



wwPDB EM Validation Summary Report ⓘ

Feb 26, 2024 – 12:16 AM EST

PDB ID : 6W2D
EMDB ID : EMD-21525
Title : Structures of Capsid and Capsid-Associated Tegument Complex inside the Epstein-Barr Virus
Authors : Liu, W.; Cui, Y.X.; Wang, C.Y.; Li, Z.H.; Gong, D.Y.; Dai, X.H.; Bi, G.Q.; Sun, R.; Zhou, Z.H.
Deposited on : 2020-03-05
Resolution : 4.00 Å(reported)

This is a wwPDB EM Validation Summary 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.dev70
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

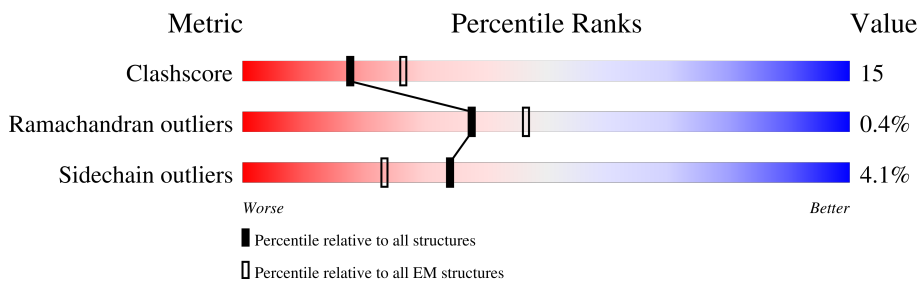
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.00 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	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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	J	1381	
1	K	1381	
1	N	1381	
1	O	1381	
1	P	1381	
2	v	507	
3	w	570	
3	x	570	

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Mol	Chain	Length	Quality of chain
4	y	3149	99%
4	z	3149	99%
5	Z	176	26% 34% 9% 56%
5	a	176	30% 43% 56%
5	d	176	33% 41% 56%
5	e	176	32% 43% 56%
5	u	176	33% 36% 64%
6	f	364	72% 85% 13%
6	h	364	52% 88% 5% 8%
7	k	301	80% 97%
7	m	301	61% 93% 6%
7	p	301	77% 94% 5%
7	r	301	59% 96%

2 Entry composition [i](#)

There are 7 unique types of molecules in this entry. The entry contains 74272 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 Major capsid protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	J	1352	Total 10628	C 6744	N 1849	O 1974	S 61	0	0
1	K	1381	Total 10832	C 6868	N 1884	O 2018	S 62	0	0
1	N	1362	Total 10683	C 6777	N 1854	O 1991	S 61	0	0
1	O	1332	Total 10447	C 6633	N 1812	O 1942	S 60	0	0
1	P	1283	Total 10113	C 6429	N 1754	O 1871	S 59	0	0

- Molecule 2 is a protein called Capsid vertex component 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	v	292	Total 2283	C 1469	N 397	O 406	S 11	0	0

- Molecule 3 is a protein called Capsid vertex component 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	w	68	Total 549	C 332	N 106	O 108	S 3	0	0
3	x	68	Total 549	C 332	N 106	O 108	S 3	0	0

- Molecule 4 is a protein called Large tegument protein deneddylase.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
4	y	37	Total 317	C 200	N 64	O 53	0	0
4	z	37	Total 317	C 200	N 64	O 53	0	0

- Molecule 5 is a protein called Small capsomere-interacting protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	Z	77	Total	C	N	O	S	0	0
			649	411	121	115	2		
5	a	77	Total	C	N	O	S	0	0
			649	411	121	115	2		
5	d	77	Total	C	N	O	S	0	0
			649	411	121	115	2		
5	e	77	Total	C	N	O	S	0	0
			649	411	121	115	2		
5	u	63	Total	C	N	O	S	0	0
			528	339	90	98	1		

- Molecule 6 is a protein called Triplex capsid protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	f	315	Total	C	N	O	S	0	0
			2474	1586	436	444	8		
6	h	336	Total	C	N	O	S	0	0
			2604	1667	458	471	8		

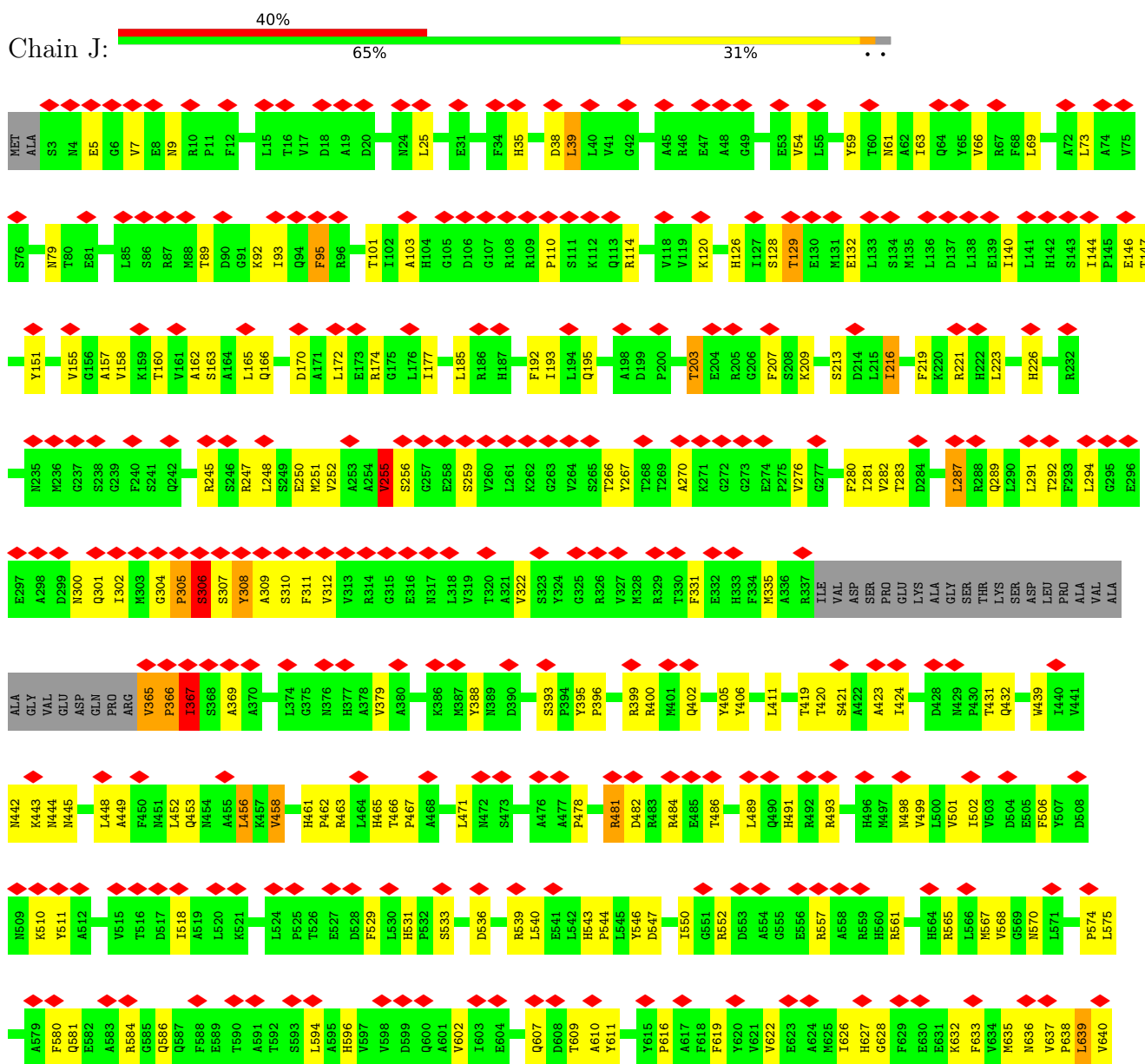
- Molecule 7 is a protein called Triplex capsid protein 2.

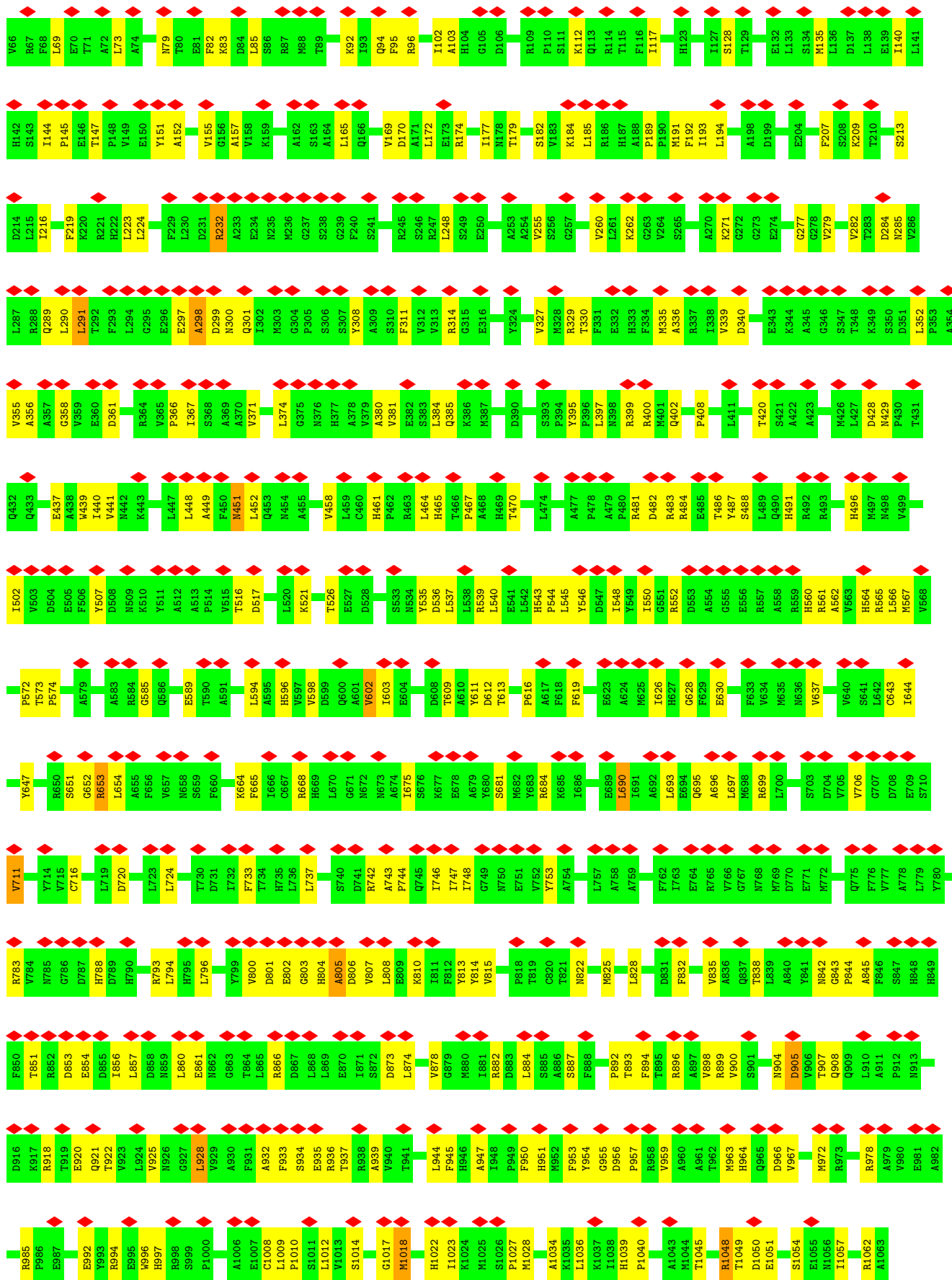
Mol	Chain	Residues	Atoms					AltConf	Trace
7	k	299	Total	C	N	O	S	0	0
			2338	1500	386	434	18		
7	m	299	Total	C	N	O	S	0	0
			2338	1500	386	434	18		
7	p	299	Total	C	N	O	S	0	0
			2338	1500	386	434	18		
7	r	299	Total	C	N	O	S	0	0
			2338	1500	386	434	18		

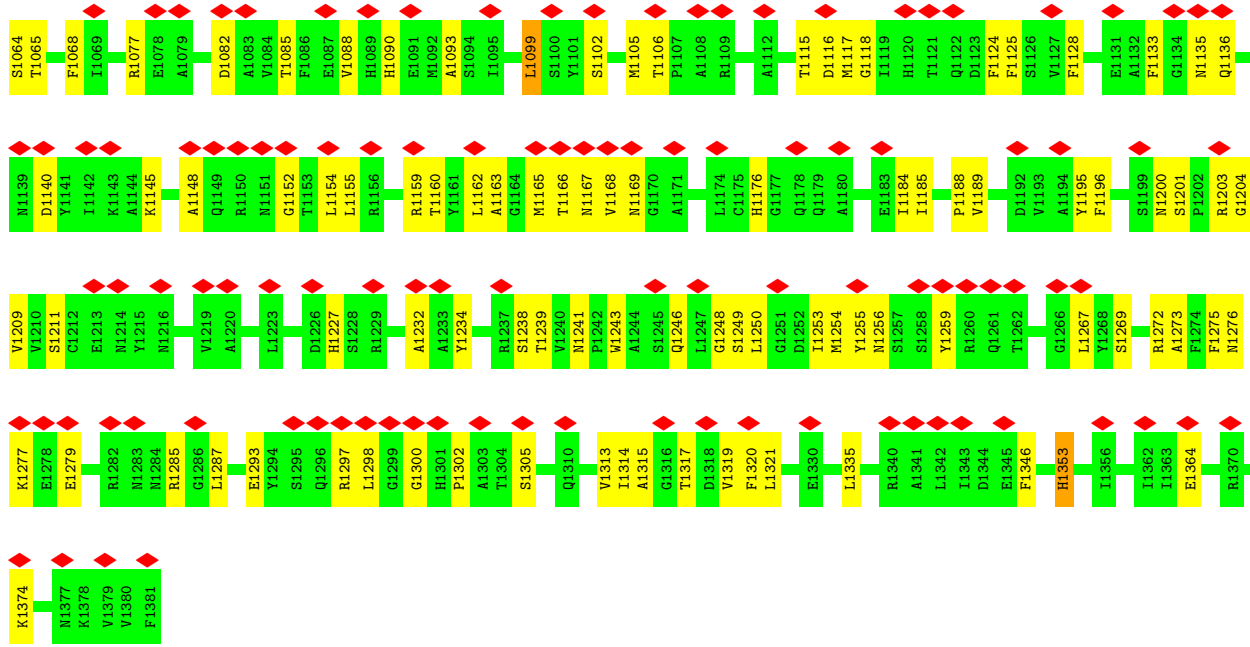
3 Residue-property plots

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.

