HE3	2:l:682:MET:HB2	1.84	0.45
3:5:289:ILE:HD12	3:5:292:ILE:HB	1.97	0.45
2:S:166:GLN:HE21	2:S:323:SER:HA	1.81	0.45
2:l:184:LYS:HA	2:l:184:LYS:HD3	1.74	0.45
2:S:828:LEU:HD22	2:S:930:ALA:HB2	1.99	0.45
2:S:1195:TYR:OH	2:S:1201:SER:O	2.35	0.45
2:S:1250:LEU:HG	2:S:1254:MET:HE2	1.98	0.45
2:T:260:VAL:HB	2:W:17:VAL:HG11	1.99	0.45
4:f:229:ARG:NH2	4:f:241:GLU:O	2.50	0.45
2:l:952:MET:HE1	2:l:981:GLU:HA	1.99	0.45
1:2:69:ARG:HG3	1:2:71:GLN:H	1.82	0.44
2:S:465:HIS:CE1	2:S:1027:PRO:HD3	2.52	0.44
2:S:1176:HIS:HB2	2:T:1232:ALA:HB1	1.99	0.44
2:W:314:ARG:HH11	2:W:314:ARG:CG	2.14	0.44
2:W:553:ASP:HA	2:W:558:ALA:HB2	1.99	0.44
2:W:1244:ALA:HB1	2:W:1275:PHE:HZ	1.81	0.44
2:x:718:LEU:HD13	2:x:811:ILE:HG12	1.99	0.44
4:g:150:ILE:HG22	4:g:190:LEU:HD21	1.99	0.44
2:l:1115:THR:HB	2:l:1180:ALA:HB2	2.00	0.44
4:7:109:LEU:HD12	4:7:137:VAL:HG12	2.00	0.44
2:S:780:TYR:OH	2:S:784:VAL:HG11	2.16	0.44
2:S:783:ARG:NH1	2:S:888:PHE:CD1	2.85	0.44
2:S:1210:VAL:HG22	2:S:1283:ASN:HB3	1.98	0.44
2:x:316:GLU:HB3	2:x:331:PHE:CD1	2.52	0.44
2:x:316:GLU:HB3	2:x:331:PHE:CG	2.52	0.44
3:e:237:LEU:HD21	3:e:292:ILE:HD11	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:f:221:MET:HA	4:f:224:VAL:HG12	1.98	0.44
2:l:851:THR:HG23	2:l:854:GLU:HB2	1.98	0.44
2:l:1192:ASP:OD1	2:l:1192:ASP:N	2.44	0.44
4:7:109:LEU:O	4:7:284:LEU:N	2.48	0.44
1:2:3:ARG:H	2:W:501:VAL:HG11	1.82	0.44
2:S:18:ASP:HB3	2:x:348:THR:HG21	1.99	0.44
2:S:1105:MET:HE2	2:S:1105:MET:HB3	1.82	0.44
2:T:1043:ALA:O	2:T:1187:THR:OG1	2.32	0.44
2:W:1181:THR:H	2:W:1310:GLN:HE21	1.66	0.44
2:l:612:ASP:OD2	2:l:653:ARG:NH2	2.50	0.44
2:l:690:LEU:HD11	2:l:812:PHE:HD1	1.81	0.44
2:l:1267:LEU:HD23	2:l:1267:LEU:HA	1.88	0.44
2:T:775:GLN:HG3	2:T:778:ALA:HB3	1.99	0.44
2:x:46:ARG:HG3	2:x:48:ALA:H	1.83	0.44
2:x:209:LYS:NZ	2:x:1211:SER:O	2.40	0.44
2:x:644:ILE:HD11	2:x:675:ILE:HG12	2.00	0.44
2:x:988:GLN:H	2:x:988:GLN:HG2	1.65	0.44
3:e:151:LEU:O	3:e:155:ALA:N	2.37	0.44
4:g:45:LEU:HB2	4:g:133:VAL:HB	2.00	0.44
2:l:516:THR:HG23	2:l:519:ALA:H	1.82	0.44
2:l:566:LEU:HD11	2:l:919:THR:HG21	1.99	0.44
2:l:992:GLU:HA	2:l:995:GLU:HG3	1.99	0.44
1:Y:11:GLN:NE2	2:S:861:GLU:OE2	2.49	0.44
2:T:1157:ASP:OD1	2:T:1304:THR:HG21	2.18	0.44
2:W:400:ARG:HH22	2:x:205:ARG:HH11	1.65	0.44
2:W:442:ASN:OD1	2:W:443:LYS:N	2.50	0.44
2:W:964:HIS:HD2	2:W:966:ASP:H	1.64	0.44
2:x:821:THR:O	2:x:821:THR:OG1	2.35	0.44
2:x:1184:ILE:O	2:x:1255:TYR:OH	2.34	0.44
2:l:731:ASP:HA	2:l:796:LEU:HD13	2.00	0.44
4:6:250:ILE:HG22	4:7:247:ILE:HD12	2.00	0.44
4:7:7:VAL:HG12	4:7:80:LEU:HB2	2.00	0.44
2:S:860:LEU:HD21	2:S:865:LEU:HD22	2.00	0.44
2:T:564:HIS:CE1	2:T:908:GLN:HG2	2.53	0.44
2:T:1077:ARG:NH1	3:e:92:ASP:OD2	2.50	0.44
2:T:1199:SER:O	2:T:1199:SER:OG	2.31	0.44
4:f:140:THR:HA	4:f:143:ALA:HB3	1.99	0.44
4:g:124:LYS:HB2	4:g:124:LYS:HE2	1.73	0.44
4:g:280:LEU:H	4:g:283:ARG:HH11	1.65	0.44
2:l:82:PHE:HB2	2:l:1068:PHE:HB3	1.99	0.44
4:6:249:ARG:HA	4:6:252:LEU:HG	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S:262:LYS:HA	2:S:262:LYS:HD2	1.84	0.44
2:S:1071:THR:OG1	2:I:139:GLU:OE2	2.35	0.44
2:T:518:ILE:HD11	2:T:993:TYR:CE1	2.53	0.44
2:T:838:THR:HG22	2:T:865:LEU:HD12	1.98	0.44
2:x:1074:VAL:HG22	3:5:15:ARG:HB3	1.99	0.44
2:S:964:HIS:HB3	2:S:967:VAL:HG22	1.99	0.44
2:S:1120:HIS:CB	2:S:1179:GLN:HB3	2.48	0.44
2:W:764:GLU:HB3	2:W:793:ARG:HH12	1.83	0.44
2:W:1127:VAL:HG22	2:W:1267:LEU:HG	2.00	0.44
2:x:1339:SER:OG	2:x:1340:ARG:N	2.51	0.44
4:6:110:SER:N	4:6:138:LEU:O	2.51	0.44
2:W:79:ASN:CB	2:W:308:TYR:HD1	2.27	0.44
2:I:438:ALA:HA	2:I:1338:SER:HA	1.99	0.44
1:Y:5:LEU:HD12	2:S:831:ASP:HB2	2.00	0.43
2:S:783:ARG:HE	2:S:783:ARG:HB2	1.63	0.43
2:T:730:THR:HG23	2:T:732:ILE:HG23	2.00	0.43
2:T:1160:THR:HG23	2:T:1314:ILE:HG13	1.93	0.43
2:W:401:MET:HE2	2:W:401:MET:HB3	1.93	0.43
2:x:783:ARG:NH2	2:x:888:PHE:O	2.50	0.43
4:f:152:LEU:HA	4:f:155:VAL:HG12	1.99	0.43
1:2:4:ARG:HE	1:2:4:ARG:HB3	1.63	0.43
2:S:68:PHE:HD1	2:S:177:ILE:HG12	1.83	0.43
2:S:410:GLY:O	2:S:1039:HIS:NE2	2.37	0.43
2:S:510:LYS:HA	2:S:510:LYS:HD2	1.80	0.43
2:S:839:LEU:HD21	2:S:884:LEU:HD23	1.99	0.43
2:T:349:LYS:HD3	2:T:349:LYS:HA	1.88	0.43
2:T:1208:CYS:HB2	2:T:1211:SER:HB2	1.99	0.43
2:W:817:LEU:HD23	2:W:817:LEU:HA	1.84	0.43
2:W:1352:THR:O	2:W:1352:THR:OG1	2.36	0.43
1:y:56:CYS:HA	1:y:59:GLU:HG2	2.00	0.43
4:f:224:VAL:HB	4:g:210:CYS:HB3	1.99	0.43
2:S:780:TYR:CE2	2:S:784:VAL:HG21	2.54	0.43
2:S:1175:CYS:HB2	2:T:1223:LEU:HD11	1.90	0.43
2:T:746:ILE:HG23	2:T:900:VAL:HG22	2.00	0.43
2:W:503:VAL:HG12	2:W:986:PRO:HG2	1.99	0.43
2:x:605:THR:HA	2:x:608:ASP:HB2	2.00	0.43
2:I:499:VAL:HG23	2:I:502:ILE:HD11	2.00	0.43
4:6:122:THR:HA	4:6:133:VAL:HG12	2.01	0.43
2:T:407:PHE:HB2	2:T:1336:SER:HB2	2.00	0.43
2:T:1121:THR:HA	2:T:1182:CYS:HB2	2.01	0.43
2:x:908:GLN:HE22	2:x:1024:LYS:HD3	1.82	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5:27:LEU:HD23	3:5:38:ASP:HB3	2.00	0.43
4:6:205:LEU:HD23	4:7:223:LEU:HD21	2.00	0.43
2:S:600:GLN:O	2:S:604:GLU:HB2	2.18	0.43
2:S:783:ARG:NH2	2:S:891:CYS:O	2.52	0.43
2:T:147:THR:HB	2:T:150:GLU:HB2	2.01	0.43
2:x:409:VAL:HB	2:x:1044:MET:HB2	2.01	0.43
3:e:133:ILE:HD11	3:e:165:LEU:HD22	2.00	0.43
4:f:48:VAL:HG23	4:f:60:MET:HG2	2.01	0.43
2:l:184:LYS:HB3	2:l:1058:LEU:HD21	2.01	0.43
2:l:481:ARG:HH22	2:l:483:ARG:HH21	1.66	0.43
1:Y:41:ARG:HD3	1:Y:41:ARG:HA	1.83	0.43
2:T:640:VAL:HA	2:T:643:CYS:HB2	2.01	0.43
2:W:547:ASP:HB2	2:W:565:ARG:HD2	2.00	0.43
4:f:206:SER:OG	4:g:240:GLN:NE2	2.52	0.43
2:l:1290:MET:HE2	2:l:1290:MET:HB3	1.85	0.43
2:S:448:LEU:HD13	2:S:1119:ILE:HB	2.00	0.43
2:S:468:ALA:O	2:S:472:ASN:HB2	2.18	0.43
2:T:483:ARG:HH12	2:T:536:ASP:HB3	1.84	0.43
2:T:1174:LEU:N	2:T:1174:LEU:CD1	2.76	0.43
1:y:30:LEU:HB3	1:y:40:PHE:HE1	1.83	0.43
3:e:122:VAL:CG2	3:e:200:LEU:HD11	2.49	0.43
3:e:171:ASP:HB2	3:e:174:ARG:HB3	1.99	0.43
