Full wwPDB EM Validation Report ⓘ

Oct 6, 2024 – 06:24 PM JST

PDB ID	:	7BSI
EMDB ID	:	EMD-30162
Title	:	Epstein-Barr virus, one asymmetric unit structure of the icosahedral tegumented capsid
Authors	:	Li, Z.; Yu, X.
Deposited on	:	2020-03-30
Resolution	:	4.10 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:

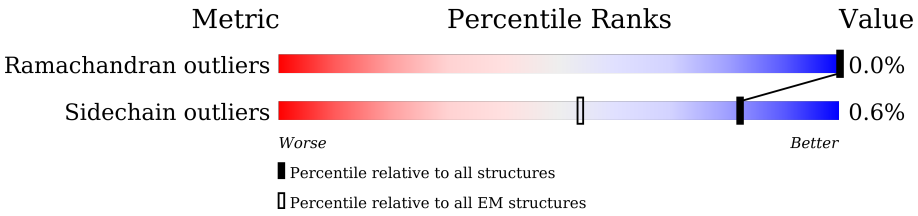
EMDB validation analysis	:	0.0.1.dev113
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

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 4.10 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)
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 <=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	0	176	31% 42% 58%
1	1	176	34% 41% 58%
1	G	176	31% 44% 56%
1	H	176	28% 41% 58%
1	I	176	30% 42% 58%
1	J	176	30% 44% 56%
1	K	176	27% 42% 58%
1	L	176	31% 42% 58%
1	P	176	27% 44% 56%

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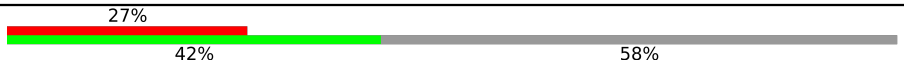
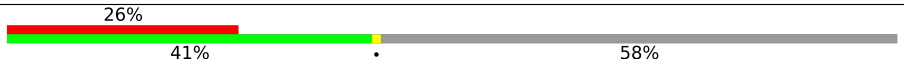
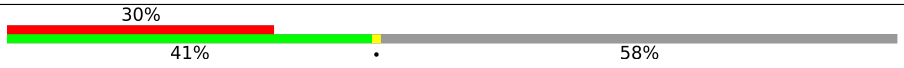
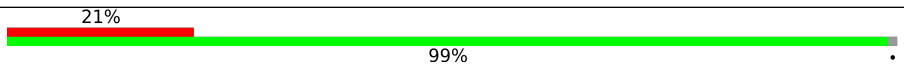
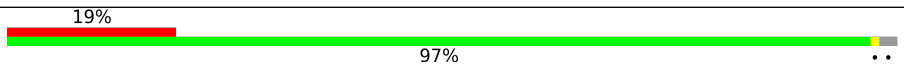
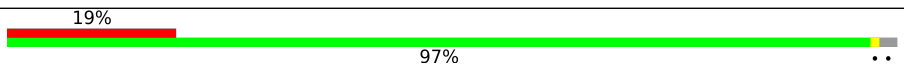
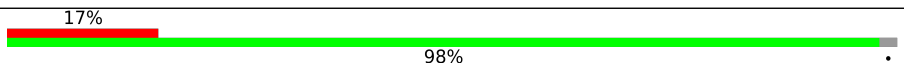
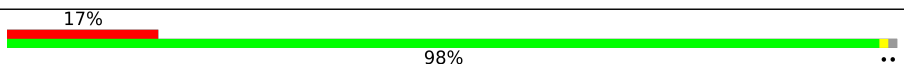
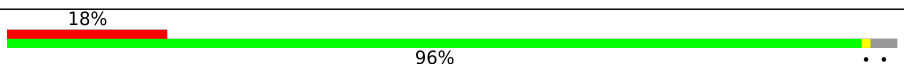
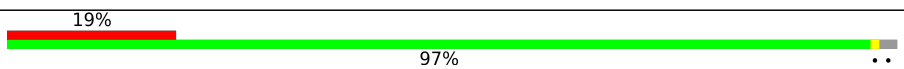
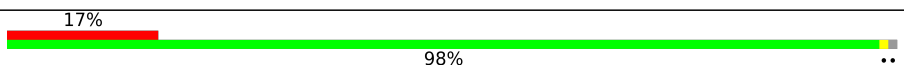
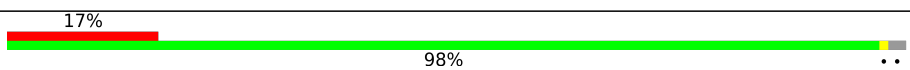
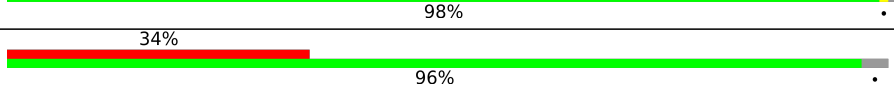
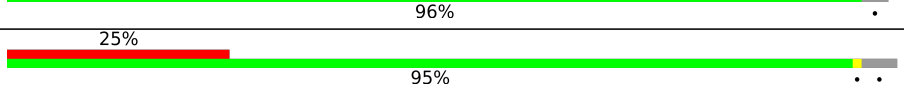
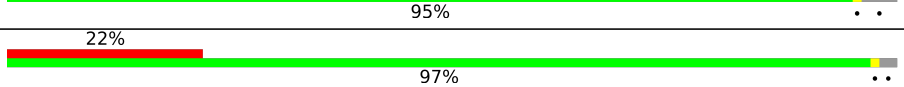
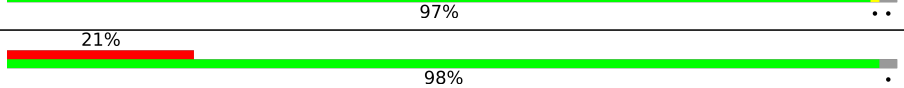
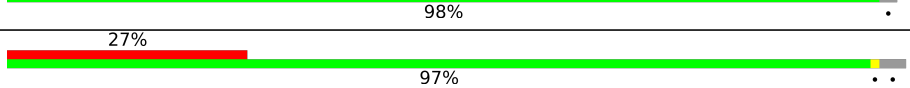
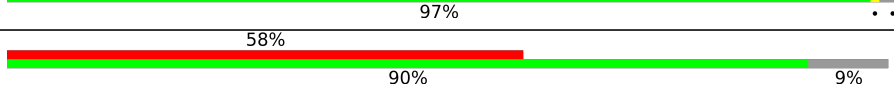
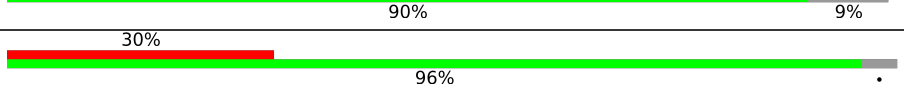
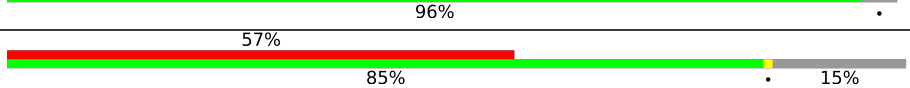
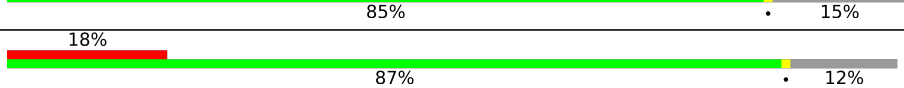
Mol	Chain	Length	Quality of chain
1	Q	176	
1	R	176	
1	X	176	
1	Y	176	
1	Z	176	
1	m	176	
1	y	176	
2	A	1381	
2	B	1381	
2	C	1381	
2	D	1381	
2	E	1381	
2	F	1381	
2	M	1381	
2	N	1381	
2	O	1381	
2	S	1381	
2	T	1381	
2	U	1381	
2	V	1381	
2	k	1381	
2	l	1381	
2	x	1381	
3	5	364	
3	a	364	

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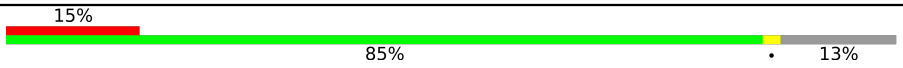
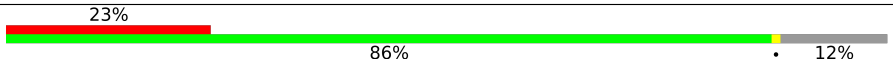
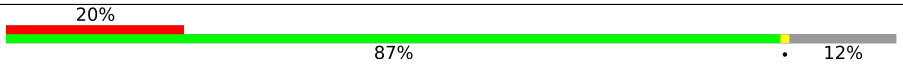
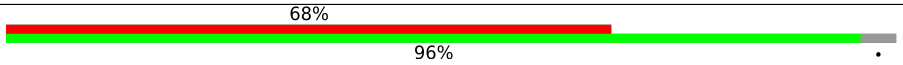
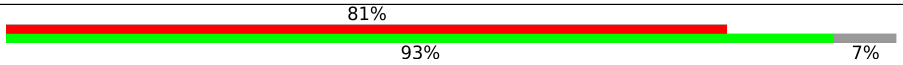
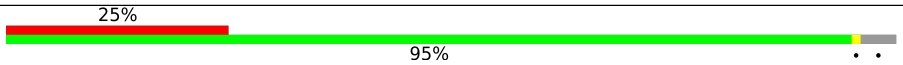
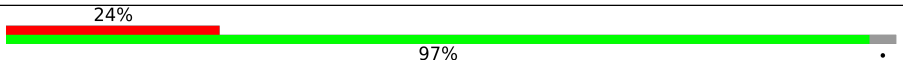
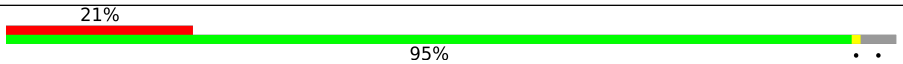
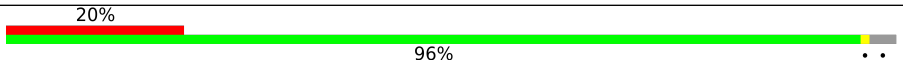
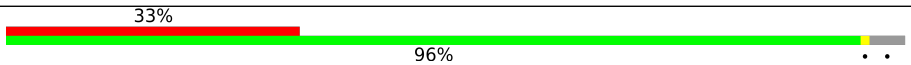
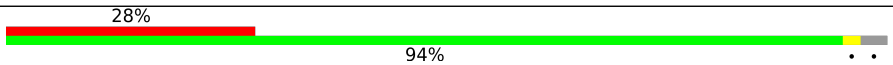
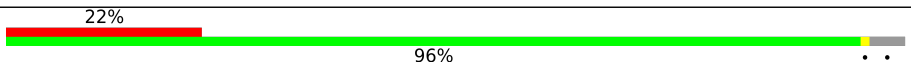
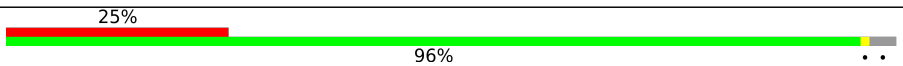
Mol	Chain	Length	Quality of chain
3	b	364	
3	e	364	
3	h	364	
4	6	301	
4	7	301	
4	8	301	
4	9	301	
4	c	301	
4	d	301	
4	f	301	
4	g	301	
4	i	301	
4	j	301	

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 214157 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	P	77	Total	C	N	O	S	0	0
			650	411	122	116	1		
1	Q	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	R	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	0	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	1	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	X	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	G	77	Total	C	N	O	S	0	0
			650	411	122	116	1		
1	H	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	I	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	J	77	Total	C	N	O	S	0	0
			650	411	122	116	1		
1	K	74	Total	C	N	O	S	0	0
			621	394	114	112	1		
1	L	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	l	1251	Total	C	N	O	S	0	0
			9883	6283	1717	1824	59		
2	M	1354	Total	C	N	O	S	0	0
			10634	6750	1845	1979	60		
2	N	1370	Total	C	N	O	S	0	0
			10761	6828	1871	2001	61		
2	O	1354	Total	C	N	O	S	0	0
			10634	6750	1845	1979	60		
2	U	1354	Total	C	N	O	S	0	0
			10634	6750	1845	1979	60		
2	V	1354	Total	C	N	O	S	0	0
			10634	6750	1845	1979	60		
2	k	1346	Total	C	N	O	S	0	0
			10572	6712	1835	1965	60		
2	A	1370	Total	C	N	O	S	0	0
			10761	6828	1871	2001	61		
2	B	1354	Total	C	N	O	S	0	0
			10634	6750	1845	1979	60		
2	C	1354	Total	C	N	O	S	0	0
			10634	6750	1845	1979	60		
2	D	1354	Total	C	N	O	S	0	0
			10634	6750	1845	1979	60		
2	E	1370	Total	C	N	O	S	0	0
			10761	6828	1871	2001	61		
2	F	1342	Total	C	N	O	S	0	0
			10546	6694	1831	1961	60		
2	x	1325	Total	C	N	O	S	0	0
			10404	6607	1803	1935	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		
3	b	317	Total	C	N	O	S	0	0
			2490	1600	439	444	7		
3	h	321	Total	C	N	O	S	0	0
			2519	1616	446	450	7		

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	a	319	Total	C	N	O	S	0	0
			2505	1609	441	448	7		

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

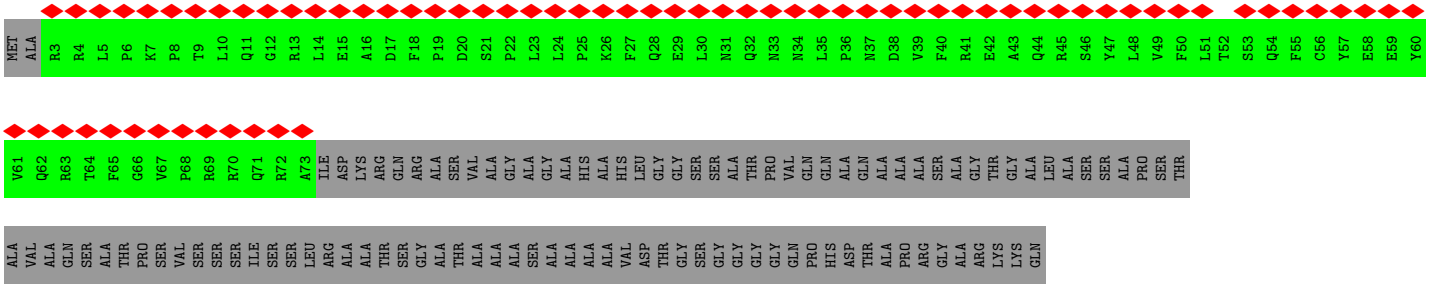
Mol	Chain	Residues	Atoms					AltConf	Trace
4	f	290	Total	C	N	O	S	0	0
			2279	1466	378	419	16		
4	g	292	Total	C	N	O	S	0	0
			2275	1461	373	423	18		
4	6	289	Total	C	N	O	S	0	0
			2272	1461	377	418	16		
4	7	279	Total	C	N	O	S	0	0
			2187	1406	358	405	18		
4	c	290	Total	C	N	O	S	0	0
			2279	1466	378	419	16		
4	d	292	Total	C	N	O	S	0	0
			2275	1461	373	423	18		
4	i	290	Total	C	N	O	S	0	0
			2279	1466	378	419	16		
4	j	292	Total	C	N	O	S	0	0
			2275	1461	373	423	18		
4	8	290	Total	C	N	O	S	0	0
			2279	1466	378	419	16		
4	9	292	Total	C	N	O	S	0	0
			2275	1461	373	423	18		

3 Residue-property plots (i)

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.

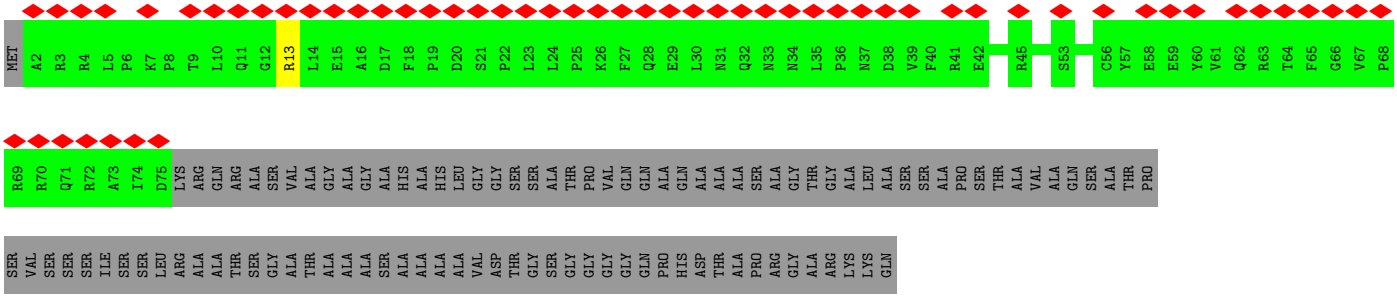
• Molecule 1: Small capsomere-interacting protein

Chain m:



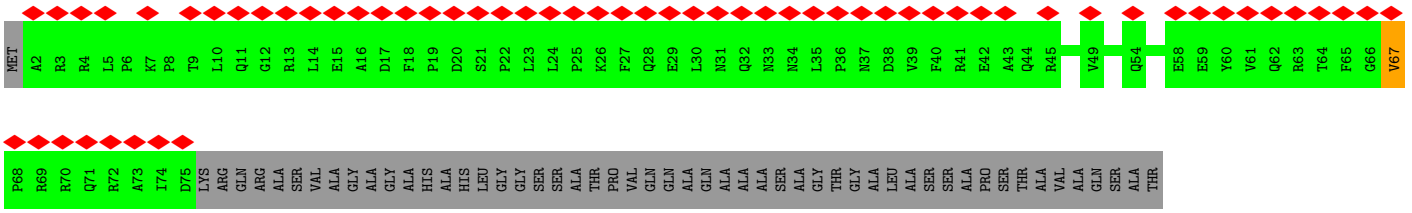
• Molecule 1: Small capsomere-interacting protein

Chain Y:



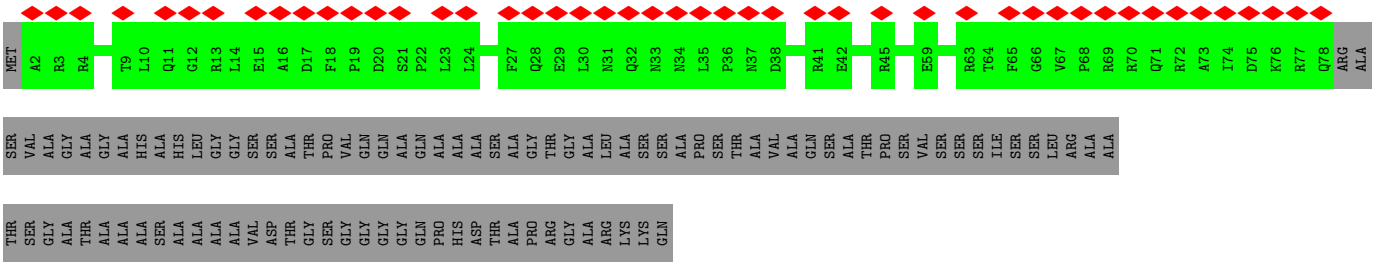
• Molecule 1: Small capsomere-interacting protein

Chain Z:



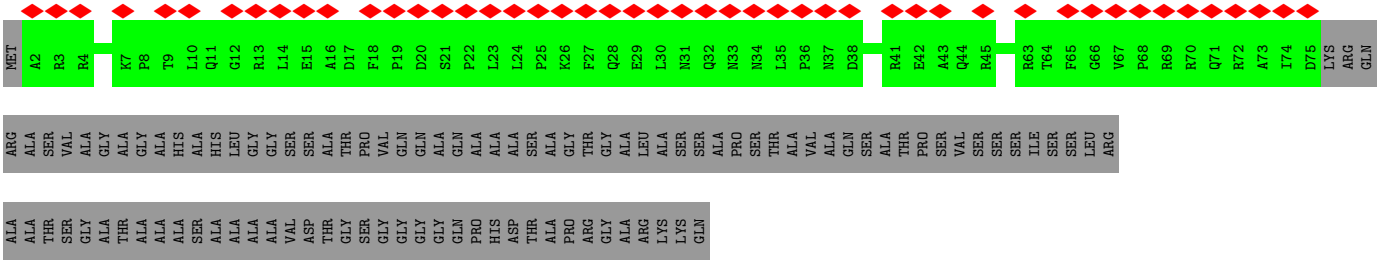
• Molecule 1: Small capsomere-interacting protein

Chain P:



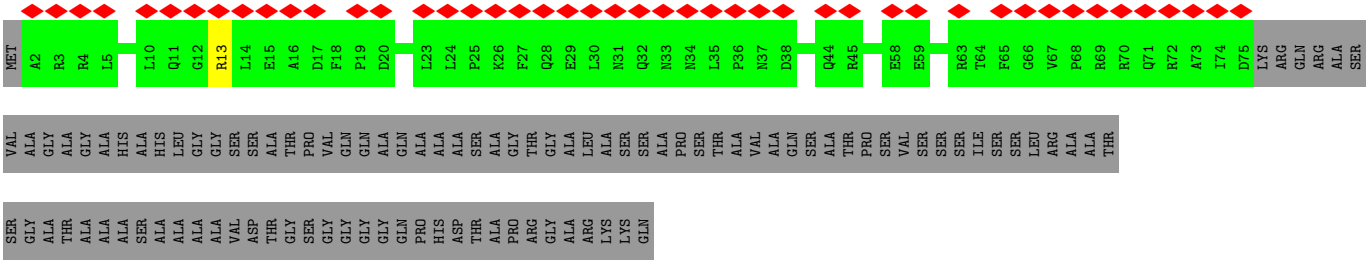
• Molecule 1: Small capsomere-interacting protein

Chain Q:



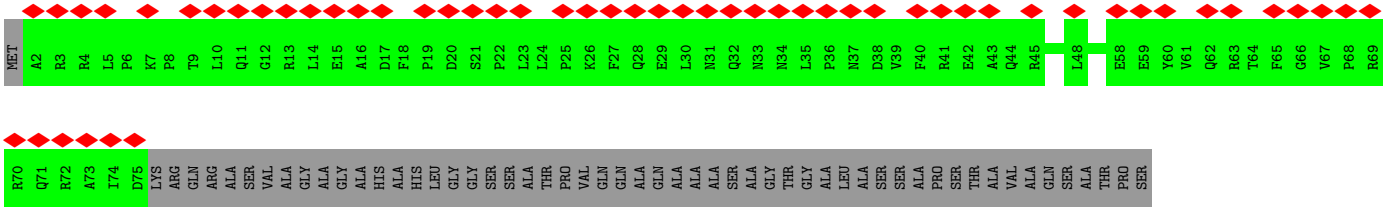
• Molecule 1: Small capsomere-interacting protein

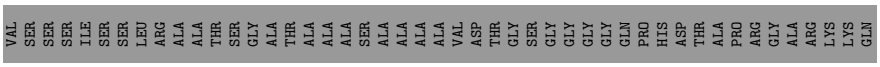
Chain R:



