



wwPDB EM Validation Summary Report ⓘ

Dec 16, 2022 – 07:49 am GMT

PDB ID : 7R5J
EMDB ID : EMD-14321
Title : Human nuclear pore complex (dilated)
Authors : Mosalaganti, S.; Obarska-Kosinska, A.; Siggel, M.; Taniguchi, R.; Turonova, B.; Zimmerli, C.E.; Buczak, K.; Schmidt, F.H.; Margiotta, E.; Mackmull, M.T.; Hagen, W.J.H.; Hummer, G.; Kosinski, J.; Beck, M.
Deposited on : 2022-02-10
Resolution : 50.00 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.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

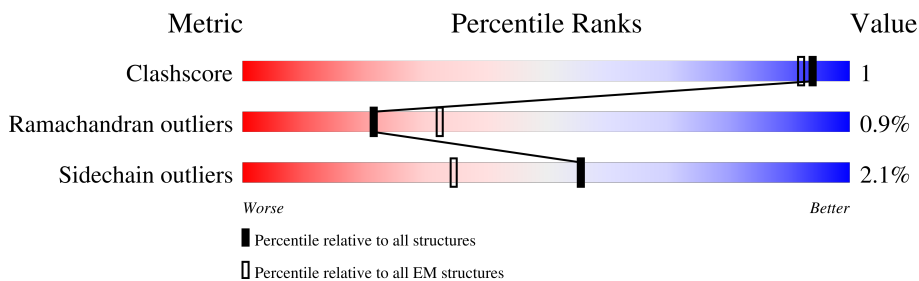
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 50.00 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	00	3224	
1	01	3224	
1	02	3224	
1	03	3224	
1	04	3224	
2	10	1887	
2	11	1887	
2	12	1887	

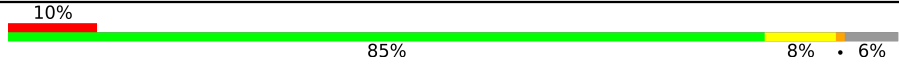
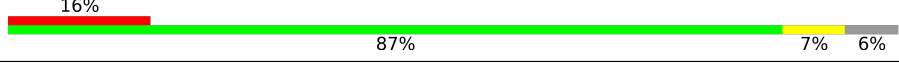
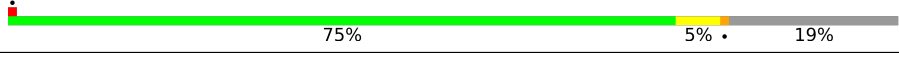


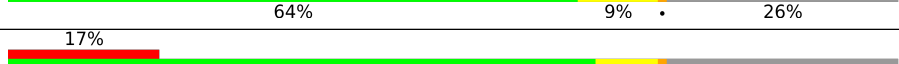
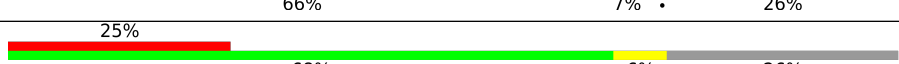
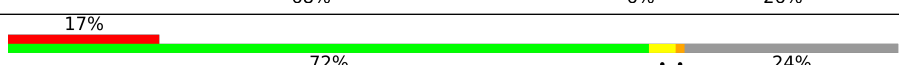
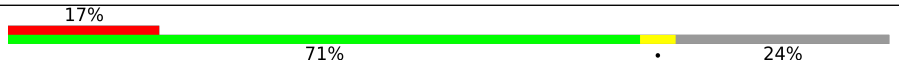






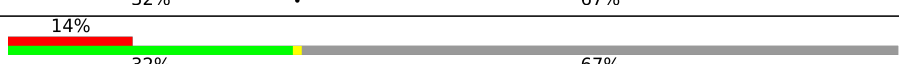
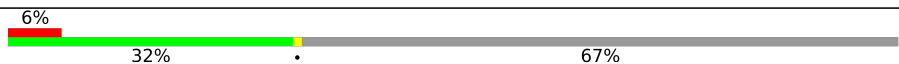








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Mol	Chain	Length	Quality of chain
2	13	1887	40% 94% 5% . .
2	14	1887	68% 92% 5% .
2	15	1887	27% 92% 5% .
2	16	1887	25% 92% 5% .
2	17	1887	39% 93% . .
3	40	546	66% 30%
3	41	546	66% 30%
4	A0	819	7% 89% 10%
4	A1	819	14% 92% 7% .
4	A2	819	9% 91% 8% .
4	A3	819	12% 92% 7% .
4	A4	819	14% 81% 8% 11%
4	A5	819	20% 82% 6% 11%
4	A6	819	8% 80% 8% 11%
5	B0	1749	15% 94% 6%
5	B1	1749	14% 94% 5% .
6	C0	2012	18% 92% 7% .
6	C1	2012	15% 92% 7%
6	C2	2012	16% 93% 6% .
6	C3	2012	14% 93% 7% .
6	C4	2012	17% 93% 6% .
7	D0	1391	13% 87% 7% 6%
7	D1	1391	18% 86% 8% . 6%
7	D2	1391	9% 87% 7% . 6%
7	D3	1391	21% 87% 7% . 6%

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Mol	Chain	Length	Quality of chain
7	D4	1391	
7	D5	1391	
8	E0	674	
8	E1	674	
9	F0	326	
9	F1	326	
9	F2	326	
9	F3	326	
10	H0	507	
10	H1	507	
10	H2	507	
10	H3	507	
11	I0	599	
11	I1	599	
11	I2	599	
11	I3	599	
12	J0	522	
12	J1	522	
12	J2	522	
12	J3	522	
12	J4	522	
13	K0	1156	
13	K1	1156	
13	K2	1156	
13	K3	1156	

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Mol	Chain	Length	Quality of chain
14	L0	925	
14	L1	925	
14	L2	925	
14	L3	925	
15	M0	937	
15	M1	937	
15	M2	937	
15	M3	937	
16	N0	322	
16	N1	322	
16	N2	322	
16	N3	322	
17	O0	360	
17	O1	360	
17	O2	360	
17	O3	360	
18	P0	656	
18	P1	656	
18	P2	656	
18	P3	656	
19	Q0	380	
19	Q1	380	
19	Q2	380	
19	Q3	380	
20	R0	1436	

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Mol	Chain	Length	Quality of chain
20	R1	1436	
20	R2	1436	
20	R3	1436	
21	S0	326	
21	S1	326	
21	S2	326	
21	S3	326	
22	T0	2266	
22	T1	2266	
23	U0	880	
23	U1	880	
23	U2	880	
23	U3	880	
23	U4	880	
23	U5	880	
23	U6	880	
24	V0	2090	
25	W0	741	

2 Entry composition [i](#)

There are 25 unique types of molecules in this entry. The entry contains 617133 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 E3 SUMO-protein ligase RanBP2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	00	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	01	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	02	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	03	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0
1	04	756	Total 6085	C 3866	N 1045	O 1147	S 27	0	0

- Molecule 2 is a protein called Nuclear pore membrane glycoprotein 210.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	10	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	11	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	12	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	13	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	14	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	15	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	16	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0
2	17	1831	Total 14046	C 8947	N 2406	O 2644	S 49	0	0

- Molecule 3 is a protein called Aladin.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	40	383	Total	C	N	O	S	0	0
			2922	1864	509	533	16		
3	41	383	Total	C	N	O	S	0	0
			2922	1864	509	533	16		

- Molecule 4 is a protein called Nuclear pore complex protein Nup93.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	A0	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A1	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A2	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A3	818	Total	C	N	O	S	0	0
			6568	4136	1145	1259	28		
4	A4	726	Total	C	N	O	S	0	0
			5860	3705	1018	1109	28		
4	A5	726	Total	C	N	O	S	0	0
			5860	3705	1018	1109	28		
4	A6	726	Total	C	N	O	S	0	0
			5860	3705	1018	1109	28		

- Molecule 5 is a protein called Nucleoporin NUP188 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	B0	1748	Total	C	N	O	S	0	0
			13746	8743	2353	2559	91		
5	B1	1748	Total	C	N	O	S	0	0
			13746	8743	2353	2559	91		

- Molecule 6 is a protein called Nuclear pore complex protein Nup205.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	C0	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		
6	C1	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		
6	C2	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		
6	C3	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		

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Mol	Chain	Residues	Atoms					AltConf	Trace
6	C4	2011	Total	C	N	O	S	0	0
			16013	10208	2753	2965	87		

- Molecule 7 is a protein called Nuclear pore complex protein Nup155.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	D0	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D1	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D2	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D3	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D4	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		
7	D5	1312	Total	C	N	O	S	0	0
			10363	6569	1786	1949	59		

- Molecule 8 is a protein called Nucleoporin NDC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E0	548	Total	C	N	O	S	0	0
			4432	2923	729	758	22		
8	E1	548	Total	C	N	O	S	0	0
			4432	2923	729	758	22		

- Molecule 9 is a protein called Nucleoporin NUP35.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	F0	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F1	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F2	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		
9	F3	241	Total	C	N	O	S	0	0
			1837	1154	313	359	11		

- Molecule 10 is a protein called Nucleoporin p54.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	H0	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H1	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H2	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		
10	H3	383	Total	C	N	O	S	0	0
			3066	1921	544	592	9		

- Molecule 11 is a protein called Nucleoporin p58/p45.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	I0	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I1	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I2	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		
11	I3	173	Total	C	N	O	S	0	0
			1398	881	245	267	5		

- Molecule 12 is a protein called Nuclear pore glycoprotein p62.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	J0	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J1	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J2	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J3	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		
12	J4	171	Total	C	N	O	S	0	0
			1403	872	243	285	3		

- Molecule 13 is a protein called Nuclear pore complex protein Nup133.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	K0	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		
13	K1	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	K2	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		
13	K3	1086	Total	C	N	O	S	0	0
			8574	5420	1425	1692	37		

- Molecule 14 is a protein called Nuclear pore complex protein Nup107.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	L0	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L1	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L2	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		
14	L3	782	Total	C	N	O	S	0	0
			6383	4064	1079	1208	32		

- Molecule 15 is a protein called Nuclear pore complex protein Nup96.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	M0	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M1	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M2	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		
15	M3	673	Total	C	N	O	S	0	0
			5461	3467	964	1004	26		

- Molecule 16 is a protein called Protein SEC13 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	N0	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N1	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N2	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		
16	N3	301	Total	C	N	O	S	0	0
			2352	1479	409	452	12		

- Molecule 17 is a protein called Nucleoporin SEH1.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	O0	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O1	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O2	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		
17	O3	323	Total	C	N	O	S	0	0
			2528	1584	452	475	17		

- Molecule 18 is a protein called Nuclear pore complex protein Nup85.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	P0	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P1	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P2	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		
18	P3	655	Total	C	N	O	S	0	0
			5257	3341	898	982	36		

- Molecule 19 is a protein called Nucleoporin Nup43.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Q0	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q1	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q2	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		
19	Q3	345	Total	C	N	O	S	0	0
			2703	1690	474	527	12		

- Molecule 20 is a protein called Nuclear pore complex protein Nup160.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	R0	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		
20	R1	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		
20	R2	1399	Total	C	N	O	S	0	0
			11132	7093	1878	2088	73		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
20	R3	1399	11132	7093	1878	2088	73	0	0