4:f:58:VAL:HA	4:f:61:TYR:HB2	2.00	0.43
2:T:1258:SER:OG	2:T:1260:ARG:NH2	2.52	0.43
2:W:189:PRO:HG2	2:W:194:LEU:HD11	2.01	0.43
2:W:627:HIS:CE1	2:W:892:PRO:HD3	2.54	0.43
2:W:657:VAL:HA	2:W:663:ILE:HD11	2.00	0.43
2:x:269:THR:HG22	2:x:274:GLU:H	1.84	0.43
2:x:337:ARG:HD3	2:x:337:ARG:HA	1.88	0.43
2:l:448:LEU:HD13	2:l:1119:ILE:HG12	2.00	0.43
1:2:6:PRO:HB2	2:W:943:CYS:HA	2.01	0.43
2:S:870:GLU:OE2	2:S:936:ARG:NH1	2.51	0.43
2:T:1204:GLY:H	2:T:1245:SER:HB3	1.84	0.43
2:x:855:ASP:N	2:x:855:ASP:OD1	2.51	0.43
4:f:115:VAL:O	4:f:189:ALA:N	2.47	0.43
3:5:127:THR:HG23	3:5:130:SER:H	1.83	0.43
2:W:262:LYS:HE3	2:W:262:LYS:HB3	1.88	0.43
2:x:421:SER:HB3	2:x:1354:ALA:HB2	2.01	0.43
2:x:492:ARG:HG3	2:x:988:GLN:HB3	2.00	0.43
2:l:450:PHE:HD2	2:l:1119:ILE:HG22	1.84	0.43
3:5:289:ILE:HD12	3:5:289:ILE:HA	1.92	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:69:ARG:HE	1:2:70:ARG:H	1.67	0.42
2:S:632:LYS:HA	2:S:635:MET:HE3	2.01	0.42
2:T:517:ASP:HA	2:T:520:LEU:HB2	2.01	0.42
2:T:698:MET:HE3	2:T:698:MET:HB3	1.90	0.42
2:T:1187:THR:HG22	2:T:1241:ASN:ND2	2.34	0.42
2:W:371:VAL:HA	2:W:380:ALA:HA	2.01	0.42
2:W:832:PHE:HA	2:W:835:VAL:HG22	2.01	0.42
4:f:29:LEU:O	4:f:70:ALA:N	2.51	0.42
2:l:131:MET:HG2	2:l:168:GLY:HA3	2.01	0.42
1:2:38:ASP:OD1	1:2:38:ASP:N	2.47	0.42
2:S:826:CYS:HB3	2:S:963:MET:HE1	2.01	0.42
2:S:857:LEU:HD12	2:S:875:ARG:HD3	2.01	0.42
2:S:1318:ASP:OD2	2:T:108:ARG:NH1	2.52	0.42
2:T:543:HIS:HD2	2:T:545:LEU:H	1.66	0.42
2:W:464:LEU:HG	2:W:1250:LEU:HD21	2.01	0.42
2:W:641:SER:OG	2:W:674:ALA:O	2.31	0.42
2:W:690:LEU:HD22	2:W:811:ILE:HG23	2.00	0.42
2:W:820:CYS:HA	2:W:1010:PRO:HB3	2.02	0.42
2:x:825:MET:HE2	2:x:825:MET:HB3	1.78	0.42
2:x:913:ASN:HD21	2:x:915:ALA:HB3	1.83	0.42
4:f:151:LEU:HD12	4:f:278:PHE:HE1	1.84	0.42
2:l:625:MET:O	2:l:887:SER:OG	2.37	0.42
2:l:764:GLU:HB3	2:l:793:ARG:HD2	2.00	0.42
2:l:788:HIS:HA	2:l:791:ASP:HB3	2.01	0.42
4:6:124:LYS:HD2	4:6:124:LYS:HA	1.83	0.42
2:S:338:ILE:HD12	3:5:18:GLY:HA2	2.01	0.42
2:S:553:ASP:OD1	2:S:553:ASP:N	2.52	0.42
2:S:826:CYS:HB2	2:S:959:VAL:HG13	2.02	0.42
2:S:999:SER:N	2:S:1000:PRO:HD2	2.35	0.42
2:T:317:ASN:HB3	2:T:327:VAL:HG13	2.01	0.42
2:T:335:MET:HE2	2:T:335:MET:HB3	1.94	0.42
2:T:794:LEU:HD22	2:T:896:ARG:HE	1.84	0.42
2:W:826:CYS:HB2	2:W:959:VAL:HG23	2.01	0.42
2:W:1246:GLN:HB2	2:W:1249:SER:HB3	2.02	0.42
2:x:1254:MET:O	2:x:1260:ARG:NH1	2.41	0.42
4:6:7:VAL:HG11	4:6:43:LEU:HD22	2.01	0.42
4:6:13:LEU:HD11	4:6:125:LEU:HD22	2.00	0.42
1:m:23:LEU:HD21	1:m:55:PHE:HB2	2.01	0.42
1:m:53:SER:HB3	2:l:886:ALA:HA	2.00	0.42
2:T:832:PHE:HA	2:T:835:VAL:HG22	2.02	0.42
2:W:634:VAL:HA	2:W:637:VAL:HG23	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:g:251:ASP:OD1	4:g:251:ASP:N	2.48	0.42
3:5:307:VAL:O	3:5:309:GLN:N	2.52	0.42
4:7:147:LEU:O	4:7:151:LEU:HB2	2.19	0.42
2:T:1076:ARG:NH2	3:e:62:LEU:O	2.48	0.42
2:W:421:SER:HB2	2:W:1354:ALA:HB2	2.01	0.42
2:W:497:MET:HE3	2:W:497:MET:HB3	1.90	0.42
2:W:632:LYS:HD3	2:W:887:SER:HB3	2.01	0.42
2:W:1225:TYR:HE2	2:W:1277:LYS:HD3	1.84	0.42
2:W:1357:HIS:O	2:W:1360:HIS:N	2.50	0.42
2:l:73:LEU:HD21	2:l:177:ILE:HG23	2.01	0.42
2:l:408:PRO:HB3	2:l:1045:THR:HG22	2.02	0.42
3:5:284:ARG:HH11	3:5:292:ILE:HD11	1.85	0.42
4:6:9:LEU:HG	4:6:40:VAL:HG21	2.00	0.42
4:6:140:THR:HA	4:6:143:ALA:HB3	2.01	0.42
2:T:172:LEU:HD13	2:T:1090:HIS:HB2	2.00	0.42
2:T:690:LEU:HD22	2:T:811:ILE:HG22	2.02	0.42
2:x:648:TRP:NE1	2:x:678:GLU:OE1	2.48	0.42
2:l:824:HIS:CE1	2:l:958:ARG:HE	2.36	0.42
4:7:23:GLN:HG3	4:7:24:ARG:HG3	2.02	0.42
2:T:810:LYS:O	2:T:814:TYR:HB2	2.19	0.42
2:W:535:TYR:O	2:W:539:ARG:HB2	2.20	0.42
2:W:862:ASN:HA	2:W:866:ARG:HD3	2.02	0.42
2:x:1298:LEU:N	2:x:1298:LEU:CD2	2.82	0.42
2:l:94:GLN:HE21	2:l:117:ILE:HG21	1.84	0.42
2:S:1145:LYS:HA	2:S:1145:LYS:HD2	1.88	0.42
2:T:969:THR:HA	2:T:972:MET:HG2	2.02	0.42
2:W:255:VAL:HG13	2:W:1102:SER:HA	2.02	0.42
2:W:594:LEU:HD11	2:W:693:LEU:HD12	2.01	0.42
2:x:264:VAL:HG22	2:x:356:ALA:HB2	2.00	0.42
2:S:474:LEU:HD13	2:S:548:ILE:HG21	2.02	0.42
2:x:437:GLU:OE1	2:x:439:TRP:NE1	2.52	0.42
3:e:223:VAL:HB	3:e:350:ILE:HB	2.02	0.42
2:l:1205:ARG:HD2	2:l:1227:HIS:CE1	2.54	0.42
3:5:107:GLY:O	3:5:224:THR:N	2.40	0.42
3:5:269:THR:HA	3:5:319:GLY:HA3	2.02	0.42
2:S:853:ASP:OD1	2:S:853:ASP:N	2.47	0.42
2:T:267:TYR:HE2	2:T:367:ILE:HD11	1.84	0.42
2:T:903:ASP:HB2	2:T:909:GLN:HE21	1.85	0.42
2:W:7:VAL:HG11	2:W:38:ASP:HB2	2.02	0.42
2:x:1204:GLY:HA2	2:x:1240:VAL:HG12	2.02	0.42
3:e:122:VAL:HG22	3:e:200:LEU:HD11	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5:297:TYR:HD2	3:5:363:ILE:HG21	1.85	0.42
4:7:153:PHE:O	4:7:157:SER:HB3	2.19	0.42
2:S:1048:ARG:NH1	2:S:1050:ASP:OD2	2.53	0.41
2:S:1089:HIS:HB3	2:l:1081:VAL:HG21	2.02	0.41
2:T:585:GLY:HA3	2:T:1017:GLY:HA2	2.01	0.41
2:T:1120:HIS:CD2	2:T:1150:ARG:NH1	2.87	0.41
2:W:159:LYS:HA	2:W:159:LYS:HD3	1.80	0.41
2:x:260:VAL:HG22	2:x:1097:THR:HB	2.01	0.41
2:x:564:HIS:O	2:x:998:ARG:NH2	2.53	0.41
4:f:245:ASP:OD2	4:f:249:ARG:NH2	2.53	0.41
2:l:621:VAL:HG21	2:l:868:LEU:HD21	2.02	0.41
4:7:222:ARG:HG3	4:7:264:MET:HE3	2.01	0.41
1:m:6:PRO:HB2	2:l:834:HIS:HD2	1.84	0.41
1:2:41:ARG:O	1:2:45:ARG:HG3	2.19	0.41
2:S:149:VAL:HG23	2:W:50:ILE:HD13	2.02	0.41
2:S:316:GLU:O	2:S:320:THR:OG1	2.31	0.41
2:T:191:MET:HE3	2:T:195:GLN:HG3	2.01	0.41
2:T:899:ARG:HH12	2:T:991:ALA:H	1.68	0.41
2:W:518:ILE:O	2:W:999:SER:OG	2.37	0.41
2:W:619:PHE:CE1	2:W:643:CYS:HB3	2.54	0.41
2:x:640:VAL:HA	2:x:643:CYS:HB2	2.00	0.41
4:f:96:LYS:HA	4:f:96:LYS:HD2	1.90	0.41
4:g:201:LEU:HD12	4:g:201:LEU:HA	1.92	0.41
2:S:409:VAL:HG13	2:S:1044:MET:HB2	2.01	0.41
2:T:302:ILE:HG13	2:T:367:ILE:HG13	2.01	0.41
2:l:726:PRO:HD3	2:l:814:TYR:CZ	2.55	0.41
2:W:598:VAL:HB	2:W:689:GLU:HB3	2.01	0.41
2:W:856:ILE:O	2:W:860:LEU:CB	2.68	0.41
2:W:1080:ARG:HH22	3:e:261:ASP:HB3	1.85	0.41