• Molecule 1: Small capsomere-interacting protein

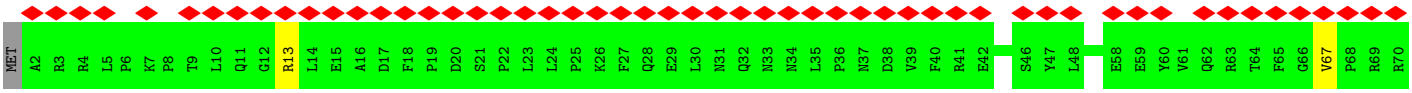
Chain 0:

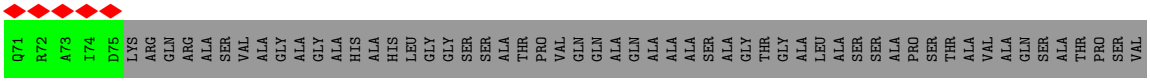




• Molecule 1: Small capsomere-interacting protein

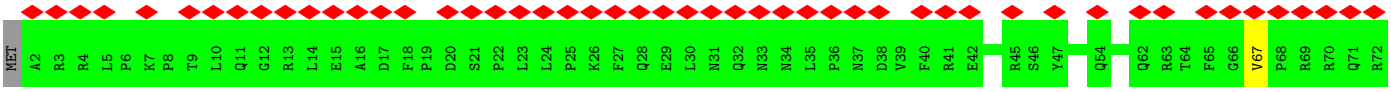
Chain 1:

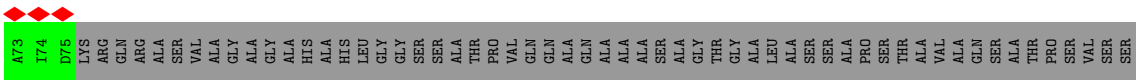


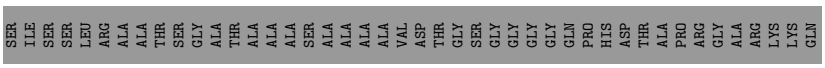


• Molecule 1: Small capsomere-interacting protein

Chain X:

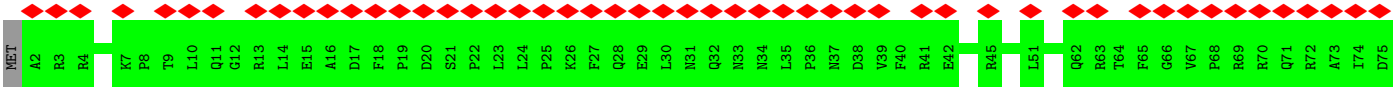


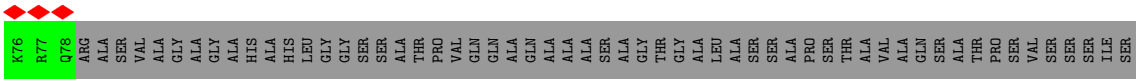




• Molecule 1: Small capsomere-interacting protein

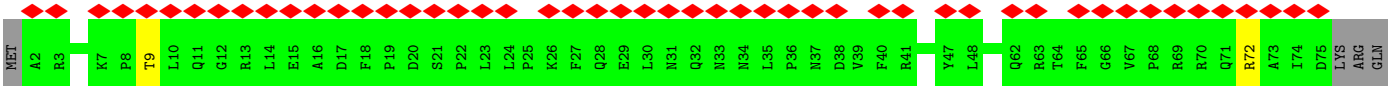
Chain G:

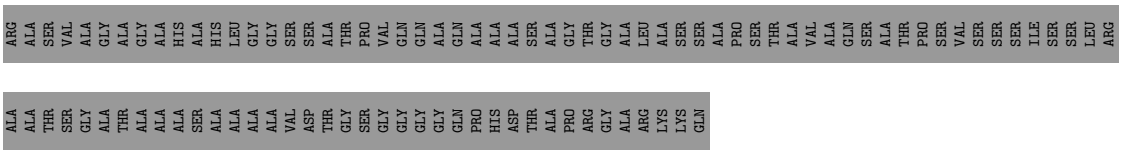




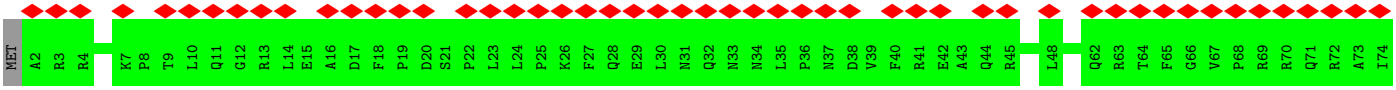
• Molecule 1: Small capsomere-interacting protein

Chain H:

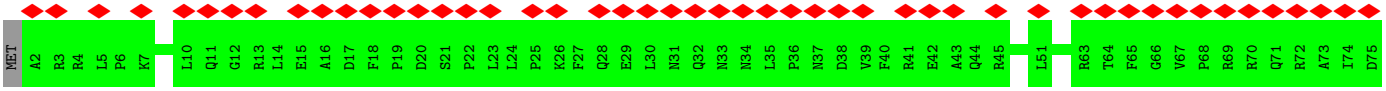




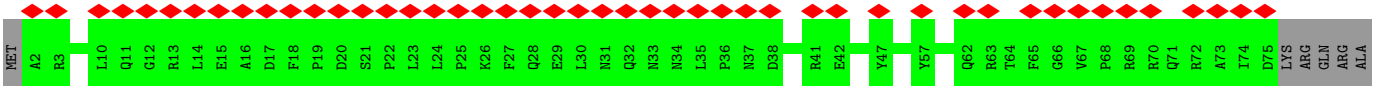
• Molecule 1: Small capsomere-interacting protein



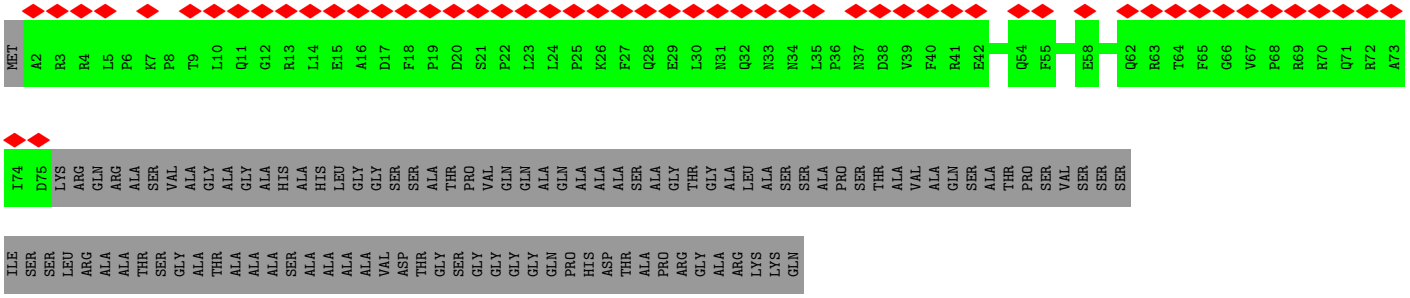
• Molecule 1: Small capsomere-interacting protein



• Molecule 1: Small capsomere-interacting protein

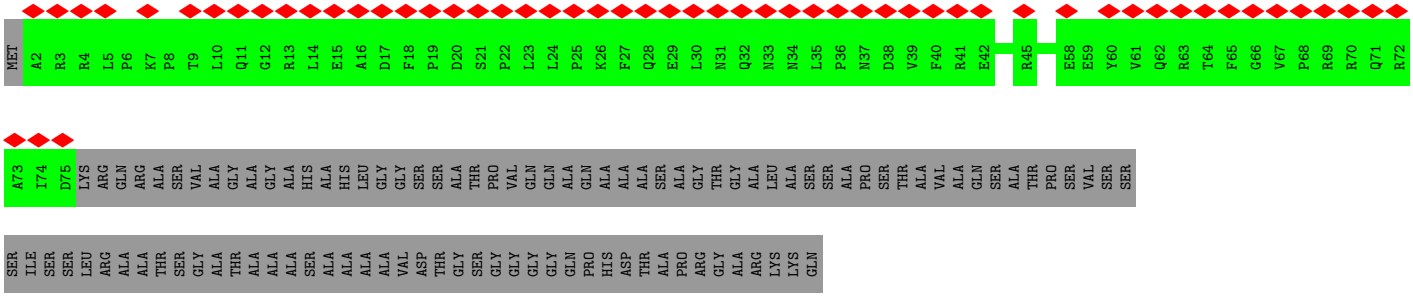


• Molecule 1: Small capsomere-interacting protein



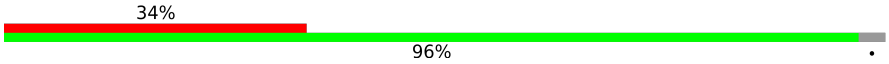
• Molecule 1: Small capsomere-interacting protein

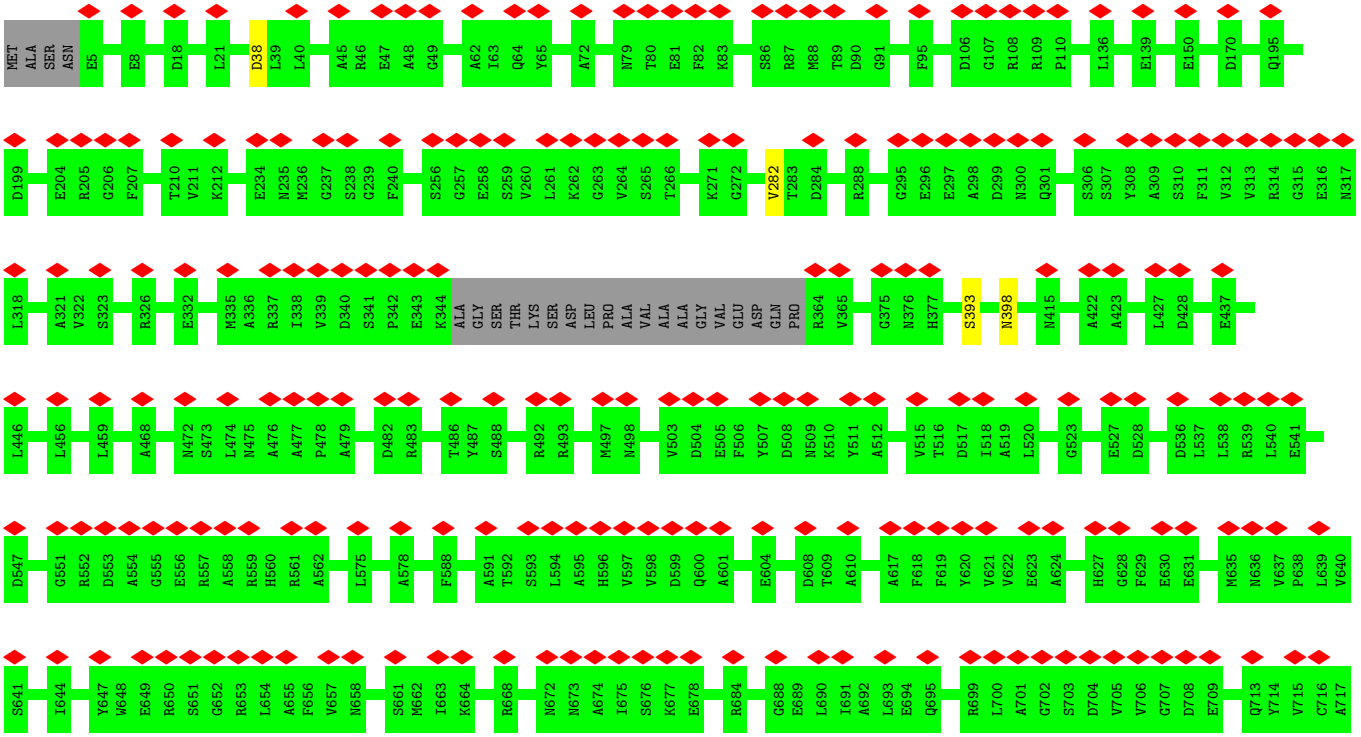
Chain y:

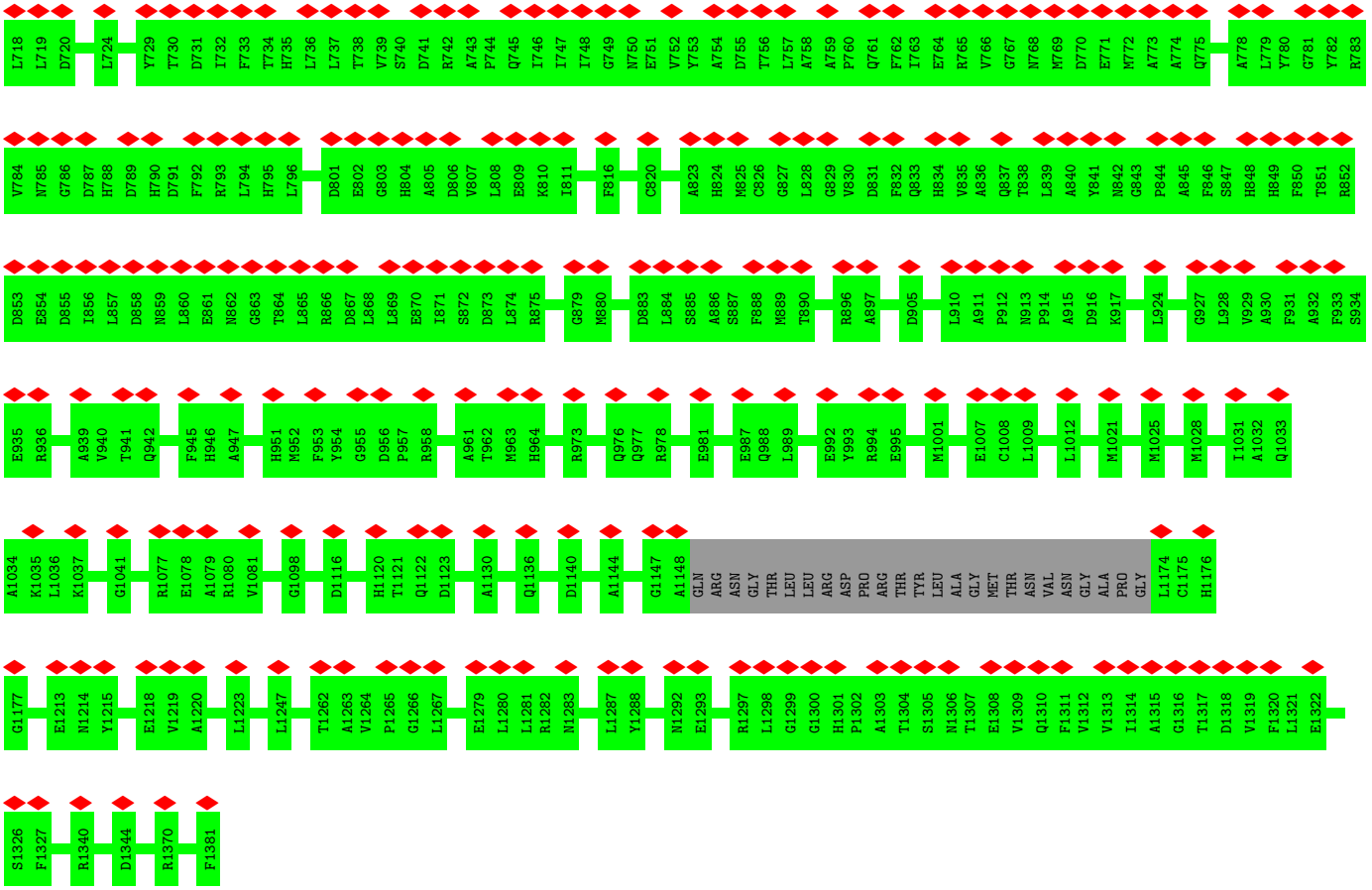


• Molecule 2: Major capsid protein

Chain S:

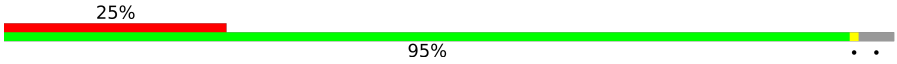


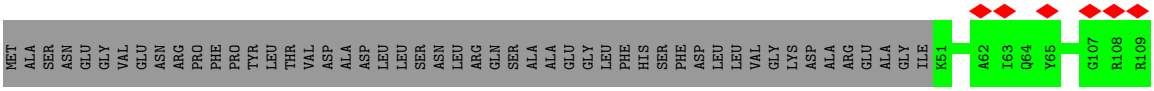


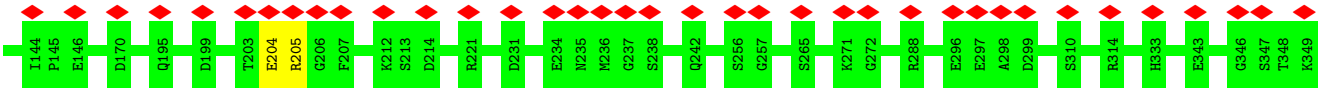


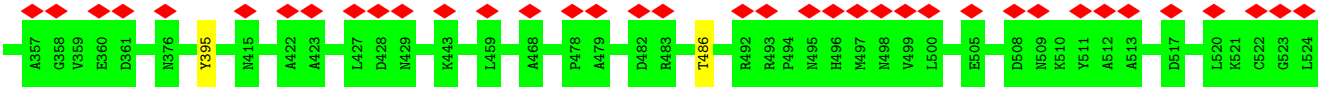
• Molecule 2: Major capsid protein

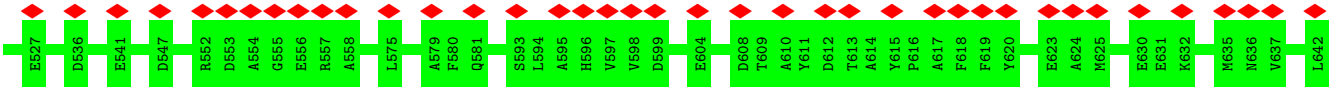
Chain T:

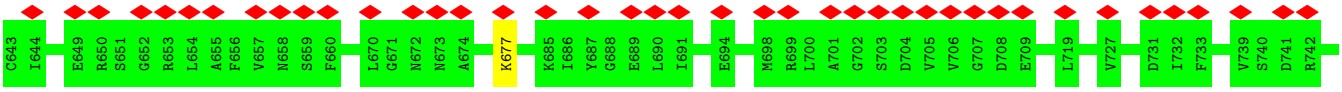


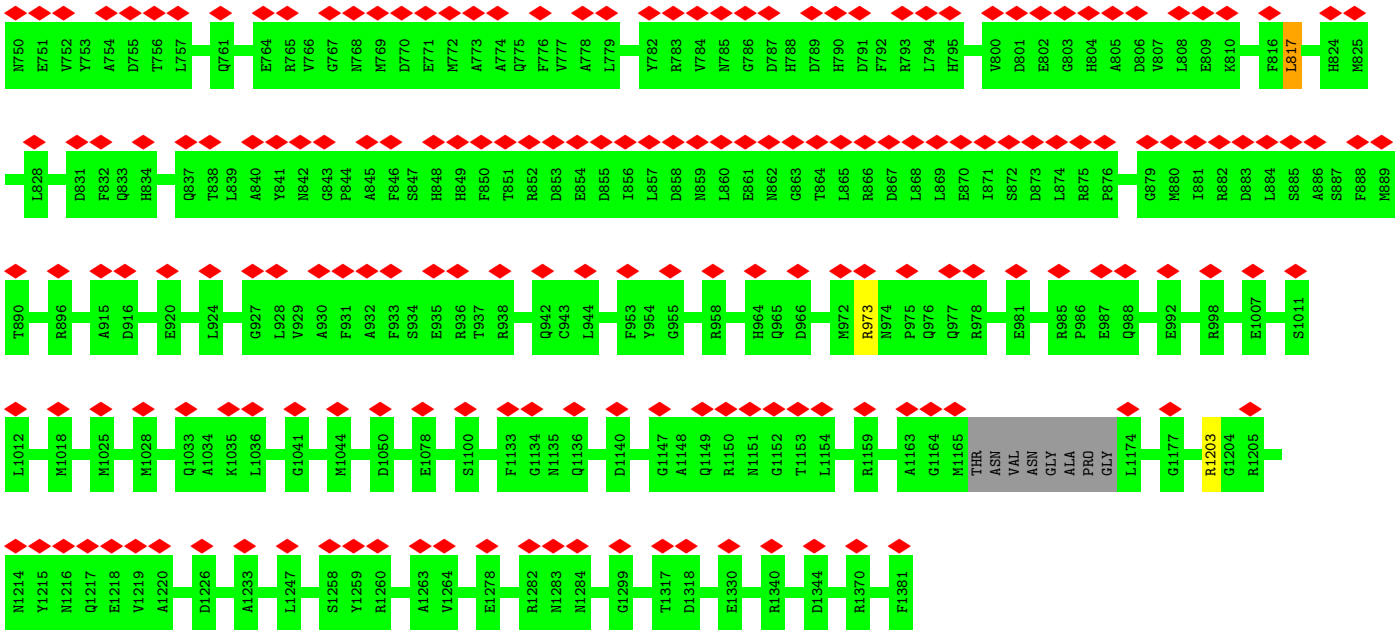






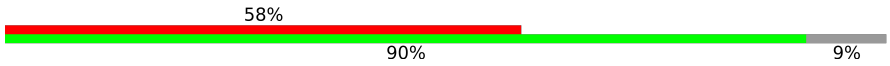


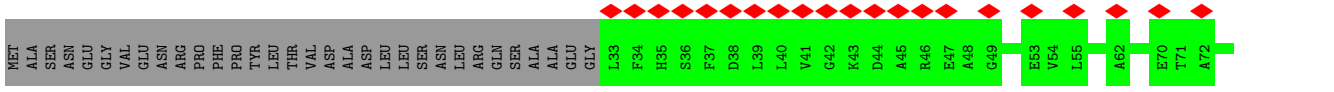


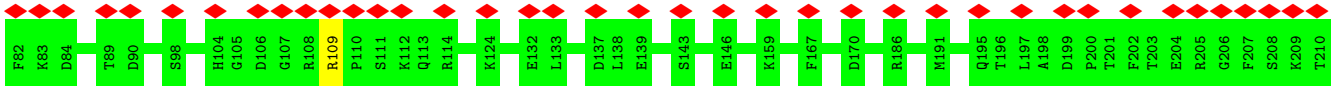


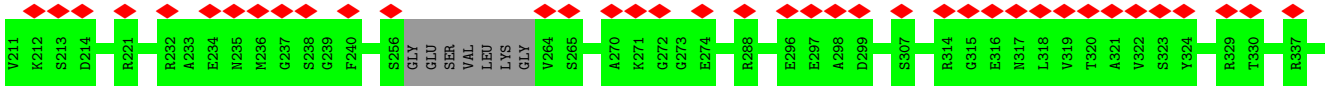
• Molecule 2: Major capsid protein

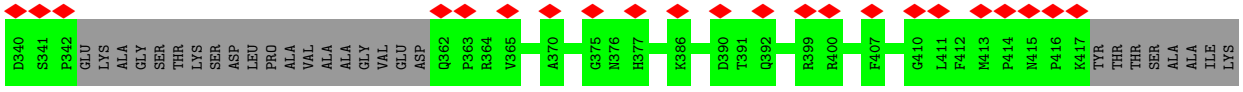
Chain l:

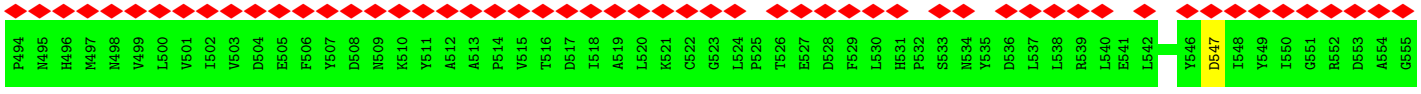


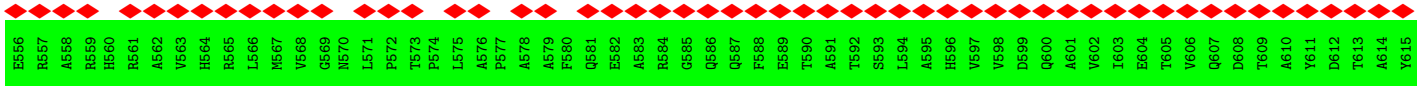


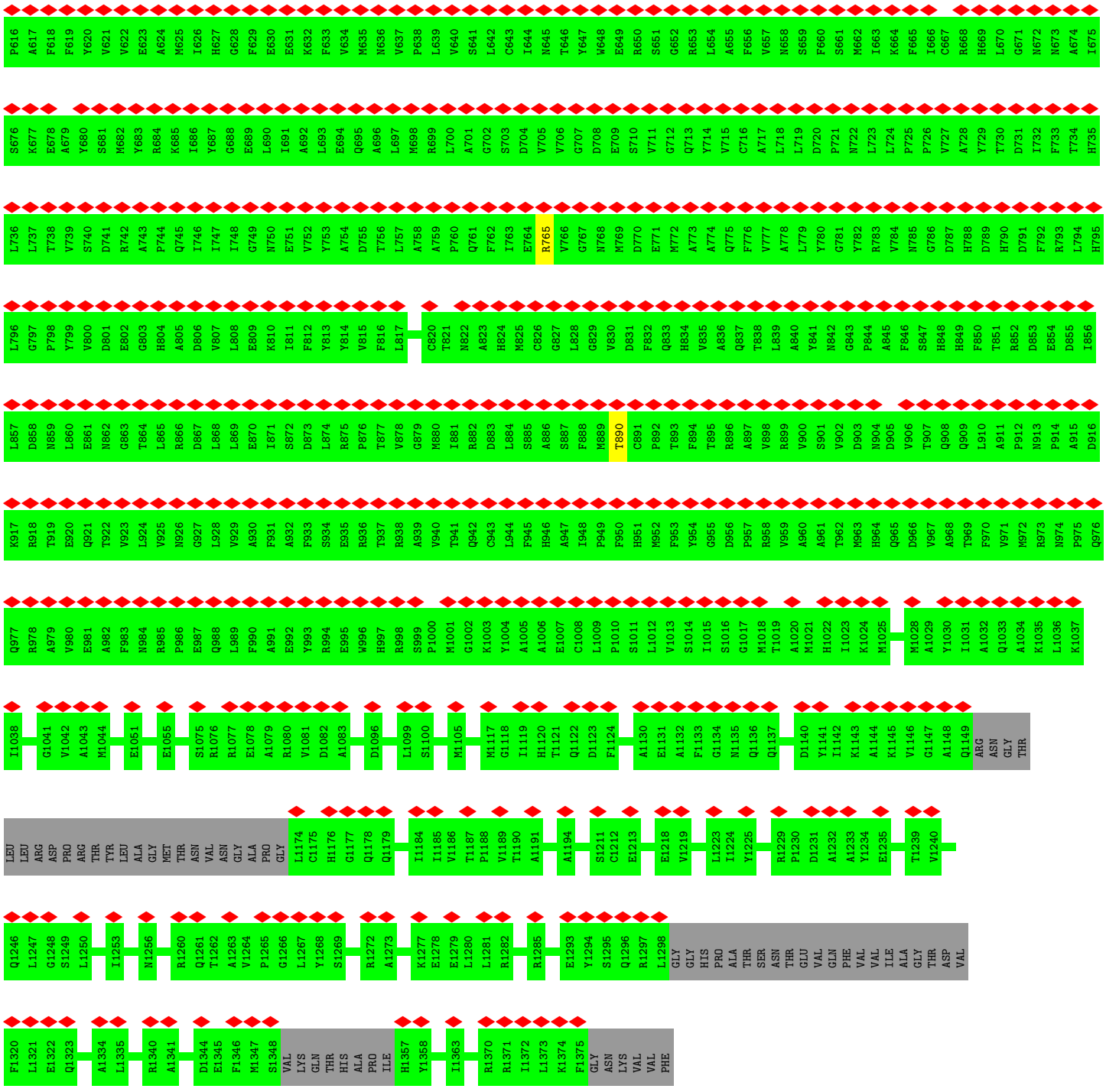






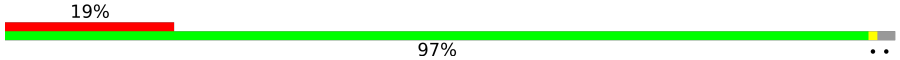


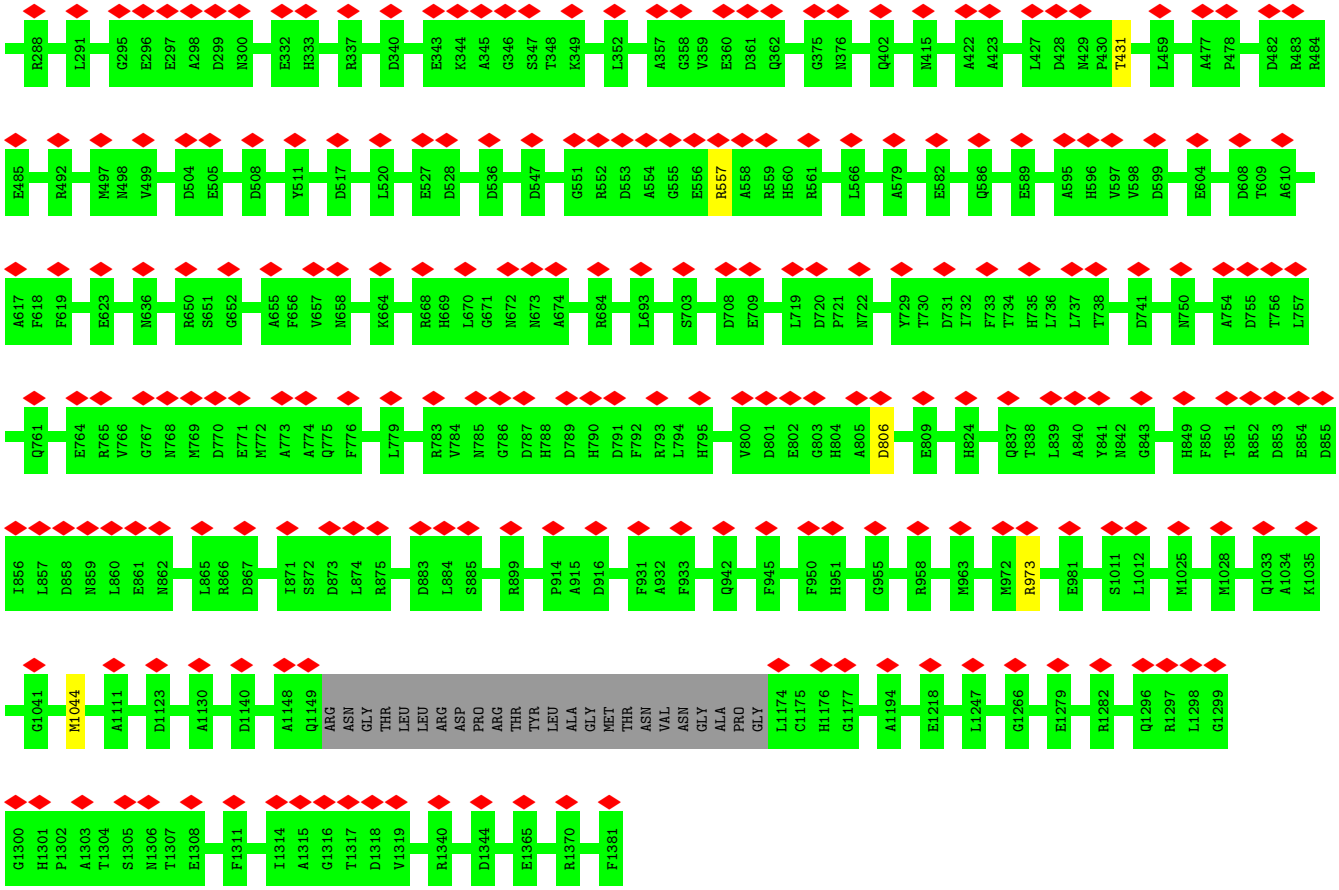




• Molecule 2: Major capsid protein

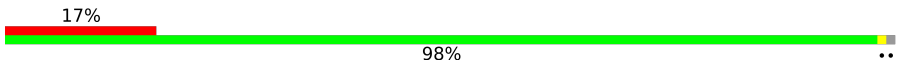
Chain M:

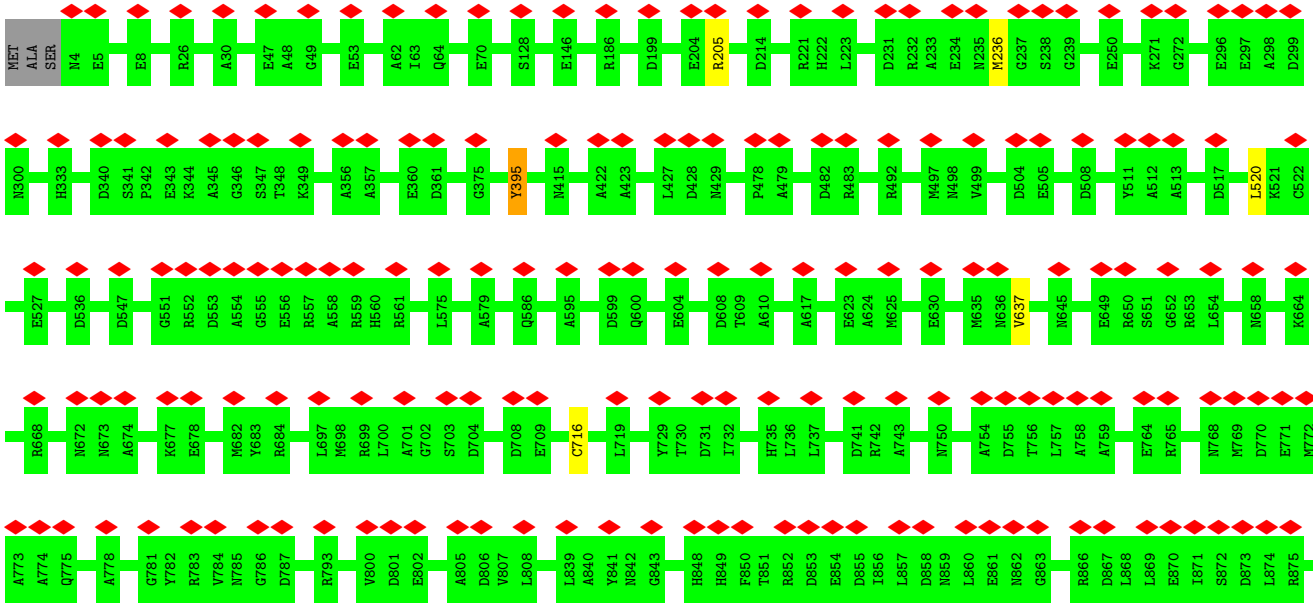


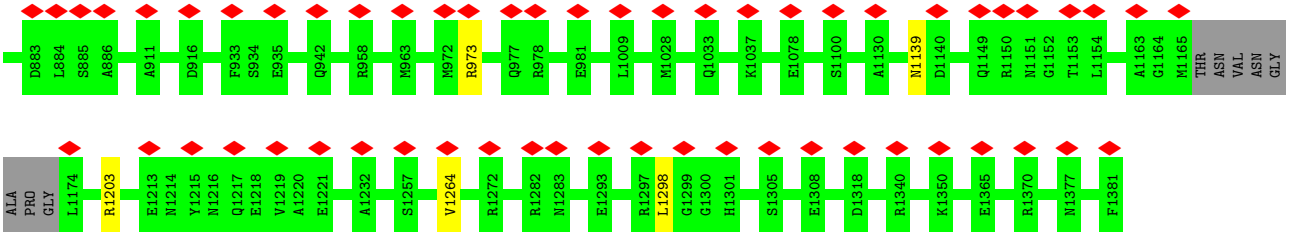


• Molecule 2: Major capsid protein

Chain N:

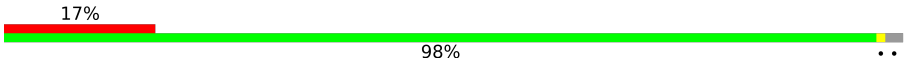


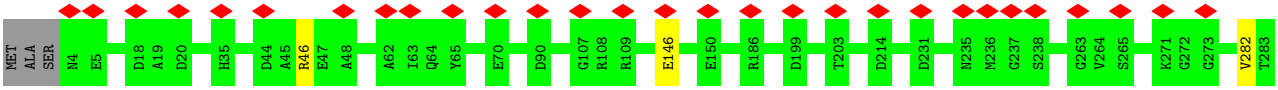


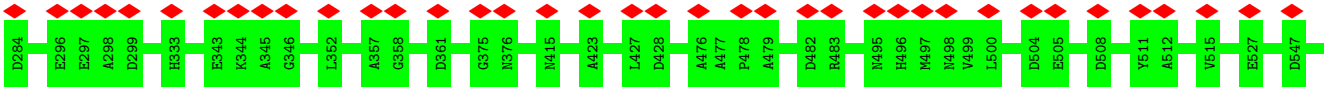


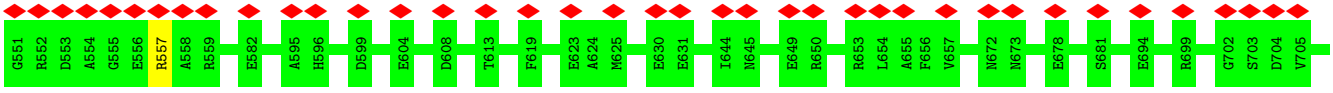
• Molecule 2: Major capsid protein

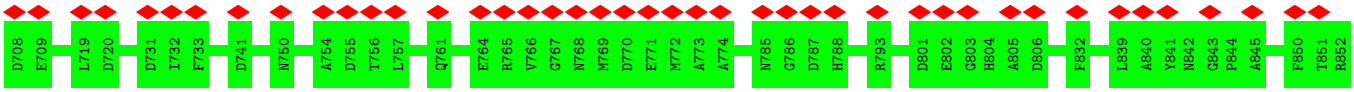
Chain O:

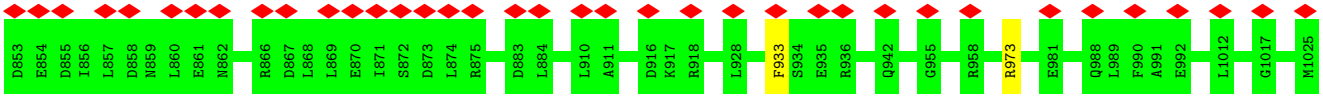


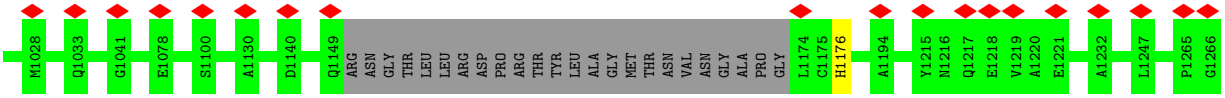


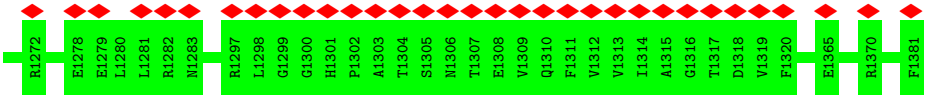






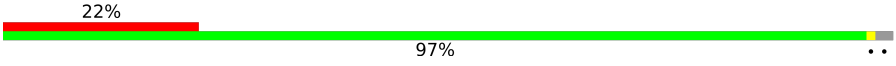


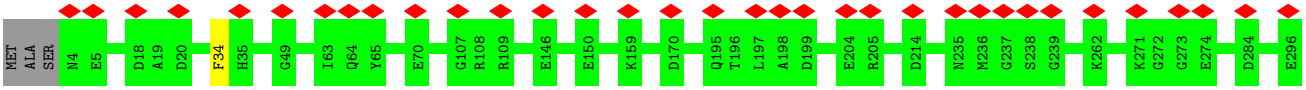


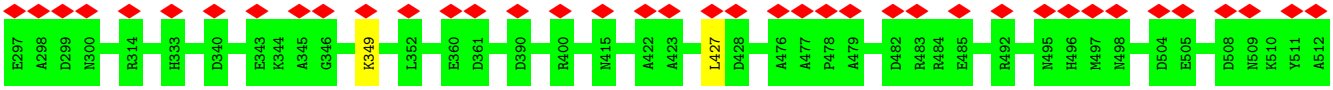


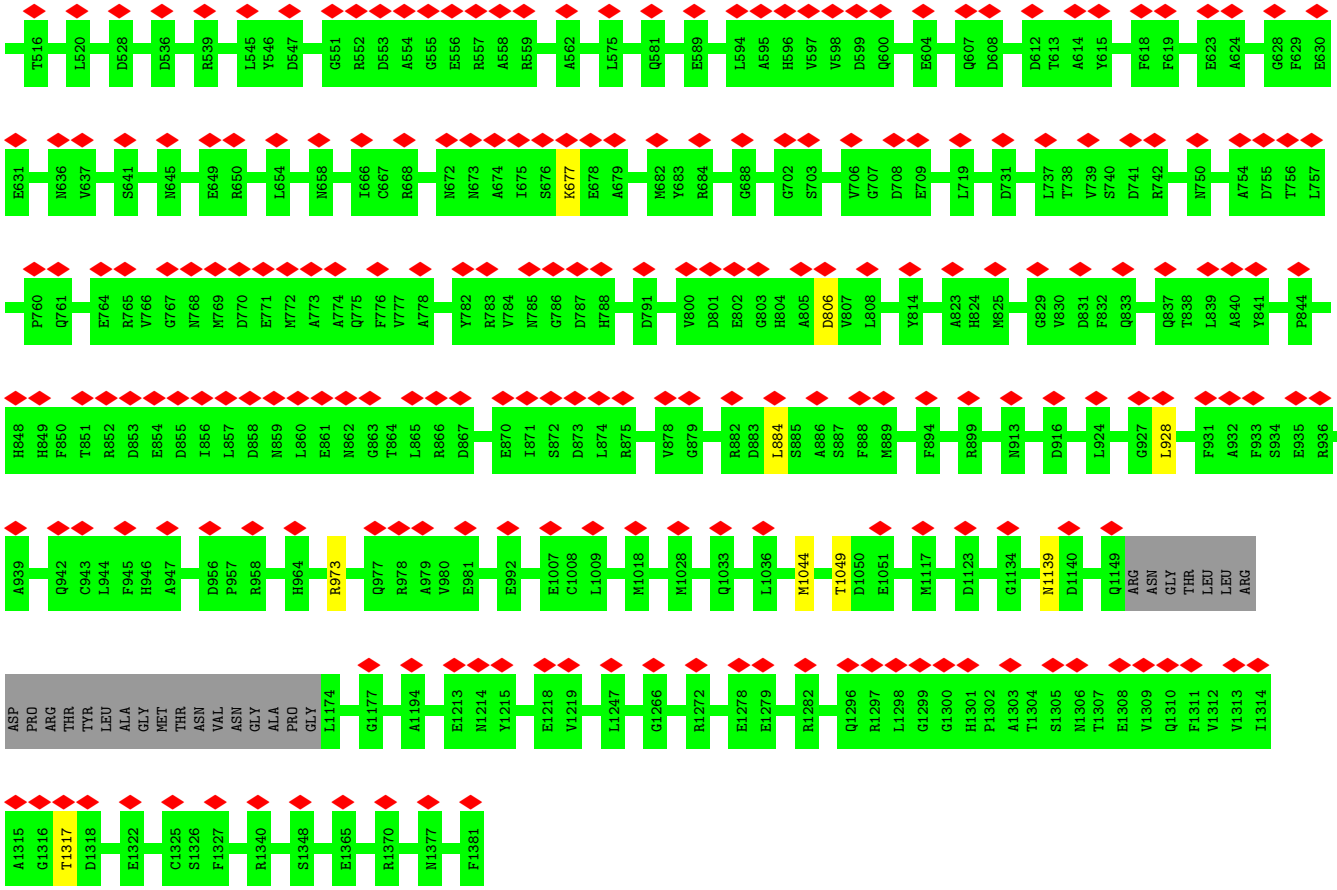
• Molecule 2: Major capsid protein

Chain U:



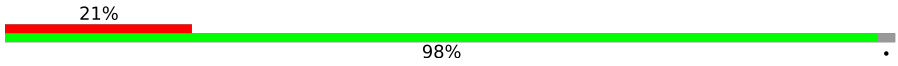


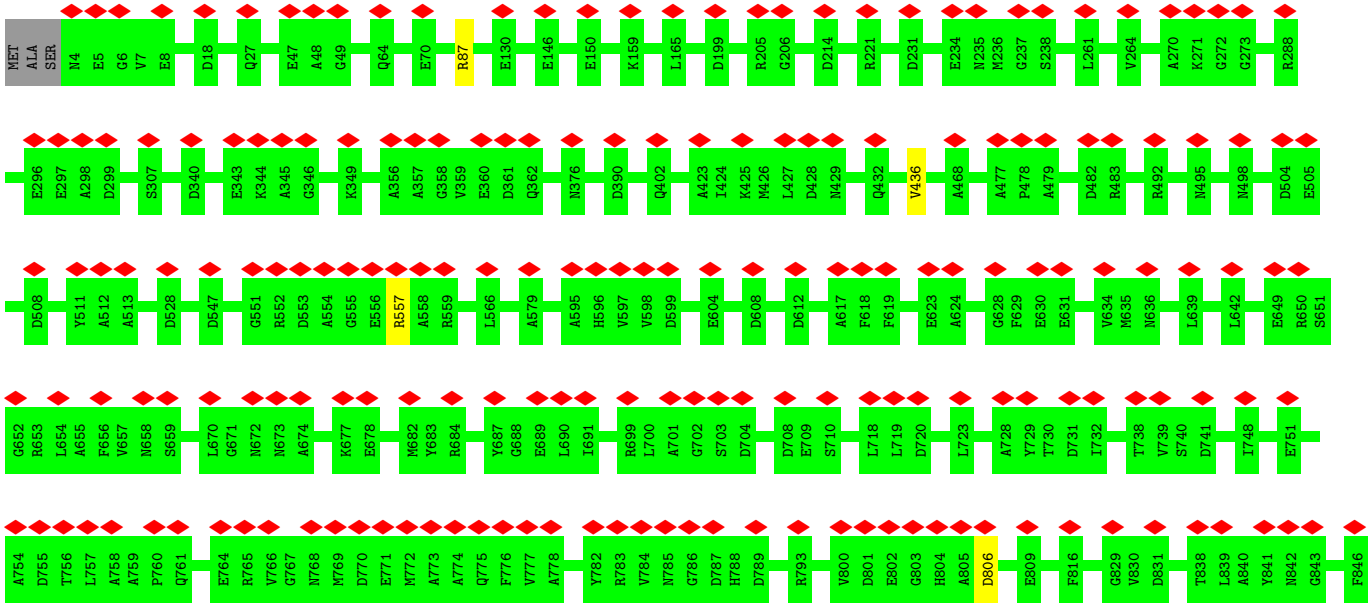


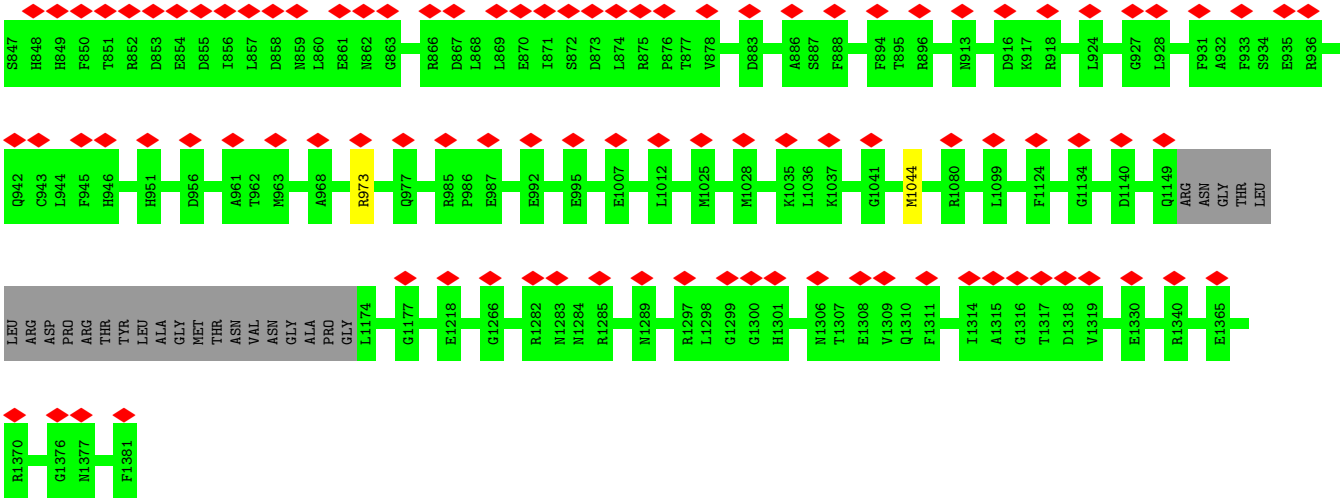


• Molecule 2: Major capsid protein

Chain V:

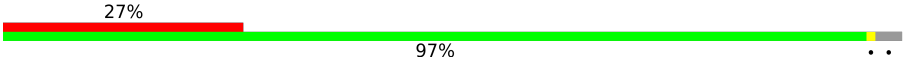


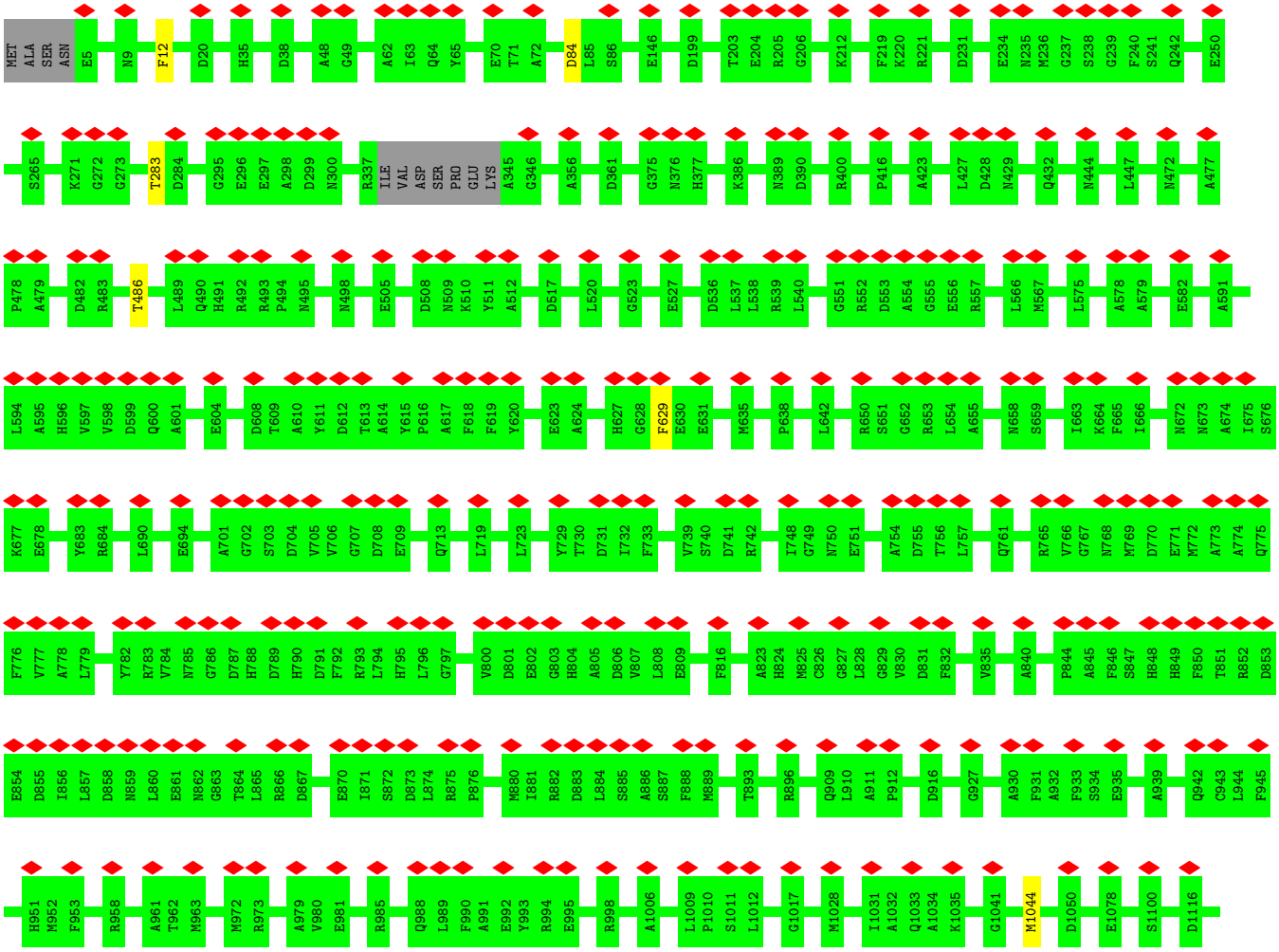


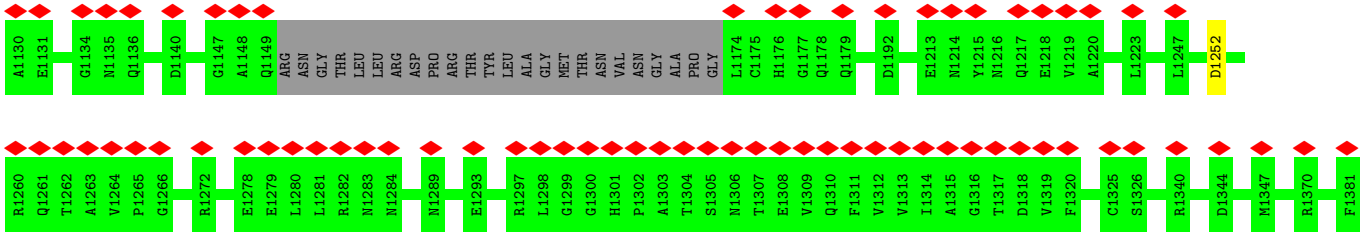


• Molecule 2: Major capsid protein

Chain k:

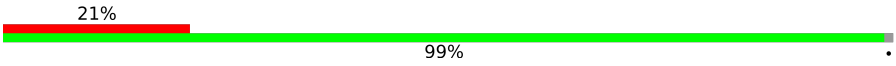


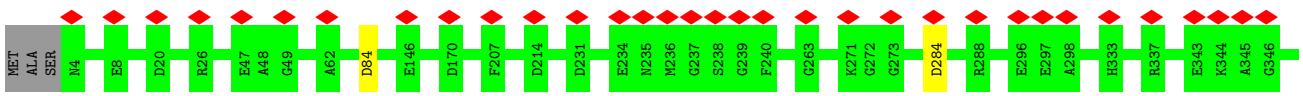


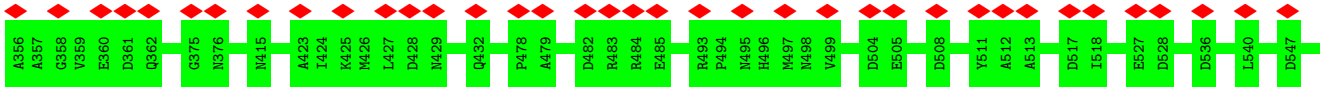


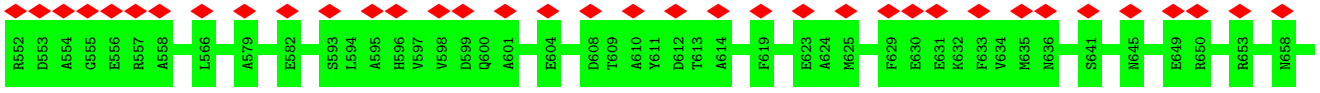
• Molecule 2: Major capsid protein

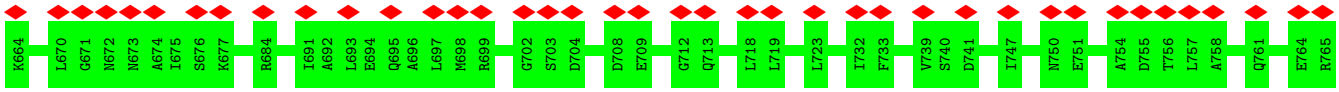
Chain A:

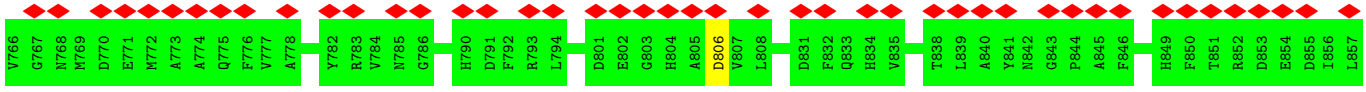


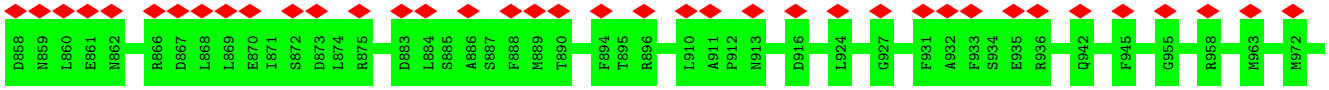


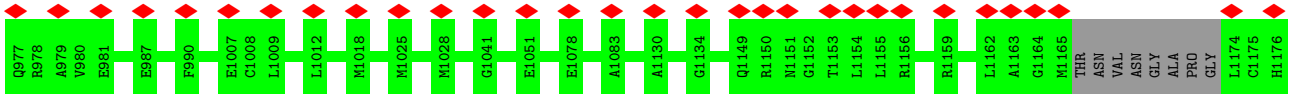


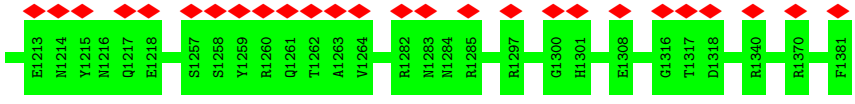






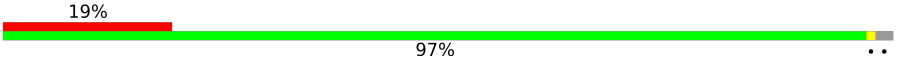


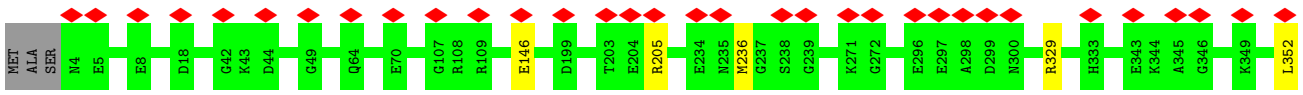


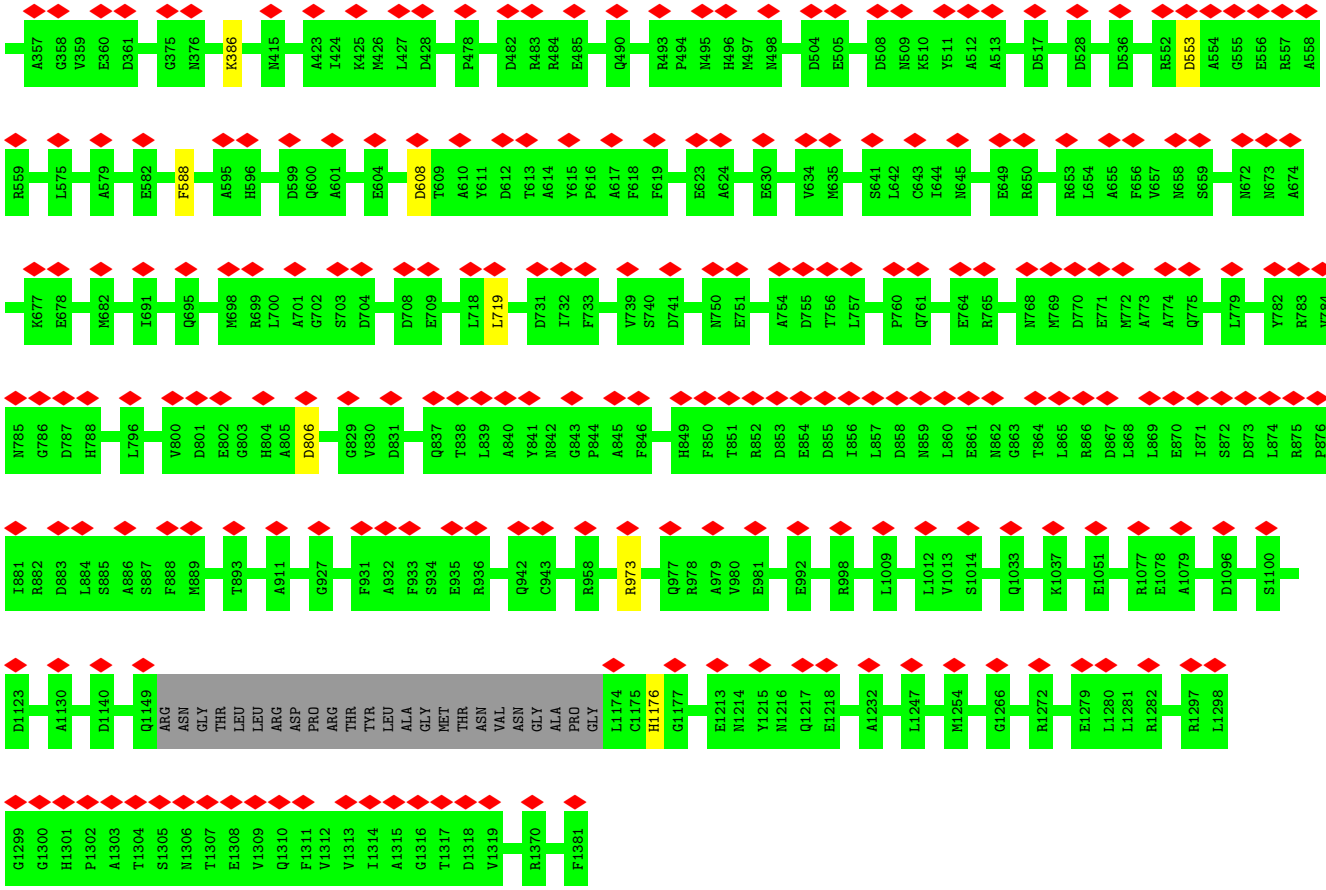


• Molecule 2: Major capsid protein

Chain B:

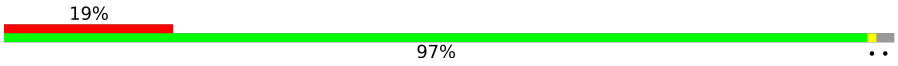


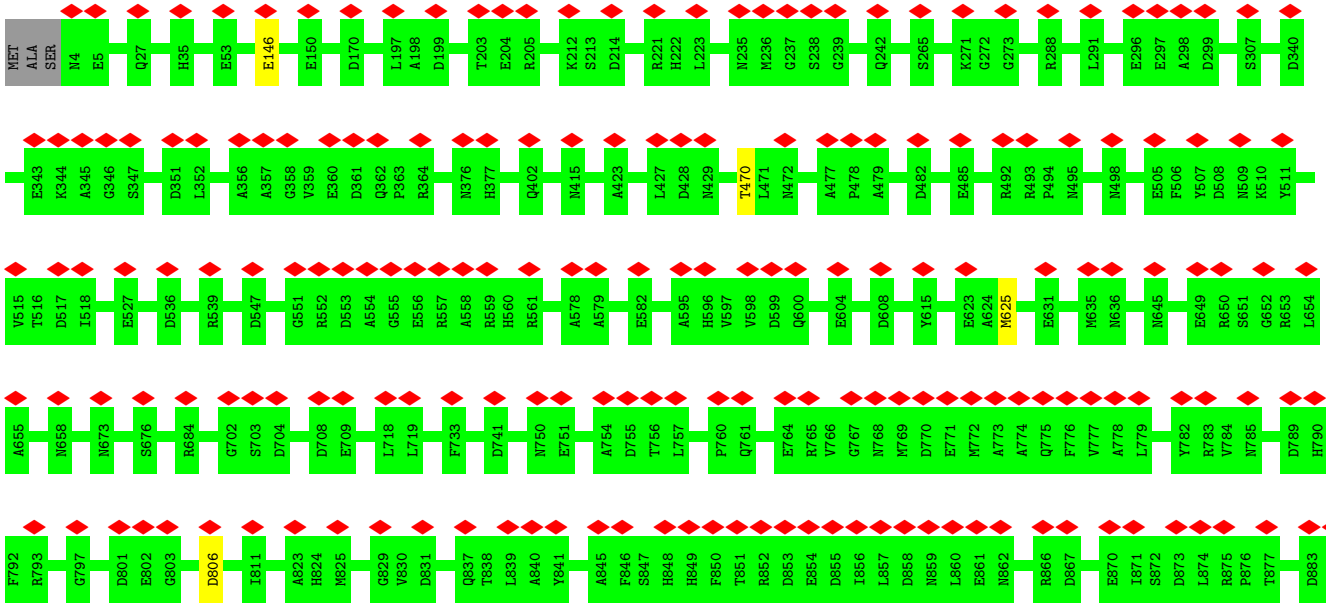


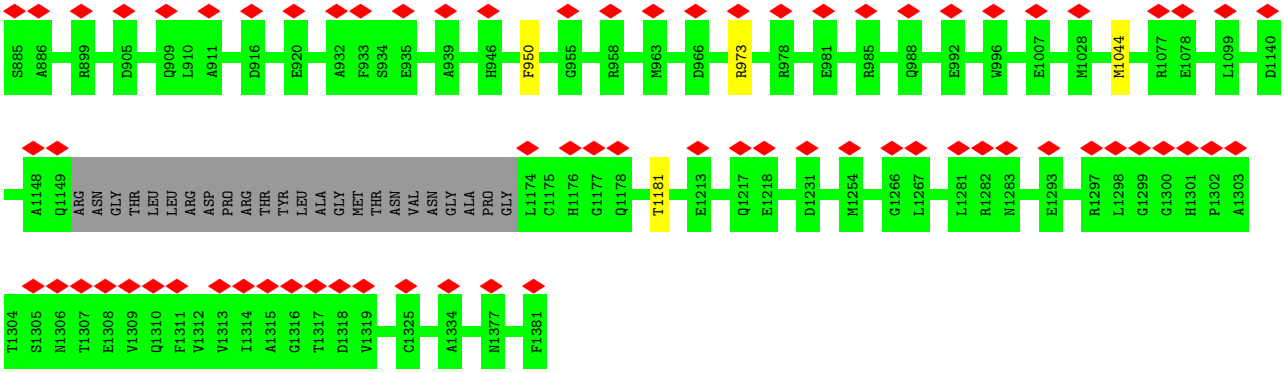


• Molecule 2: Major capsid protein

Chain C:

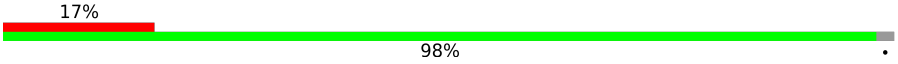






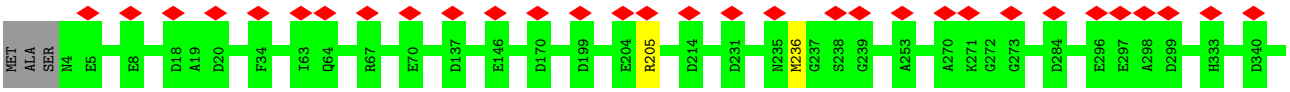
• Molecule 2: Major capsid protein

Chain D:



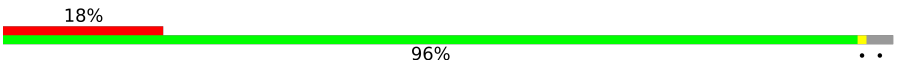
• Molecule 2: Major capsid protein

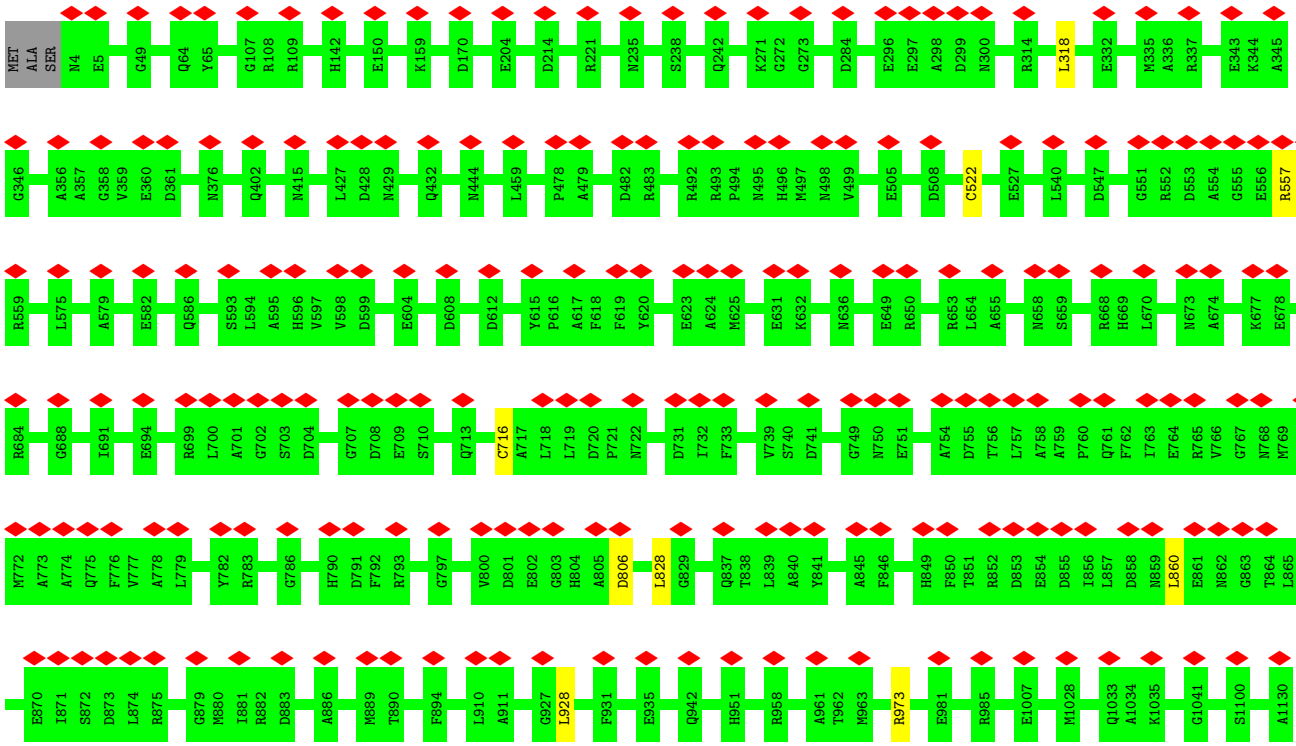
Chain E:

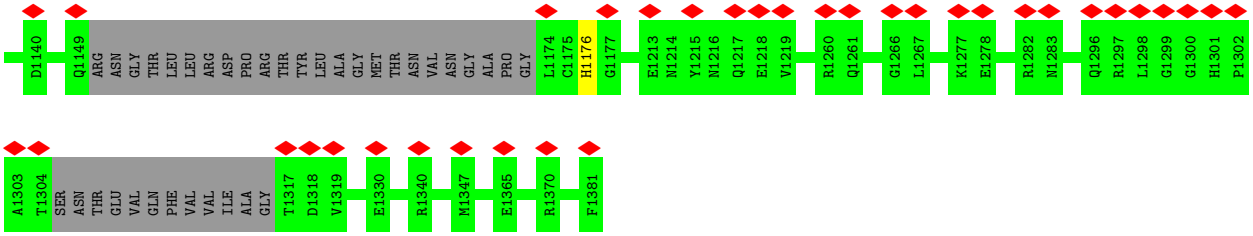


• Molecule 2: Major capsid protein

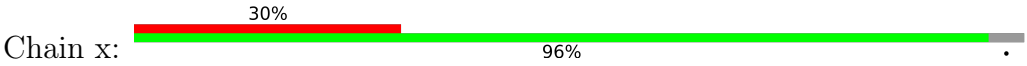
Chain F:

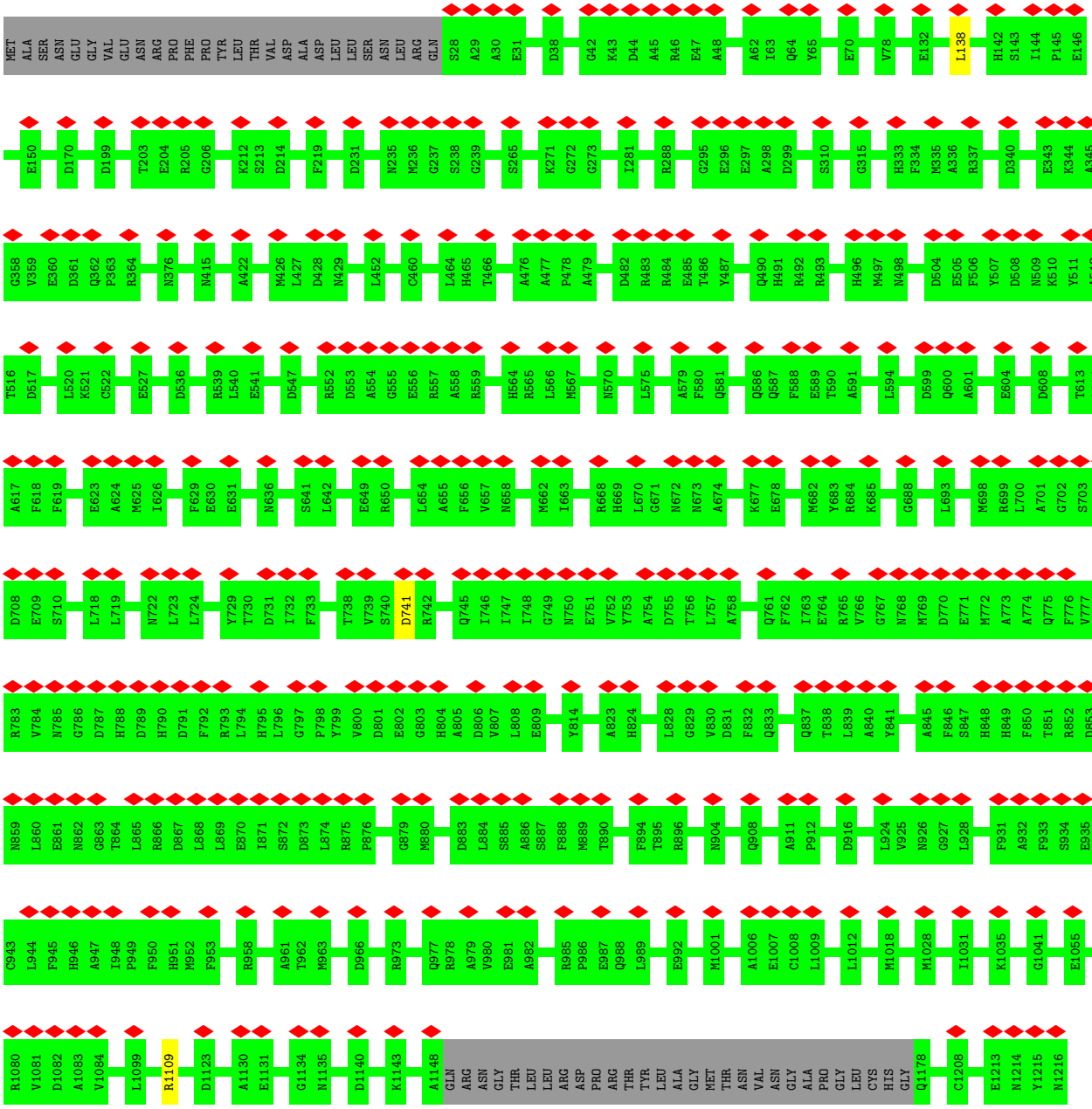


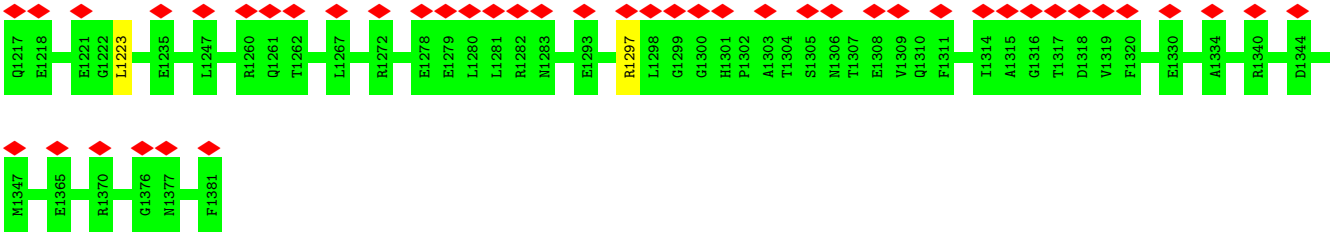




• Molecule 2: Major capsid protein

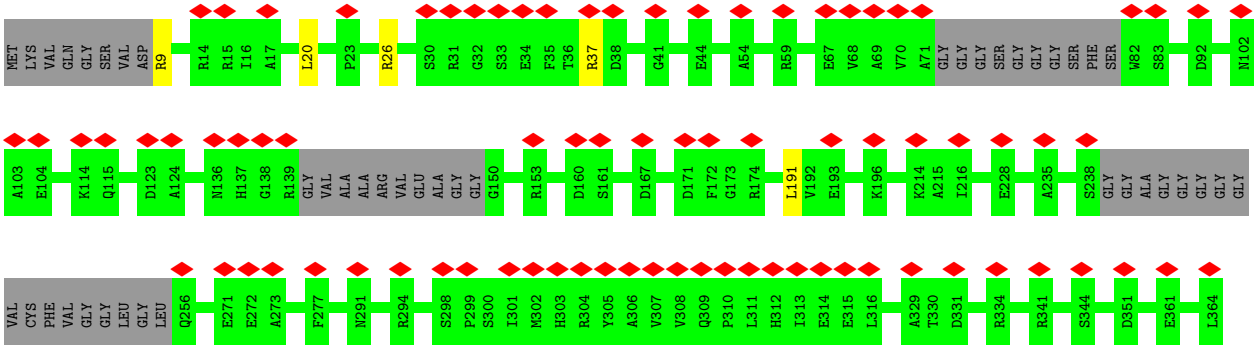






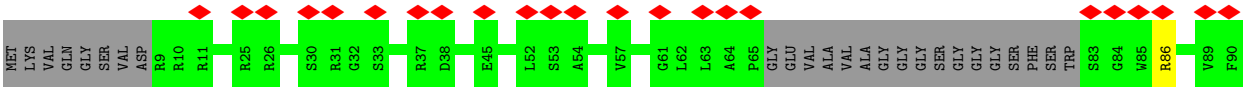
• Molecule 3: Triplex capsid protein 1

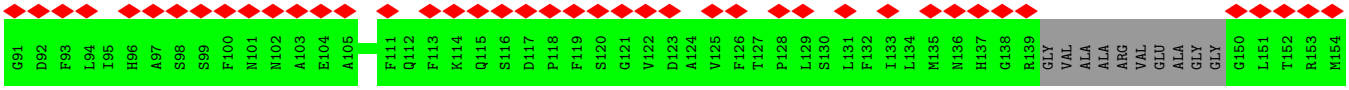
Chain e:

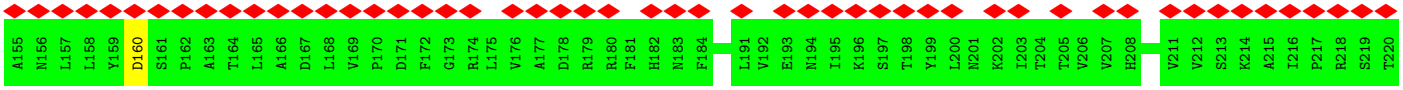


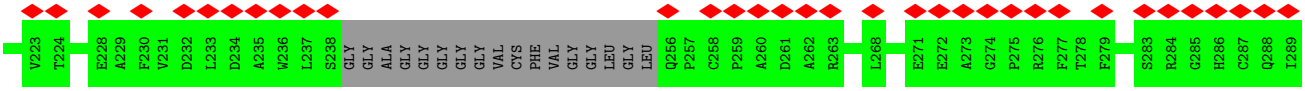
• Molecule 3: Triplex capsid protein 1

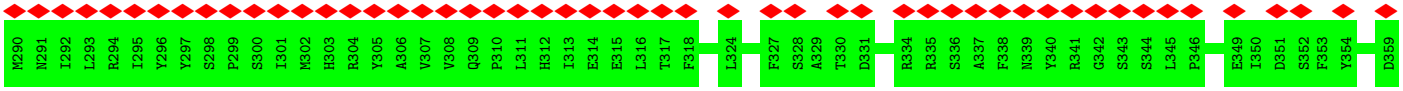
Chain 5:

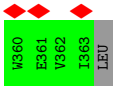






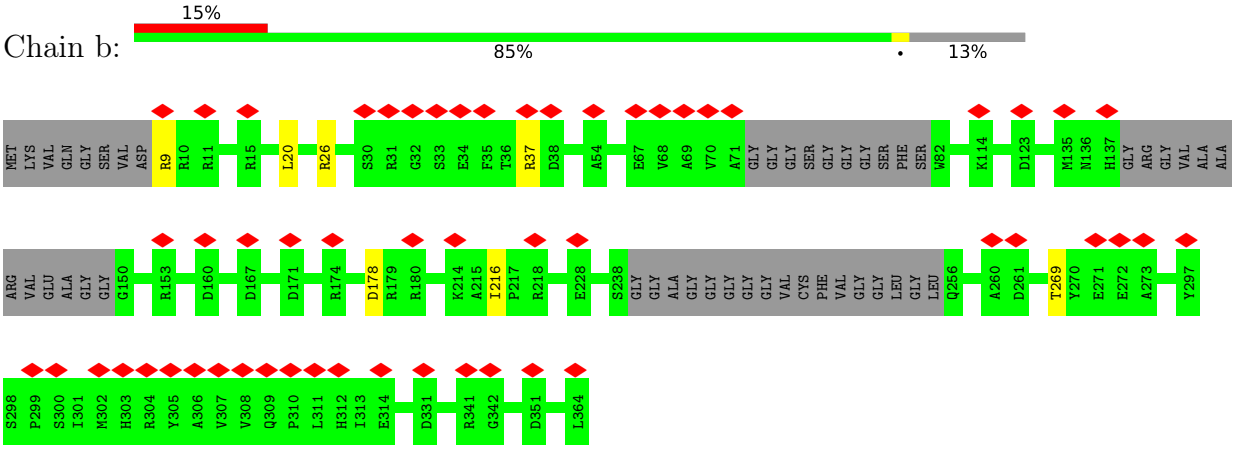






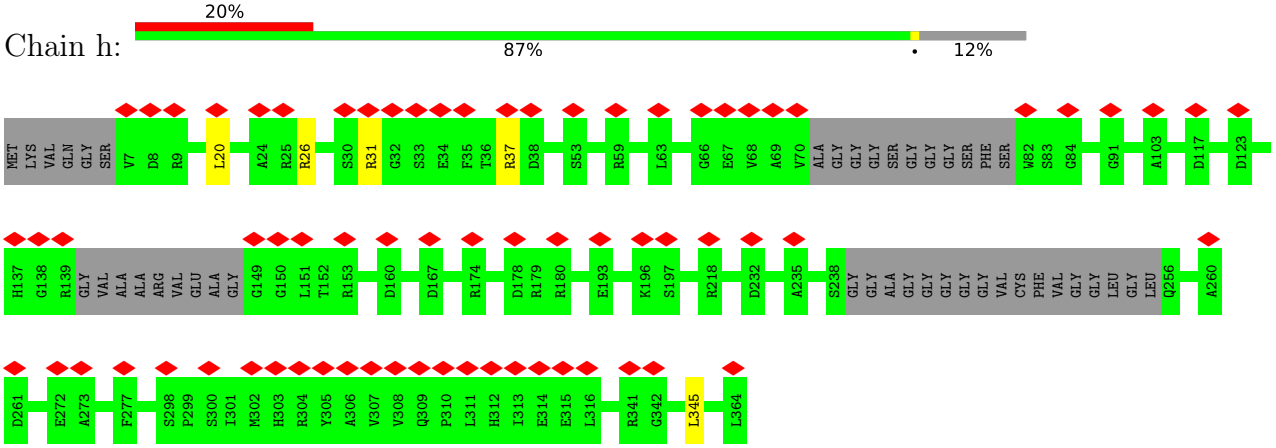
• Molecule 3: Triplex capsid protein 1

Chain b:



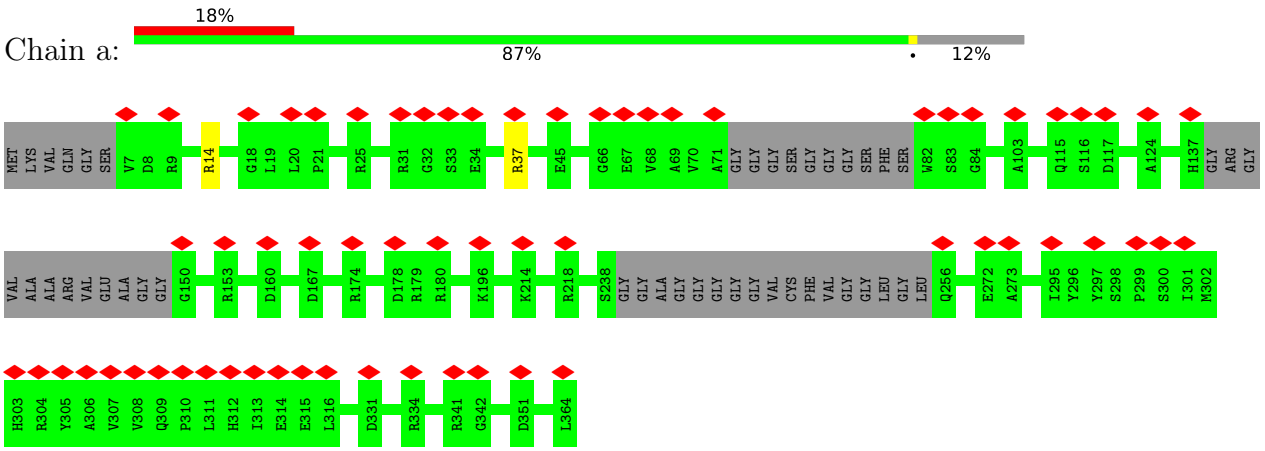
• Molecule 3: Triplex capsid protein 1

Chain h:



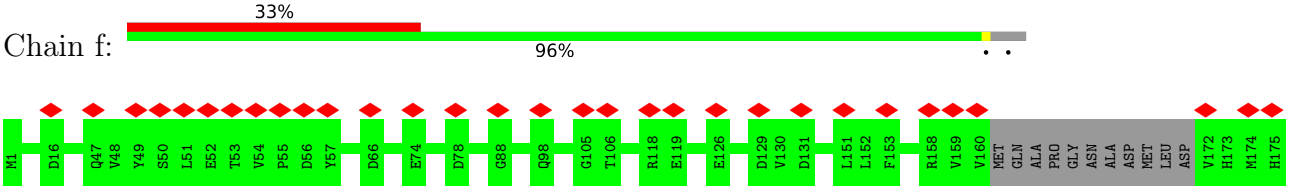
• Molecule 3: Triplex capsid protein 1

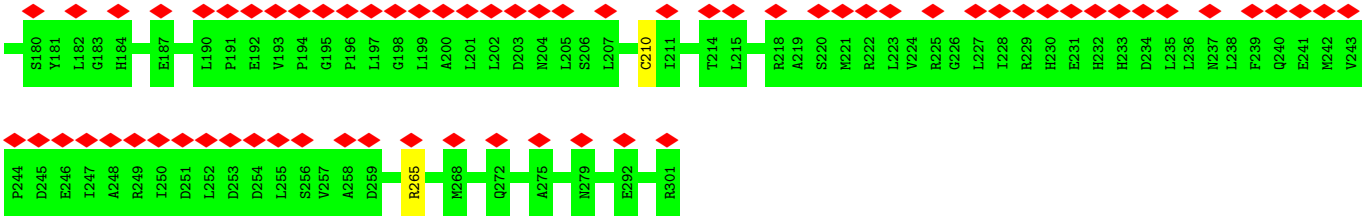
Chain a:



• Molecule 4: Triplex capsid protein 2

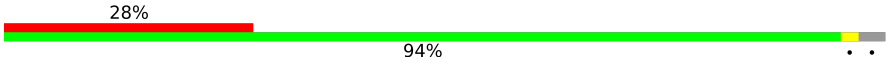
Chain f:

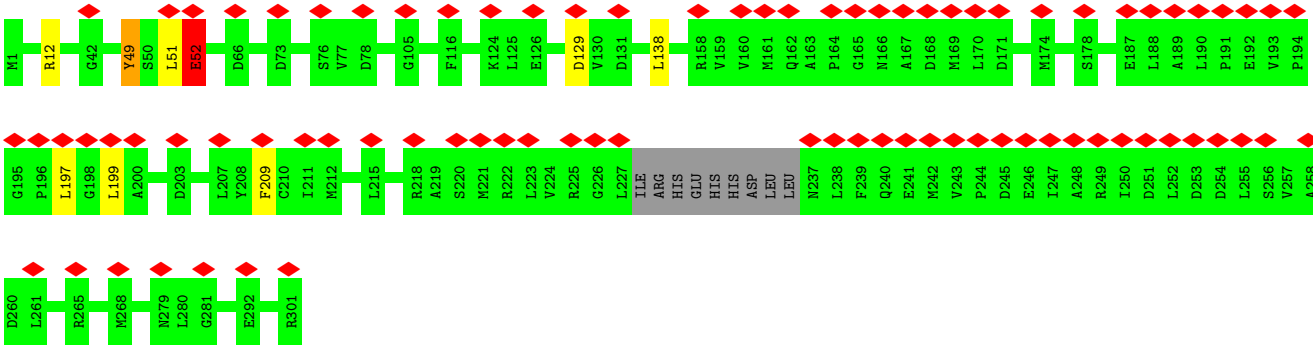




• Molecule 4: Triplex capsid protein 2

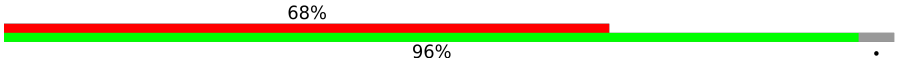
Chain g:

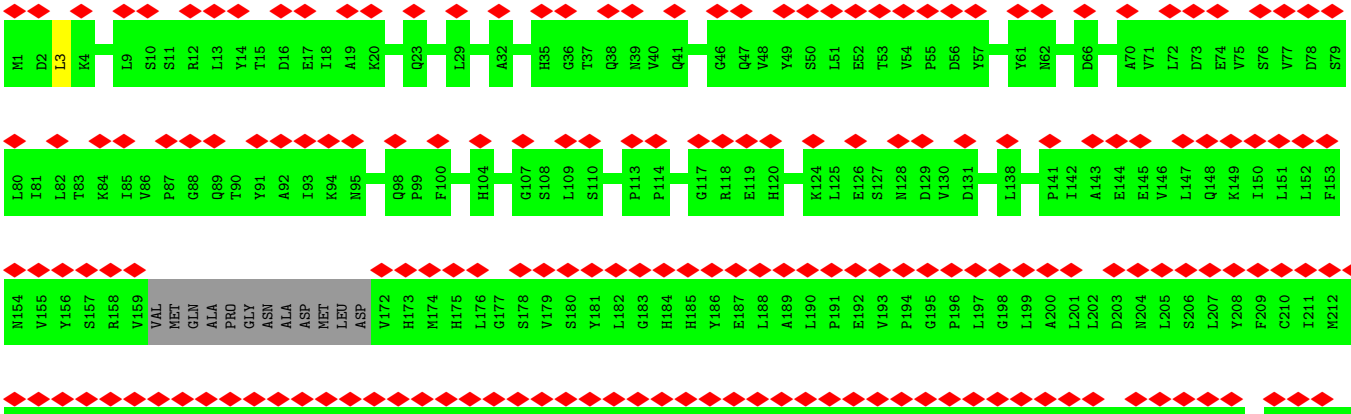


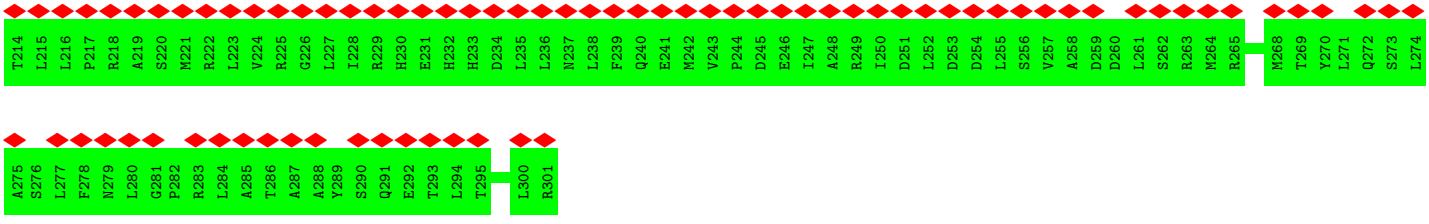


• Molecule 4: Triplex capsid protein 2

Chain 6:

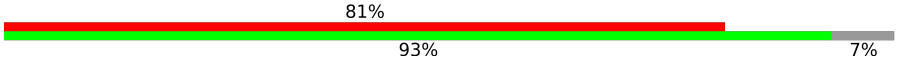


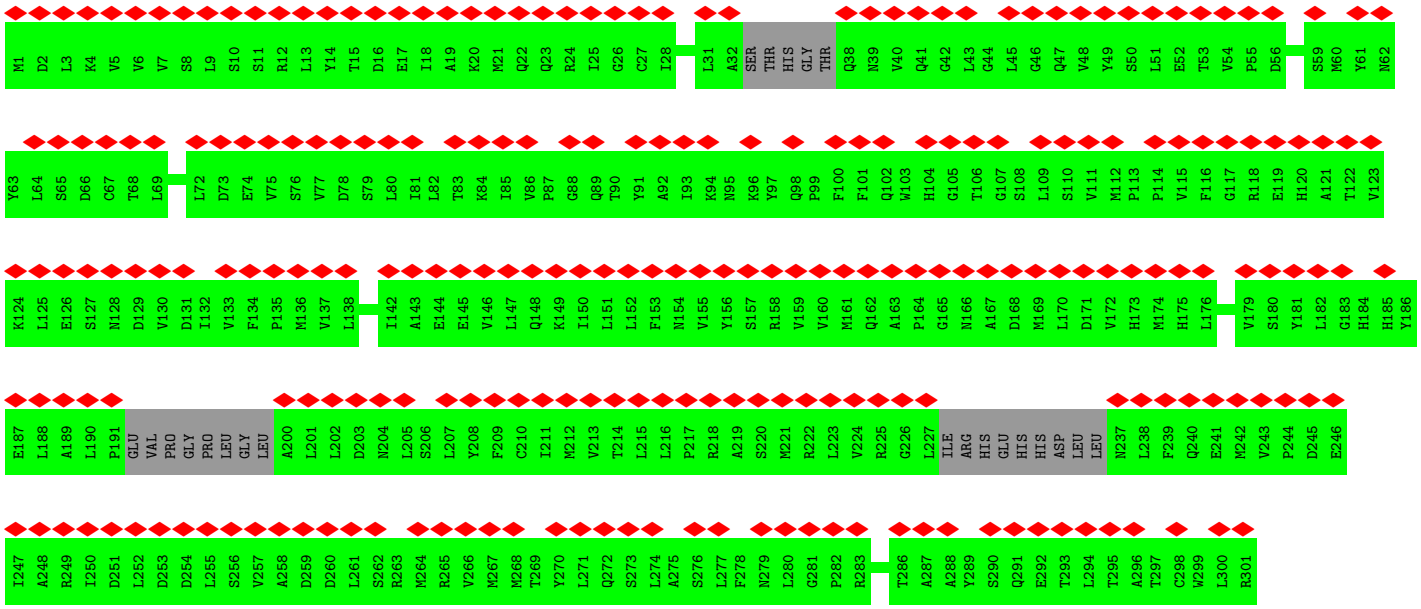




• Molecule 4: Triplex capsid protein 2

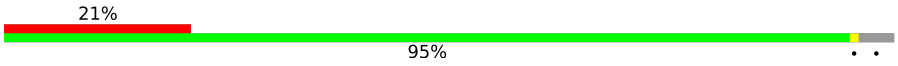
Chain 7:

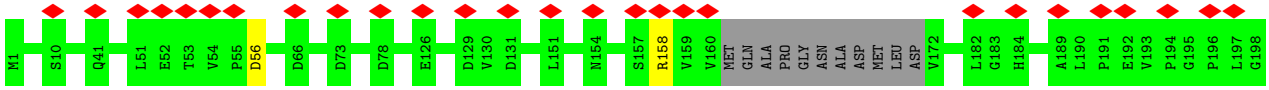


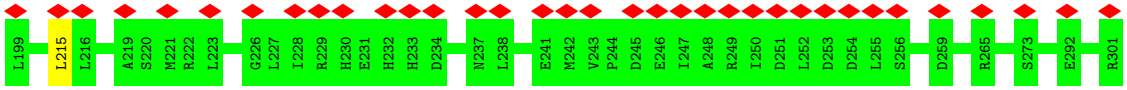


• Molecule 4: Triplex capsid protein 2

Chain c:

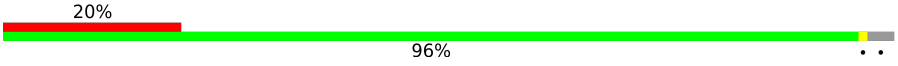


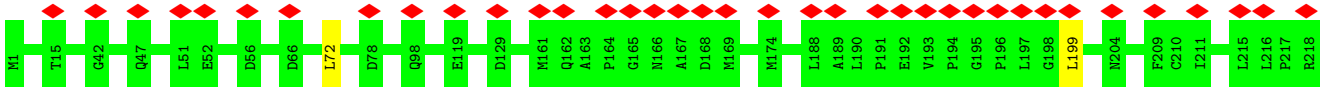


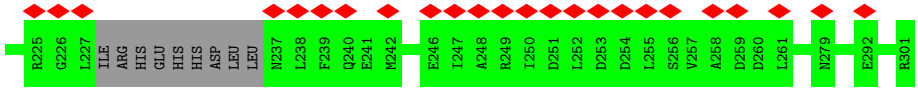


• Molecule 4: Triplex capsid protein 2

Chain d:

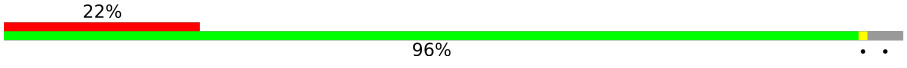


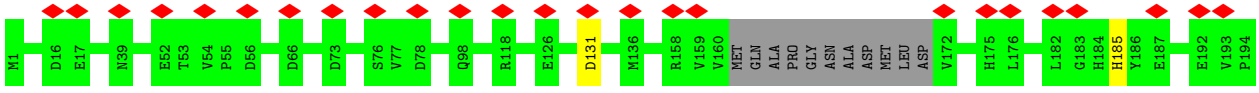


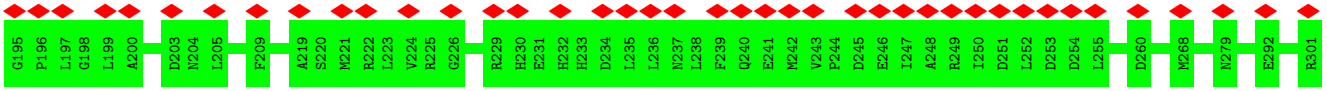


• Molecule 4: Triplex capsid protein 2

Chain i:

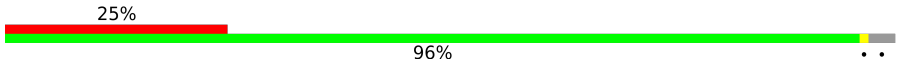


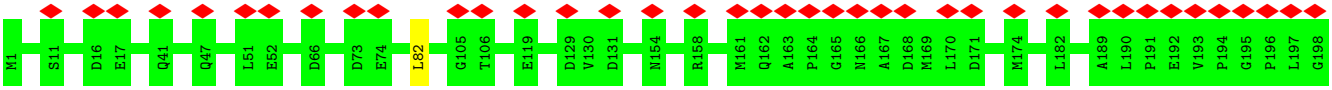


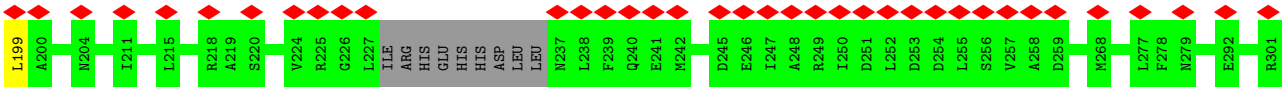


• Molecule 4: Triplex capsid protein 2

Chain j:

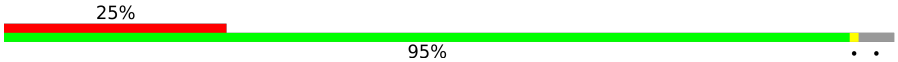


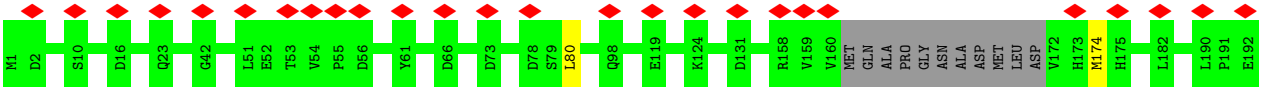


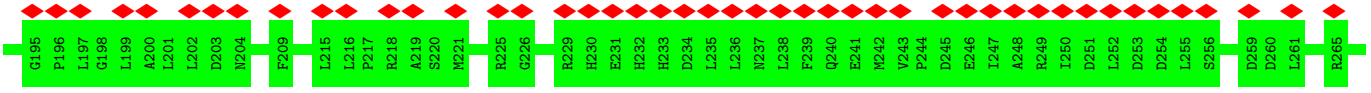


• Molecule 4: Triplex capsid protein 2

Chain 8:

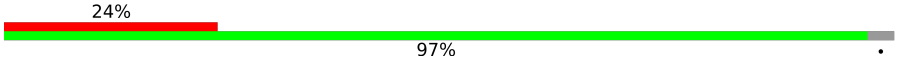


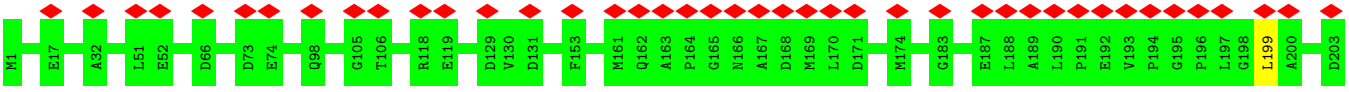


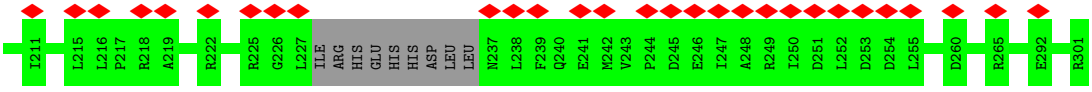


• Molecule 4: Triplex capsid protein 2

Chain 9:







4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, I	Depositor
Number of particles used	32721	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 ($e^-/Å^2$)	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	0.036	Depositor
Minimum map value	-0.013	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.01	Depositor
Map size (Å)	1341.44, 1341.44, 1341.44	wwPDB
Map dimensions	1024, 1024, 1024	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	0	0.33	0/636	0.57	0/861
1	1	0.31	0/636	0.55	0/861
1	G	0.33	0/665	0.51	0/898
1	H	0.34	0/636	0.54	0/861
1	I	0.34	0/636	0.58	0/861
1	J	0.33	0/665	0.57	0/898
1	K	0.31	0/636	0.52	0/861
1	L	0.35	0/636	0.56	0/861
1	P	0.34	0/665	0.56	0/898
1	Q	0.36	0/636	0.54	0/861
1	R	0.32	0/636	0.52	0/861
1	X	0.32	0/636	0.55	0/861
1	Y	0.33	0/636	0.51	0/861
1	Z	0.30	0/636	0.55	0/861
1	m	0.29	0/615	0.58	0/832
1	y	0.32	0/636	0.57	0/861
2	A	0.37	0/11012	0.56	1/14965 (0.0%)
2	B	0.37	0/10883	0.56	5/14791 (0.0%)
2	C	0.37	0/10883	0.55	2/14791 (0.0%)
2	D	0.37	1/10883 (0.0%)	0.54	0/14791
2	E	0.38	0/11012	0.56	2/14965 (0.0%)
2	F	0.38	0/10793	0.56	4/14666 (0.0%)
2	M	0.37	0/10883	0.56	1/14791 (0.0%)
2	N	0.38	0/11012	0.56	1/14965 (0.0%)
2	O	0.37	0/10883	0.54	1/14791 (0.0%)
2	S	0.35	0/10737	0.54	0/14589
2	T	0.37	0/10642	0.57	2/14463 (0.0%)
2	U	0.37	0/10883	0.55	1/14791 (0.0%)
2	V	0.37	0/10883	0.55	1/14791 (0.0%)
2	k	0.36	0/10819	0.55	0/14702
2	l	0.31	0/10114	0.53	0/13734
2	x	0.35	0/10648	0.54	1/14471 (0.0%)
3	5	0.31	0/2511	0.50	0/3418
3	a	0.36	0/2572	0.55	0/3505

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
3	b	0.36	0/2557	0.55	0/3484
3	e	0.36	0/2572	0.57	2/3503 (0.1%)
3	h	0.35	0/2586	0.56	2/3522 (0.1%)
4	6	0.31	0/2320	0.59	1/3159 (0.0%)
4	7	0.29	0/2228	0.57	0/3029
4	8	0.36	0/2327	0.59	1/3169 (0.0%)
4	9	0.36	0/2321	0.58	1/3161 (0.0%)
4	c	0.37	0/2327	0.57	1/3169 (0.0%)
4	d	0.35	0/2321	0.60	2/3161 (0.1%)
4	f	0.34	0/2327	0.60	0/3169
4	g	0.39	0/2321	0.79	6/3161 (0.2%)
4	i	0.35	0/2327	0.59	0/3169
4	j	0.34	0/2321	0.59	2/3161 (0.1%)
All	All	0.36	1/219150 (0.0%)	0.56	40/297855 (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
1	Z	0	1
2	F	0	1
2	M	0	1
2	N	0	1
2	O	0	1
2	T	0	1
3	b	0	2
4	g	0	1
All	All	0	9

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	11	PRO	C-N	-5.02	1.22	1.34

All (40) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	g	52	GLU	O-C-N	-18.70	92.78	122.70
4	g	52	GLU	CA-C-N	14.38	148.83	117.20
4	g	52	GLU	C-N-CA	12.86	153.84	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	806	ASP	CB-CG-OD1	9.68	127.01	118.30
2	V	806	ASP	CB-CG-OD1	8.82	126.24	118.30
2	T	817	LEU	CA-CB-CG	7.57	132.72	115.30
4	9	199	LEU	CA-CB-CG	7.41	132.33	115.30
2	F	806	ASP	CB-CG-OD1	7.09	124.68	118.30
2	M	806	ASP	CB-CG-OD1	7.02	124.62	118.30
2	C	806	ASP	CB-CG-OD1	6.69	124.32	118.30
2	O	146	GLU	C-N-CA	6.68	138.40	121.70
2	B	352	LEU	CA-CB-CG	6.57	130.41	115.30
3	e	20	LEU	CA-CB-CG	6.52	130.30	115.30
4	g	197	LEU	CA-CB-CG	6.44	130.10	115.30
4	g	199	LEU	CA-CB-CG	6.42	130.07	115.30
4	j	199	LEU	CA-CB-CG	6.34	129.89	115.30
2	F	318	LEU	CA-CB-CG	6.26	129.69	115.30
2	C	146	GLU	C-N-CA	6.21	137.23	121.70
4	d	199	LEU	CA-CB-CG	6.18	129.50	115.30
4	g	49	TYR	O-C-N	-6.17	112.83	122.70
2	A	806	ASP	CB-CG-OD1	6.15	123.83	118.30
2	F	928	LEU	CA-CB-CG	6.13	129.40	115.30
4	6	3	LEU	CA-CB-CG	6.10	129.32	115.30
2	N	395	TYR	CB-CA-C	-5.97	98.46	110.40
2	E	427	LEU	CA-CB-CG	5.93	128.95	115.30
3	h	345	LEU	CA-CB-CG	5.80	128.63	115.30
3	h	20	LEU	CA-CB-CG	5.78	128.60	115.30
2	B	608	ASP	CB-CG-OD1	5.70	123.43	118.30
2	B	146	GLU	C-N-CA	5.63	135.78	121.70
3	e	191	LEU	CA-CB-CG	5.62	128.23	115.30
2	E	352	LEU	CA-CB-CG	5.53	128.02	115.30
2	B	719	LEU	CA-CB-CG	5.41	127.75	115.30
2	U	928	LEU	CA-CB-CG	5.38	127.66	115.30
4	d	72	LEU	CA-CB-CG	5.29	127.47	115.30
2	F	828	LEU	CA-CB-CG	5.29	127.46	115.30
4	j	82	LEU	CA-CB-CG	5.27	127.42	115.30
4	8	80	LEU	CA-CB-CG	5.18	127.22	115.30
2	T	395	TYR	CB-CA-C	-5.10	100.19	110.40
4	c	215	LEU	CA-CB-CG	5.07	126.95	115.30
2	x	138	LEU	CA-CB-CG	5.01	126.83	115.30

There are no chirality outliers.

All (9) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	F	1176	HIS	Peptide
2	M	43	LYS	Peptide
2	N	395	TYR	Sidechain
2	O	1176	HIS	Peptide
2	T	817	LEU	Peptide
1	Z	67	VAL	Peptide
3	b	20	LEU	Peptide
3	b	216	ILE	Peptide
4	g	49	TYR	Mainchain

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

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	0	72/176 (41%)	69 (96%)	3 (4%)	0	100	100
1	1	72/176 (41%)	67 (93%)	5 (7%)	0	100	100
1	G	75/176 (43%)	72 (96%)	3 (4%)	0	100	100
1	H	72/176 (41%)	66 (92%)	6 (8%)	0	100	100
1	I	72/176 (41%)	66 (92%)	6 (8%)	0	100	100
1	J	75/176 (43%)	69 (92%)	6 (8%)	0	100	100
1	K	72/176 (41%)	67 (93%)	5 (7%)	0	100	100
1	L	72/176 (41%)	69 (96%)	3 (4%)	0	100	100
1	P	75/176 (43%)	70 (93%)	5 (7%)	0	100	100
1	Q	72/176 (41%)	65 (90%)	7 (10%)	0	100	100
1	R	72/176 (41%)	68 (94%)	4 (6%)	0	100	100
1	X	72/176 (41%)	64 (89%)	8 (11%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Y	72/176 (41%)	67 (93%)	5 (7%)	0	100	100
1	Z	72/176 (41%)	68 (94%)	4 (6%)	0	100	100
1	m	69/176 (39%)	64 (93%)	5 (7%)	0	100	100
1	y	72/176 (41%)	67 (93%)	5 (7%)	0	100	100
2	A	1366/1381 (99%)	1274 (93%)	92 (7%)	0	100	100
2	B	1350/1381 (98%)	1252 (93%)	98 (7%)	0	100	100
2	C	1350/1381 (98%)	1258 (93%)	92 (7%)	0	100	100
2	D	1350/1381 (98%)	1266 (94%)	84 (6%)	0	100	100
2	E	1366/1381 (99%)	1264 (92%)	101 (7%)	1 (0%)	48	82
2	F	1336/1381 (97%)	1252 (94%)	84 (6%)	0	100	100
2	M	1350/1381 (98%)	1267 (94%)	83 (6%)	0	100	100
2	N	1366/1381 (99%)	1275 (93%)	91 (7%)	0	100	100
2	O	1350/1381 (98%)	1253 (93%)	97 (7%)	0	100	100
2	S	1327/1381 (96%)	1250 (94%)	77 (6%)	0	100	100
2	T	1319/1381 (96%)	1227 (93%)	92 (7%)	0	100	100
2	U	1350/1381 (98%)	1261 (93%)	89 (7%)	0	100	100
2	V	1350/1381 (98%)	1264 (94%)	86 (6%)	0	100	100
2	k	1340/1381 (97%)	1258 (94%)	82 (6%)	0	100	100
2	l	1237/1381 (90%)	1169 (94%)	68 (6%)	0	100	100
2	x	1321/1381 (96%)	1238 (94%)	83 (6%)	0	100	100
3	5	303/364 (83%)	288 (95%)	15 (5%)	0	100	100
3	a	311/364 (85%)	294 (94%)	17 (6%)	0	100	100
3	b	309/364 (85%)	289 (94%)	20 (6%)	0	100	100
3	e	311/364 (85%)	291 (94%)	20 (6%)	0	100	100
3	h	313/364 (86%)	295 (94%)	18 (6%)	0	100	100
4	6	285/301 (95%)	274 (96%)	11 (4%)	0	100	100
4	7	271/301 (90%)	254 (94%)	17 (6%)	0	100	100
4	8	286/301 (95%)	271 (95%)	15 (5%)	0	100	100
4	9	288/301 (96%)	265 (92%)	23 (8%)	0	100	100
4	c	286/301 (95%)	270 (94%)	16 (6%)	0	100	100
4	d	288/301 (96%)	266 (92%)	22 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	f	286/301 (95%)	273 (96%)	13 (4%)	0	100 100
4	g	288/301 (96%)	266 (92%)	20 (7%)	2 (1%)	19 56
4	i	286/301 (95%)	269 (94%)	17 (6%)	0	100 100
4	j	288/301 (96%)	270 (94%)	18 (6%)	0	100 100
All	All	26985/29742 (91%)	25241 (94%)	1741 (6%)	3 (0%)	100 100

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	g	129	ASP
4	g	52	GLU
2	E	768	ASN

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	0	68/128 (53%)	68 (100%)	0	100 100
1	1	68/128 (53%)	66 (97%)	2 (3%)	37 58
1	G	71/128 (56%)	71 (100%)	0	100 100
1	H	68/128 (53%)	66 (97%)	2 (3%)	37 58
1	I	68/128 (53%)	68 (100%)	0	100 100
1	J	71/128 (56%)	71 (100%)	0	100 100
1	K	68/128 (53%)	68 (100%)	0	100 100
1	L	68/128 (53%)	68 (100%)	0	100 100
1	P	71/128 (56%)	71 (100%)	0	100 100
1	Q	68/128 (53%)	68 (100%)	0	100 100
1	R	68/128 (53%)	67 (98%)	1 (2%)	60 75
1	X	68/128 (53%)	67 (98%)	1 (2%)	60 75
1	Y	68/128 (53%)	67 (98%)	1 (2%)	60 75