- Molecule 21 is a protein called Nucleoporin Nup37.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	S0	322	2552	1626	436	475	15	0	0
21	S1	322	2552	1626	436	475	15	0	0
21	S2	322	2552	1626	436	475	15	0	0
21	S3	322	2552	1626	436	475	15	0	0

- Molecule 22 is a protein called Protein ELYS.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	T0	1004	7960	5069	1359	1490	42	0	0
22	T1	1004	7960	5069	1359	1490	42	0	0

- Molecule 23 is a protein called Nuclear pore complex protein Nup98.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	U0	150	1193	756	205	229	3	0	0
23	U1	19	151	98	27	26		0	0
23	U2	19	151	98	27	26		0	0
23	U3	19	151	98	27	26		0	0
23	U4	19	151	98	27	26		0	0
23	U5	19	151	98	27	26		0	0
23	U6	19	151	98	27	26		0	0

- Molecule 24 is a protein called Nuclear pore complex protein Nup214.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	V0	273	2203	1376	398	423	6	0	0

- Molecule 25 is a protein called Nuclear pore complex protein Nup88.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	W0	735	5836	3714	988	1103	31	0	0

D432	G433	G434	V435	H436	I437	L438	Q439	V440	P441	V442	I452	P453	I454	T455	L456	Y457	P458	S459	I460	L461	T462	P463	P464	W465	G526	Q466	P467	K468	T469	G470	A471	Y472	Q473	Y474	T475	I476	R477	A478	H479	G480	G481	S482	G483	H484	F485	S486	W487	S488	S489	S490	S491	H492	L493	V494	A495	T496	V497	T498	V499
K500	G501	V502	M503	T504	T505	G506	S507	D508	I509	G510	F511	S512	V513	I514	Q515	A516	H517	D518	W521	P522	L523	H524	F525	G526	E527	M528	K529	V530	Y531	V532	I533	E534	P535	H536	S537	M538	E539	F540	A541	P542	C543	Q544	V545	F546	E547	W548	G549	Q550	K551	A552	L553	L554	P555	P556	L557	S558	I559	S560	
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● Molecule 2: Nuclear pore membrane glycoprotein 210

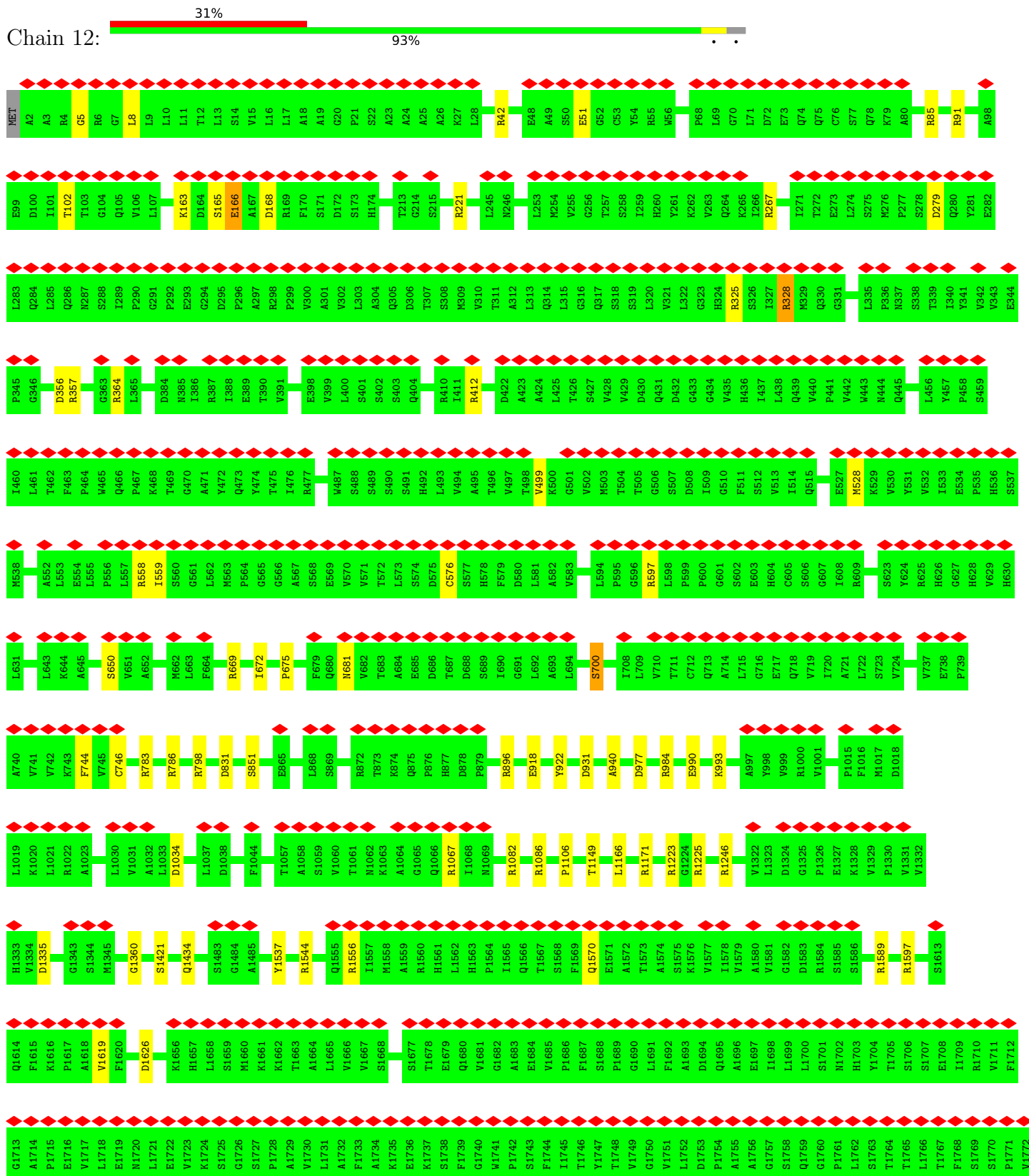


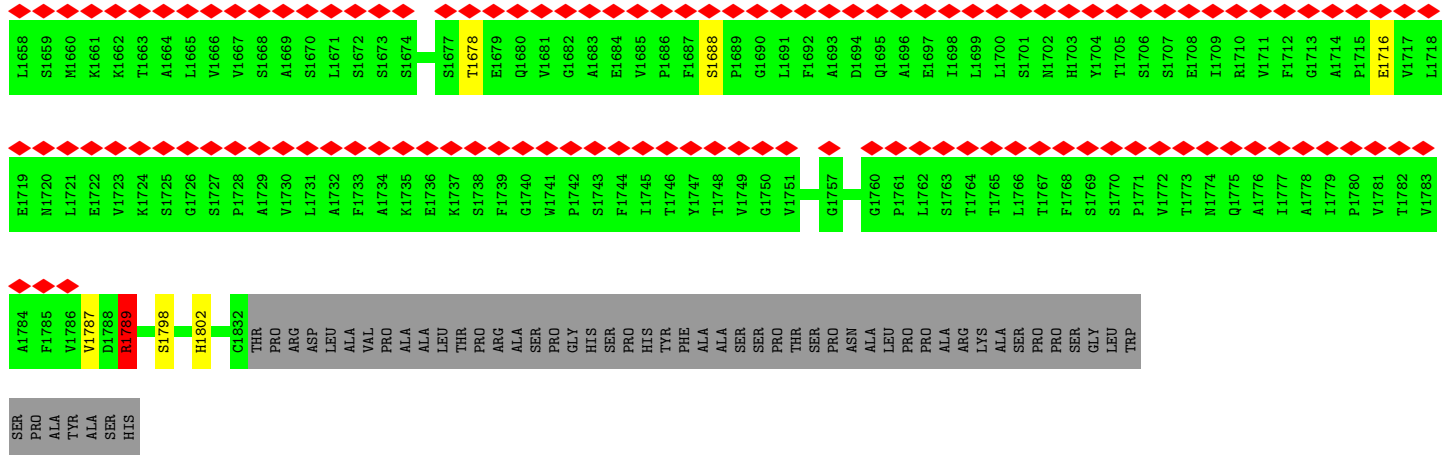
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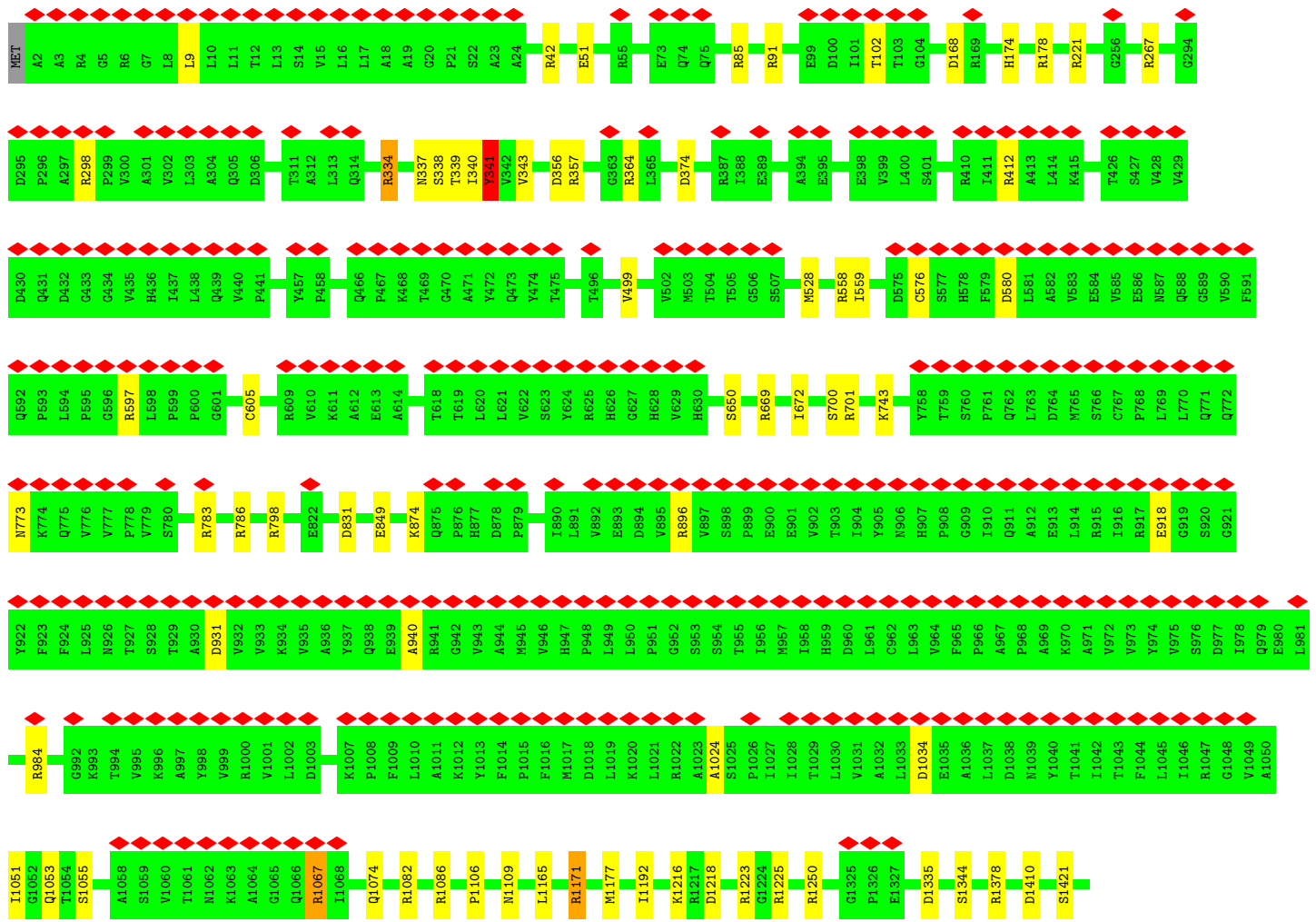
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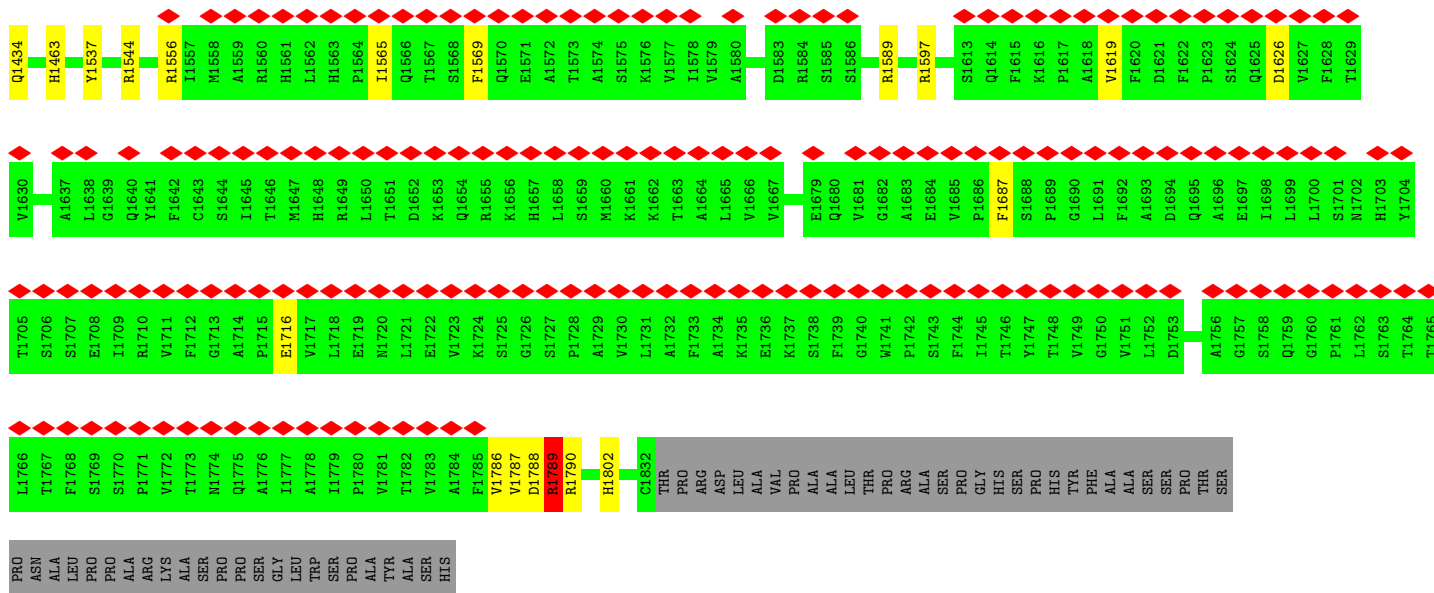
● Molecule 2: Nuclear pore membrane glycoprotein 210