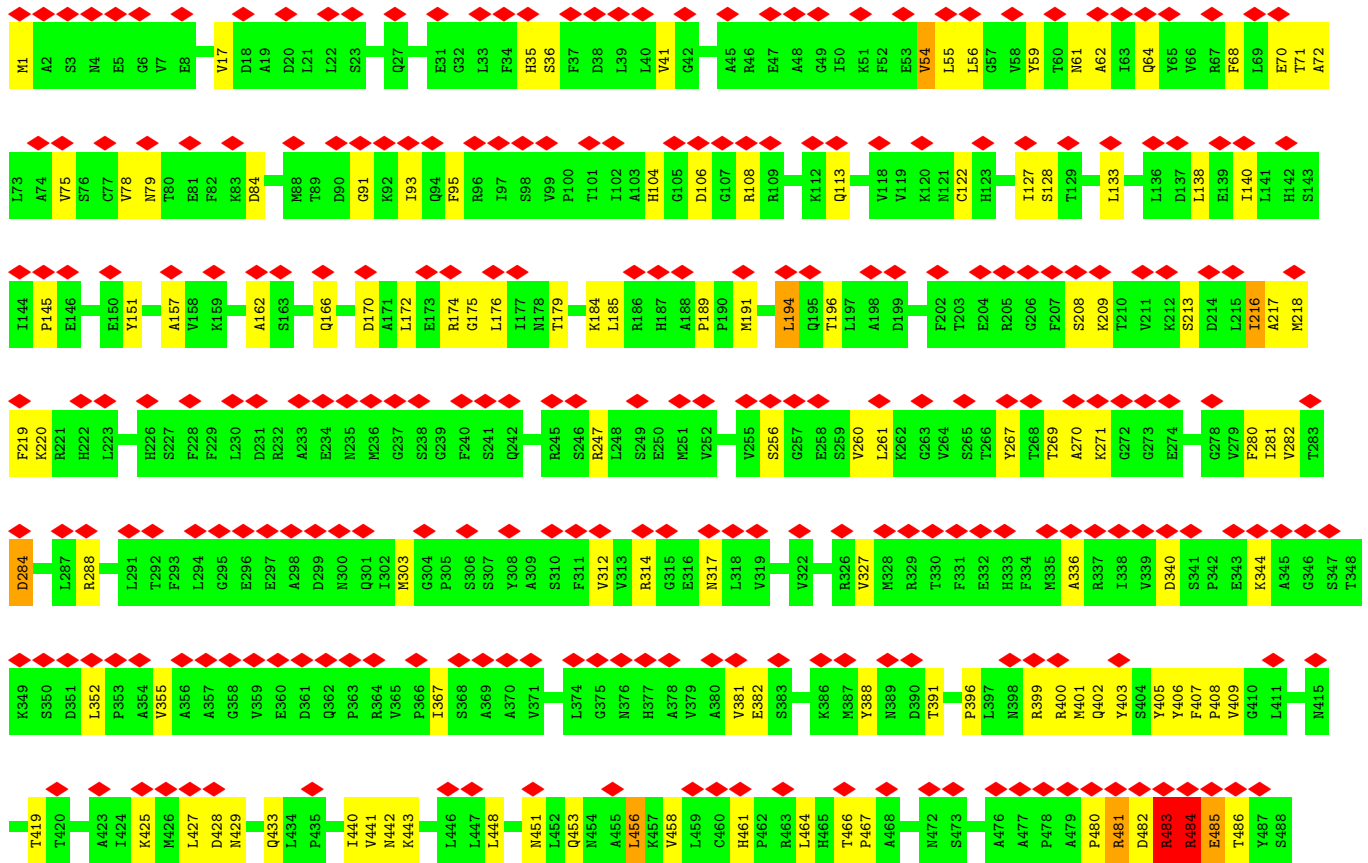
- Molecule 1: Major capsid protein



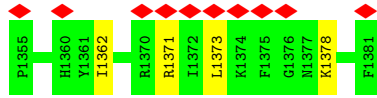




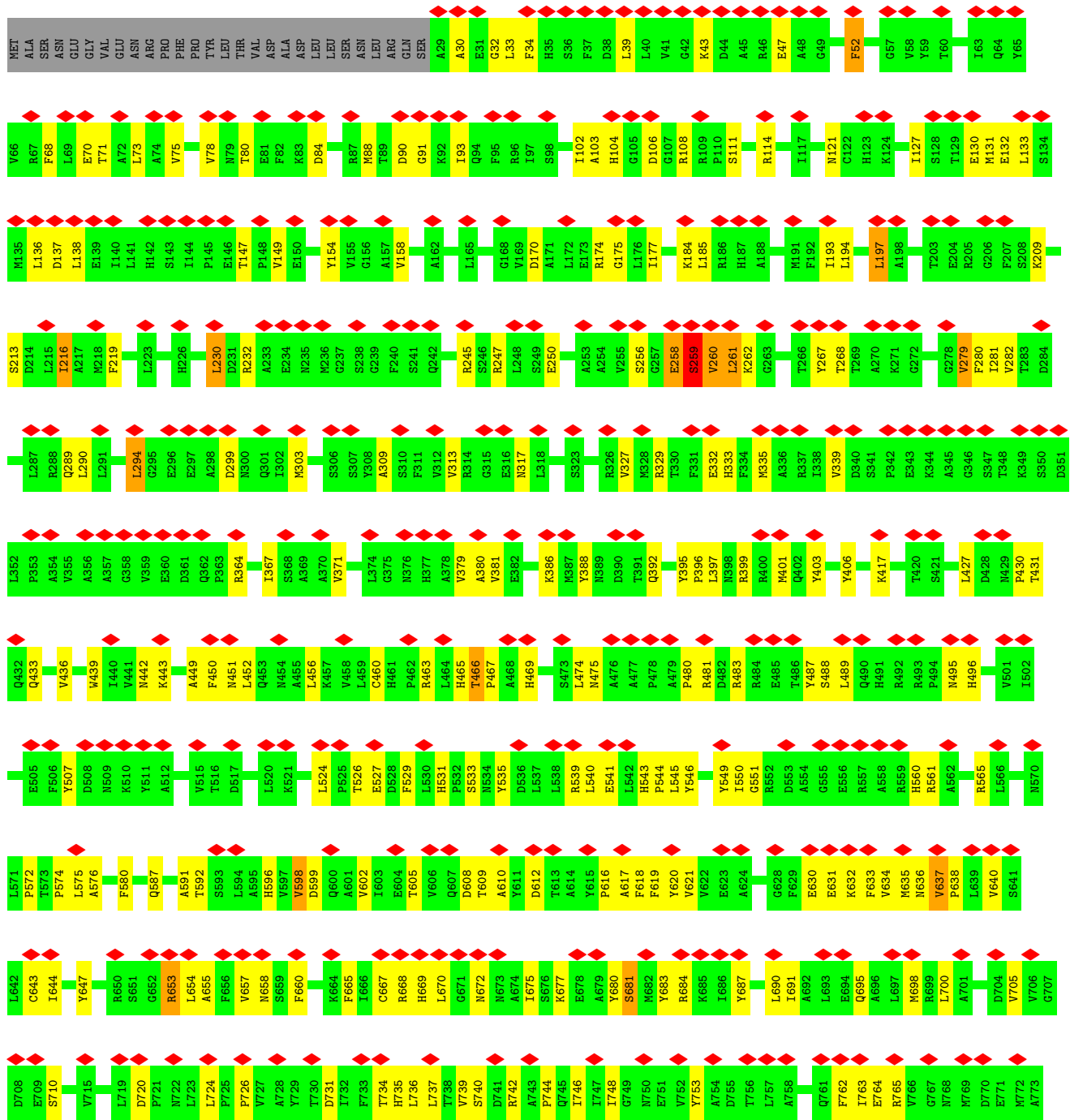
• Molecule 1: Major capsid protein

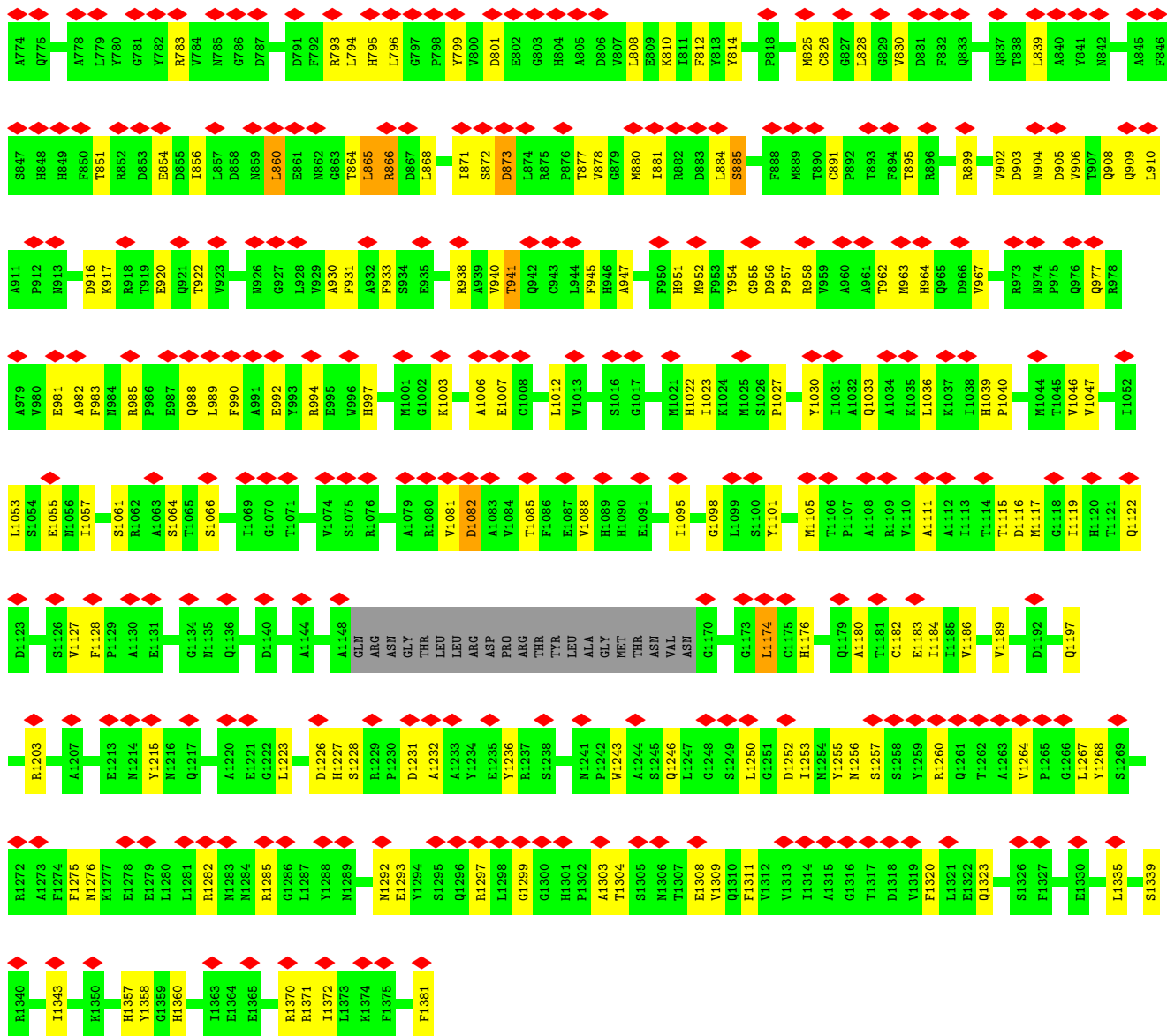


L489	Q490	H491	R492	R493	M495	H496	M497	M498	V501	I502	E505	N509	K510	Y511	A512	P514	D517	I518	K521	C522	G523	L524	P525	T526	E527	N534	Y535	D536	L537	L538	R539	L540	H543	P544	L545	Y546	D547	I548	Y549	I550	G551	R552	D553	A554	G555	E556	R557	A558	R559	H560								
R561	A562	R565	L566	M567	V568	M570	P574	L575	F580	Q581	E582	A583	R584	Q587	A591	A595	H596	V597	V598	D599	Q600	A601	I602	I603	V606	Q607	D608	T609	A610	Y611	D612	T613	A614	Y615	P616	A617	F618	F619	Y620	V621	V622	E623	A624	M625	I626	H627	G628	F629	E630	F633								
N636	V637	P638	L639	V640	S641	I644	N645	T646	W647	E648	E649	R650	S651	G652	R653	L654	F656	N658	S659	F660	V661	S661	M662	I663	K664	G665	I666	C667	H669	L670	G671	N672	N673	A674	T675	S676	K677	E678	A679	Y680	S681	M682	Y683	R684	K685	I686	Y687	G688	E689	I691	A692	L693	E694	Q695				
A696	L697	H698	R699	A701	G702	S703	D704	V705	V706	G707	D708	E709	S710	V711	Y714	L718	L719	D720	P721	N722	L723	L724	V727	A728	Y729	T730	D731	I732	H735	L736	G771	L737	T738	V739	S740	D741	R742	A743	P744	Q745	I746	I747	Y683	N750	R684	K685	I686	Y687	G688	E689	I691	A692	L693	E694	Q695			
R765	V766	G767	N768	M769	D770	M772	A773	A774	Q775	A778	L779	Y780	G781	Y782	R783	V784	N785	G786	D787	H788	H789	H790	D791	F792	R793	L794	H795	L796	Y799	V800	D801	E802	G803	H804	A805	D806	V807	L808	E809	K810	I811	F812	Y813	Y814	L817	P818	R819	M822	A823	H824	M825	C826	G827	L828				
G829	V830	D831	F832	Q833	H834	V835	L839	A840	Y841	N842	G843	P844	A845	R846	Q847	H848	R849	F850	T851	R852	D853	E854	D855	L856	L857	D858	N859	L860	E861	T864	L865	R866	D867	L868	L869	E870	I871	S872	D873	L874	R875	P876	T877	V878	G879	M880	L881	R882	D883	L884	S885	A886	S887	T890	C891	P892		
T893	F894	T895	R896	A897	V898	R899	S901	Y902	D903	N904	D905	V906	T907	Q908	Q909	L910	A911	F912	N913	A915	D916	R917	R918	T919	E920	Q921	T922	Y923	L924	N925	N926	G927	L928	V929	A930	F931	A932	F933	S934	E935	R936	T937	R938	A939	V940	T941	Q942	C943	L944	F945	A946	N947	L948	P949	F950	H951	N952	
F953	Y954	G955	R958	V959	A960	M961	T962	H963	H964	Q965	D966	V967	A968	T969	F970	V971	M972	R973	N974	P975	Q976	Q977	R978	A979	V980	E981	A982	F983	N984	I985	P986	E987	Q988	L989	F990	A991	E992	Y993	R994	E995	W996	H997	S998	S999	M1000	M1001	G1002	K1003	Y1004	A1005	A1006	E1007	C1008	L1009	P1010	S1011	L1012	V1013
S1016	G1017	M1018	T1019	A1020	M1021	L1023	K1024	M1025	M1028	L1031	A1032	Q1033	A1034	K1035	L1036	K1037	L1038	H1039	A1043	M1044	V1047	R1048	T1049	D1050	E1051	I1052	L1053	S1054	E1055	N1056	L1057	L1058	F1059	S1060	A1063	S1064	T1065	S1066	H997	M1067	F1068	I1069	G1070	M1073	V1074	S1075	R1076	L1077	E1078	A1079	R1080	L1081	V1081					
D1082	A1083	V1084	T1085	V1088	H1089	H1090	E1091	M1092	A1093	S1094	I1095	D1096	T1097	G1098	L1099	S1100	Y1101	S1102	M1105	T1106	R1109	V1110	A1111	I1112	T1113	T1114	T1115	D1116	M1117	G1118	I1119	Q1122	D1123	F1124	V1127	P1128	A1130	E1131	G1134	D1140	K1143	A1144	K1145	V1146	G1147	A1148	Q1149	ARG	ASN	GLY								
THR	LEU	ARG	ASP	PRO	ARG	THR	TYR	ALA	GLY	MET	THR	ASN	VAL	M1169	G1170	A1171	P1172	G1173	L1174	C1175	H1176	G1177	Q1178	G1179	A1180	T1181	I1184	T1187	P1188	A1191	D1192	Y1195	F1196	S1199	S1200	S1201	P1202	R1203	G1204	R1205	A1206	A1207	G1208	V1209	V1210	M1214	Y1215	M1216	Q1217	A1220								
E1221	G1222	L1223	D1226	H1227	S1228	R1229	P1230	D1231	A1232	A1233	Y1236	R1237	S1238	T1239	V1240	M1241	A1244	L1247	L1250	G1251	D1252	I1253	M1254	Y1255	M1256	S1257	S1258	Y1259	R1260	Q1261	T1262	A1263	Y1264	P1265	G1266	L1267	Y1268	S1269	P1270	G1271	A1272	A1273	F1274	M1275	N1276	K1277	E1278	E1279	L1280	L1281	R1282	M1283	M1284	R1285				
G1286	L1287	Y1288	M1289	E1293	Y1294	S1295	Q1296	R1297	L1298	G1299	G1300	H1301	P1302	A1303	T1304	S1305	M1306	T1307	E1308	F1311	V1312	V1313	I1314	A1315	G1316	T1317	D1318	L1321	E1322	F1327	L1328	Q1329	E1330	A1331	F1332	P1333	L1334	L1335	S1336	A1337	S1338	S1339	R1340	D1344	E1345	F1346	M1347	S1348	V1349	K1350	Q1351	T1352	H1353	A1354				