2:W:1338:SER:OG	2:W:1360:HIS:ND1	2.45	0.41
2:x:489:LEU:O	2:x:994:ARG:NH1	2.51	0.41
2:T:733:PHE:HB3	2:T:746:ILE:HD13	2.02	0.41
2:T:1215:TYR:CZ	2:T:1285:ARG:HD3	2.55	0.41
2:W:471:LEU:HD23	2:W:471:LEU:HA	1.93	0.41
2:W:811:ILE:O	2:W:815:VAL:HB	2.20	0.41
2:x:138:LEU:HD12	2:x:141:LEU:HD12	2.01	0.41
2:x:937:THR:O	2:x:941:THR:OG1	2.29	0.41
2:l:657:VAL:HA	2:l:663:ILE:HD11	2.03	0.41
2:l:691:ILE:HG22	2:l:808:LEU:HD21	2.03	0.41
4:6:257:VAL:O	4:6:261:LEU:HB2	2.21	0.41
2:S:722:ASN:HB3	2:S:902:VAL:HG21	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:693:LEU:HD23	2:T:693:LEU:HA	1.91	0.41
2:T:1241:ASN:HD21	2:T:1244:ALA:HB3	1.84	0.41
4:f:29:LEU:HD13	4:f:43:LEU:HD21	2.02	0.41
4:f:87:PRO:HG3	4:f:300:LEU:HD22	2.01	0.41
2:l:783:ARG:NH1	2:l:892:PRO:O	2.40	0.41
3:5:335:ARG:HE	3:5:335:ARG:HB2	1.69	0.41
2:T:271:LYS:HD2	2:T:271:LYS:HA	1.84	0.41
2:T:936:ARG:HA	2:T:936:ARG:HD2	1.80	0.41
2:W:184:LYS:HD3	2:W:184:LYS:HA	1.76	0.41
4:f:153:PHE:CG	4:f:190:LEU:HD13	2.55	0.41
4:g:109:LEU:HD12	4:g:137:VAL:HG12	2.01	0.41
2:l:376:ASN:OD1	2:l:377:HIS:ND1	2.53	0.41
4:7:18:ILE:HD13	4:7:18:ILE:HA	1.91	0.41
2:T:621:VAL:HG21	2:T:868:LEU:HD21	2.01	0.41
2:W:543:HIS:CE1	2:W:545:LEU:HB2	2.56	0.41
2:W:1067:MET:HE2	2:W:1067:MET:HB3	1.86	0.41
2:x:588:PHE:HE1	2:x:700:LEU:HD22	1.85	0.41
3:e:133:ILE:HD11	3:e:165:LEU:HD13	2.01	0.41
4:g:156:TYR:HA	4:g:159:VAL:HG22	2.03	0.41
2:l:397:LEU:HD21	2:l:1058:LEU:HB2	2.03	0.41
2:l:825:MET:HB3	2:l:825:MET:HE2	1.79	0.41
2:l:884:LEU:HD23	2:l:884:LEU:HA	1.94	0.41
2:l:1127:VAL:HG23	2:l:1264:VAL:HG22	2.02	0.41
2:l:1374:LYS:HA	2:l:1374:LYS:HD3	1.75	0.41
1:m:60:TYR:HA	1:m:63:ARG:HG2	2.01	0.41
2:S:516:THR:HG22	2:S:993:TYR:HE1	1.85	0.41
2:S:549:TYR:OH	2:S:994:ARG:NH1	2.51	0.41
2:S:1273:ALA:HB2	2:S:1301:HIS:CD2	2.55	0.41
2:T:638:PRO:HA	2:T:641:SER:HB2	2.01	0.41
2:W:79:ASN:CB	2:W:308:TYR:CD1	3.03	0.41
2:W:868:LEU:O	2:W:872:SER:HB2	2.21	0.41
2:W:1308:GLU:OE1	2:x:209:LYS:NZ	2.42	0.41
2:x:783:ARG:HG2	2:x:893:THR:HG22	2.03	0.41
2:x:878:VAL:HA	2:x:881:ILE:HG22	2.02	0.41
4:f:91:TYR:O	4:f:298:CYS:N	2.47	0.41
4:f:148:GLN:HE22	4:g:269:THR:HG23	1.86	0.41
4:g:109:LEU:O	4:g:284:LEU:N	2.51	0.41
2:l:655:ALA:O	2:l:683:TYR:OH	2.33	0.41
2:T:447:LEU:HD11	2:T:1343:ILE:HD13	2.02	0.41
2:T:524:LEU:H	2:T:524:LEU:HG	1.73	0.41
2:T:947:ALA:HB3	2:T:964:HIS:HB2	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:1272:ARG:HG2	2:T:1276:ASN:ND2	2.35	0.41
2:x:598:VAL:HG13	2:x:602:VAL:HB	2.02	0.41
2:x:602:VAL:HG21	2:x:685:LYS:HD3	2.03	0.41
2:x:837:GLN:HA	1:y:49:VAL:HG21	2.03	0.41
2:x:1122:GLN:HE21	2:x:1181:THR:HG21	1.86	0.41
4:f:73:ASP:OD1	4:f:73:ASP:N	2.49	0.41
2:S:552:ARG:HD2	2:S:552:ARG:HA	1.85	0.40
2:T:141:LEU:HD22	2:T:161:VAL:HG21	2.02	0.40
2:T:434:LEU:HD12	2:T:434:LEU:HA	1.89	0.40
2:W:140:ILE:HD12	2:W:140:ILE:HA	1.97	0.40
2:W:452:LEU:HD22	2:W:1040:PRO:HD3	2.03	0.40
2:l:481:ARG:HH12	2:l:483:ARG:HH21	1.69	0.40
1:Z:23:LEU:HD21	1:Z:55:PHE:HB2	2.03	0.40
2:T:745:GLN:HG2	2:T:918:ARG:HH22	1.85	0.40
2:W:540:LEU:HD11	2:W:550:ILE:HG13	2.03	0.40
2:W:1195:TYR:OH	2:W:1201:SER:O	2.36	0.40
2:x:282:VAL:HG23	2:x:383:SER:HB2	2.03	0.40
2:x:821:THR:O	2:x:823:ALA:N	2.51	0.40
2:l:887:SER:OG	2:l:891:CYS:SG	2.69	0.40
2:l:1080:ARG:HG2	2:l:1082:ASP:H	1.87	0.40
2:l:1205:ARG:NH2	2:l:1229:ARG:O	2.54	0.40
3:5:25:ARG:HE	3:5:25:ARG:HB3	1.74	0.40
1:m:60:TYR:CE2	2:l:883:ASP:HB3	2.54	0.40
2:S:11:PRO:HG2	2:T:322:VAL:HG13	2.04	0.40
2:S:857:LEU:HD23	2:S:857:LEU:HA	1.87	0.40
2:S:880:MET:HE2	2:S:880:MET:HB3	1.99	0.40
3:e:96:HIS:NE2	3:e:122:VAL:HG11	2.36	0.40
2:l:901:SER:HB2	2:l:920:GLU:HG3	2.03	0.40
4:7:152:LEU:HD23	4:7:152:LEU:HA	1.95	0.40
1:m:21:SER:HA	1:m:22:PRO:HD3	1.94	0.40
2:S:648:TRP:HH2	2:S:682:MET:HE3	1.86	0.40
2:S:858:ASP:OD1	2:S:859:ASN:ND2	2.55	0.40
2:T:316:GLU:OE1	2:T:331:PHE:HD1	2.04	0.40
2:W:197:LEU:HD23	2:W:197:LEU:HA	1.94	0.40
2:W:319:VAL:O	2:W:323:SER:CB	2.69	0.40
2:W:710:SER:OG	2:W:711:VAL:N	2.54	0.40
2:W:1192:ASP:OD1	2:W:1192:ASP:N	2.49	0.40
3:e:117:ASP:HA	3:e:118:PRO:HD3	1.92	0.40
3:e:262:ALA:HA	3:e:283:SER:HA	2.04	0.40
4:f:152:LEU:O	4:f:156:TYR:HB2	2.22	0.40
2:l:709:GLU:HB3	2:l:713:GLN:HE22	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:5:25:ARG:NH1	3:5:45:GLU:OE2	2.54	0.40
2:S:718:LEU:HD13	2:S:811:ILE:HG12	2.03	0.40
2:S:742:ARG:HB2	2:S:903:ASP:HB2	2.04	0.40
2:S:1141:TYR:CD1	2:S:1141:TYR:C	2.99	0.40
2:T:386:LYS:H	2:T:386:LYS:HG2	1.66	0.40
2:T:481:ARG:HG3	2:T:539:ARG:HD3	2.03	0.40
2:W:166:GLN:HA	2:W:169:VAL:HG22	2.03	0.40
2:W:626:ILE:HD12	2:W:633:PHE:HD1	1.86	0.40
2:W:747:ILE:HG12	2:W:752:VAL:HG22	2.02	0.40
1:y:67:VAL:HG13	1:y:68:PRO:HD3	2.04	0.40
4:f:245:ASP:HB2	4:f:249:ARG:HH21	1.87	0.40
4:6:145:GLU:HA	4:6:148:GLN:HG2	2.02	0.40
4:7:43:LEU:HD21	4:7:132:ILE:HG22	2.03	0.40
4:7:72:LEU:HA	4:7:82:LEU:HA	2.03	0.40
4:7:95:ASN:HB3	4:7:103:TRP:CE2	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	2	72/176 (41%)	64 (89%)	8 (11%)	0	100	100
1	Y	72/176 (41%)	65 (90%)	7 (10%)	0	100	100
1	Z	72/176 (41%)	67 (93%)	5 (7%)	0	100	100
1	m	69/176 (39%)	64 (93%)	5 (7%)	0	100	100
1	y	72/176 (41%)	65 (90%)	7 (10%)	0	100	100
2	S	1327/1381 (96%)	1246 (94%)	80 (6%)	1 (0%)	48	79
2	T	1319/1381 (96%)	1222 (93%)	97 (7%)	0	100	100
2	W	1321/1381 (96%)	1243 (94%)	78 (6%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	l	1237/1381 (90%)	1164 (94%)	73 (6%)	0	100	100
2	x	1321/1381 (96%)	1243 (94%)	78 (6%)	0	100	100
3	5	303/364 (83%)	285 (94%)	17 (6%)	1 (0%)	37	69
3	e	311/364 (85%)	300 (96%)	11 (4%)	0	100	100
4	6	285/301 (95%)	269 (94%)	16 (6%)	0	100	100
4	7	271/301 (90%)	255 (94%)	16 (6%)	0	100	100
4	f	286/301 (95%)	276 (96%)	10 (4%)	0	100	100
4	g	271/301 (90%)	261 (96%)	10 (4%)	0	100	100
All	All	8609/9717 (89%)	8089 (94%)	518 (6%)	2 (0%)	100	100