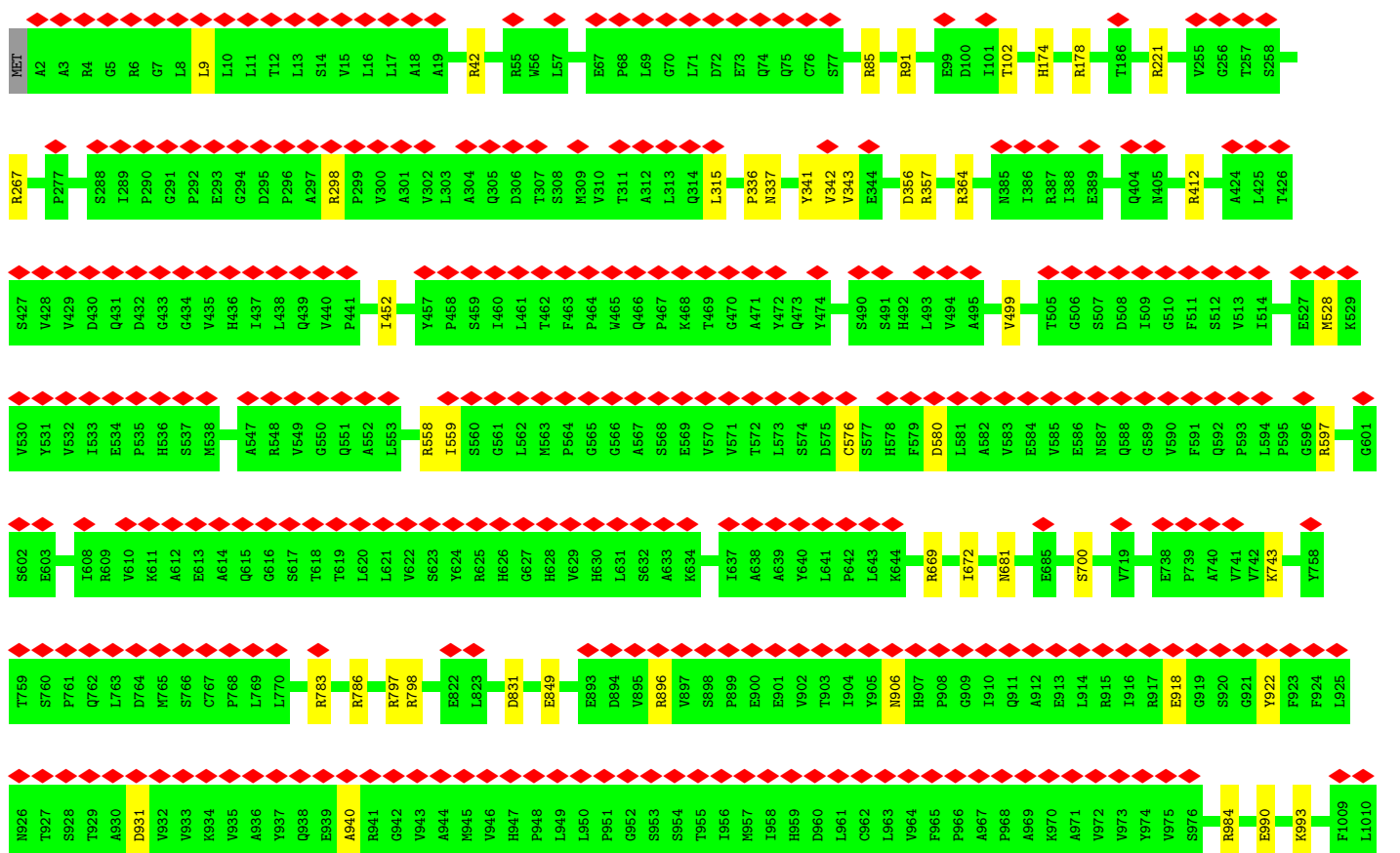
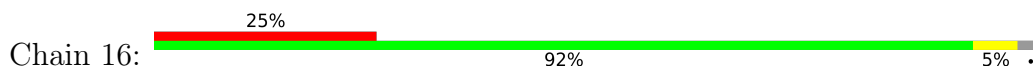


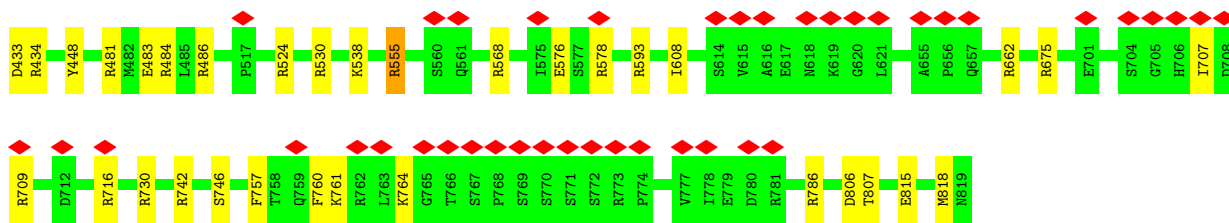
• Molecule 2: Nuclear pore membrane glycoprotein 210



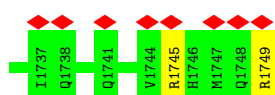
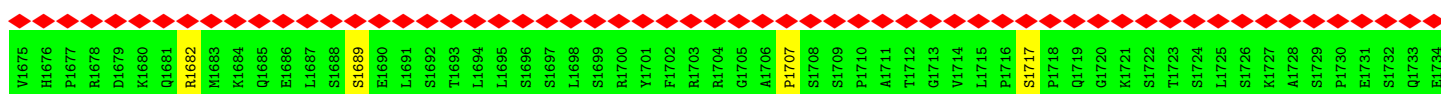
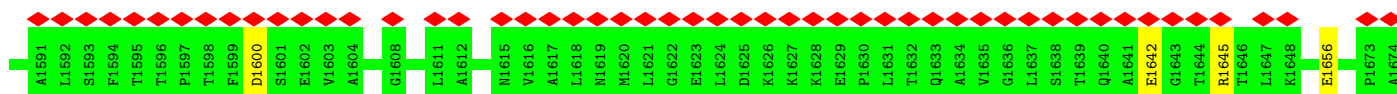
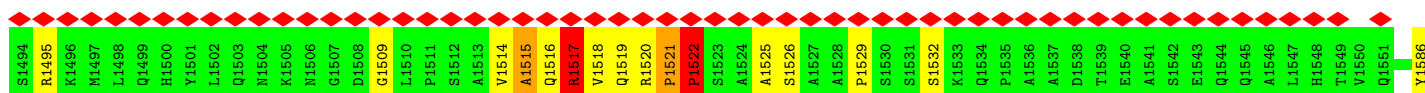
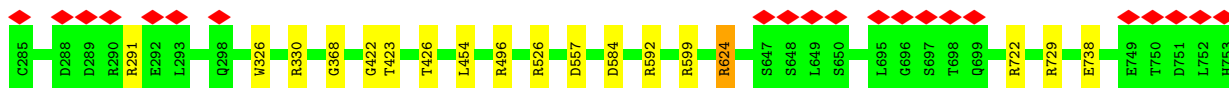
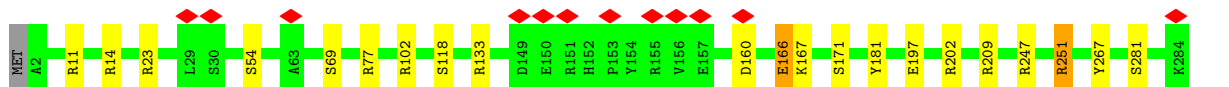