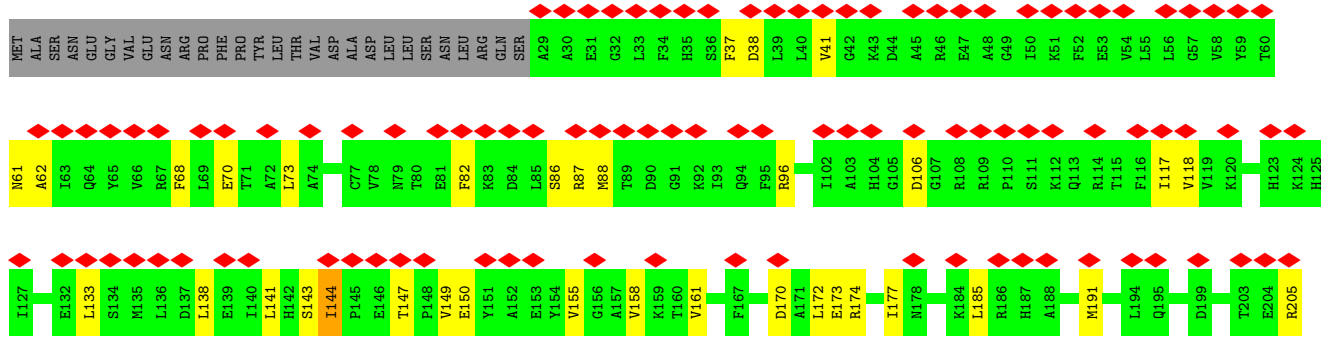


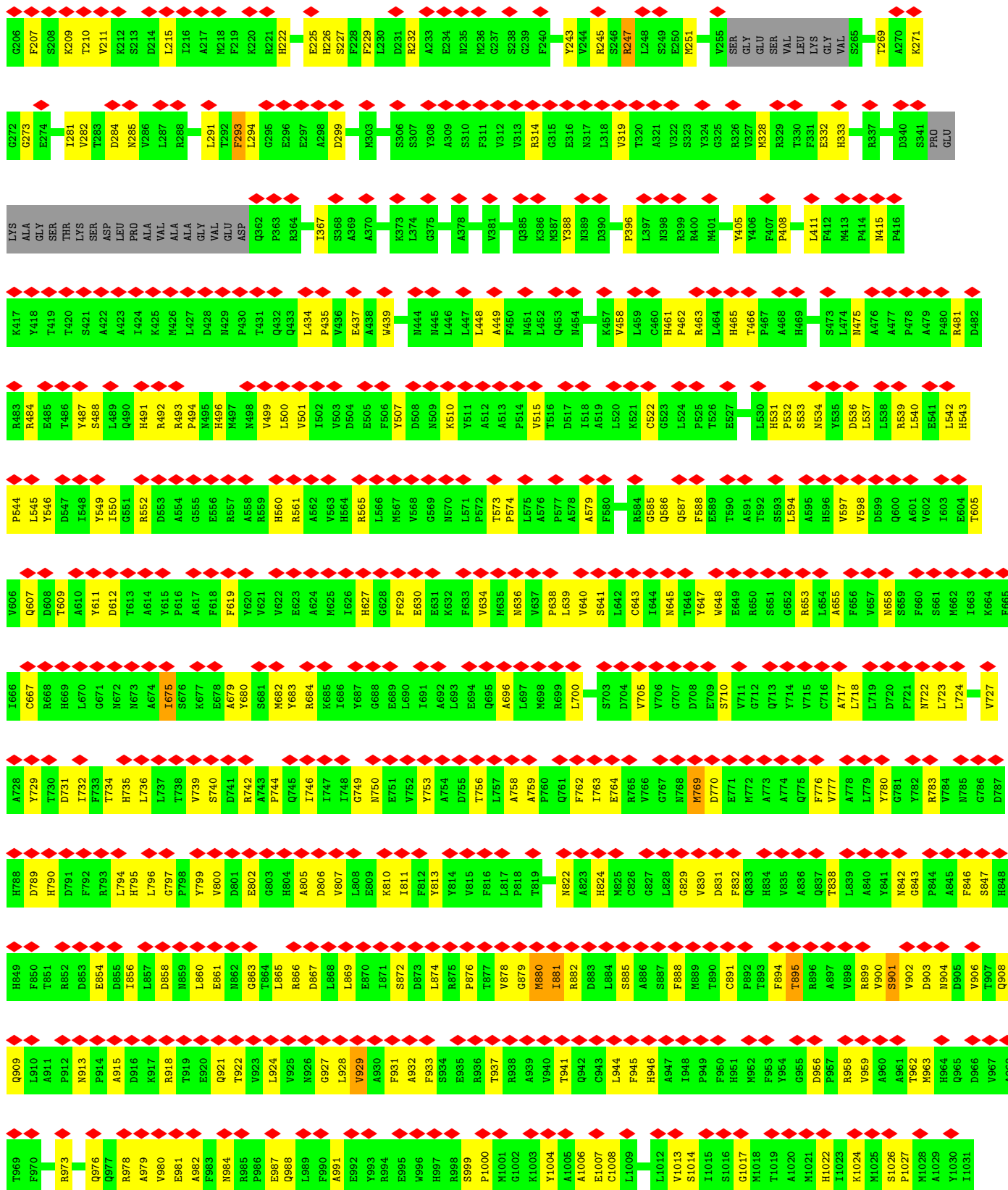
• Molecule 1: Major capsid protein

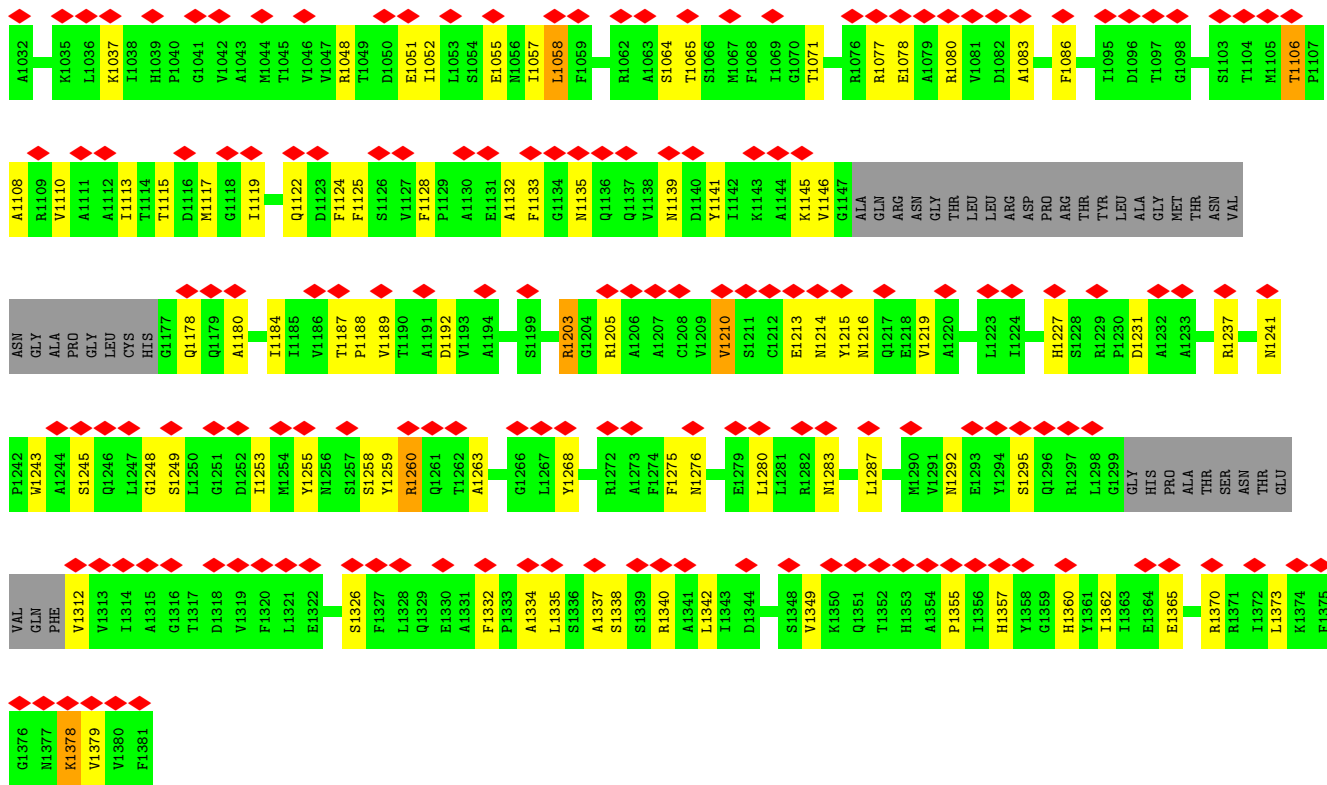




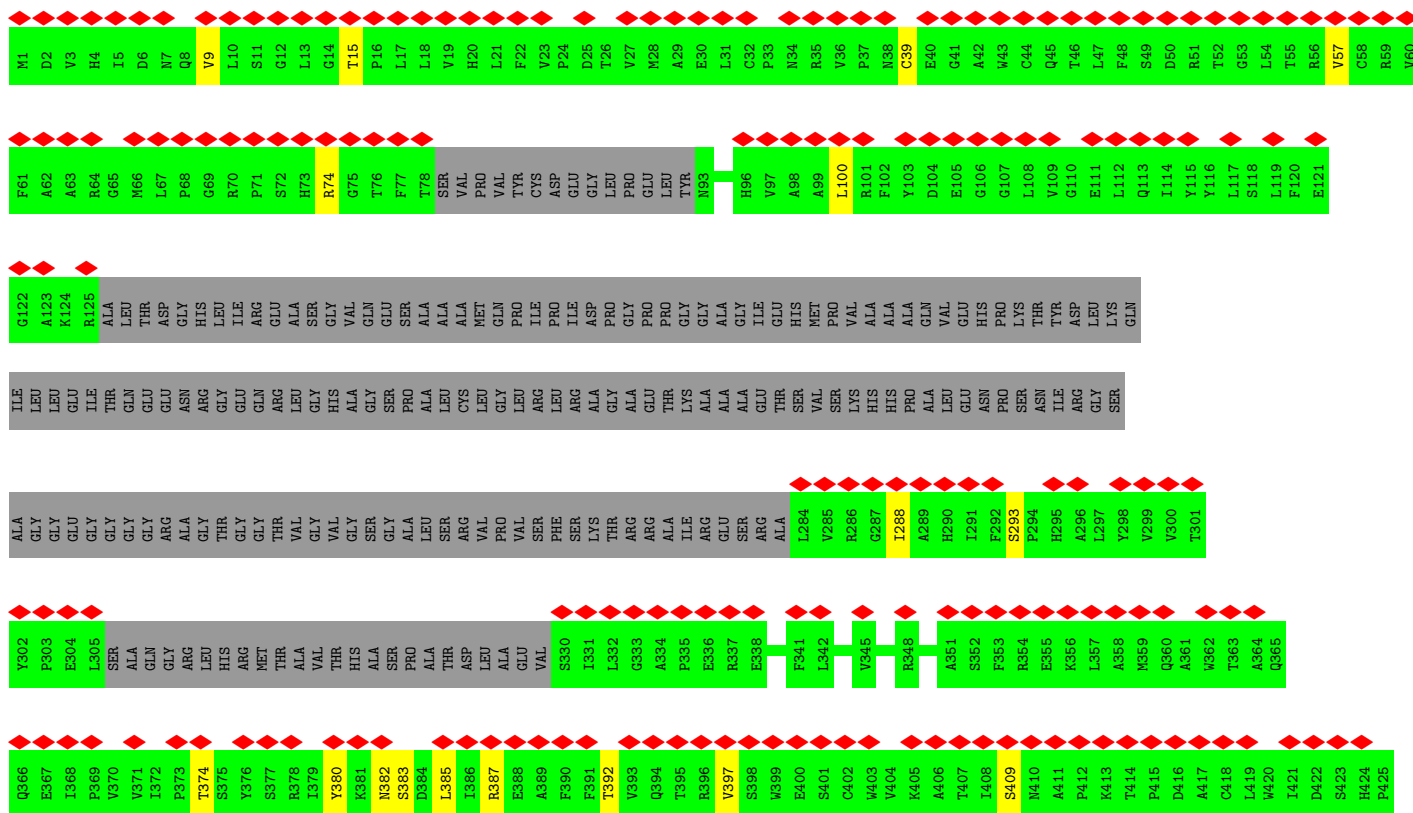
• Molecule 1: Major capsid protein

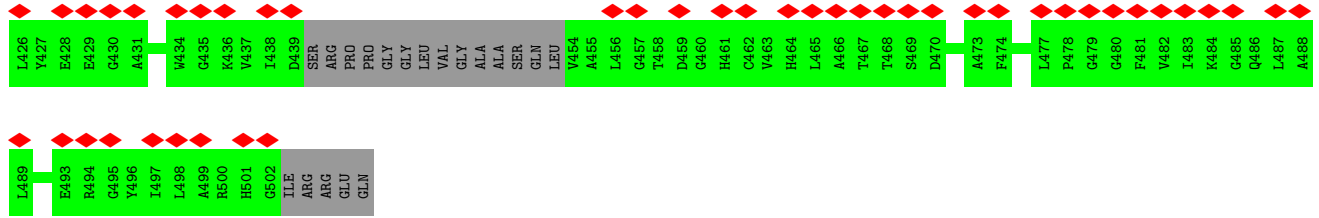