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S	1176	HIS
3	5	308	VAL

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	2	68/128 (53%)	67 (98%)	1 (2%)	60	74
1	Y	68/128 (53%)	68 (100%)	0	100	100
1	Z	68/128 (53%)	68 (100%)	0	100	100
1	m	66/128 (52%)	66 (100%)	0	100	100
1	y	68/128 (53%)	67 (98%)	1 (2%)	60	74
2	S	1136/1171 (97%)	1121 (99%)	15 (1%)	65	76
2	T	1126/1171 (96%)	1115 (99%)	11 (1%)	73	80
2	W	1132/1171 (97%)	1121 (99%)	11 (1%)	73	80
2	l	1070/1171 (91%)	1064 (99%)	6 (1%)	84	88
2	x	1125/1171 (96%)	1117 (99%)	8 (1%)	81	86

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	5	263/289 (91%)	263 (100%)	0	100	100
3	e	268/289 (93%)	268 (100%)	0	100	100
4	6	258/267 (97%)	256 (99%)	2 (1%)	79	84
4	7	248/267 (93%)	247 (100%)	1 (0%)	89	91
4	f	259/267 (97%)	258 (100%)	1 (0%)	89	91
4	g	247/267 (92%)	245 (99%)	2 (1%)	79	84
All	All	7470/8141 (92%)	7411 (99%)	59 (1%)	77	84

All (59) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	2	67	VAL
2	S	22	LEU
2	S	409	VAL
2	S	516	THR
2	S	658	ASN
2	S	783	ARG
2	S	784	VAL
2	S	788	HIS
2	S	998	ARG
2	S	999	SER
2	S	1038	ILE
2	S	1138	VAL
2	S	1141	TYR
2	S	1142	ILE
2	S	1308	GLU
2	S	1349	VAL
2	T	84	ASP
2	T	524	LEU
2	T	737	LEU
2	T	795	HIS
2	T	1149	GLN
2	T	1154	LEU
2	T	1155	LEU
2	T	1174	LEU
2	T	1176	HIS
2	T	1184	ILE
2	T	1369	VAL
2	W	41	VAL
2	W	66	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	W	78	VAL
2	W	283	THR
2	W	314	ARG
2	W	777	VAL
2	W	902	VAL
2	W	1138	VAL
2	W	1252	ASP
2	W	1253	ILE
2	W	1380	VAL
2	x	118	VAL
2	x	384	LEU
2	x	458	VAL
2	x	516	THR
2	x	524	LEU
2	x	542	LEU
2	x	923	VAL
2	x	1110	VAL
1	y	67	VAL
4	f	129	ASP
4	g	7	VAL
4	g	243	VAL
2	l	547	ASP
2	l	675	ILE
2	l	719	LEU
2	l	900	VAL
2	l	923	VAL
2	l	1110	VAL
4	6	131	ASP
4	6	294	LEU
4	7	71	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (174) such sidechains are listed below:

Mol	Chain	Res	Type
1	Y	71	GLN
1	Z	71	GLN
1	2	28	GLN
1	2	44	GLN
2	S	24	ASN
2	S	104	HIS
2	S	166	GLN
2	S	385	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	S	442	ASN
2	S	444	ASN
2	S	445	ASN
2	S	498	ASN
2	S	509	ASN
2	S	534	ASN
2	S	586	GLN
2	S	673	ASN
2	S	695	GLN
2	S	788	HIS
2	S	790	HIS
2	S	849	HIS
2	S	859	ASN
2	S	921	GLN
2	S	926	ASN
2	S	984	ASN
2	S	997	HIS
2	S	1073	ASN
2	S	1120	HIS
2	S	1122	GLN
2	S	1176	HIS
2	S	1246	GLN
2	S	1329	GLN
2	T	125	HIS
2	T	126	HIS
2	T	166	GLN
2	T	376	ASN
2	T	415	ASN
2	T	445	ASN
2	T	475	ASN
2	T	509	ASN
2	T	543	HIS
2	T	560	HIS
2	T	750	ASN
2	T	834	HIS
2	T	946	HIS
2	T	988	GLN
2	T	997	HIS
2	T	1022	HIS
2	T	1089	HIS
2	T	1241	ASN
2	T	1261	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	T	1276	ASN
2	T	1329	GLN
2	T	1377	ASN
2	W	24	ASN
2	W	142	HIS
2	W	301	GLN
2	W	333	HIS
2	W	433	GLN
2	W	444	ASN
2	W	495	ASN
2	W	534	ASN
2	W	587	GLN
2	W	636	ASN
2	W	669	HIS
2	W	750	ASN
2	W	761	GLN
2	W	788	HIS
2	W	824	HIS
2	W	842	ASN
2	W	926	ASN
2	W	946	HIS
2	W	964	HIS
2	W	974	ASN
2	W	977	GLN
2	W	1056	ASN
2	W	1136	GLN
2	W	1149	GLN
2	W	1179	GLN
2	W	1197	GLN
2	W	1217	GLN
2	W	1256	ASN
2	W	1292	ASN
2	W	1310	GLN
2	W	1329	GLN
2	W	1377	ASN
2	x	113	GLN
2	x	123	HIS
2	x	126	HIS
2	x	178	ASN
2	x	187	HIS
2	x	195	GLN
2	x	317	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	x	415	ASN
2	x	465	HIS
2	x	491	HIS
2	x	560	HIS
2	x	586	GLN
2	x	596	HIS
2	x	600	GLN
2	x	627	HIS
2	x	722	ASN
2	x	745	GLN
2	x	761	GLN
2	x	788	HIS
2	x	822	ASN
2	x	859	ASN
2	x	913	ASN
2	x	984	ASN
2	x	997	HIS
2	x	1022	HIS
2	x	1033	GLN
2	x	1089	HIS
2	x	1122	GLN
2	x	1178	GLN
2	x	1241	ASN
2	x	1261	GLN
2	x	1306	ASN
2	x	1351	GLN
2	x	1357	HIS
1	y	32	GLN
1	y	37	ASN
3	e	102	ASN
3	e	194	ASN
3	e	227	GLN
3	e	288	GLN
3	e	291	ASN
3	e	312	HIS
4	f	35	HIS
4	f	41	GLN
4	f	95	ASN
4	f	173	HIS
4	f	175	HIS
4	f	185	HIS
4	f	237	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	g	23	GLN
4	g	62	ASN
4	g	104	HIS
4	g	154	ASN
4	g	184	HIS
4	g	240	GLN
2	l	94	GLN
2	l	123	HIS
2	l	187	HIS
2	l	442	ASN
2	l	454	ASN
2	l	469	HIS
2	l	472	ASN
2	l	570	ASN
2	l	586	GLN
2	l	745	GLN
2	l	761	GLN
2	l	824	HIS
2	l	834	HIS
2	l	837	GLN
2	l	859	ASN
2	l	921	GLN
2	l	1056	ASN
2	l	1139	ASN
3	5	102	ASN
3	5	136	ASN
3	5	156	ASN
3	5	309	GLN
3	5	312	HIS
4	6	120	HIS
4	6	154	ASN
4	6	173	HIS
4	6	204	ASN
4	6	233	HIS
4	7	62	ASN
4	7	89	GLN
4	7	128	ASN
4	7	148	GLN
4	7	162	GLN
4	7	185	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

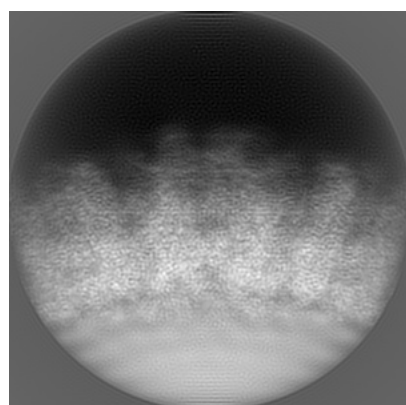
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-30159. These allow visual inspection of the internal detail of the map and identification of artifacts.

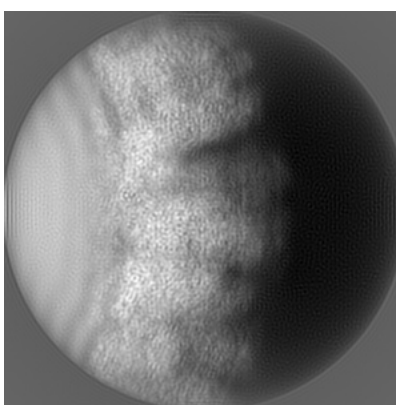
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

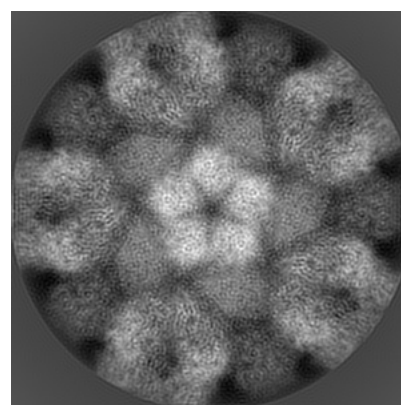
6.1.1 Primary map



X



Y

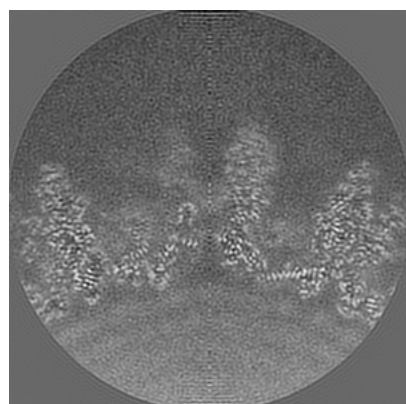


Z

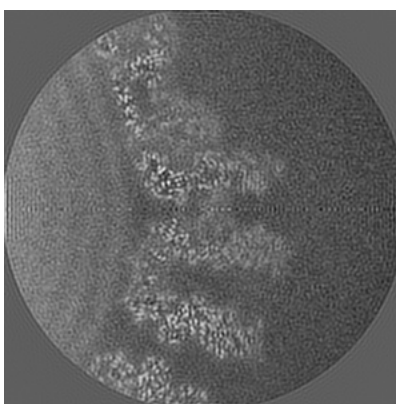
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

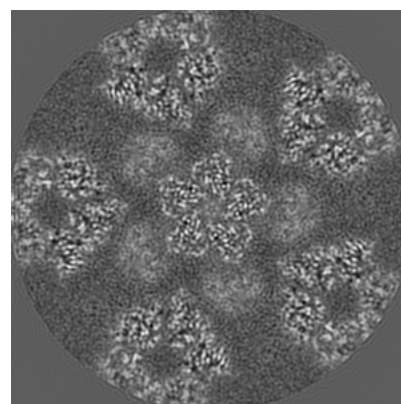
6.2.1 Primary map



X Index: 150



Y Index: 150

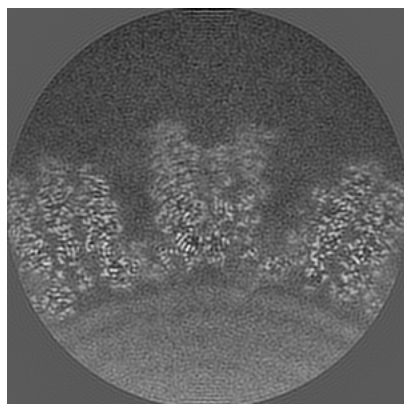


Z Index: 150

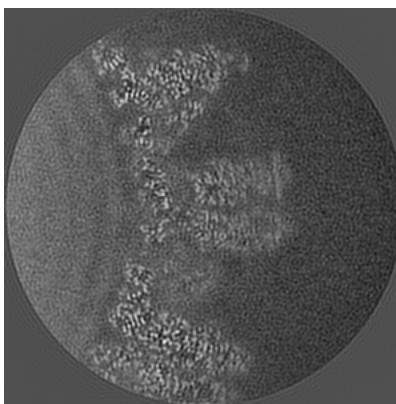
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