• Molecule 2: Nuclear pore membrane glycoprotein 210



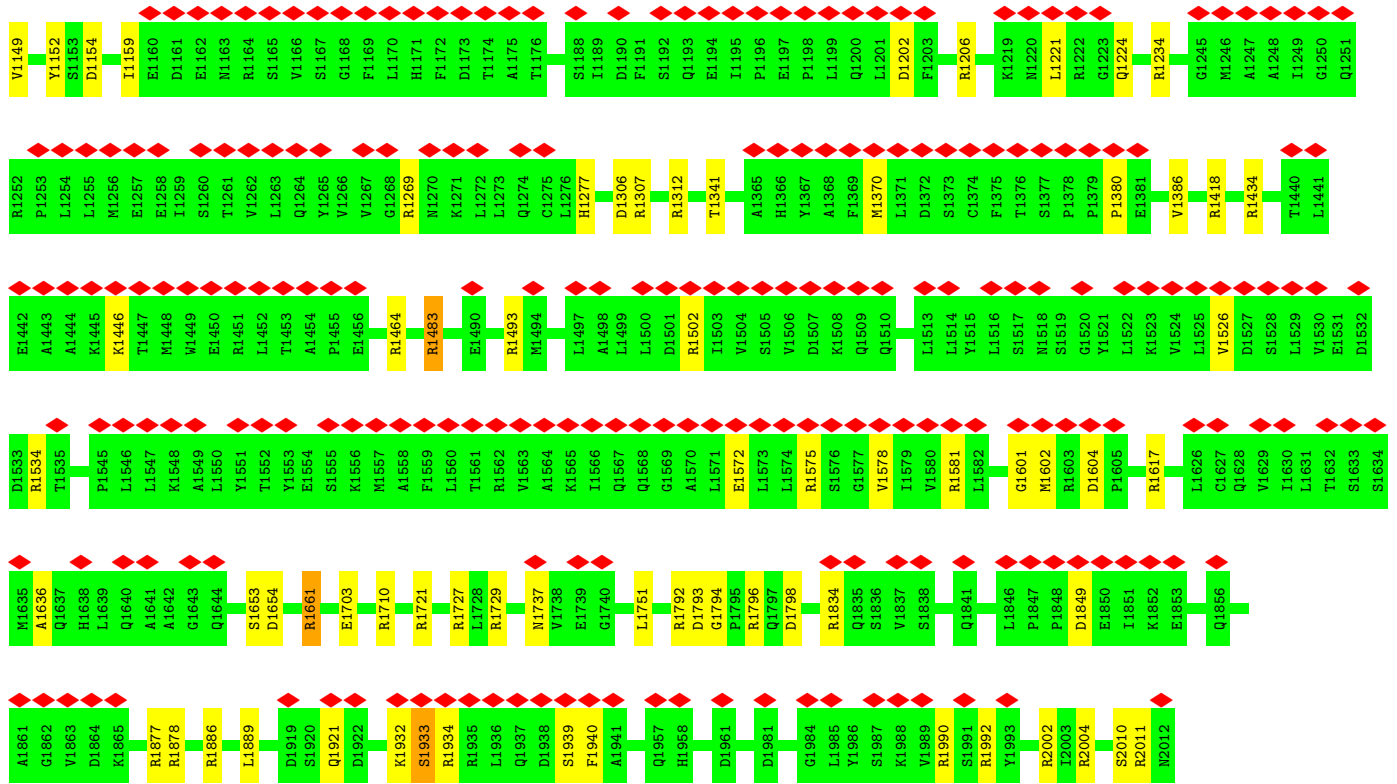


• Molecule 5: Nucleoporin NUP188 homolog

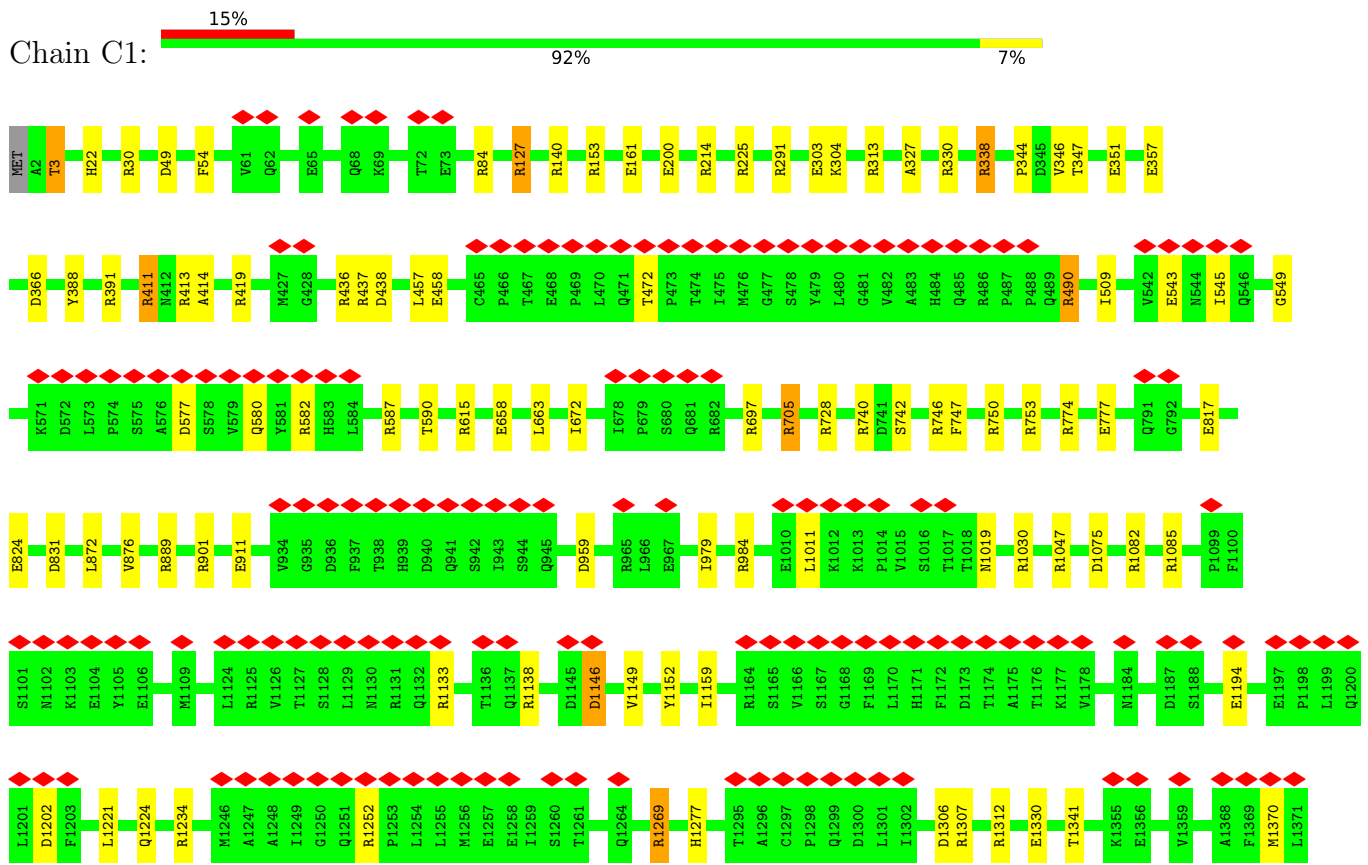


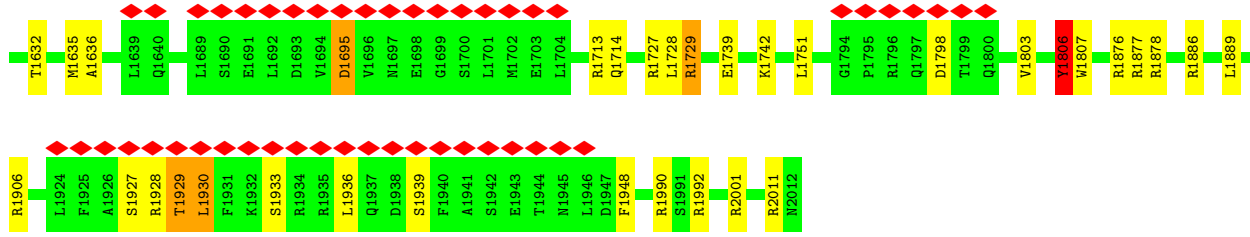
• Molecule 5: Nucleoporin NUP188 homolog





• Molecule 6: Nuclear pore complex protein Nup205

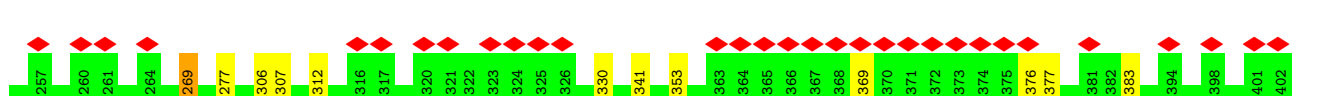
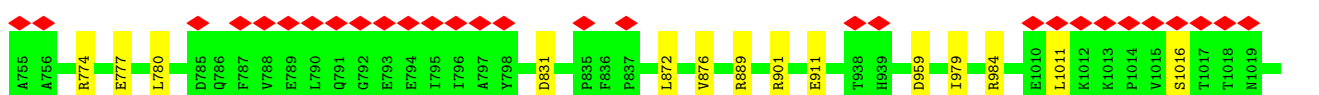
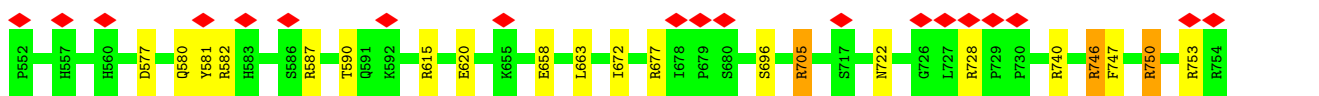
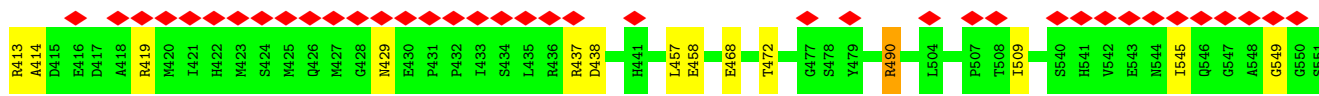
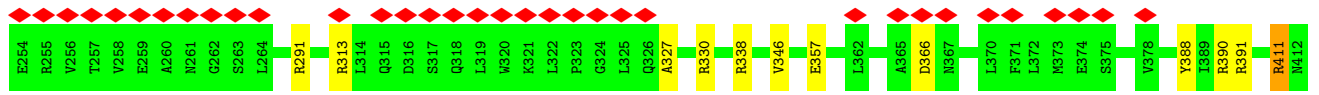
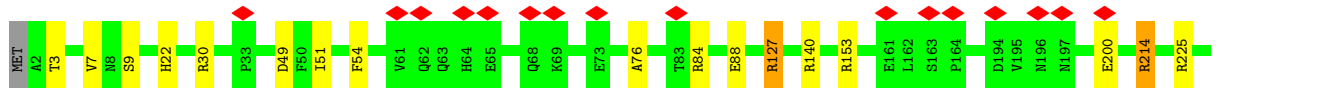