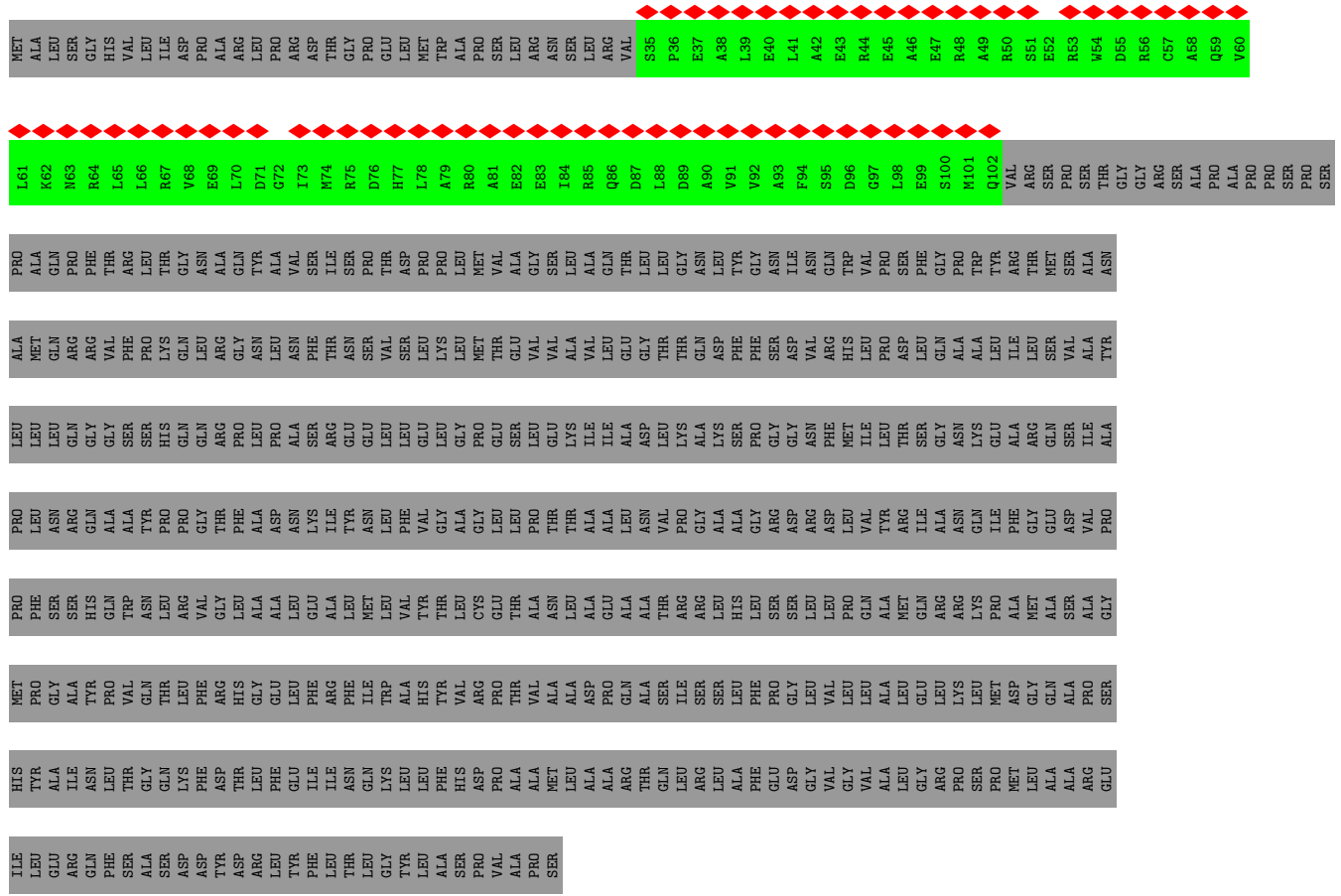


● Molecule 2: Capsid vertex component 1

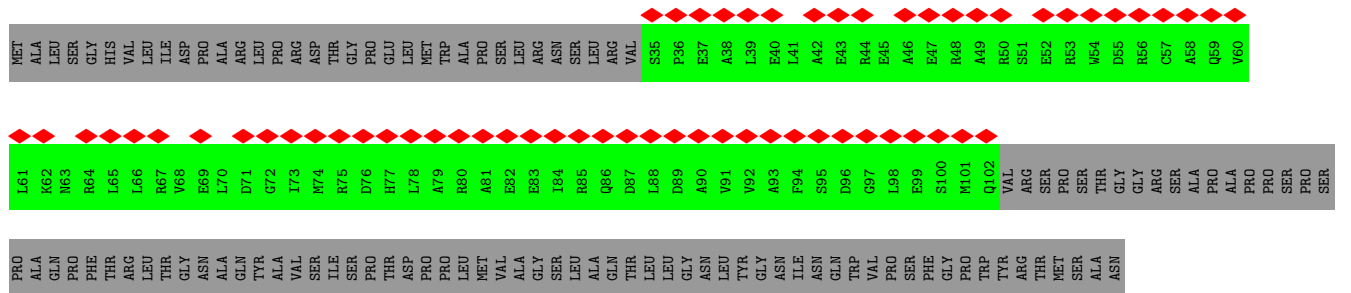


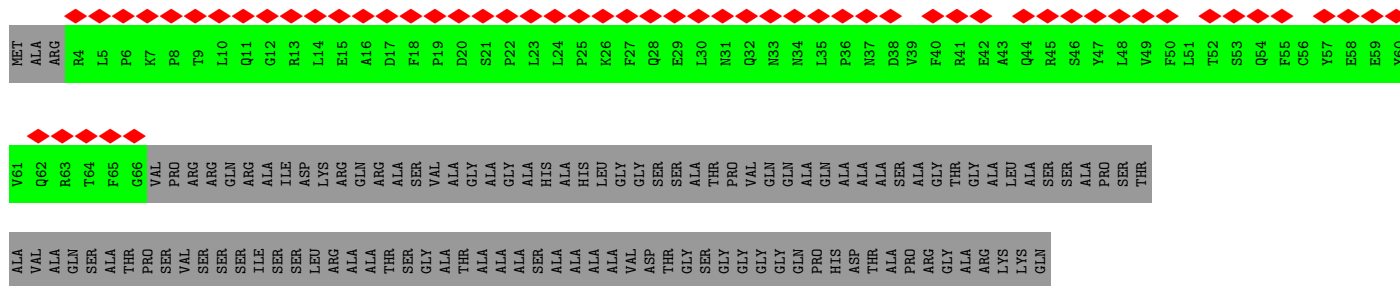


• Molecule 3: Capsid vertex component 2

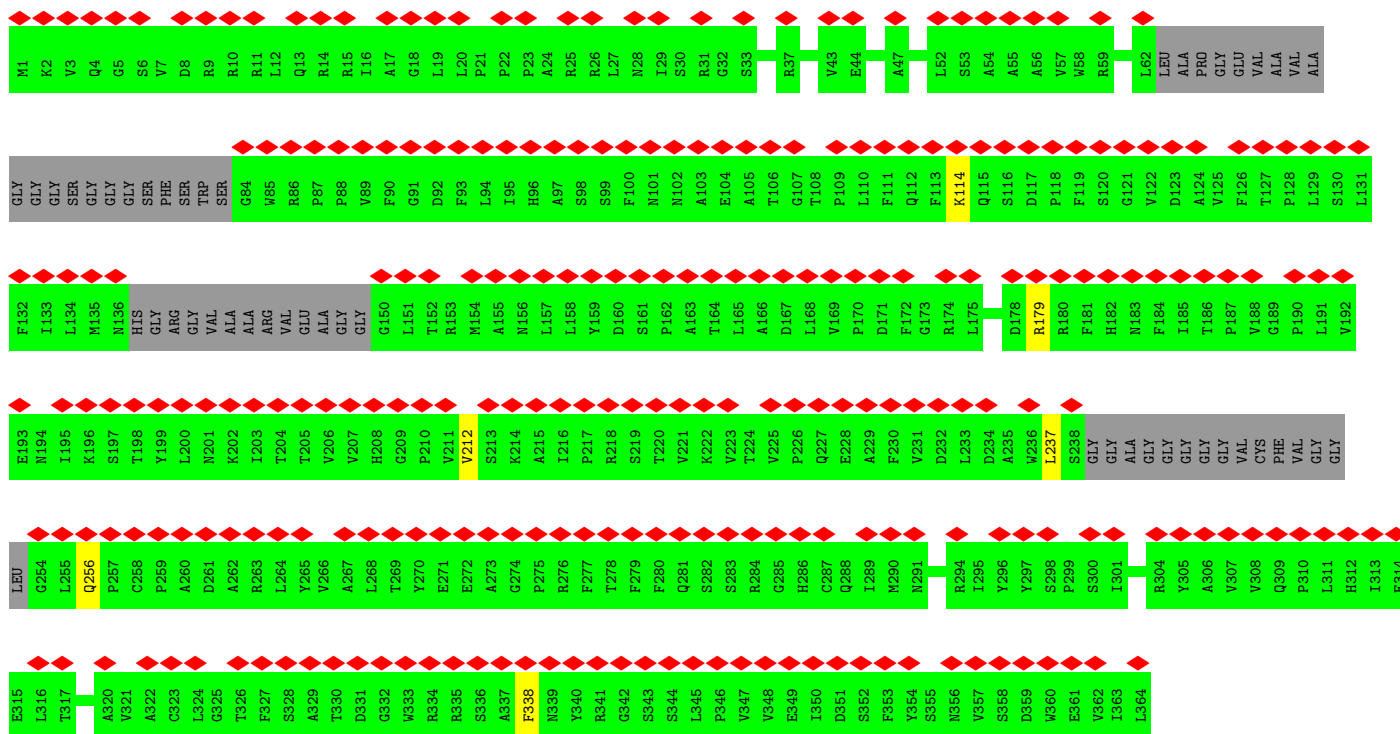
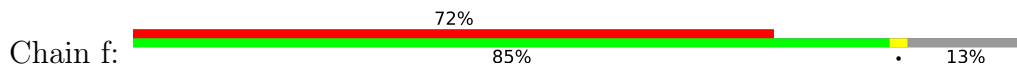