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Z	68/128 (53%)	67 (98%)	1 (2%)	60	75
1	m	66/128 (52%)	66 (100%)	0	100	100
1	y	68/128 (53%)	68 (100%)	0	100	100
2	A	1164/1171 (99%)	1162 (100%)	2 (0%)	92	94
2	B	1151/1171 (98%)	1143 (99%)	8 (1%)	81	86
2	C	1151/1171 (98%)	1145 (100%)	6 (0%)	86	90
2	D	1151/1171 (98%)	1149 (100%)	2 (0%)	92	94
2	E	1164/1171 (99%)	1156 (99%)	8 (1%)	81	86
2	F	1141/1171 (97%)	1136 (100%)	5 (0%)	89	91
2	M	1151/1171 (98%)	1144 (99%)	7 (1%)	84	88
2	N	1164/1171 (99%)	1154 (99%)	10 (1%)	75	83
2	O	1151/1171 (98%)	1146 (100%)	5 (0%)	89	91
2	S	1136/1171 (97%)	1132 (100%)	4 (0%)	89	91
2	T	1126/1171 (96%)	1120 (100%)	6 (0%)	86	90
2	U	1151/1171 (98%)	1140 (99%)	11 (1%)	73	81
2	V	1151/1171 (98%)	1146 (100%)	5 (0%)	89	91
2	k	1143/1171 (98%)	1136 (99%)	7 (1%)	84	88
2	l	1070/1171 (91%)	1066 (100%)	4 (0%)	89	91
2	x	1125/1171 (96%)	1120 (100%)	5 (0%)	89	91
3	5	263/289 (91%)	261 (99%)	2 (1%)	79	84
3	a	269/289 (93%)	267 (99%)	2 (1%)	81	86
3	b	267/289 (92%)	262 (98%)	5 (2%)	52	69
3	e	268/289 (93%)	265 (99%)	3 (1%)	70	80
3	h	270/289 (93%)	267 (99%)	3 (1%)	70	80
4	6	258/267 (97%)	258 (100%)	0	100	100
4	7	248/267 (93%)	248 (100%)	0	100	100
4	8	259/267 (97%)	257 (99%)	2 (1%)	79	84
4	9	258/267 (97%)	258 (100%)	0	100	100
4	c	259/267 (97%)	257 (99%)	2 (1%)	79	84
4	d	258/267 (97%)	258 (100%)	0	100	100
4	f	259/267 (97%)	257 (99%)	2 (1%)	79	84

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
4	g	258/267 (97%)	253 (98%)	5 (2%)	52 69
4	i	259/267 (97%)	257 (99%)	2 (1%)	79 84
4	j	258/267 (97%)	258 (100%)	0	100 100
All	All	23296/24899 (94%)	23165 (99%)	131 (1%)	82 88

All (131) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Y	13	ARG
1	Z	67	VAL
2	S	38	ASP
2	S	282	VAL
2	S	393	SER
2	S	398	ASN
2	T	204	GLU
2	T	205	ARG
2	T	486	THR
2	T	677	LYS
2	T	973	ARG
2	T	1203	ARG
3	e	9	ARG
3	e	26	ARG
3	e	37	ARG
4	f	210	CYS
4	f	265	ARG
4	g	12	ARG
4	g	51	LEU
4	g	52	GLU
4	g	138	LEU
4	g	209	PHE
2	l	109	ARG
2	l	547	ASP
2	l	765	ARG
2	l	890	THR
3	5	86	ARG
3	5	160	ASP
2	M	43	LYS
2	M	84	ASP
2	M	282	VAL
2	M	431	THR
2	M	557	ARG

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Mol	Chain	Res	Type
2	M	973	ARG
2	M	1044	MET
2	N	205	ARG
2	N	236	MET
2	N	520	LEU
2	N	637	VAL
2	N	716	CYS
2	N	973	ARG
2	N	1139	ASN
2	N	1203	ARG
2	N	1264	VAL
2	N	1298	LEU
1	R	13	ARG
2	O	46	ARG
2	O	282	VAL
2	O	557	ARG
2	O	933	PHE
2	O	973	ARG
2	U	34	PHE
2	U	349	LYS
2	U	427	LEU
2	U	677	LYS
2	U	806	ASP
2	U	884	LEU
2	U	973	ARG
2	U	1044	MET
2	U	1049	THR
2	U	1139	ASN
2	U	1317	THR
1	1	13	ARG
1	1	67	VAL
2	V	87	ARG
2	V	436	VAL
2	V	557	ARG
2	V	973	ARG
2	V	1044	MET
1	X	67	VAL
2	k	12	PHE
2	k	84	ASP
2	k	283	THR
2	k	486	THR
2	k	629	PHE

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Mol	Chain	Res	Type
2	k	1044	MET
2	k	1252	ASP
3	b	9	ARG
3	b	26	ARG
3	b	37	ARG
3	b	178	ASP
3	b	269	THR
4	c	56	ASP
4	c	158	ARG
2	A	84	ASP
2	A	284	ASP
1	H	9	THR
1	H	72	ARG
2	B	205	ARG
2	B	236	MET
2	B	329	ARG
2	B	386	LYS
2	B	553	ASP
2	B	588	PHE
2	B	973	ARG
2	B	1176	HIS
2	C	470	THR
2	C	625	MET
2	C	950	PHE
2	C	973	ARG
2	C	1044	MET
2	C	1181	THR
2	D	58	VAL
2	D	973	ARG
2	E	205	ARG
2	E	236	MET
2	E	443	LYS
2	E	637	VAL
2	E	650	ARG
2	E	963	MET
2	E	973	ARG
2	E	1260	ARG
2	F	522	CYS
2	F	557	ARG
2	F	716	CYS
2	F	860	LEU
2	F	973	ARG

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Mol	Chain	Res	Type
2	x	741	ASP
2	x	938	ARG
2	x	1109	ARG
2	x	1223	LEU
2	x	1297	ARG
3	h	26	ARG
3	h	31	ARG
3	h	37	ARG
4	i	131	ASP
4	i	185	HIS
3	a	14	ARG
3	a	37	ARG
4	8	174	MET
4	8	293	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (352) such sidechains are listed below:

Mol	Chain	Res	Type
1	m	28	GLN
1	Z	11	GLN
1	Z	31	ASN
1	Z	33	ASN
1	Z	62	GLN
2	S	113	GLN
2	S	398	ASN
2	S	465	HIS
2	S	498	ASN
2	S	534	ASN
2	S	543	HIS
2	S	596	HIS
2	S	600	GLN
2	S	673	ASN
2	S	908	GLN
2	S	921	GLN
2	S	977	GLN
2	S	997	HIS
2	S	1073	ASN
2	S	1139	ASN
2	S	1178	GLN
2	S	1200	ASN
2	S	1323	GLN
2	S	1351	GLN

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Mol	Chain	Res	Type
2	T	289	GLN
2	T	398	ASN
2	T	402	GLN
2	T	465	HIS
2	T	475	ASN
2	T	491	HIS
2	T	543	HIS
2	T	587	GLN
2	T	750	ASN
2	T	988	GLN
2	T	1022	HIS
2	T	1073	ASN
2	T	1089	HIS
2	T	1149	GLN
2	T	1323	GLN
2	T	1377	ASN
3	e	102	ASN
3	e	115	GLN
3	e	136	ASN
3	e	291	ASN
4	f	41	GLN
4	f	89	GLN
4	f	230	HIS
4	g	38	GLN
4	g	62	ASN
4	g	104	HIS
4	g	162	GLN
4	g	184	HIS
2	l	94	GLN
2	l	402	GLN
2	l	442	ASN
2	l	454	ASN
2	l	465	HIS
2	l	498	ASN
2	l	600	GLN
2	l	658	ASN
2	l	722	ASN
2	l	768	ASN
2	l	848	HIS
2	l	1056	ASN
2	l	1246	GLN
2	l	1284	ASN

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Mol	Chain	Res	Type
3	5	182	HIS
3	5	183	ASN
3	5	194	ASN
3	5	291	ASN
3	5	309	GLN
4	6	62	ASN
4	6	102	GLN
4	6	120	HIS
4	6	204	ASN
4	6	232	HIS
4	7	22	GLN
4	7	162	GLN
4	7	175	HIS
2	M	289	GLN
2	M	432	GLN
2	M	465	HIS
2	M	475	ASN
2	M	543	HIS
2	M	560	HIS
2	M	645	ASN
2	M	750	ASN
2	M	768	ASN
2	M	790	HIS
2	M	965	GLN
2	M	988	GLN
2	M	1056	ASN
2	M	1090	HIS
2	M	1122	GLN
2	M	1214	ASN
2	M	1241	ASN
2	M	1261	GLN
2	M	1329	GLN
2	N	178	ASN
2	N	187	HIS
2	N	289	GLN
2	N	398	ASN
2	N	429	ASN
2	N	465	HIS
2	N	475	ASN
2	N	490	GLN
2	N	543	HIS
2	N	560	HIS

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Mol	Chain	Res	Type
2	N	645	ASN
2	N	672	ASN
2	N	1033	GLN
2	N	1056	ASN
2	N	1122	GLN
2	N	1135	ASN
2	N	1176	HIS
2	N	1197	GLN
2	N	1377	ASN
1	R	31	ASN
2	O	475	ASN
2	O	490	GLN
2	O	543	HIS
2	O	560	HIS
2	O	564	HIS
2	O	722	ASN
2	O	859	ASN
2	O	862	ASN
2	O	988	GLN
2	O	1022	HIS
2	O	1122	GLN
2	O	1139	ASN
2	O	1178	GLN
2	O	1241	ASN
2	O	1301	HIS
2	O	1329	GLN
2	U	125	HIS
2	U	126	HIS
2	U	178	ASN
2	U	402	GLN
2	U	465	HIS
2	U	475	ASN
2	U	543	HIS
2	U	750	ASN
2	U	988	GLN
2	U	1089	HIS
2	U	1137	GLN
2	V	166	GLN
2	V	301	GLN
2	V	333	HIS
2	V	432	GLN
2	V	534	ASN

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Mol	Chain	Res	Type
2	V	543	HIS
2	V	695	GLN
2	V	775	GLN
2	V	842	ASN
2	V	1022	HIS
2	V	1033	GLN
2	V	1136	GLN
2	V	1139	ASN
2	V	1176	HIS
2	V	1261	GLN
2	V	1329	GLN
2	k	235	ASN
2	k	333	HIS
2	k	392	GLN
2	k	415	ASN
2	k	445	ASN
2	k	454	ASN
2	k	465	HIS
2	k	472	ASN
2	k	673	ASN
2	k	795	HIS
2	k	859	ASN
2	k	926	ASN
2	k	946	HIS
2	k	951	HIS
2	k	964	HIS
2	k	965	GLN
2	k	1089	HIS
2	k	1139	ASN
2	k	1178	GLN
2	k	1289	ASN
2	k	1310	GLN
2	k	1377	ASN
3	b	96	HIS
3	b	102	ASN
3	b	201	ASN
3	b	288	GLN
3	b	291	ASN
3	b	303	HIS
4	c	89	GLN
4	d	38	GLN
4	d	39	ASN

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Mol	Chain	Res	Type
4	d	41	GLN
4	d	62	ASN
4	d	104	HIS
4	d	175	HIS
4	d	184	HIS
2	A	4	ASN
2	A	465	HIS
2	A	475	ASN
2	A	543	HIS
2	A	560	HIS
2	A	581	GLN
2	A	587	GLN
2	A	645	ASN
2	A	669	HIS
2	A	695	GLN
2	A	750	ASN
2	A	965	GLN
2	A	977	GLN
2	A	988	GLN
2	A	1022	HIS
2	A	1137	GLN
2	A	1149	GLN
2	A	1241	ASN
2	A	1306	ASN
2	A	1329	GLN
2	A	1377	ASN
1	H	11	GLN
1	H	32	GLN
1	H	37	ASN
1	H	71	GLN
2	B	113	GLN
2	B	126	HIS
2	B	285	ASN
2	B	289	GLN
2	B	465	HIS
2	B	475	ASN
2	B	495	ASN
2	B	543	HIS
2	B	560	HIS
2	B	600	GLN
2	B	750	ASN
2	B	824	HIS

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Mol	Chain	Res	Type
2	B	909	GLN
2	B	977	GLN
2	B	984	ASN
2	B	988	GLN
2	B	1022	HIS
2	B	1073	ASN
2	B	1089	HIS
2	B	1090	HIS
2	B	1197	GLN
2	B	1289	ASN
2	B	1329	GLN
1	I	28	GLN
1	I	32	GLN
1	I	37	ASN
1	I	44	GLN
2	C	453	GLN
2	C	465	HIS
2	C	560	HIS
2	C	581	GLN
2	C	600	GLN
2	C	636	ASN
2	C	834	HIS
2	C	842	ASN
2	C	964	HIS
2	C	1033	GLN
2	C	1136	GLN
2	C	1329	GLN
1	J	62	GLN
2	D	178	ASN
2	D	187	HIS
2	D	289	GLN
2	D	377	HIS
2	D	402	GLN
2	D	432	GLN
2	D	465	HIS
2	D	475	ASN
2	D	491	HIS
2	D	509	ASN
2	D	543	HIS
2	D	636	ASN
2	D	750	ASN
2	D	768	ASN

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Mol	Chain	Res	Type
2	D	1089	HIS
2	D	1122	GLN
2	D	1329	GLN
1	K	32	GLN
1	K	71	GLN
2	E	27	GLN
2	E	398	ASN
2	E	429	ASN
2	E	475	ASN
2	E	543	HIS
2	E	560	HIS
2	E	587	GLN
2	E	600	GLN
2	E	750	ASN
2	E	824	HIS
2	E	1033	GLN
2	E	1056	ASN
2	E	1089	HIS
2	E	1241	ASN
1	L	31	ASN
1	L	37	ASN
1	L	71	GLN
2	F	142	HIS
2	F	402	GLN
2	F	415	ASN
2	F	442	ASN
2	F	465	HIS
2	F	534	ASN
2	F	543	HIS
2	F	560	HIS
2	F	581	GLN
2	F	636	ASN
2	F	658	ASN
2	F	913	ASN
2	F	1033	GLN
2	F	1122	GLN
2	F	1136	GLN
2	F	1139	ASN
2	F	1329	GLN
2	F	1377	ASN
2	x	126	HIS
2	x	187	HIS

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Mol	Chain	Res	Type
2	x	285	ASN
2	x	543	HIS
2	x	581	GLN
2	x	636	ASN
2	x	722	ASN
2	x	745	GLN
2	x	1033	GLN
2	x	1089	HIS
2	x	1139	ASN
2	x	1178	GLN
2	x	1217	GLN
2	x	1306	ASN
2	x	1310	GLN
1	y	11	GLN
1	y	32	GLN
1	y	37	ASN
3	h	46	HIS
3	h	102	ASN
3	h	115	GLN
3	h	182	HIS
3	h	286	HIS
3	h	291	ASN
4	i	173	HIS
4	i	291	GLN
4	j	62	ASN
4	j	175	HIS
3	a	201	ASN
3	a	227	GLN
3	a	291	ASN
4	8	35	HIS
4	8	237	ASN
4	8	240	GLN
4	8	279	ASN
4	9	104	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.

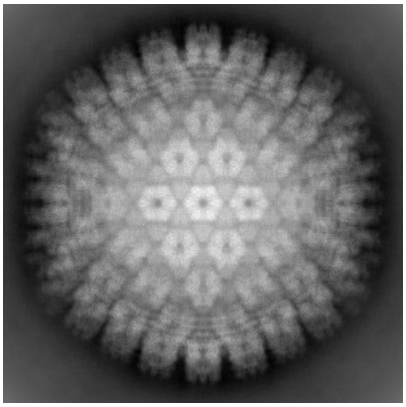
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-30162. These allow visual inspection of the internal detail of the map and identification of artifacts.

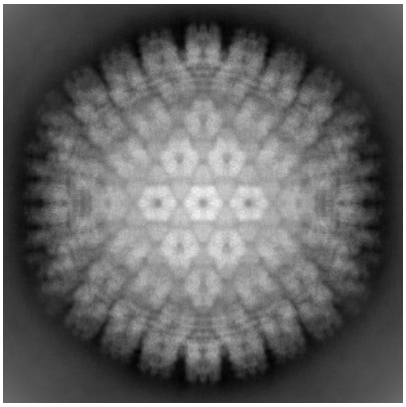
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

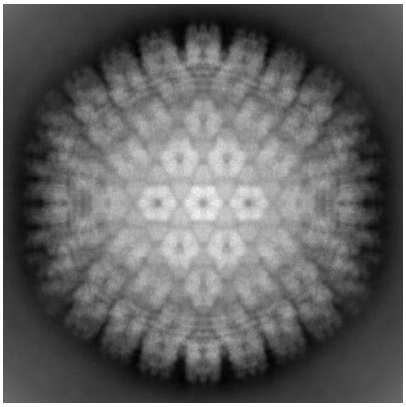
6.1.1 Primary map



X



Y

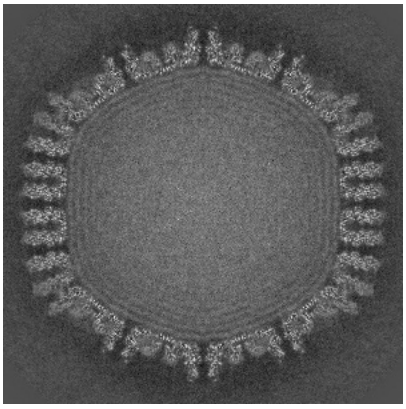


Z

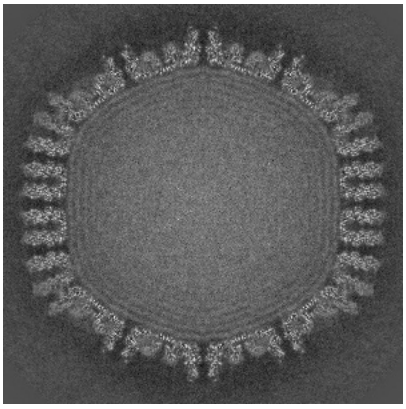
The images above show the map projected in three orthogonal directions.

6.2 Central slices

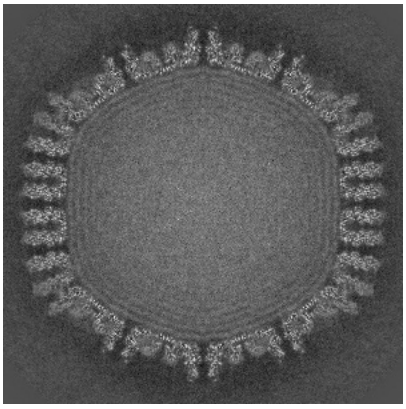
6.2.1 Primary map



X Index: 512



Y Index: 512

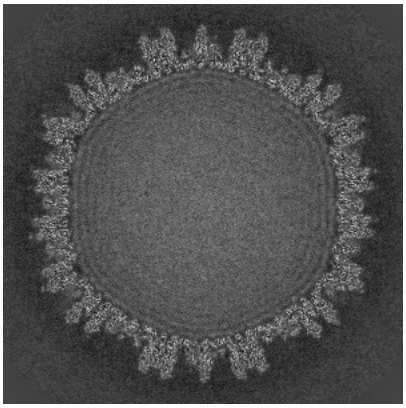


Z Index: 512

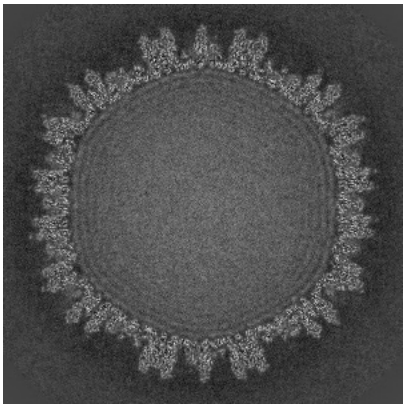
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

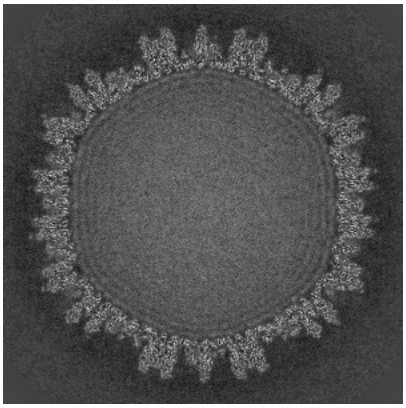
6.3.1 Primary map



X Index: 432



Y Index: 432

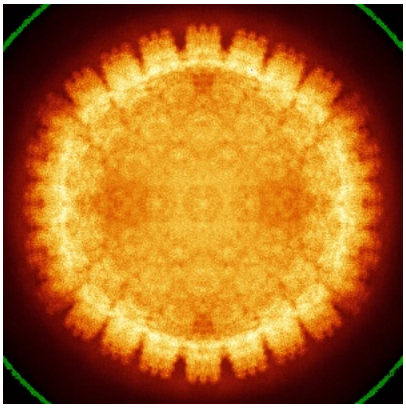


Z Index: 432

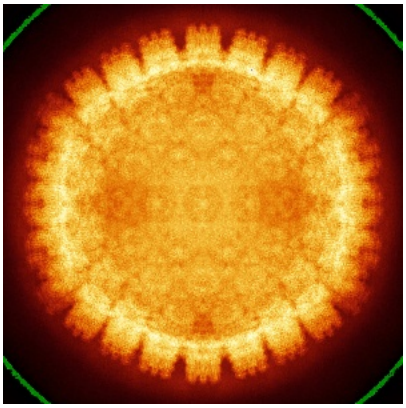
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

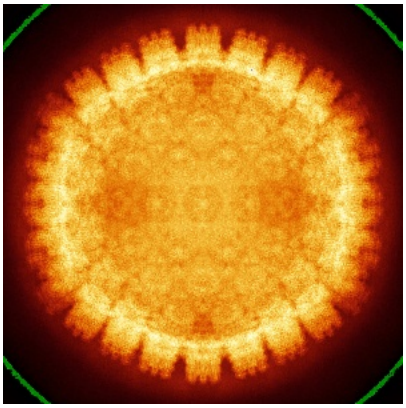
6.4.1 Primary map



X



Y

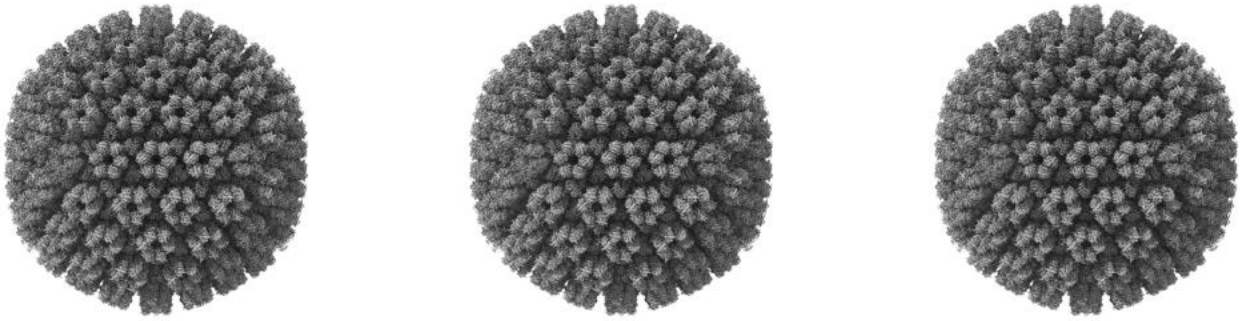


Z

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



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.01. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