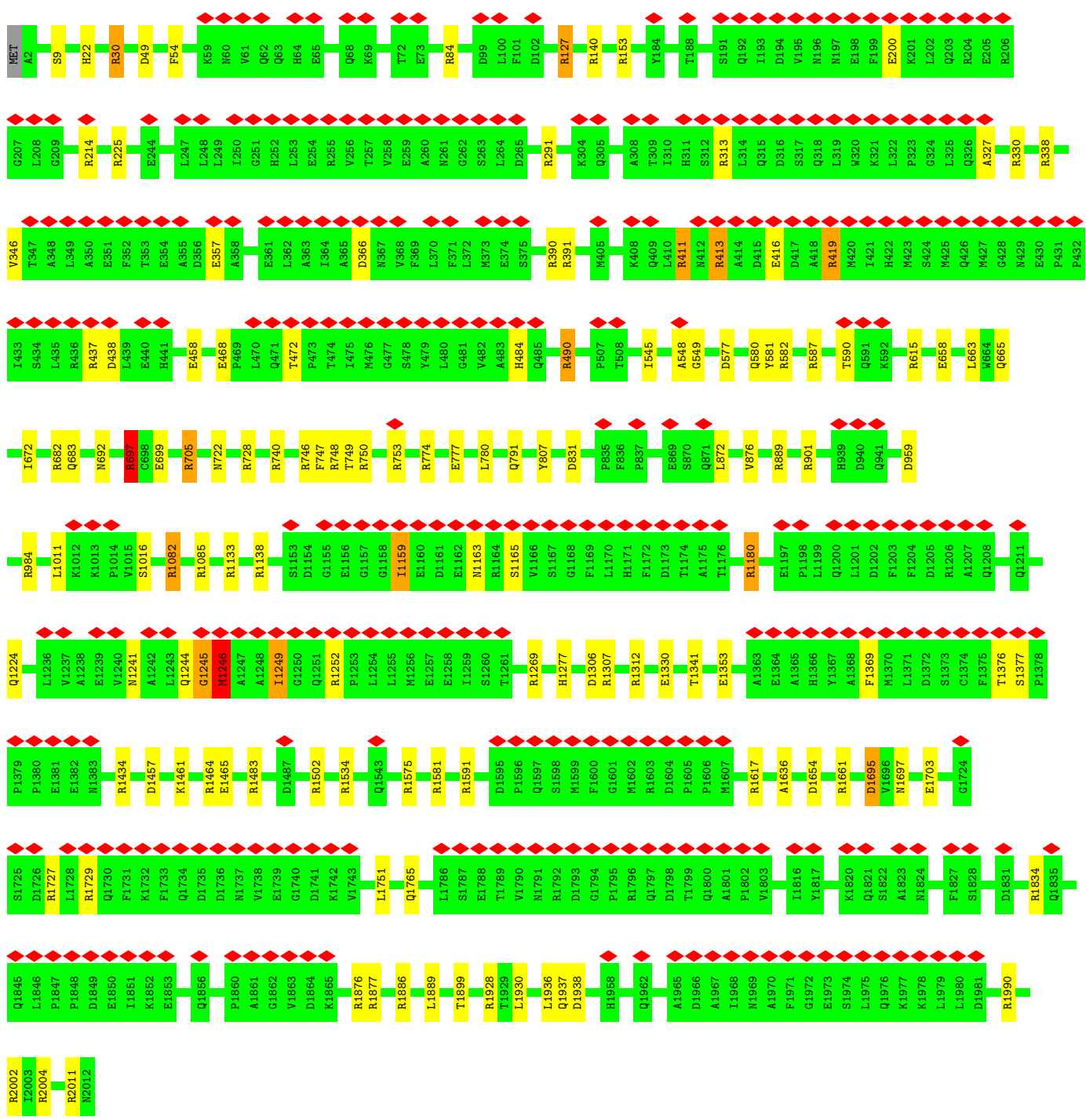
• Molecule 6: Nuclear pore complex protein Nup205



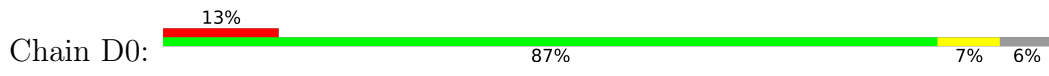
Chain C3:

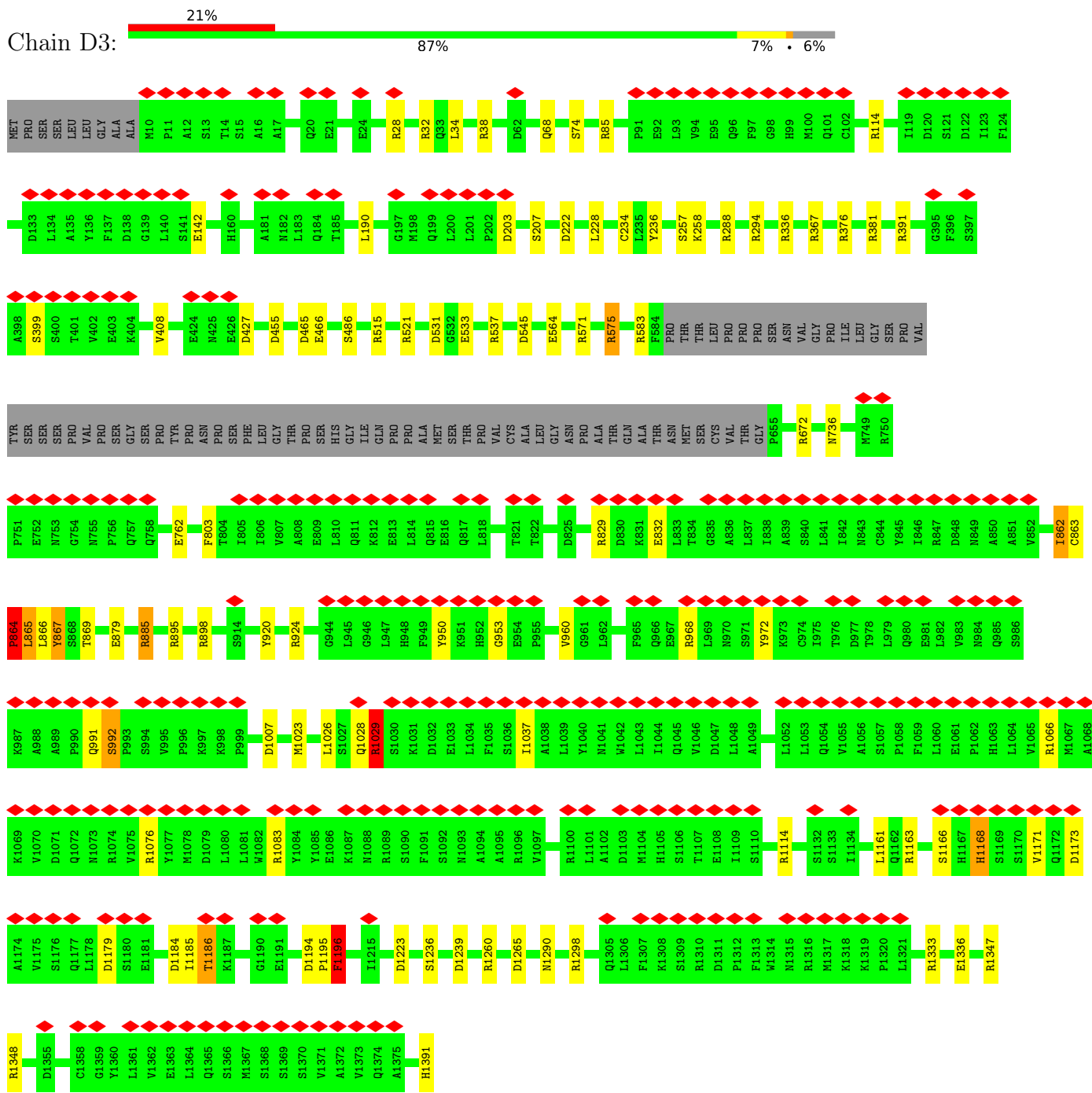


• Molecule 6: Nuclear pore complex protein Nup205

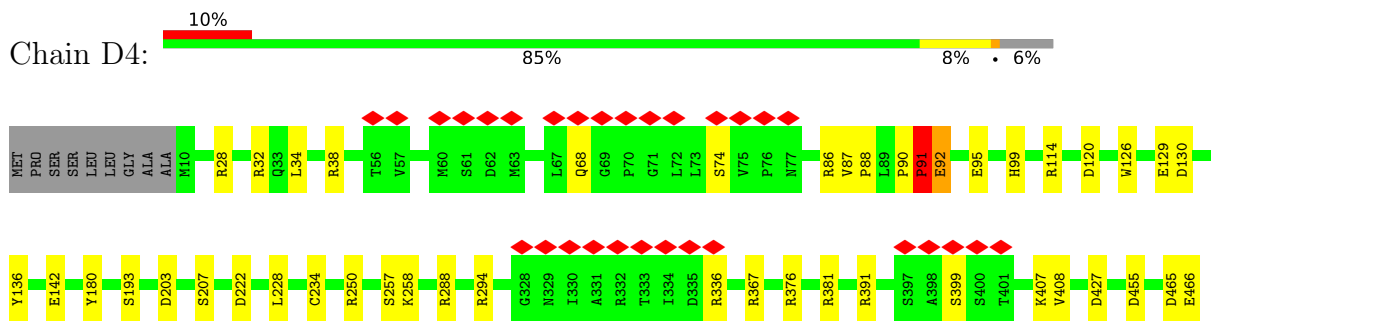


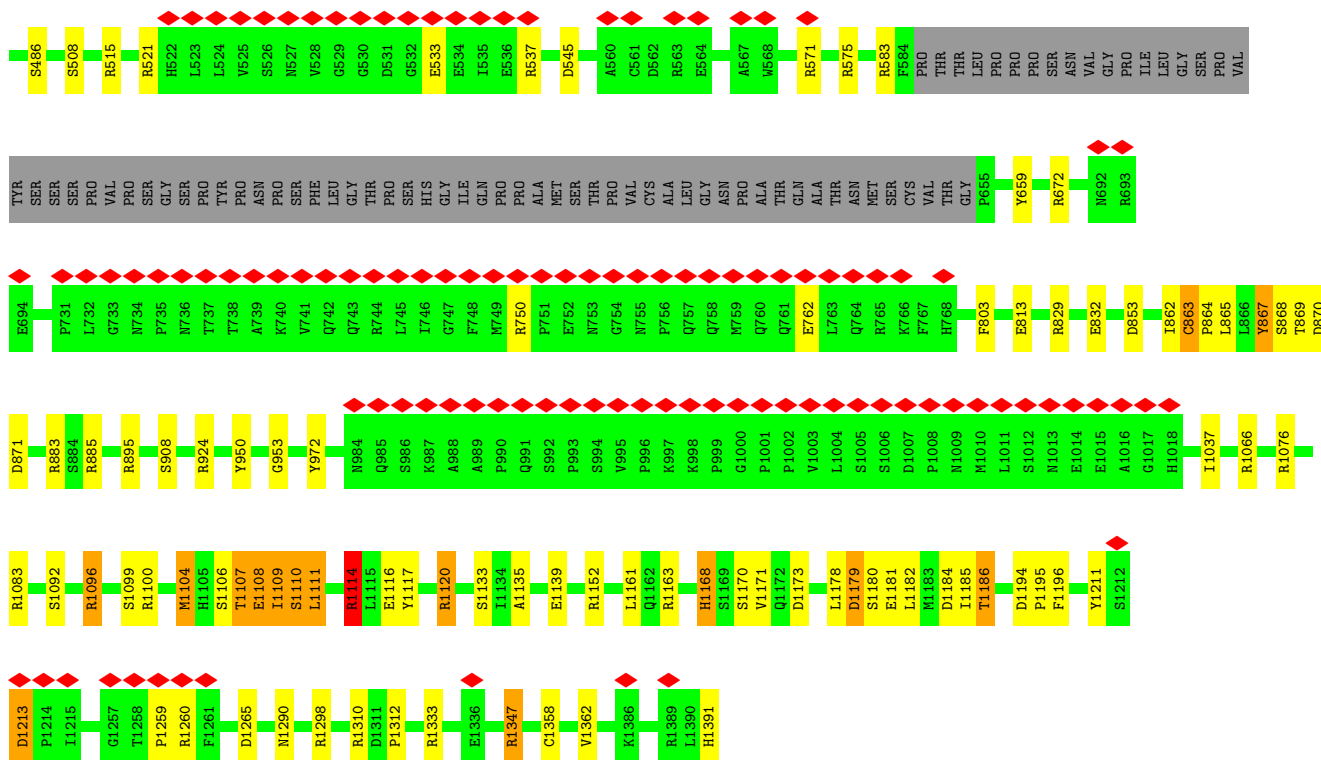
• Molecule 7: Nuclear pore complex protein Nup155