• Molecule 3: Capsid vertex component 2

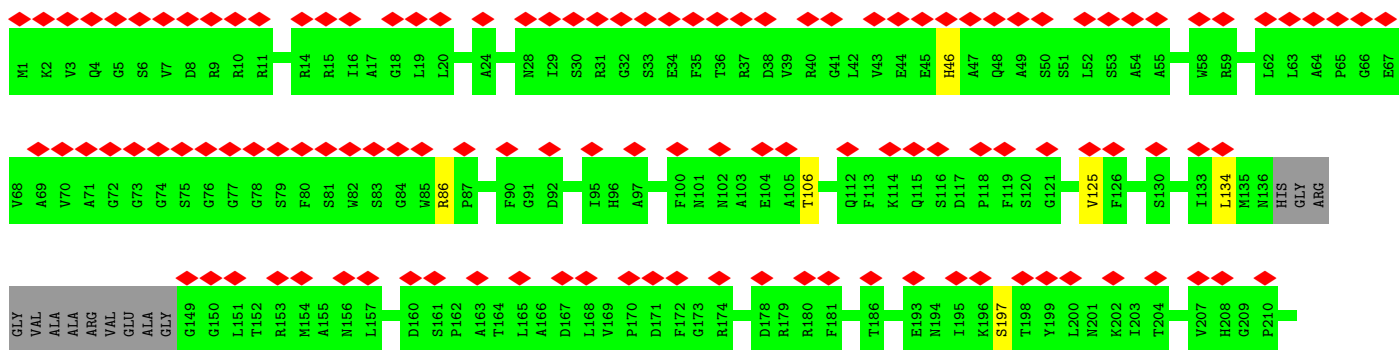
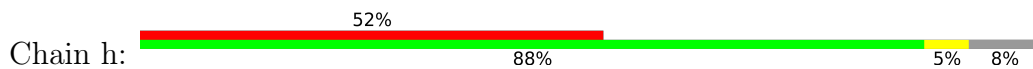


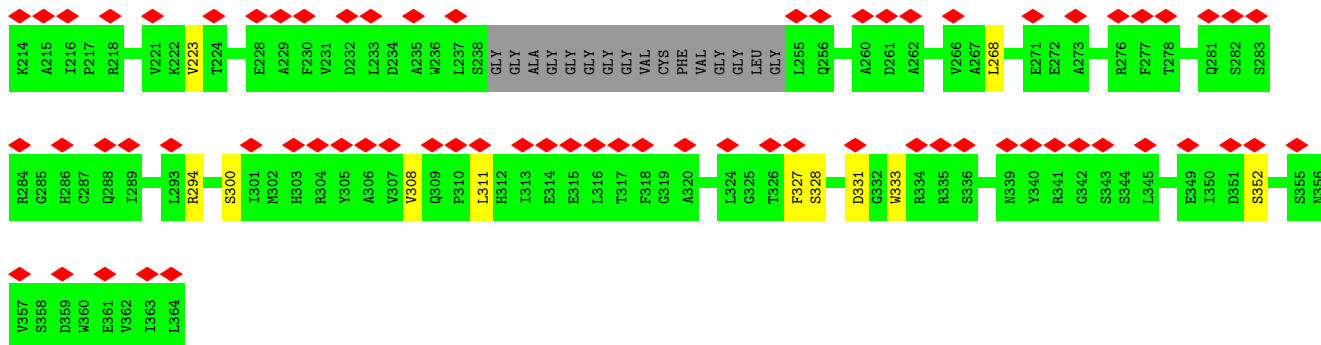


• Molecule 6: Triplex capsid protein 1

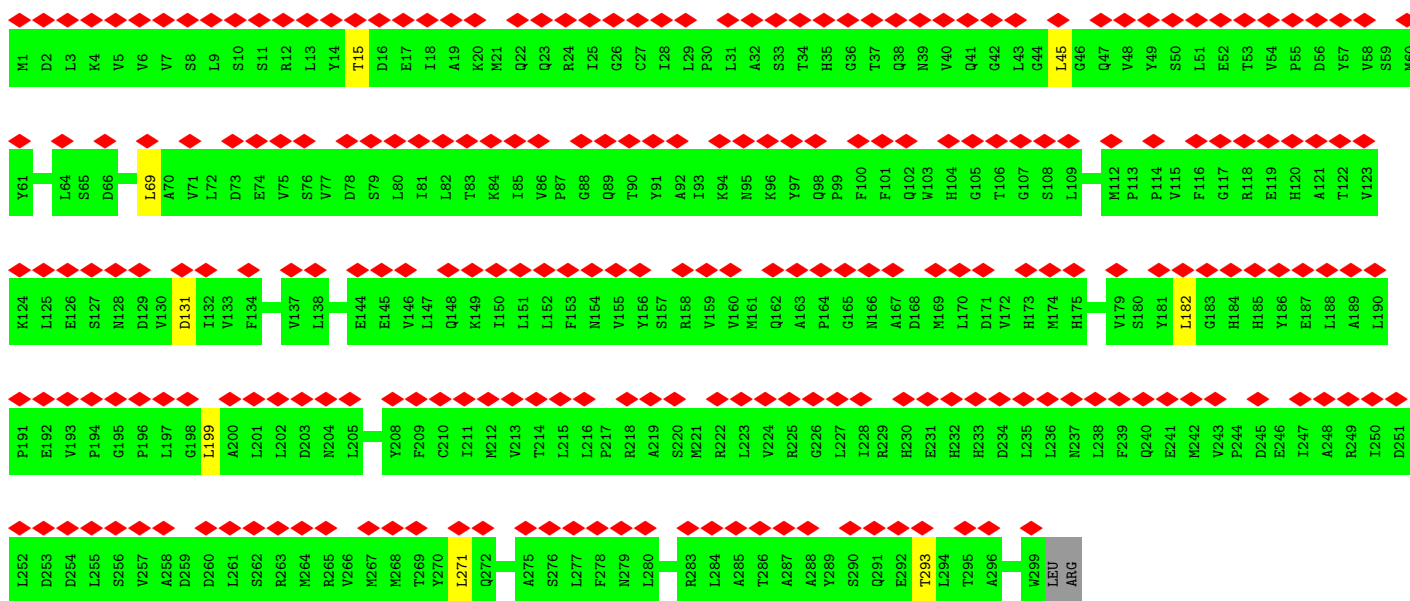
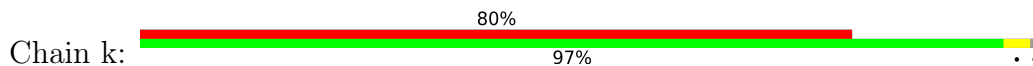


• Molecule 6: Triplex capsid protein 1

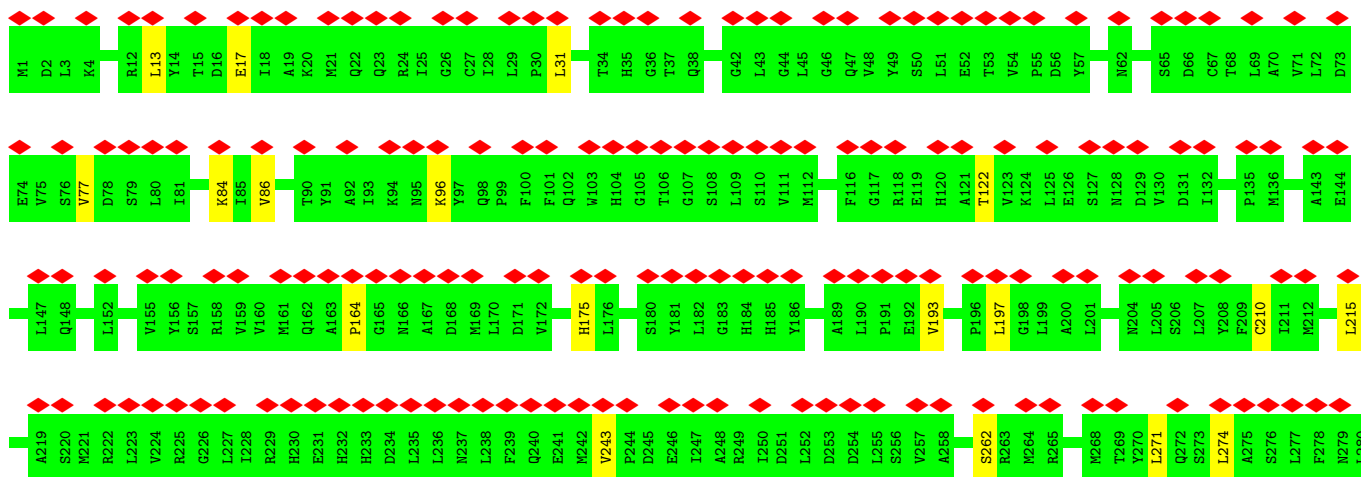
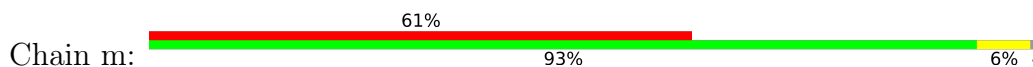


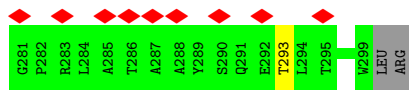


• Molecule 7: Triplex capsid protein 2

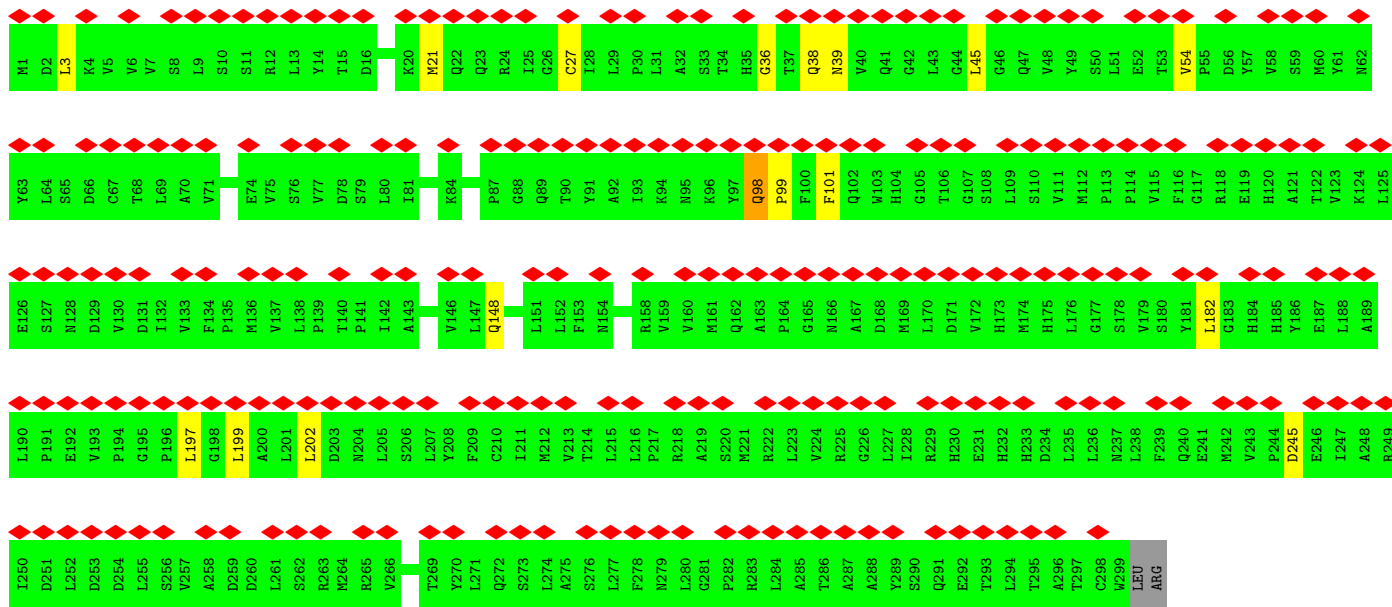
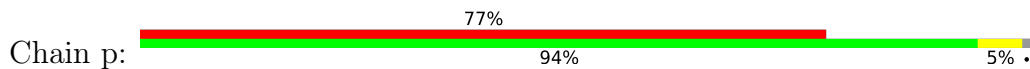