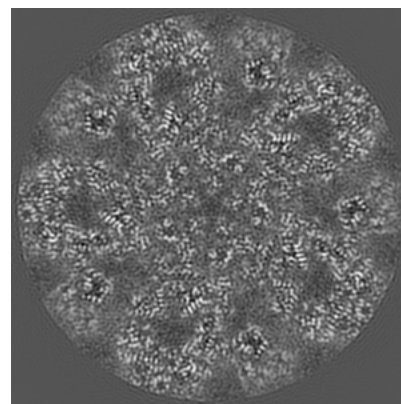
6.3.1 Primary map



X Index: 137



Y Index: 122

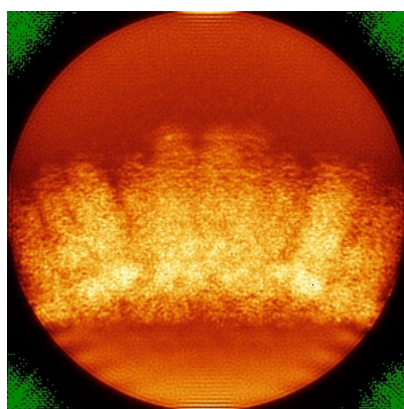


Z Index: 108

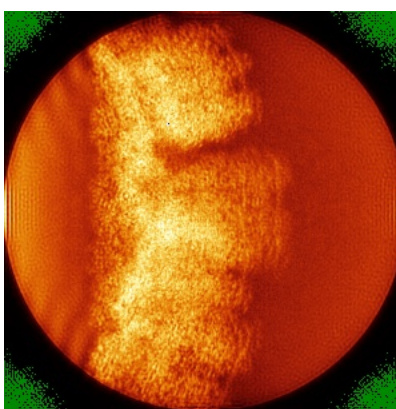
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

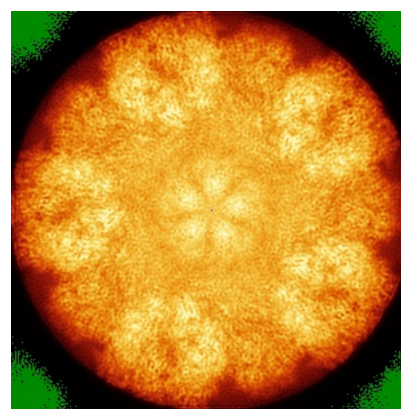
6.4.1 Primary map



X



Y

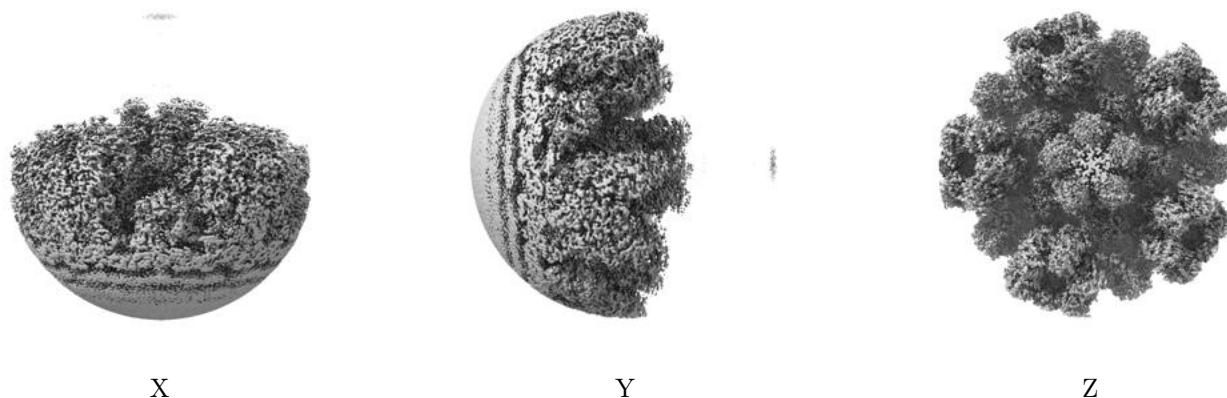


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.011. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

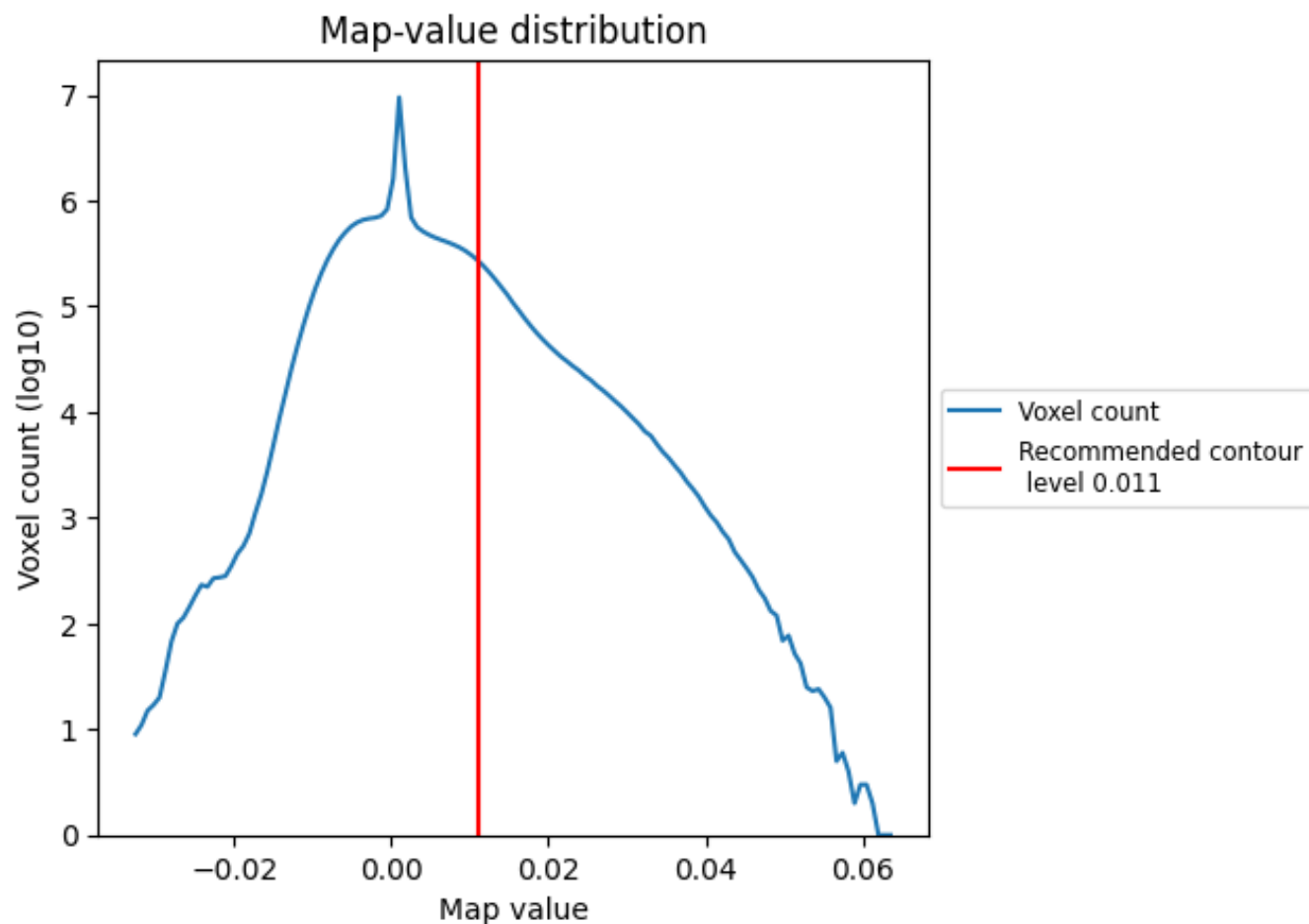
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