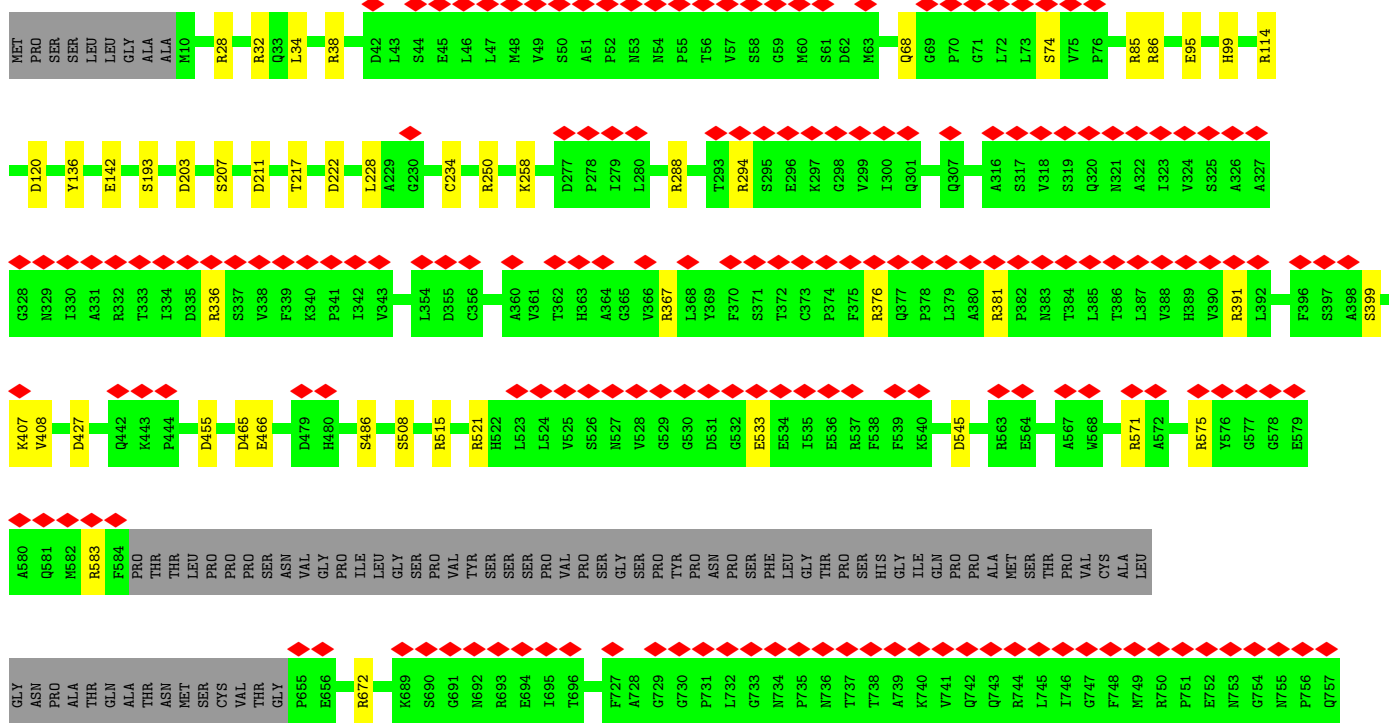
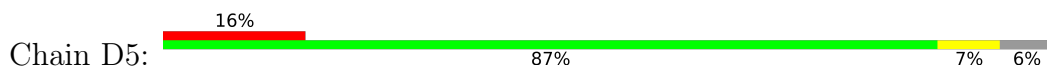


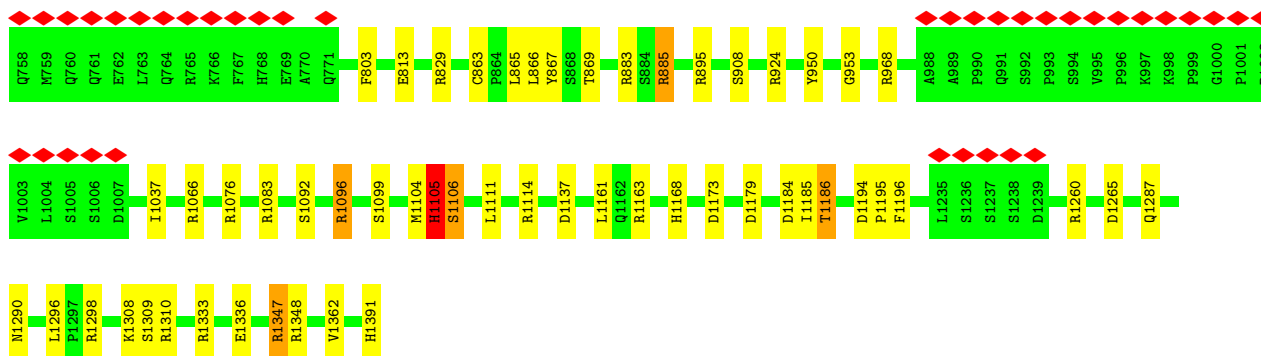
• Molecule 7: Nuclear pore complex protein Nup155



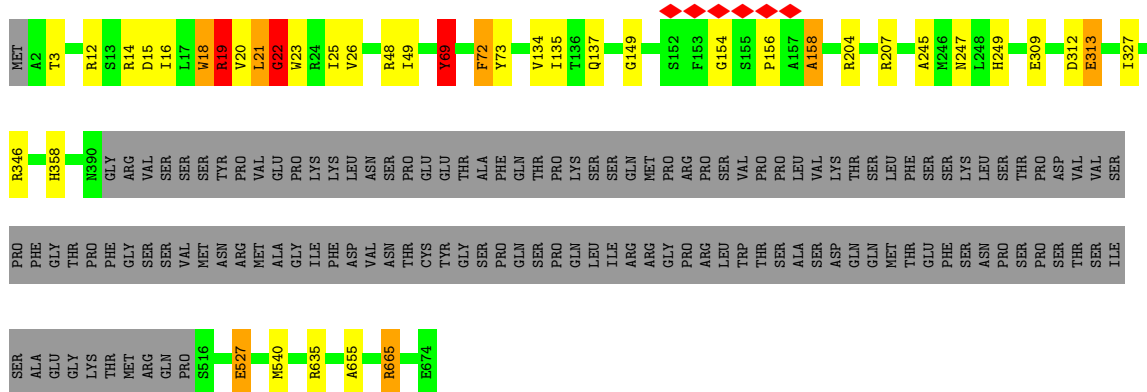
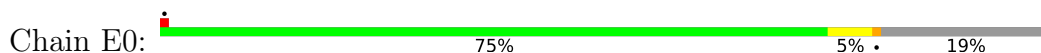


• Molecule 7: Nuclear pore complex protein Nup155

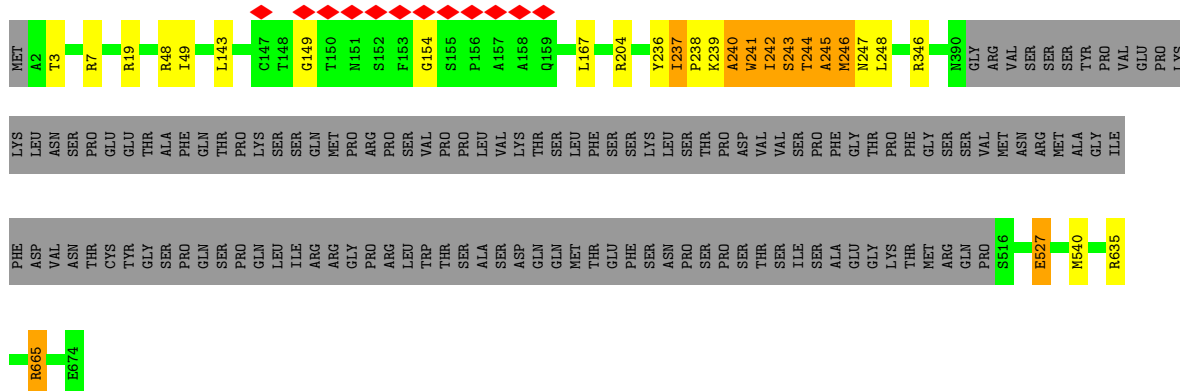
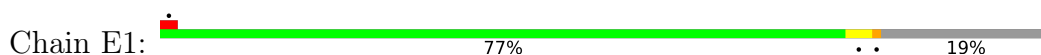




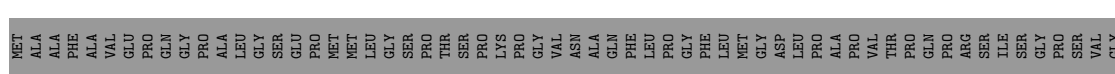
• Molecule 8: Nucleoporin NDC1

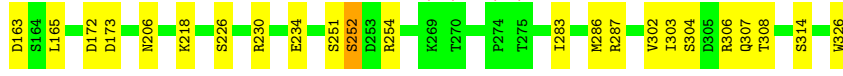
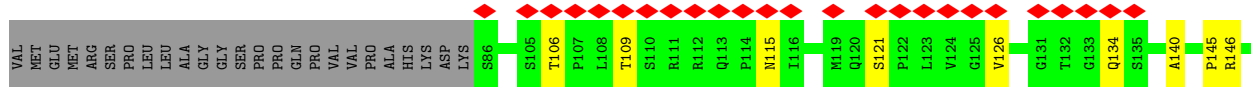


• Molecule 8: Nucleoporin NDC1

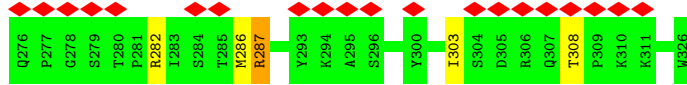
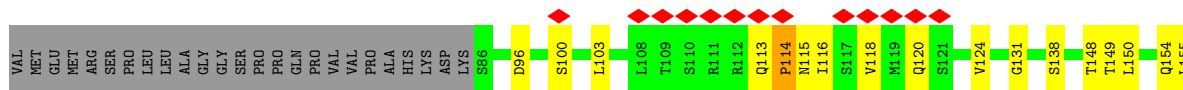