• Molecule 7: Triplex capsid protein 2

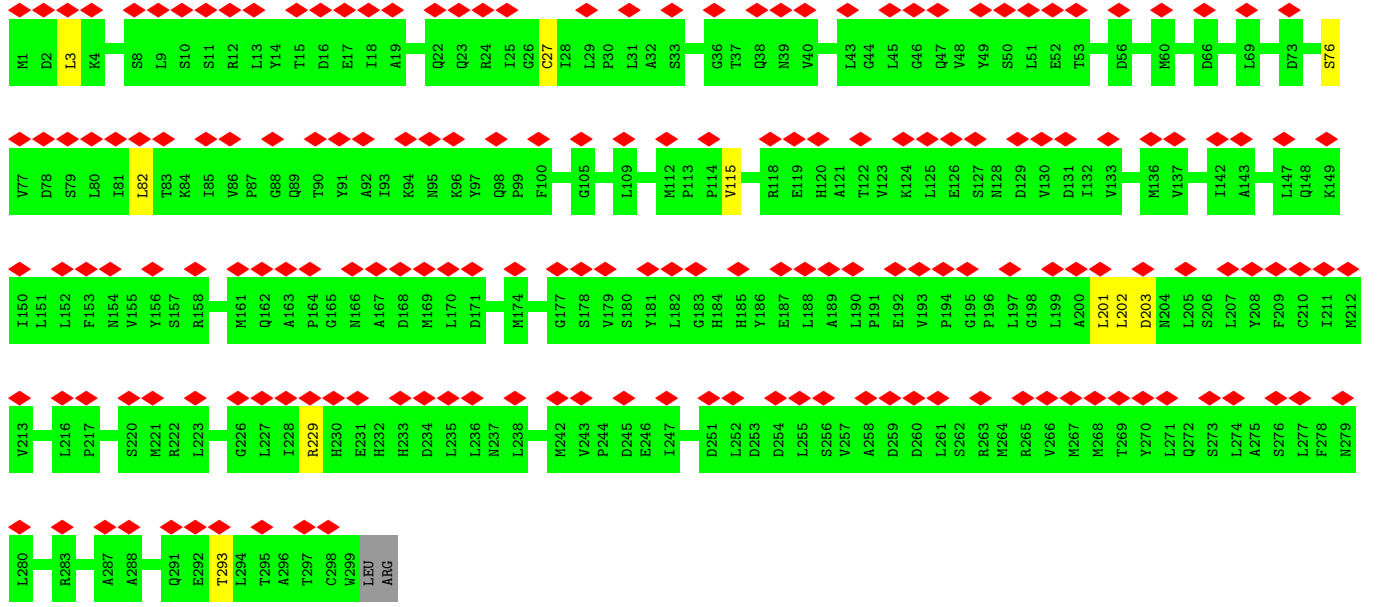
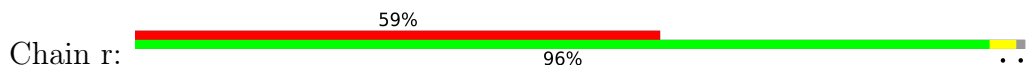




• Molecule 7: Triplex capsid protein 2



• Molecule 7: Triplex capsid protein 2



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	21085	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 ($e^-/\text{\AA}^2$)	28	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.058	Depositor
Minimum map value	-0.035	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.015	Depositor
Map size (Å)	435.2, 435.2, 435.2	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.36, 1.36, 1.36	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	J	0.36	0/10877	0.49	0/14781
1	K	0.36	0/11085	0.47	0/15066
1	N	0.34	0/10933	0.47	0/14858
1	O	0.35	0/10693	0.47	0/14531
1	P	0.32	0/10349	0.47	0/14057
2	v	0.32	0/2341	0.48	0/3183
3	w	0.26	0/553	0.41	0/741
3	x	0.30	0/553	0.44	0/741
4	y	0.30	0/320	0.45	0/424
4	z	0.29	0/320	0.45	0/424
5	Z	0.30	0/664	0.42	0/896
5	a	0.31	0/664	0.44	0/896
5	d	0.30	0/664	0.48	0/896
5	e	0.29	0/664	0.45	0/896
5	u	0.30	0/542	0.47	0/735
6	f	0.30	0/2537	0.48	0/3450
6	h	0.34	0/2672	0.48	0/3635
7	k	0.30	0/2388	0.50	0/3254
7	m	0.32	0/2388	0.50	0/3254
7	p	0.29	0/2388	0.50	0/3254
7	r	0.33	0/2388	0.50	0/3254
All	All	0.34	0/75983	0.48	0/103226

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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	J	10628	0	10448	344	0
1	K	10832	0	10655	309	0
1	N	10683	0	10500	345	0
1	O	10447	0	10273	306	0
1	P	10113	0	9949	260	0
2	v	2283	0	2268	0	0
3	w	549	0	540	0	0
3	x	549	0	540	0	0
4	y	317	0	341	0	0
4	z	317	0	341	0	0
5	Z	649	0	649	45	0
5	a	649	0	649	0	0
5	d	649	0	649	0	0
5	e	649	0	649	0	0
5	u	528	0	510	0	0
6	f	2474	0	2459	0	0
6	h	2604	0	2577	0	0
7	k	2338	0	2364	0	0
7	m	2338	0	2364	0	0
7	p	2338	0	2364	0	0
7	r	2338	0	2364	0	0
All	All	74272	0	73453	1530	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 15.

The worst 5 of 1530 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)
1:O:258:GLU:CG	1:O:262:LYS:CD	1.74	1.55
1:O:258:GLU:HG2	1:O:262:LYS:CD	1.28	1.53
1:N:483:ARG:NH1	1:N:485:GLU:HG2	1.25	1.40
1:O:258:GLU:CG	1:O:262:LYS:HD2	0.91	1.39
5:Z:68:PRO:HB3	5:Z:71:GLN:NE2	1.29	1.38

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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	J	1348/1381 (98%)	1269 (94%)	72 (5%)	7 (0%)	29	67
1	K	1379/1381 (100%)	1310 (95%)	67 (5%)	2 (0%)	51	84
1	N	1358/1381 (98%)	1288 (95%)	62 (5%)	8 (1%)	25	63
1	O	1328/1381 (96%)	1259 (95%)	68 (5%)	1 (0%)	51	84
1	P	1273/1381 (92%)	1202 (94%)	69 (5%)	2 (0%)	47	79
2	v	282/507 (56%)	262 (93%)	19 (7%)	1 (0%)	34	71
3	w	66/570 (12%)	65 (98%)	1 (2%)	0	100	100
3	x	66/570 (12%)	66 (100%)	0	0	100	100
4	y	35/3149 (1%)	34 (97%)	1 (3%)	0	100	100
4	z	35/3149 (1%)	34 (97%)	1 (3%)	0	100	100
5	Z	75/176 (43%)	67 (89%)	6 (8%)	2 (3%)	5	34
5	a	75/176 (43%)	70 (93%)	5 (7%)	0	100	100
5	d	75/176 (43%)	69 (92%)	4 (5%)	2 (3%)	5	34
5	e	75/176 (43%)	72 (96%)	3 (4%)	0	100	100
5	u	61/176 (35%)	56 (92%)	5 (8%)	0	100	100
6	f	307/364 (84%)	289 (94%)	18 (6%)	0	100	100
6	h	330/364 (91%)	305 (92%)	25 (8%)	0	100	100
7	k	297/301 (99%)	282 (95%)	14 (5%)	1 (0%)	41	75
7	m	297/301 (99%)	282 (95%)	13 (4%)	2 (1%)	22	61
7	p	297/301 (99%)	282 (95%)	10 (3%)	5 (2%)	9	43
7	r	297/301 (99%)	288 (97%)	8 (3%)	1 (0%)	41	75
All	All	9356/17662 (53%)	8851 (95%)	471 (5%)	34 (0%)	38	71

5 of 34 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	J	305	PRO
1	J	366	PRO
1	K	298	ALA
1	K	805	ALA
1	N	483	ARG

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	J	1149/1171 (98%)	1092 (95%)	57 (5%)	24	52
1	K	1171/1171 (100%)	1126 (96%)	45 (4%)	33	59
1	N	1155/1171 (99%)	1102 (95%)	53 (5%)	27	54
1	O	1128/1171 (96%)	1080 (96%)	48 (4%)	29	56
1	P	1093/1171 (93%)	1058 (97%)	35 (3%)	39	62
2	v	243/400 (61%)	227 (93%)	16 (7%)	16	45
3	w	57/465 (12%)	57 (100%)	0	100	100
3	x	57/465 (12%)	57 (100%)	0	100	100
4	y	35/2539 (1%)	34 (97%)	1 (3%)	42	65
4	z	35/2539 (1%)	34 (97%)	1 (3%)	42	65
5	Z	71/128 (56%)	70 (99%)	1 (1%)	67	81
5	a	71/128 (56%)	69 (97%)	2 (3%)	43	65
5	d	71/128 (56%)	69 (97%)	2 (3%)	43	65
5	e	71/128 (56%)	70 (99%)	1 (1%)	67	81
5	u	59/128 (46%)	59 (100%)	0	100	100
6	f	267/289 (92%)	261 (98%)	6 (2%)	52	71
6	h	278/289 (96%)	261 (94%)	17 (6%)	18	47
7	k	265/267 (99%)	258 (97%)	7 (3%)	46	67
7	m	265/267 (99%)	248 (94%)	17 (6%)	17	45
7	p	265/267 (99%)	252 (95%)	13 (5%)	25	52

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	r	265/267 (99%)	256 (97%)	9 (3%)	37	61
All	All	8071/14549 (56%)	7740 (96%)	331 (4%)	34	57

5 of 331 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	P	1110	VAL
7	k	69	LEU
2	v	9	VAL
5	d	70	ARG
7	m	175	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 161 such sidechains are listed below:

Mol	Chain	Res	Type
1	P	1120	HIS
7	k	148	GLN
2	v	7	ASN
5	Z	71	GLN
7	m	230	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 monosaccharides 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.

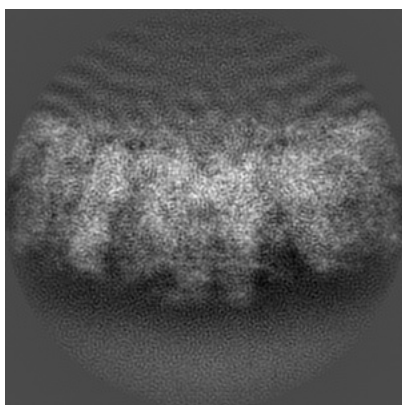
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-21525. These allow visual inspection of the internal detail of the map and identification of artifacts.

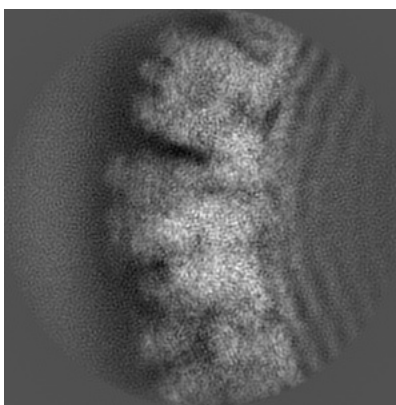
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

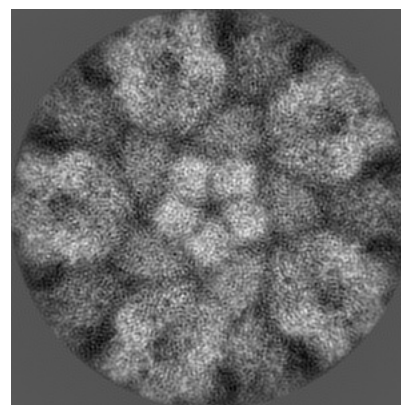
6.1.1 Primary map



X



Y

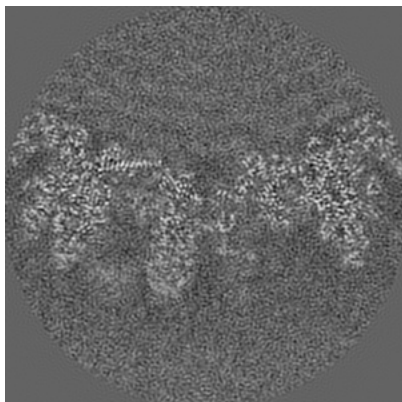


Z

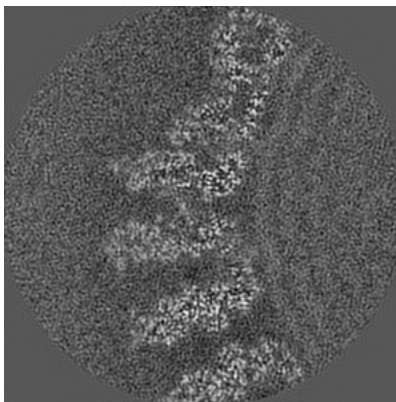
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