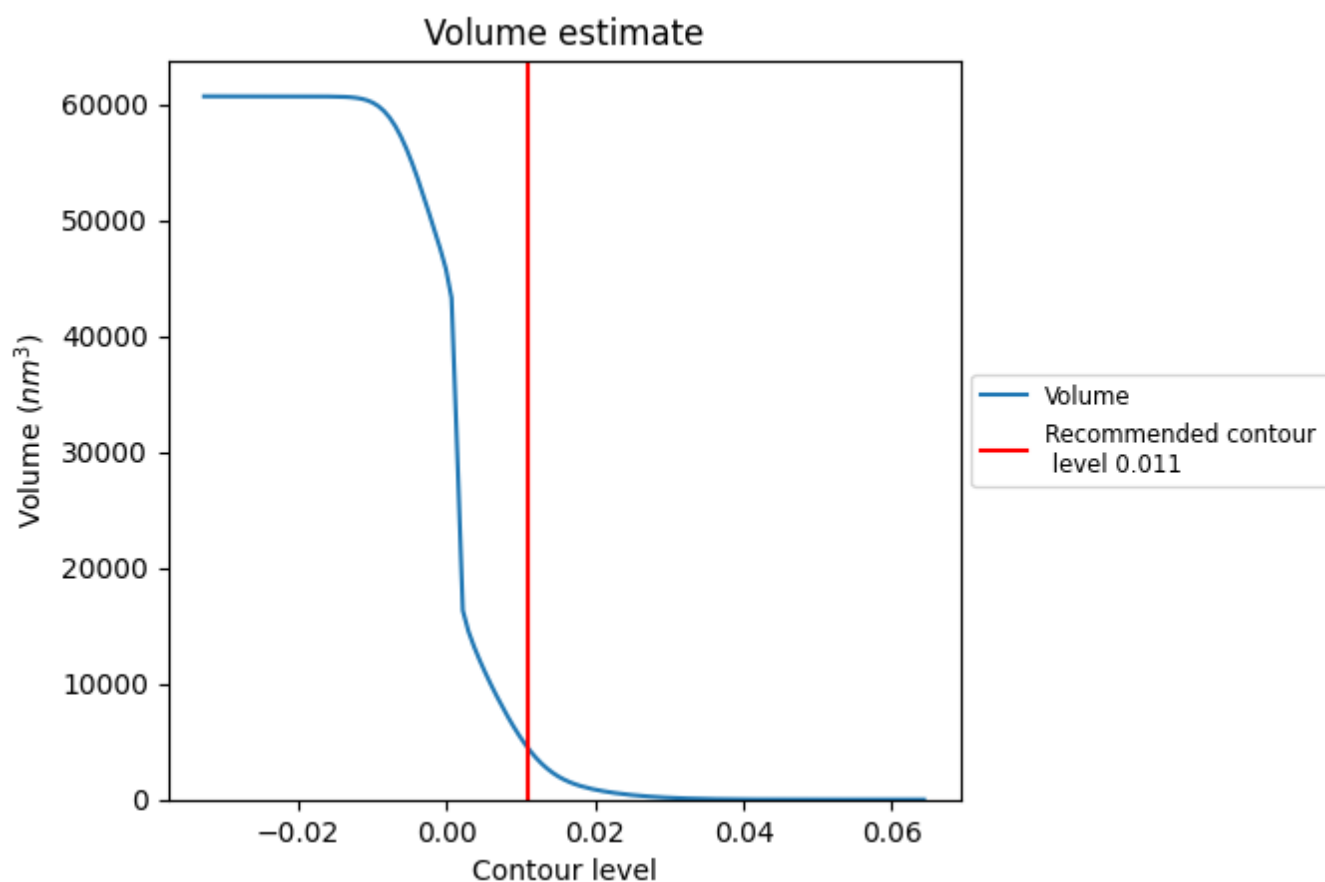
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

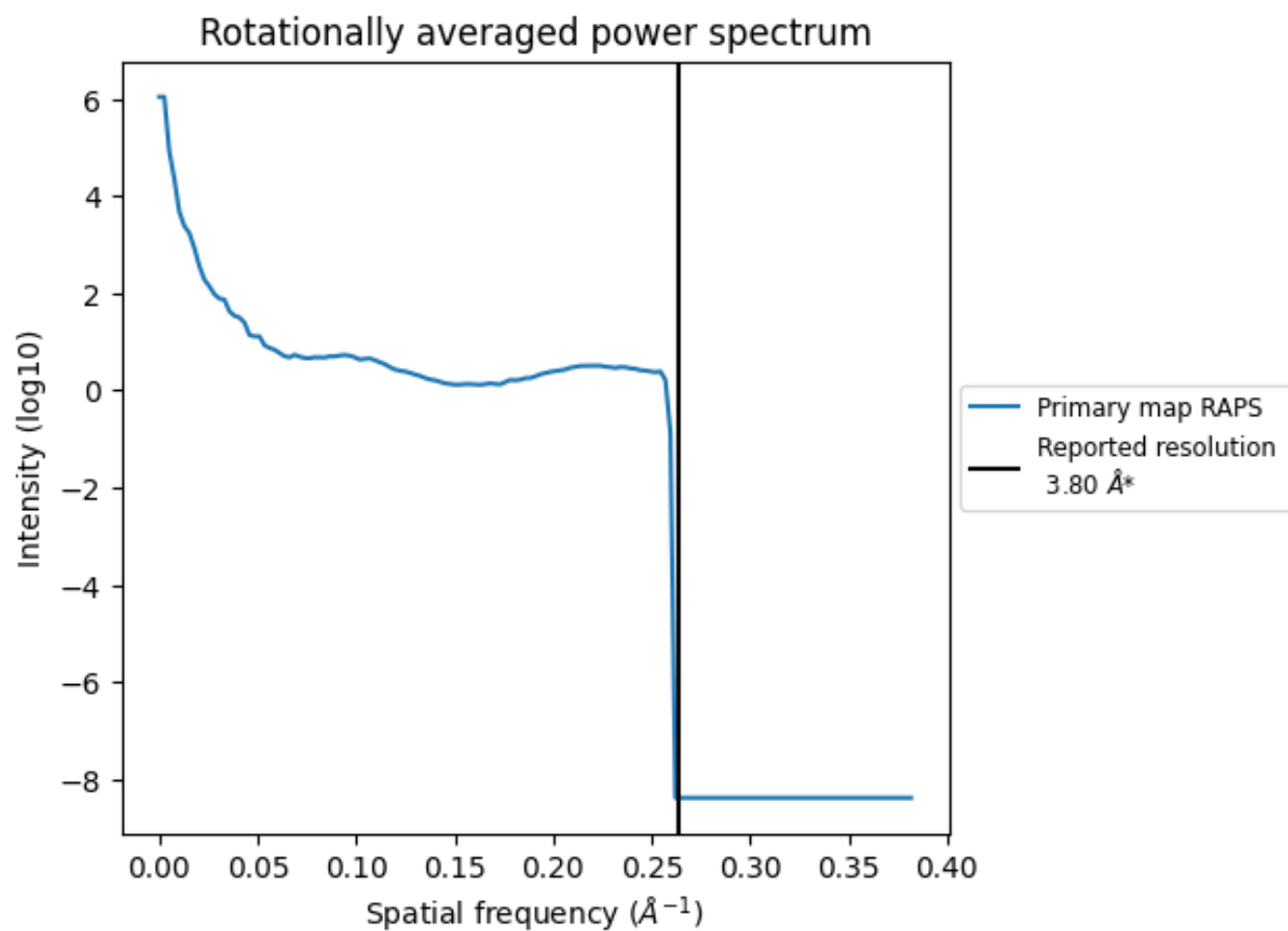
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 4476 nm³; this corresponds to an approximate mass of 4043 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.263 Å⁻¹

8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

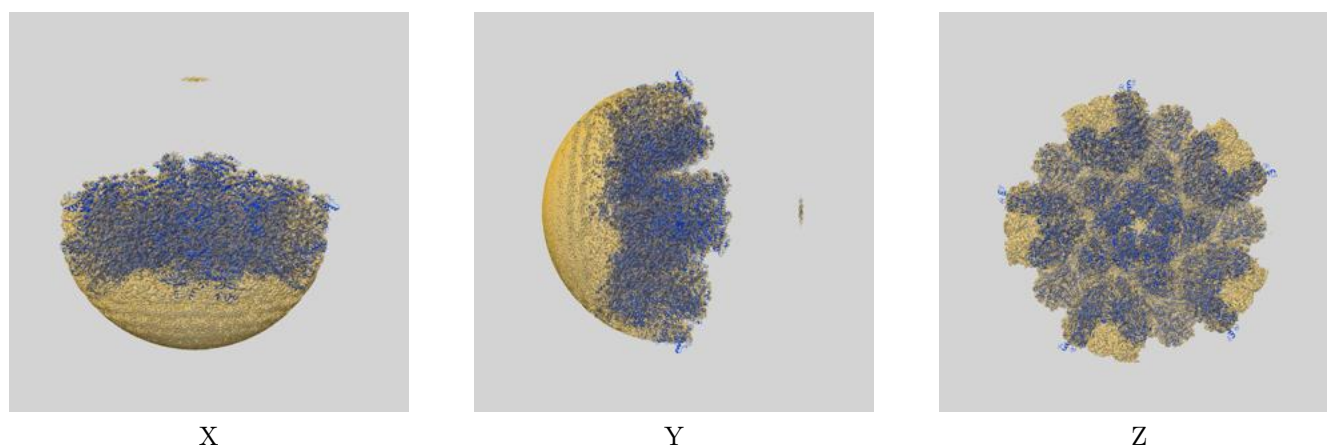
This section contains information regarding the fit between EMDB map EMD-30159 and PDB model 7BR8. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlays