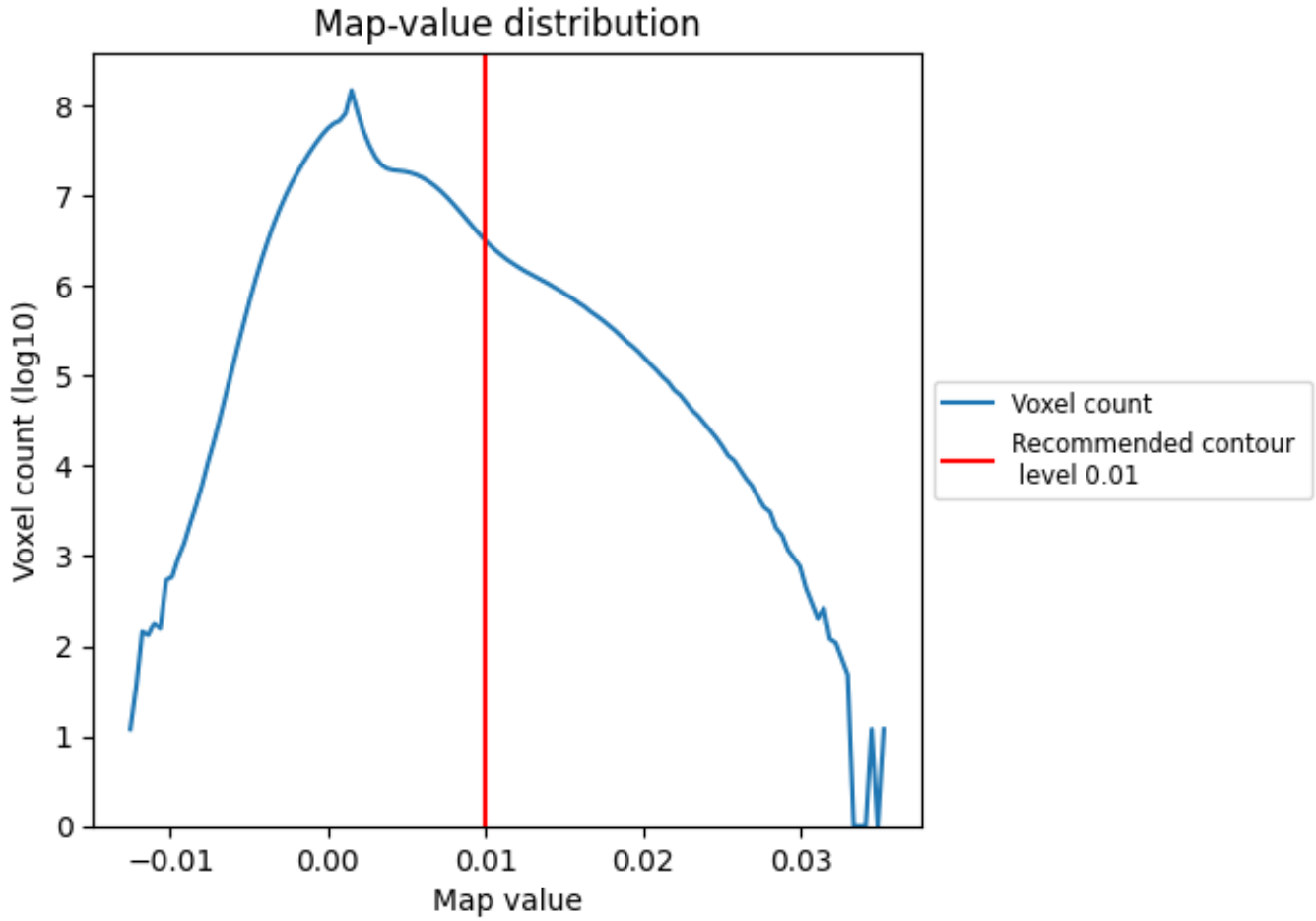
6.6 Mask visualisation (i)

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

7 Map analysis

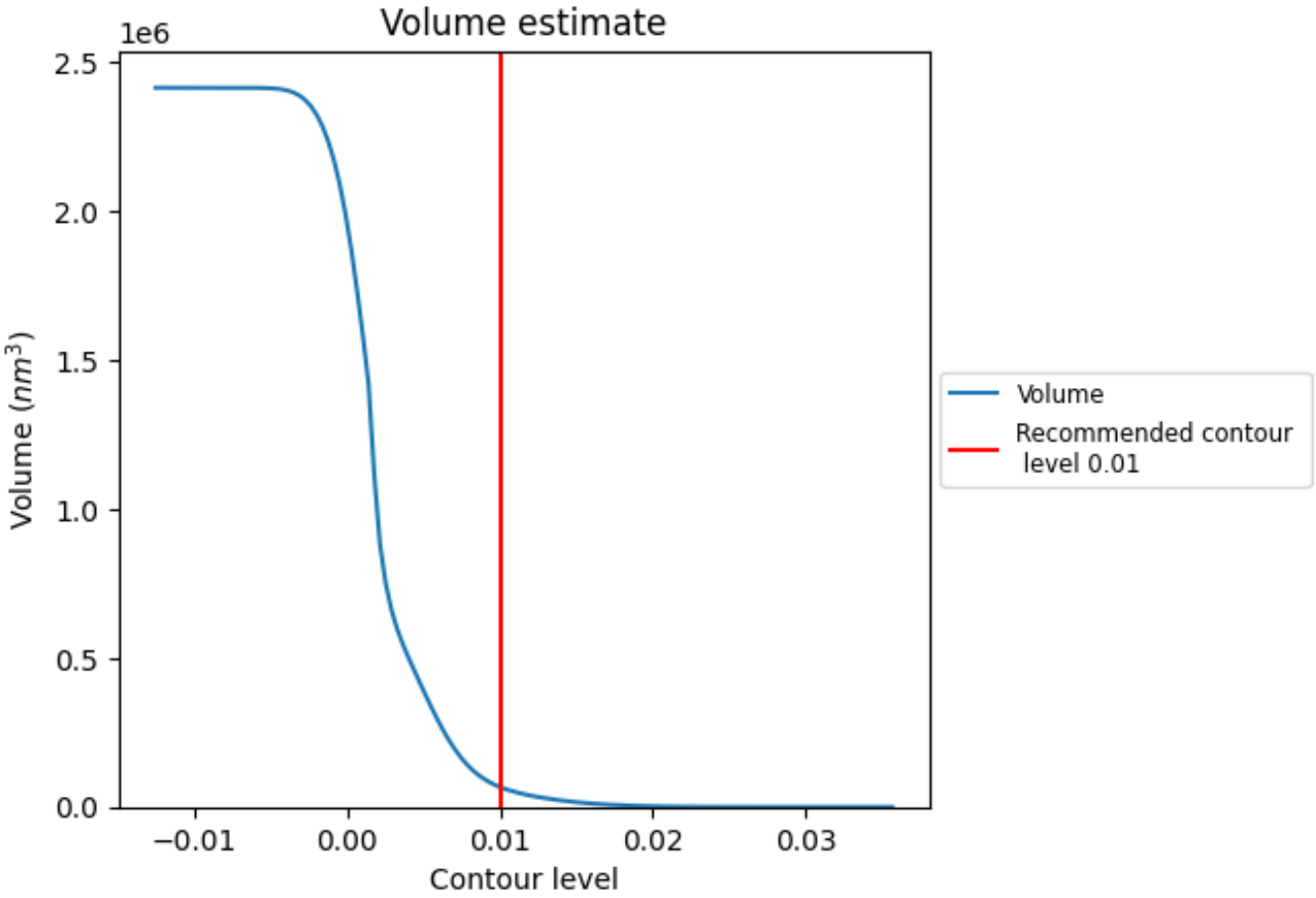
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

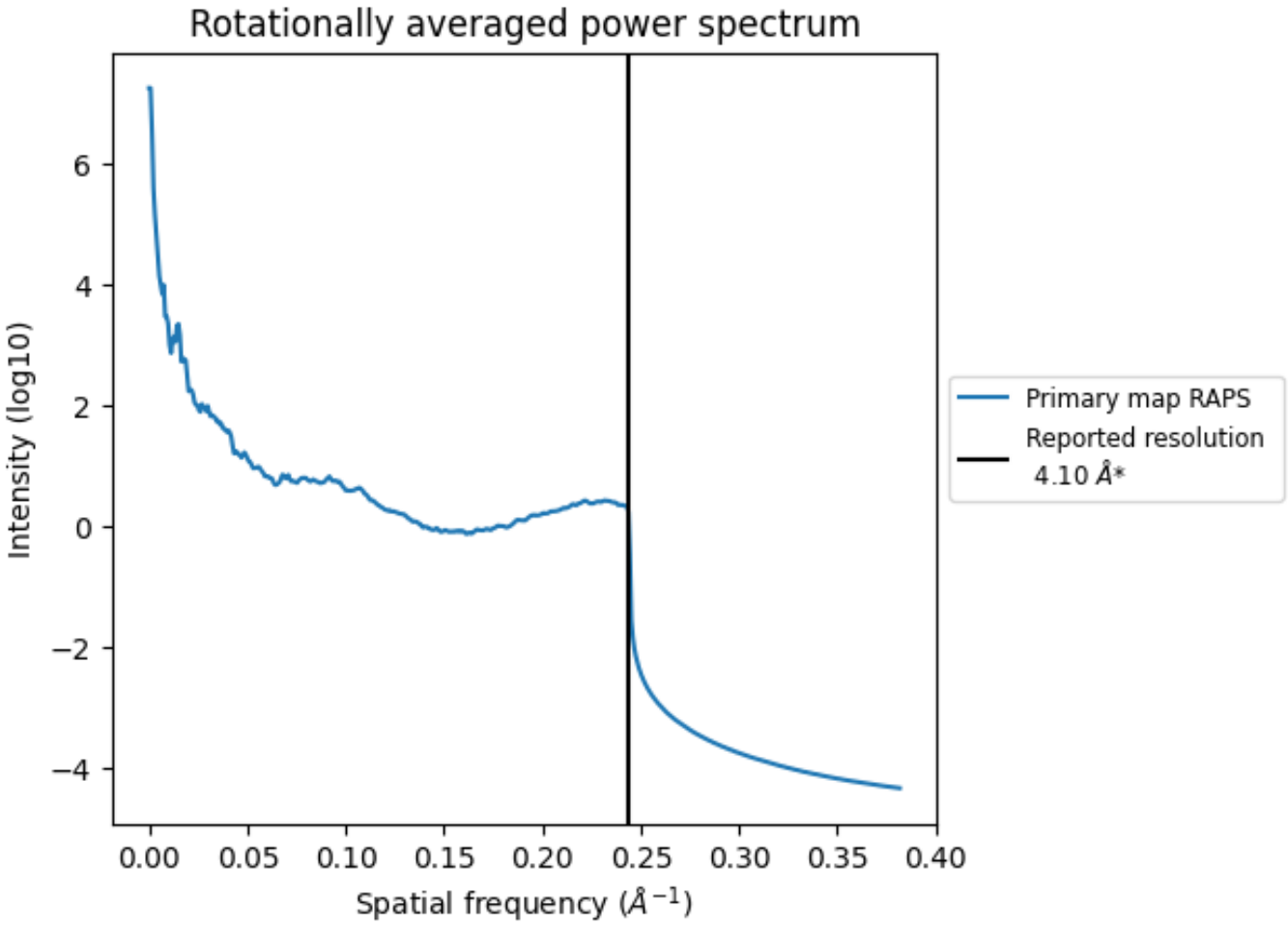
7.2 Volume estimate (i)



The volume at the recommended contour level is 67041 nm^3; this corresponds to an approximate mass of 60560 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 0.244 $Å^{-1}$

8 Fourier-Shell correlation (i)

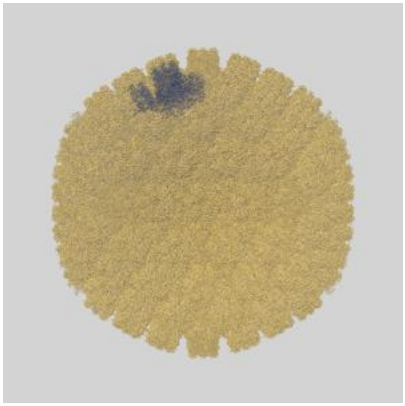
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit

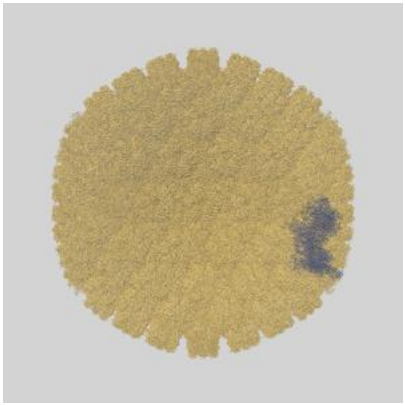
This section contains information regarding the fit between EMDB map EMD-30162 and PDB model 7BSI. Per-residue inclusion information can be found in section 3 on page 8.

9.1 Map-model overlays

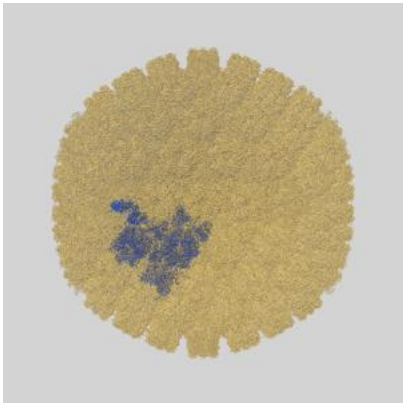
9.1.1 Map-model overlay



X

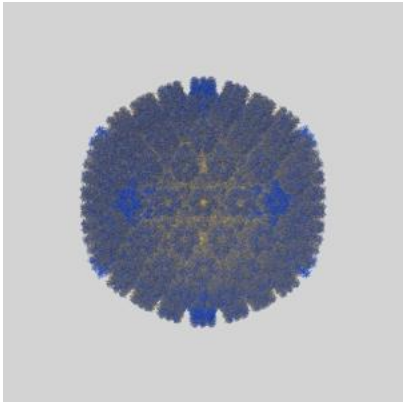


Y

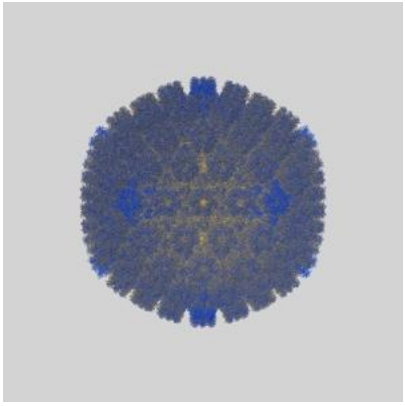


Z

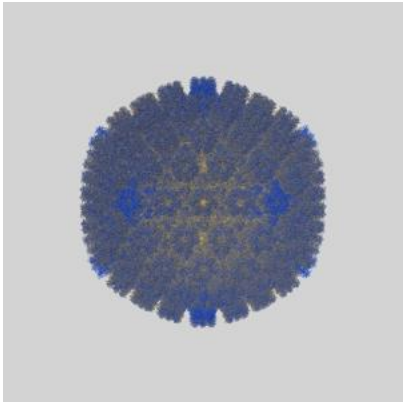
9.1.2 Map-model assembly overlay



X



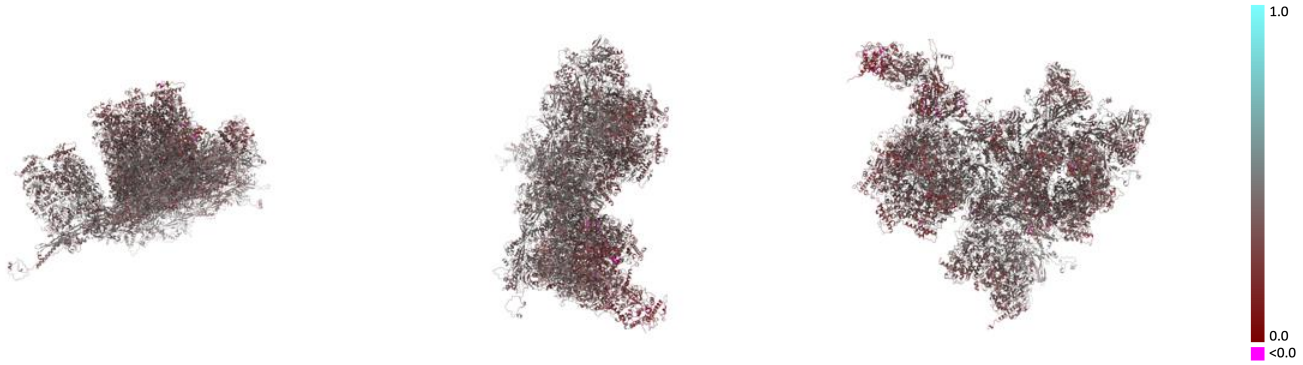
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.01 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.

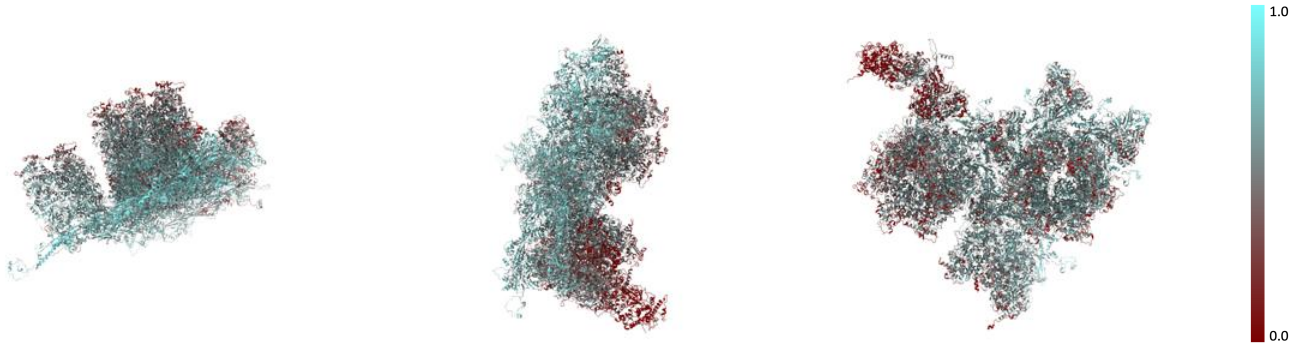
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according 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.

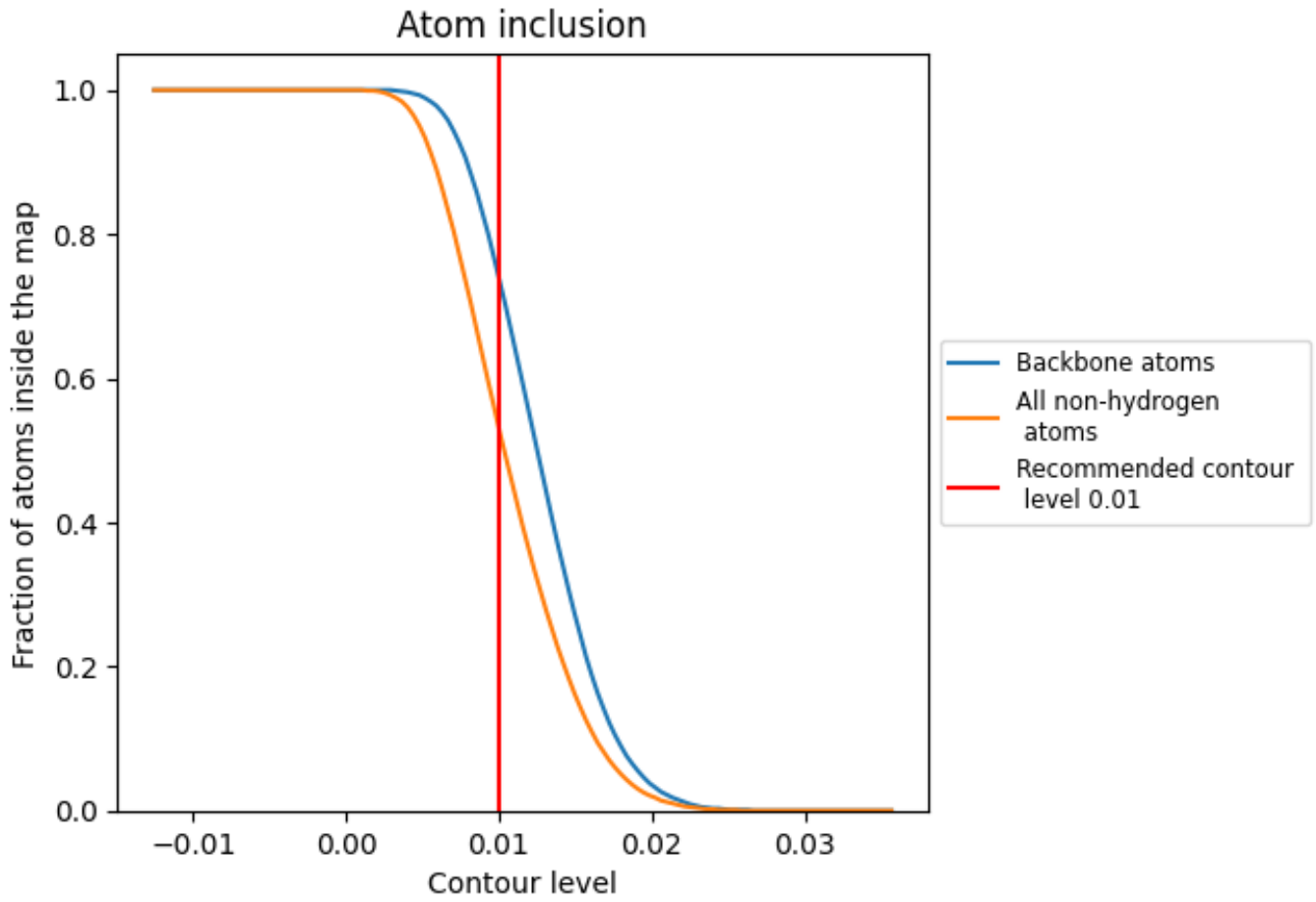
9.3 Atom inclusion mapped to coordinate model



X Y Z

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 (0.01).

9.4 Atom inclusion (i)



At the recommended contour level, 74% of all backbone atoms, 53% 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 (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5310	0.3750
0	0.2380	0.2930
1	0.2380	0.2830
5	0.2760	0.3010
6	0.2530	0.2980
7	0.1620	0.2670
8	0.5520	0.3700
9	0.5570	0.3770
A	0.5820	0.3880
B	0.5920	0.3860
C	0.5870	0.3830
D	0.5980	0.3890
E	0.6020	0.3920
F	0.5900	0.3910
G	0.2570	0.2980
H	0.2970	0.3000
I	0.3000	0.3330
J	0.3030	0.3220
K	0.2980	0.3240
L	0.2620	0.3130
M	0.5920	0.3940
N	0.6070	0.3970
O	0.5960	0.3960
P	0.3140	0.3210
Q	0.3200	0.3200
R	0.3480	0.3330
S	0.4880	0.3650
T	0.5390	0.3790
U	0.5660	0.3890
V	0.5710	0.3880
X	0.2580	0.2830
Y	0.2130	0.2620
Z	0.1900	0.2680
a	0.5980	0.3910
b	0.6060	0.3910

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Chain	Atom inclusion	Q-score
c	0.5690	0.3880
d	0.5810	0.3900
e	0.5570	0.3930
f	0.4880	0.3590
g	0.5260	0.3770
h	0.5770	0.3880
i	0.5560	0.3750
j	0.5550	0.3750
k	0.5310	0.3760
l	0.2970	0.3250
m	0.0350	0.2160
x	0.5100	0.3720
y	0.1950	0.2610