• Molecule 9: Nucleoporin NUP35

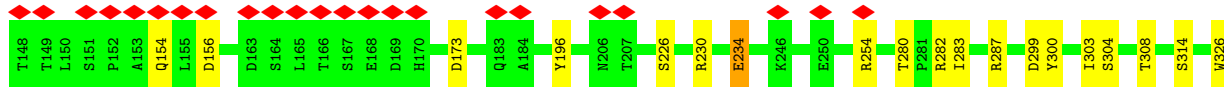
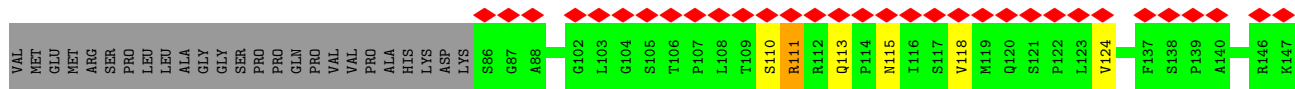




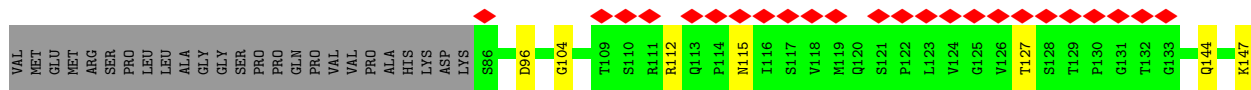
• Molecule 9: Nucleoporin NUP35

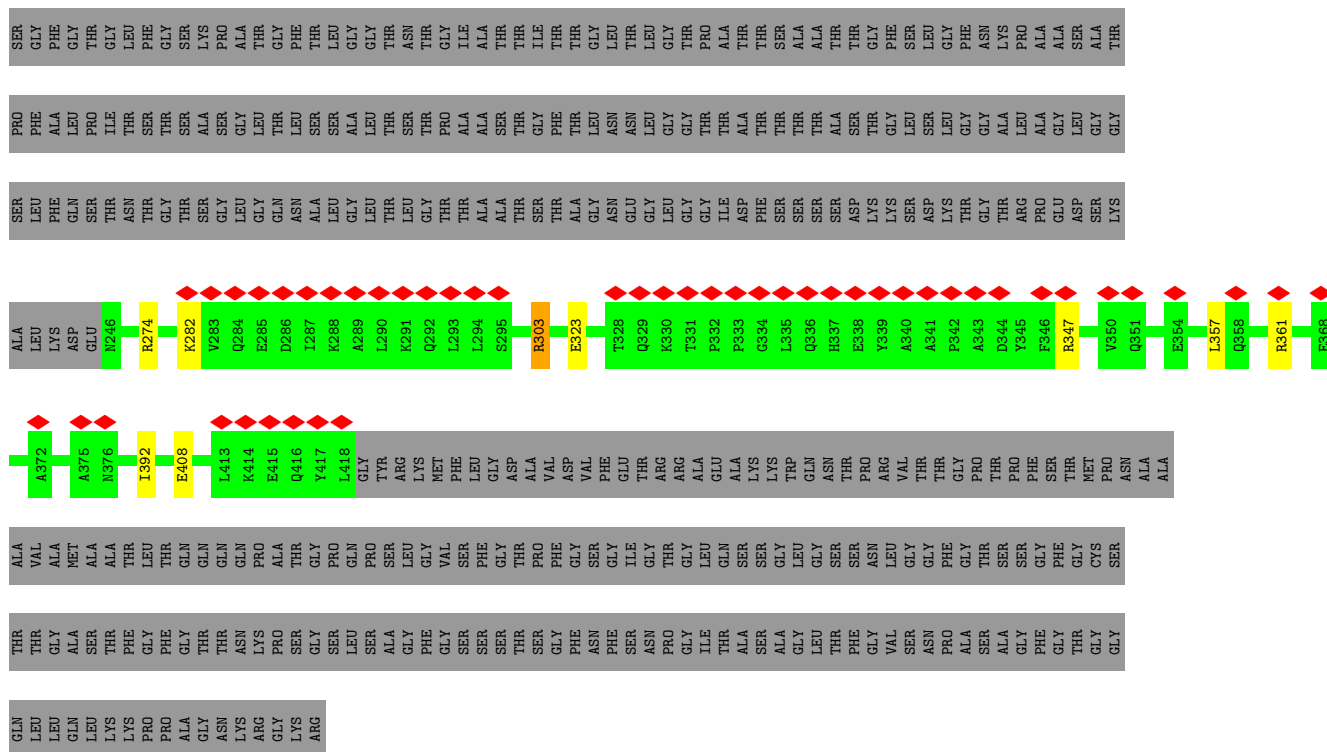


• Molecule 9: Nucleoporin NUP35

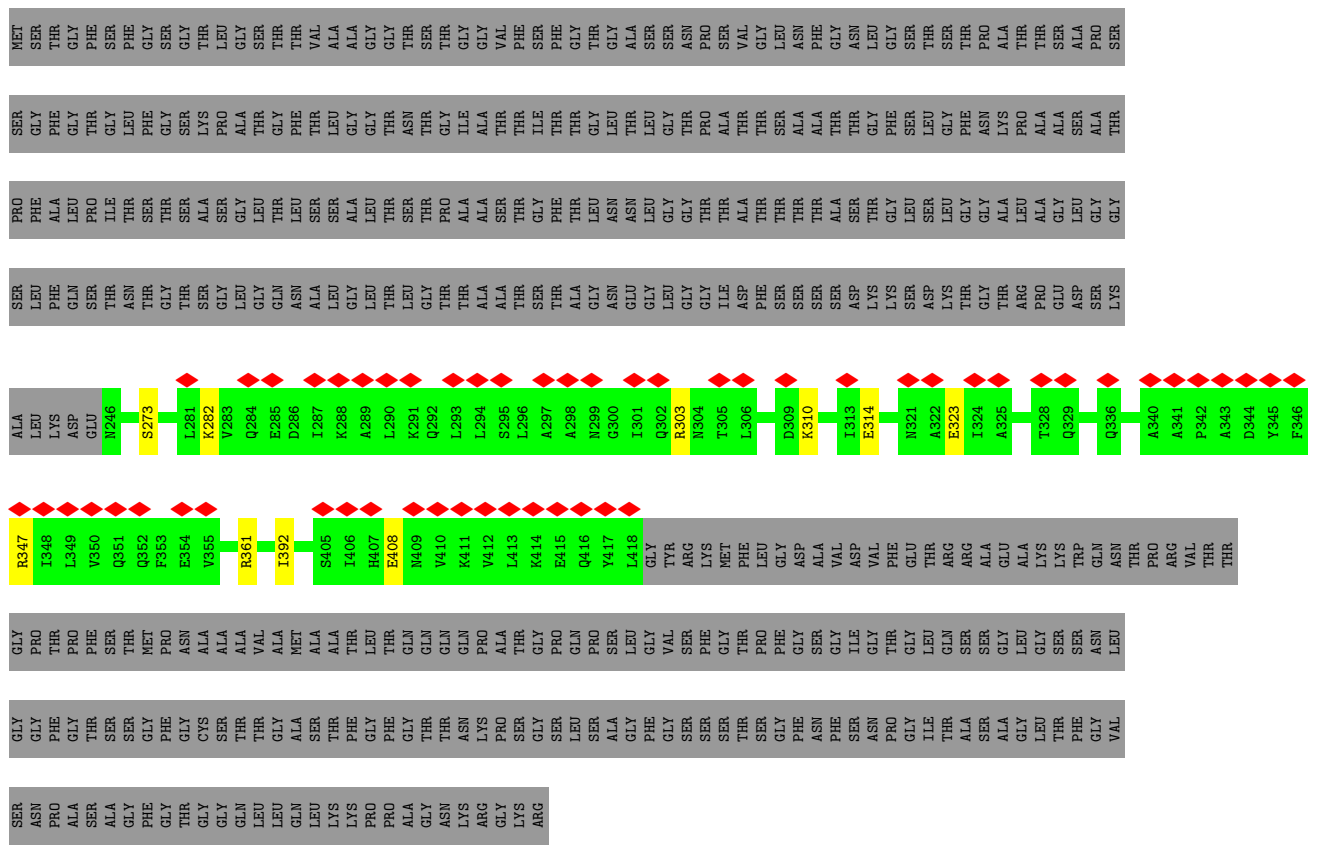


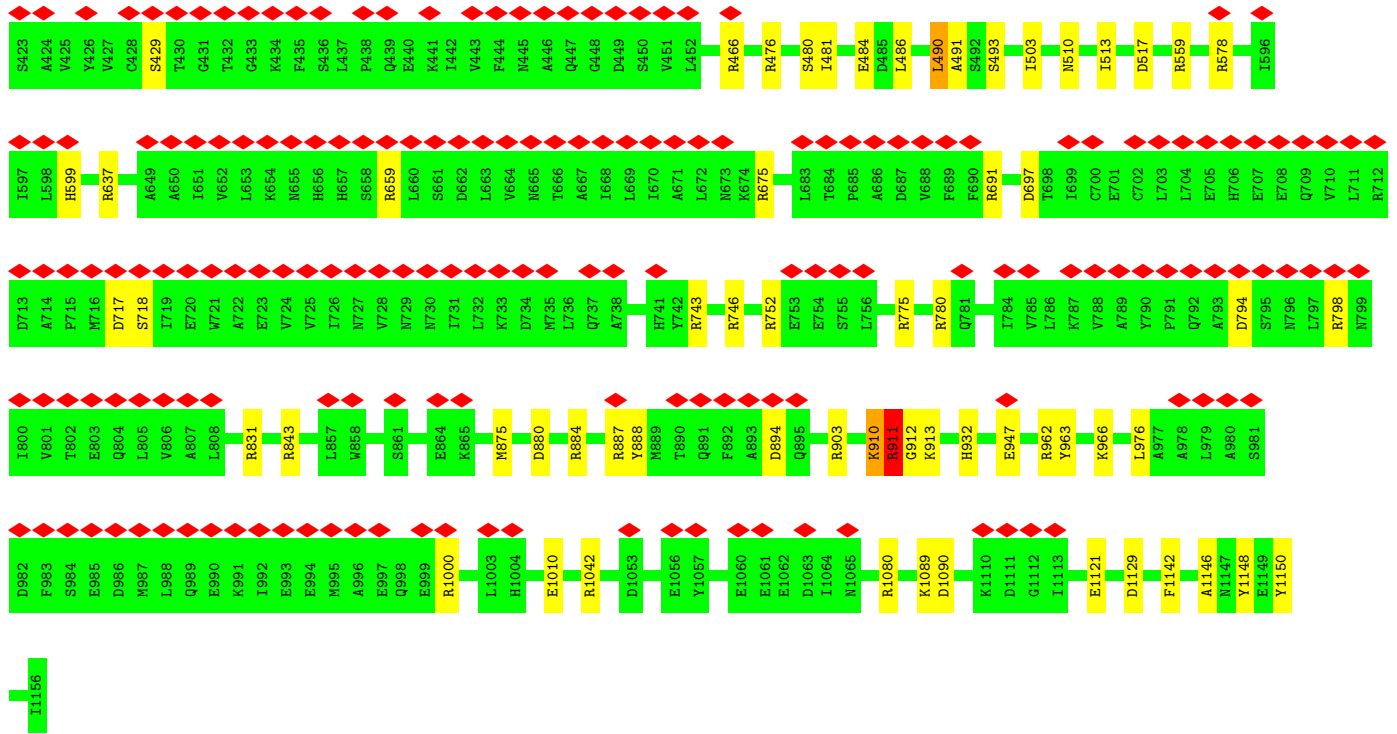
• Molecule 9: Nucleoporin NUP35



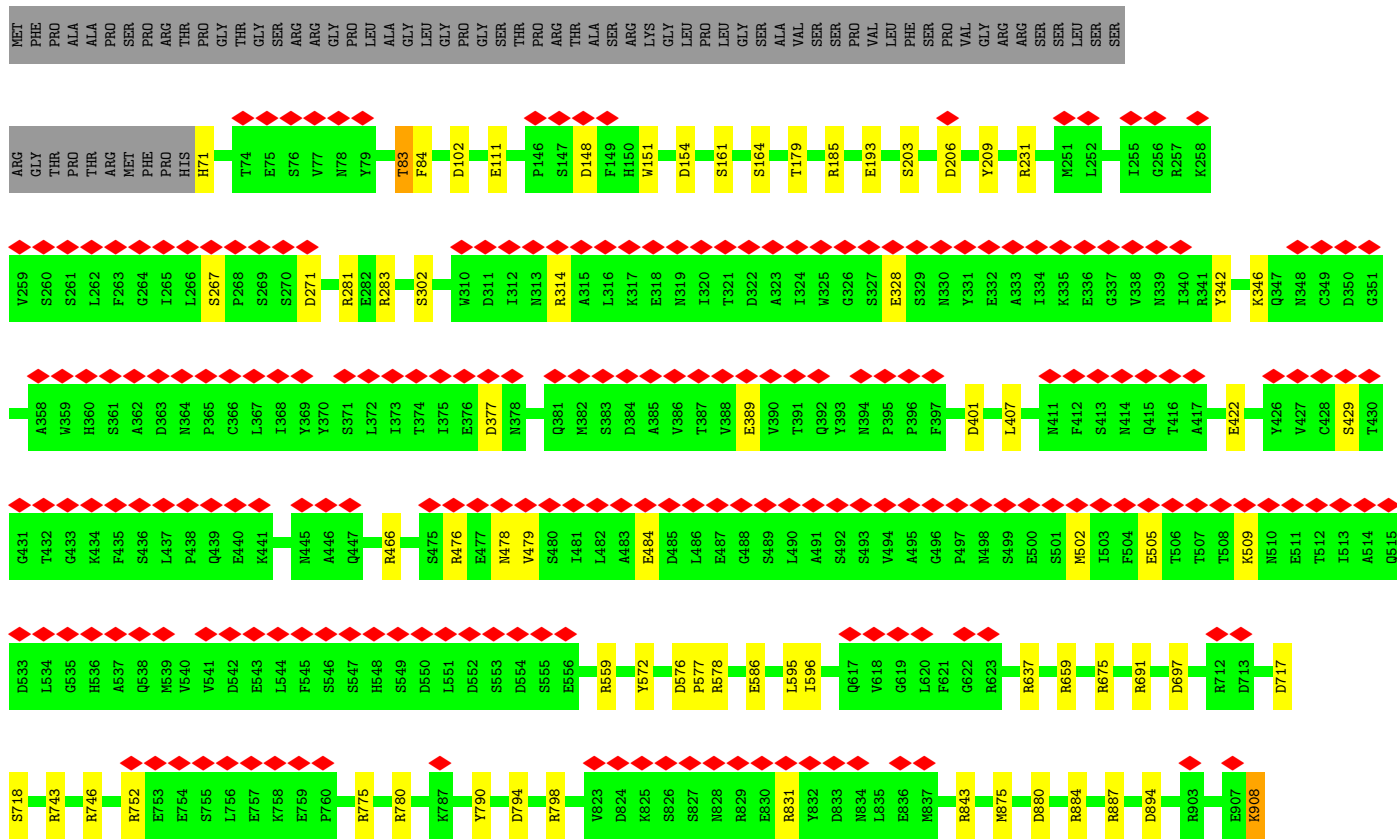
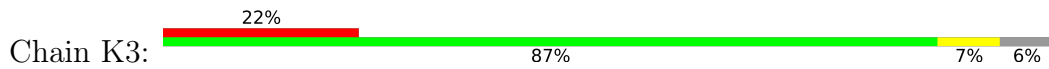


● Molecule 11: Nucleoporin p58/p45



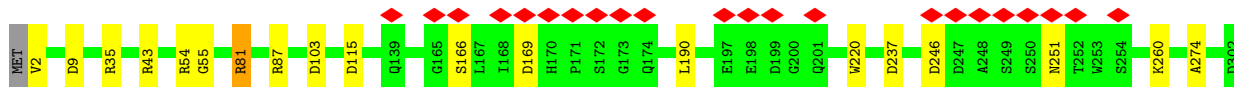
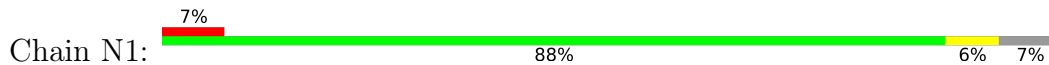


• Molecule 13: Nuclear pore complex protein Nup133



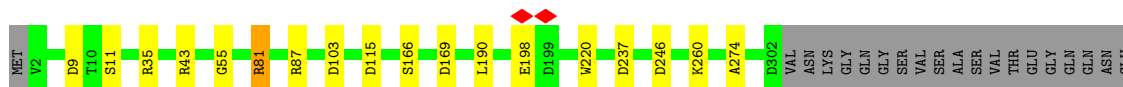
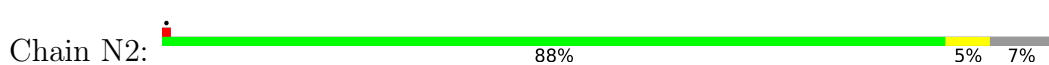
ASN
GLU
GLN

• Molecule 16: Protein SEC13 homolog