9.1.1 Map-model overlay [i](#)

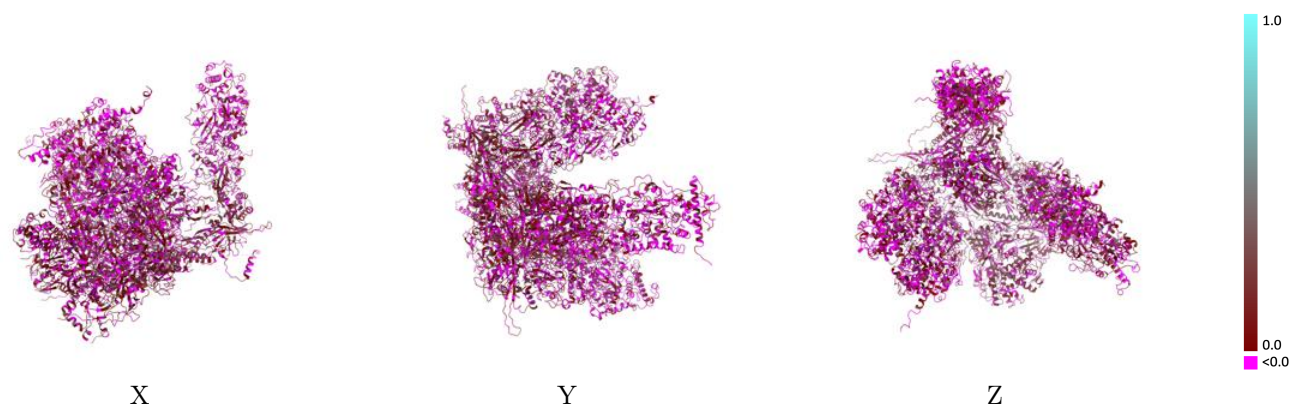


9.1.2 Map-model assembly overlay [i](#)



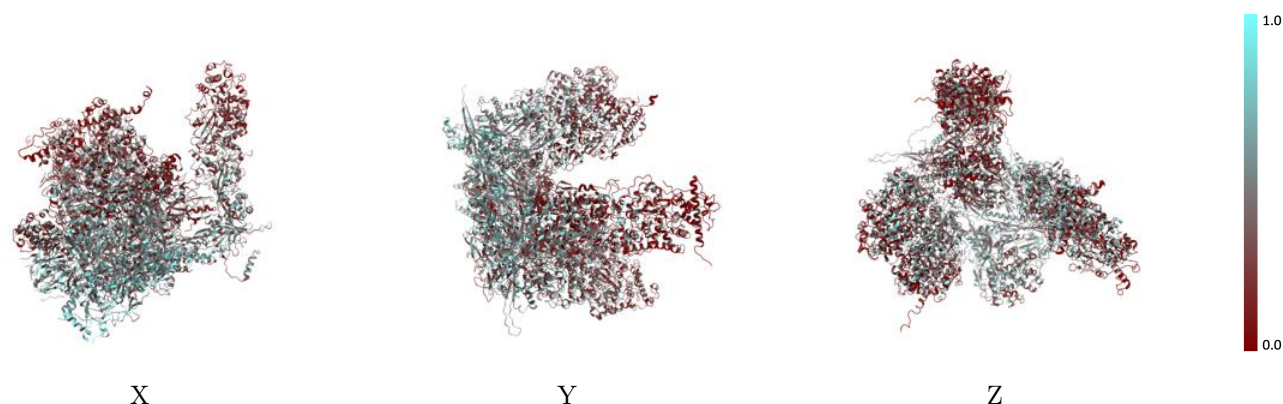
The images above show the 3D surface view of the map at the recommended contour level 0.011 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



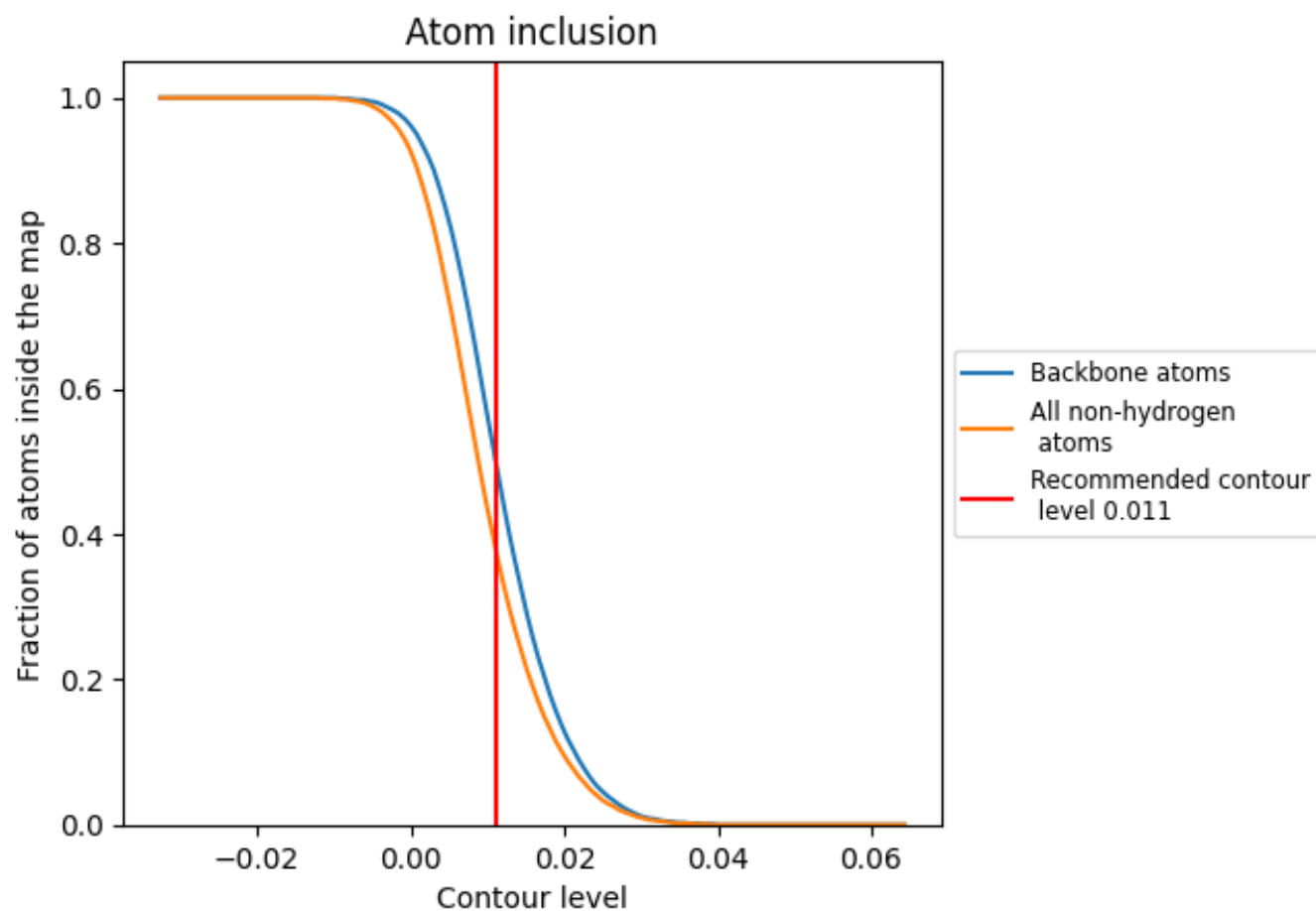
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.011).

9.4 Atom inclusion [i](#)



At the recommended contour level, 50% of all backbone atoms, 38% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.011) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.3840	 0.0390
2	 0.0900	 0.0040
5	 0.3400	 0.0580
6	 0.2570	 0.0380
7	 0.2150	 0.0200
S	 0.3920	 0.0270
T	 0.4150	 0.0250
W	 0.4590	 0.0620
Y	 0.1880	 -0.0060
Z	 0.1430	 -0.0060
e	 0.4820	 0.0630
f	 0.4460	 0.0640
g	 0.4600	 0.0620
l	 0.3240	 0.0360
m	 0.0830	 -0.0260
x	 0.4190	 0.0370
y	 0.1570	 0.0320