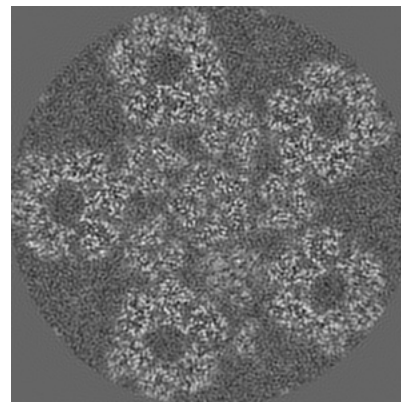
6.2.1 Primary map



X Index: 160



Y Index: 160

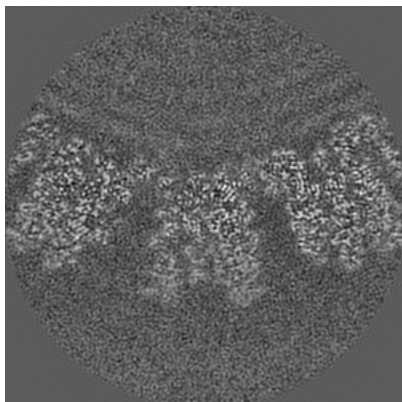


Z Index: 160

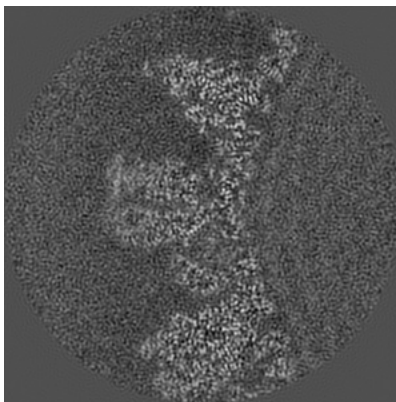
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

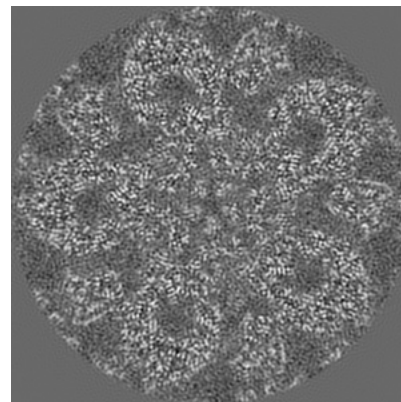
6.3.1 Primary map



X Index: 147



Y Index: 189

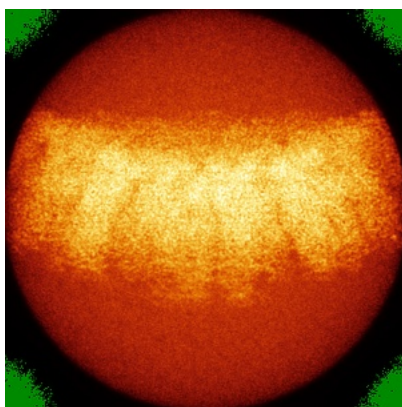


Z Index: 185

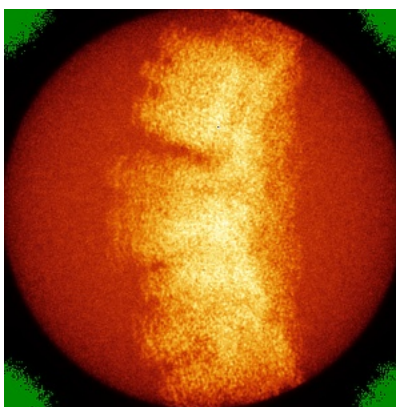
The images above show the largest variance slices of the map in three orthogonal directions.

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

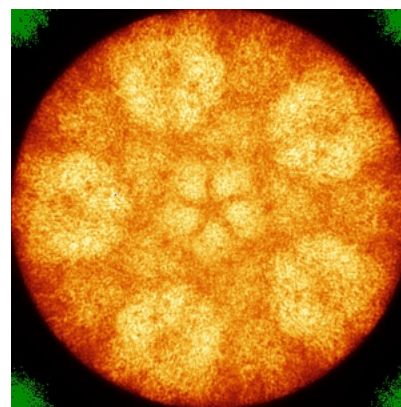
6.4.1 Primary map



X



Y

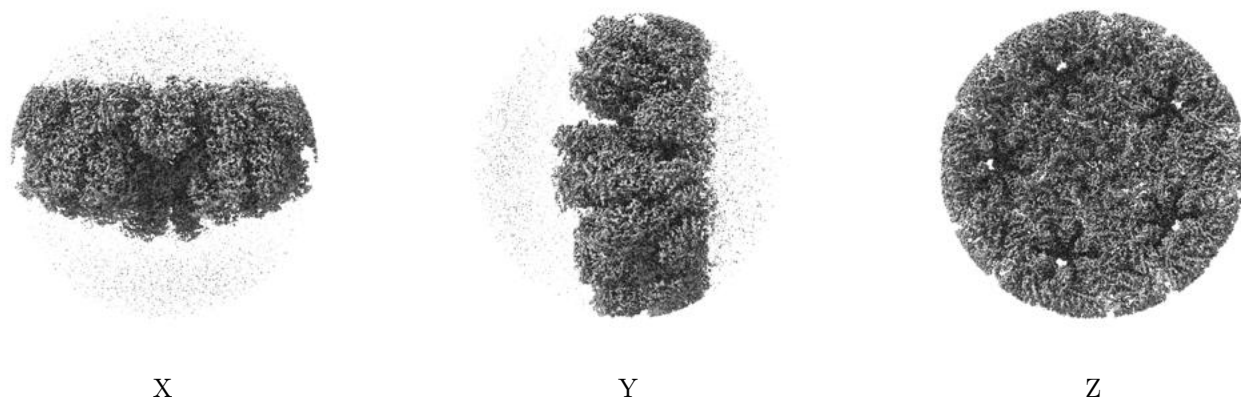


Z

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 0.015. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

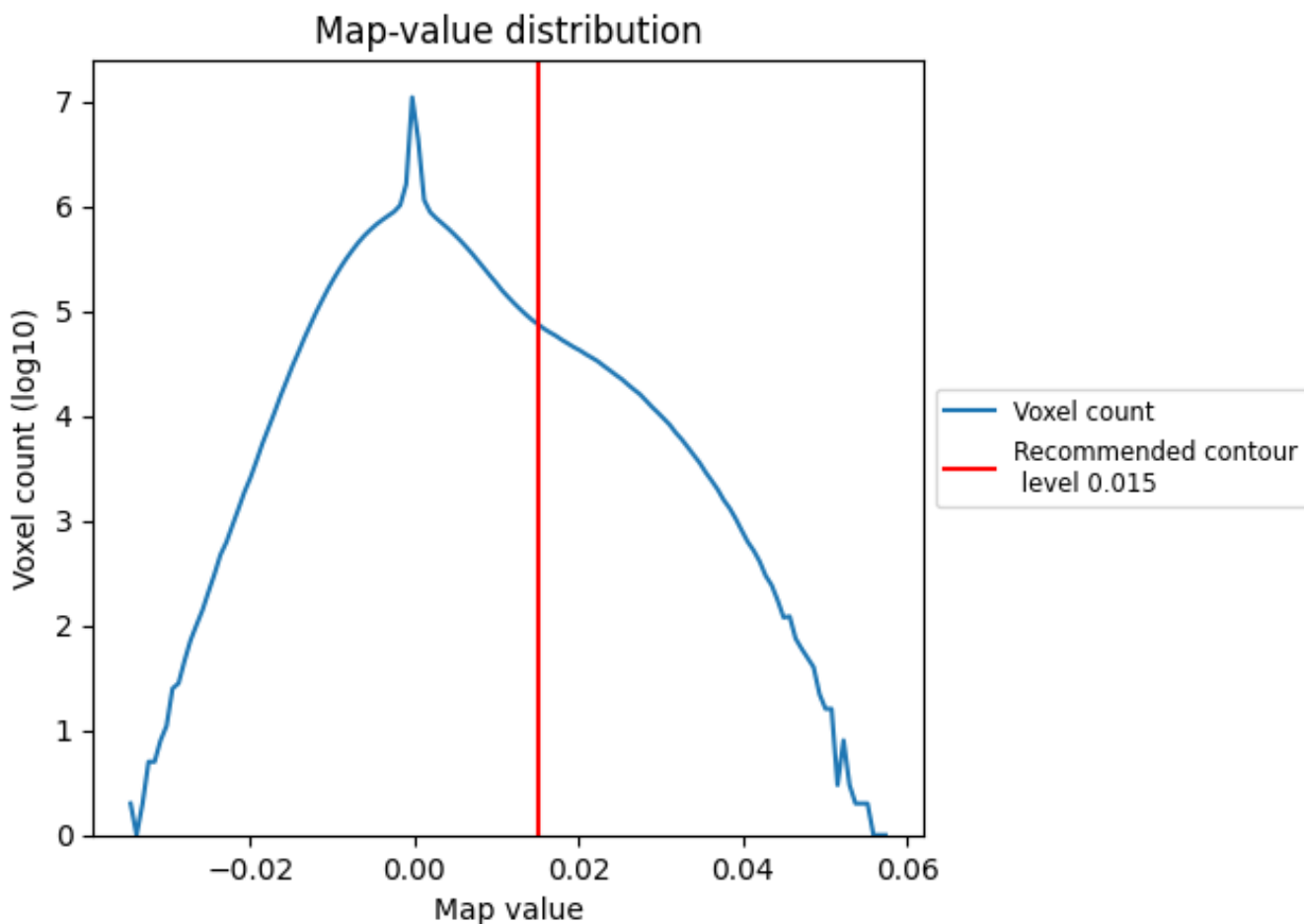
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

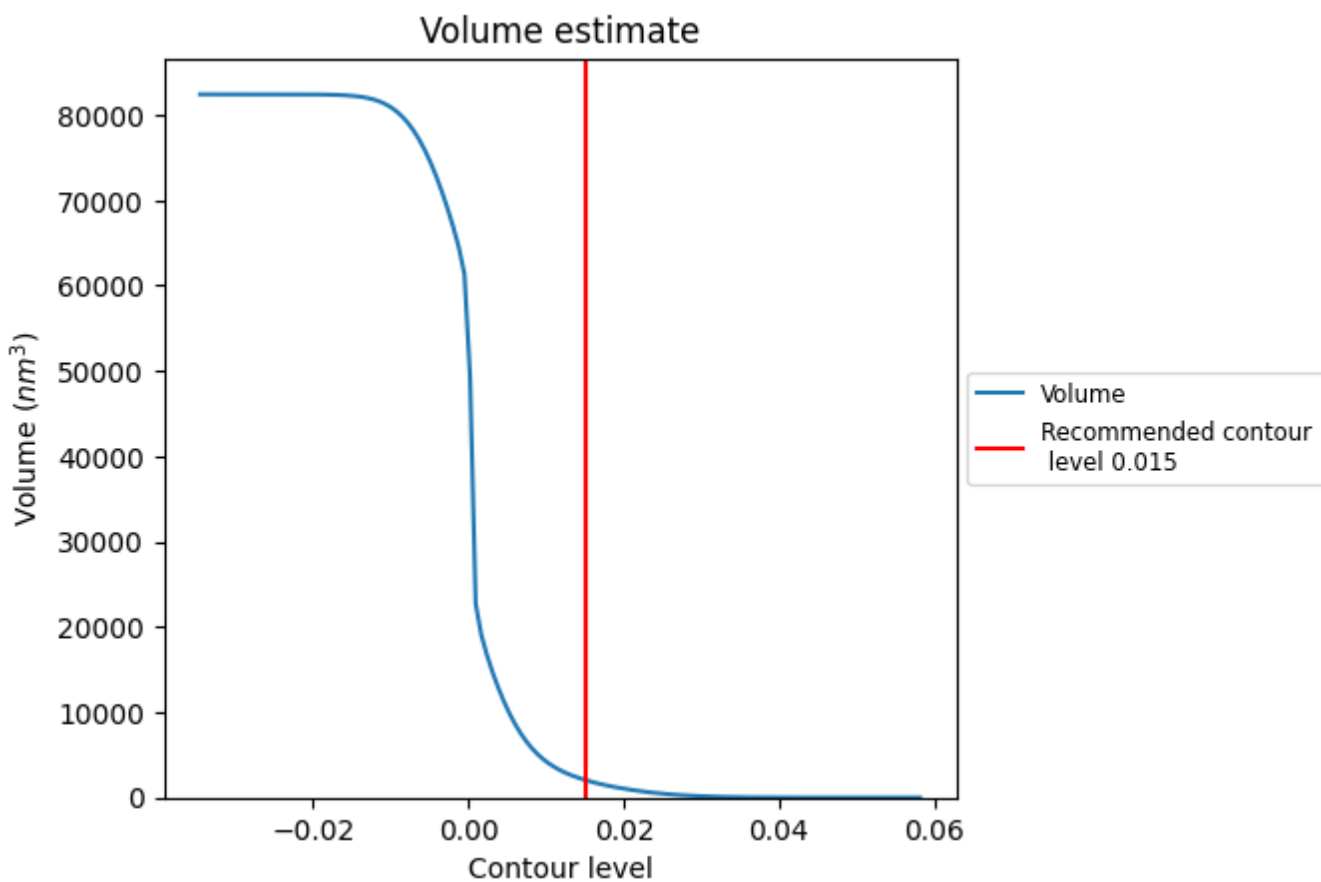
This section contains the results of statistical analysis of the map.

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.

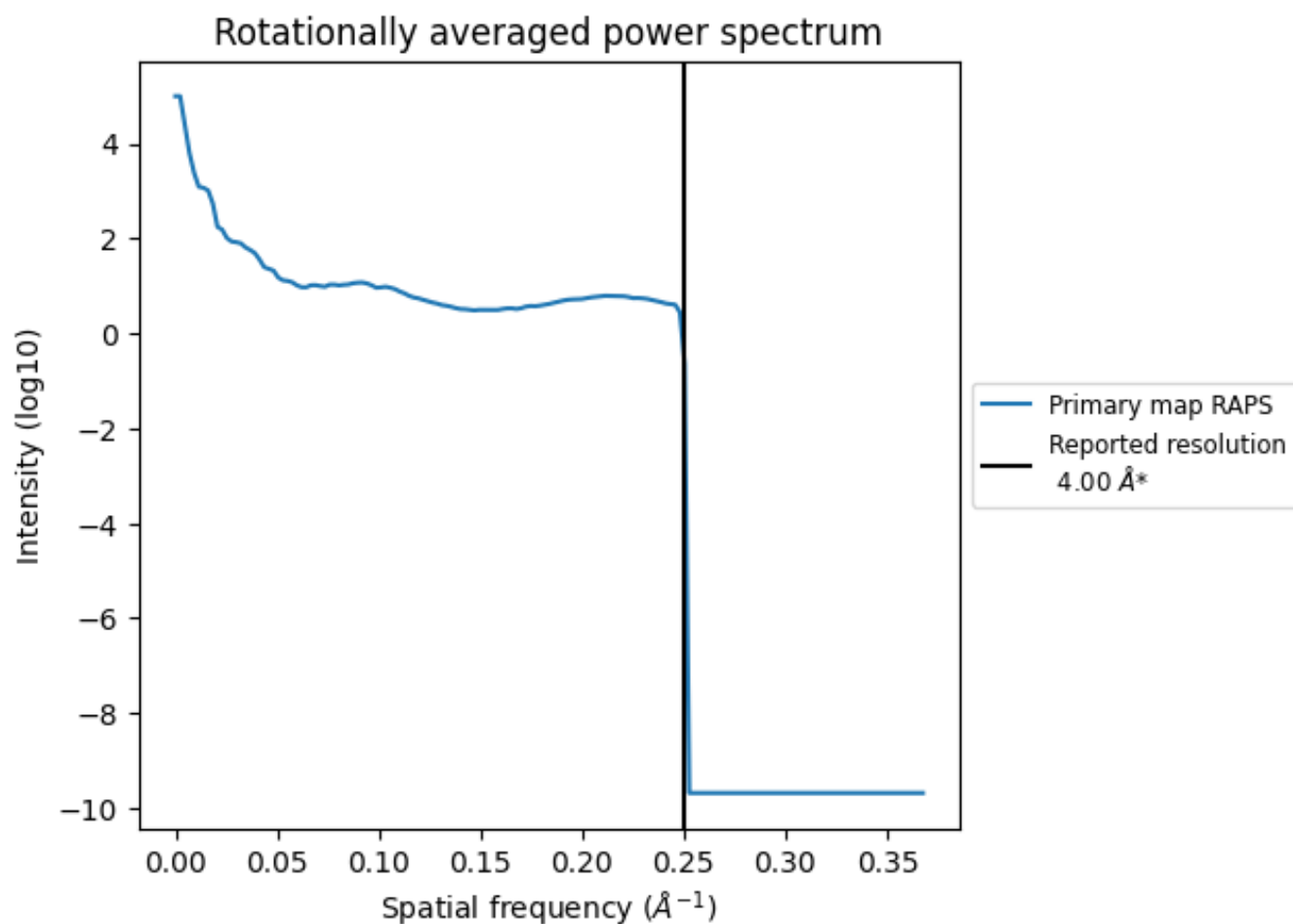
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2067 nm³; this corresponds to an approximate mass of 1867 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 [\(i\)](#)



*Reported resolution corresponds to spatial frequency of 0.250 Å⁻¹

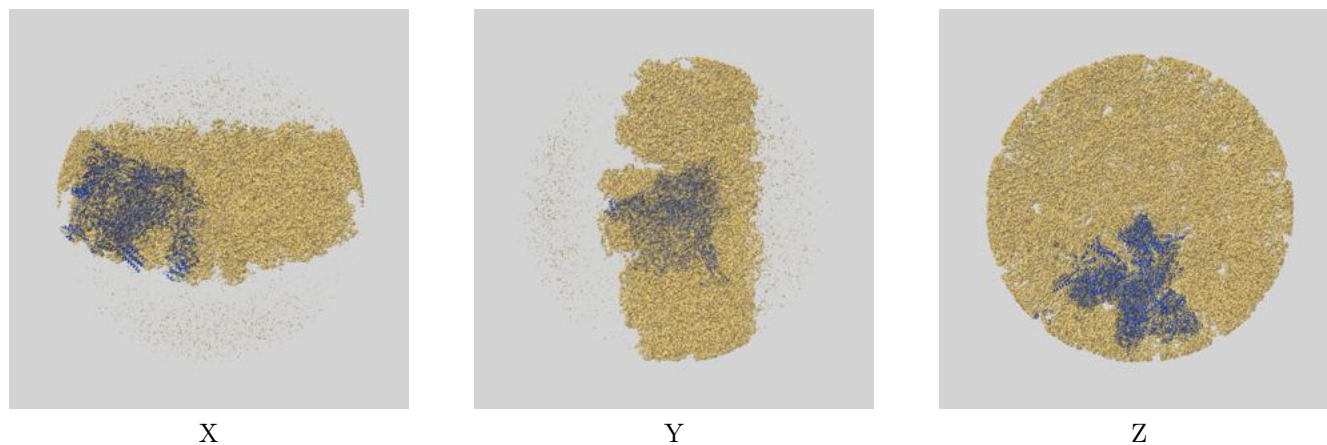
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

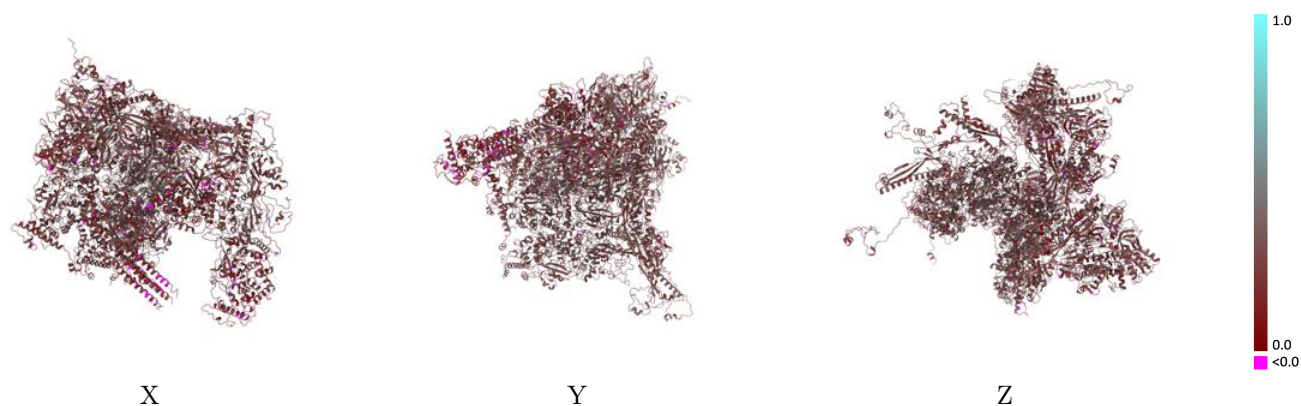
This section contains information regarding the fit between EMDB map EMD-21525 and PDB model 6W2D. Per-residue inclusion information can be found in section [3](#) on page [6](#).

9.1 Map-model overlay [i](#)



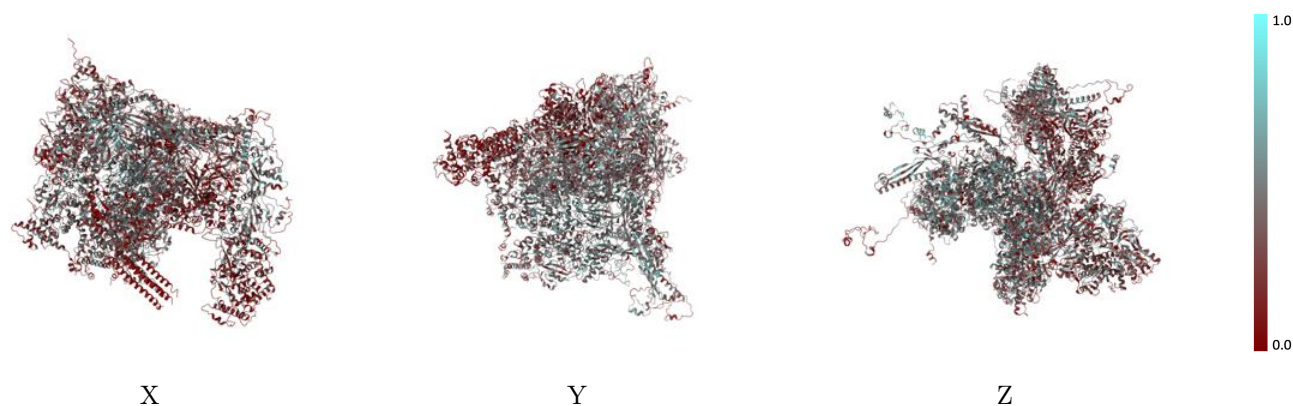
The images above show the 3D surface view of the map at the recommended contour level 0.015 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



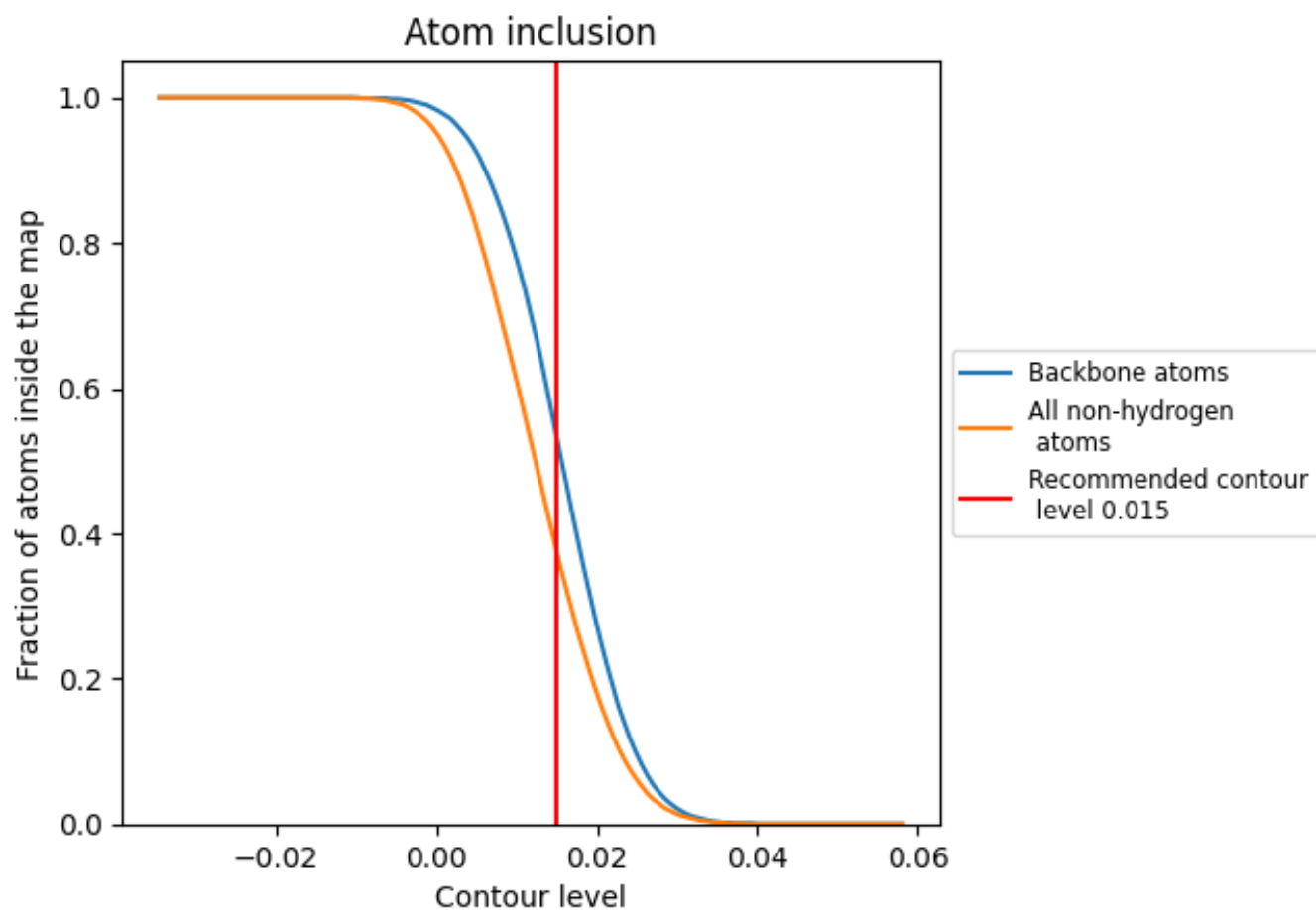
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.015).













































9.4 Atom inclusion [i](#)



At the recommended contour level, 53% of all backbone atoms, 37% 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 (0.015) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.3740	 0.2800
J	 0.4580	 0.3060
K	 0.4470	 0.3030
N	 0.4050	 0.2910
O	 0.4400	 0.3030
P	 0.3240	 0.2580
Z	 0.3450	 0.2420
a	 0.3080	 0.2810
d	 0.2430	 0.2360
e	 0.2950	 0.2580
f	 0.2000	 0.2340
h	 0.3770	 0.2720
k	 0.2460	 0.2530
m	 0.3430	 0.2700
p	 0.2390	 0.2550
r	 0.3660	 0.2810
u	 0.1380	 0.1670
v	 0.2220	 0.2410
w	 0.1000	 0.1630
x	 0.1880	 0.1900
y	 0.1090	 0.1880
z	 0.0960	 0.1620