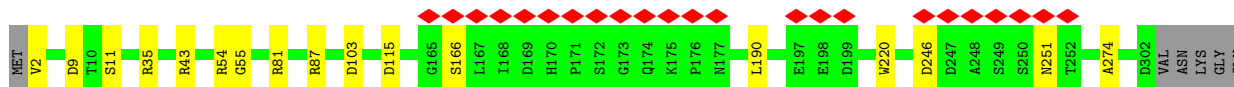
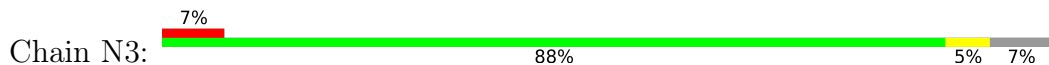
VAL
ASN
LYS
GLY
GLN
GLY
SER
VAL
SER
SER
ALA
SER
VAL
THR
GLU
GLY
GLN
GLN
ASN
GLU
GLN

• Molecule 16: Protein SEC13 homolog



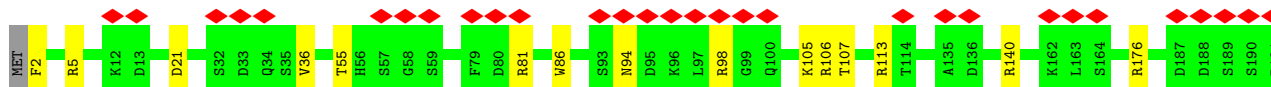
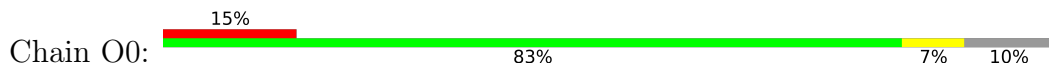
GLN

• Molecule 16: Protein SEC13 homolog



GLY
SER
VAL
SER
ALA
SER
VAL
THR
GLU
GLY
GLN
ASN
GLU
GLN

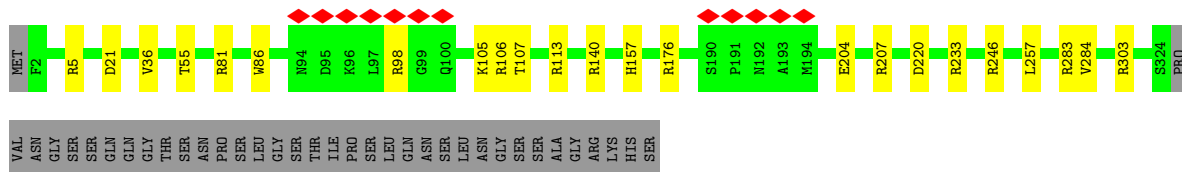
• Molecule 17: Nucleoporin SEH1



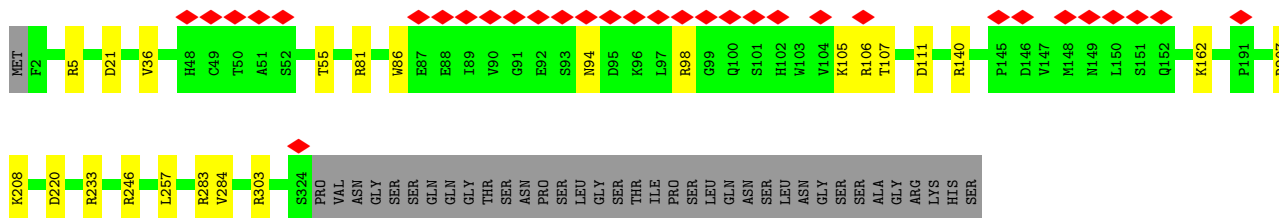
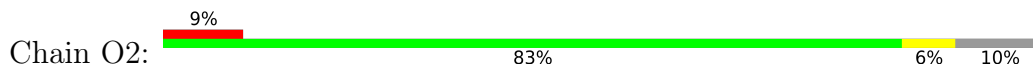
ASN
PRO
SER
LEU
GLY
SER
THR
ILE
PRO
SER
SER
GLN
ASN
SER
LEU
ASN
GLY
SER
SER
ALA
GLY
ARG
LYS
HIS
SER

• Molecule 17: Nucleoporin SEH1

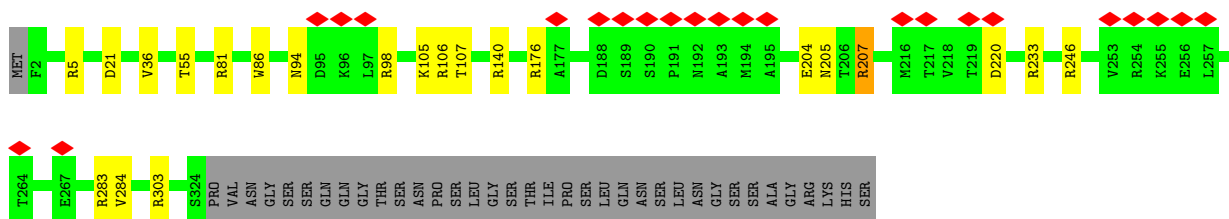
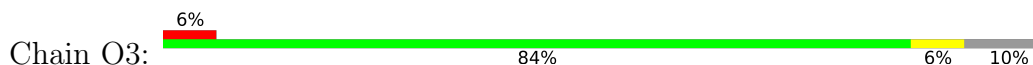




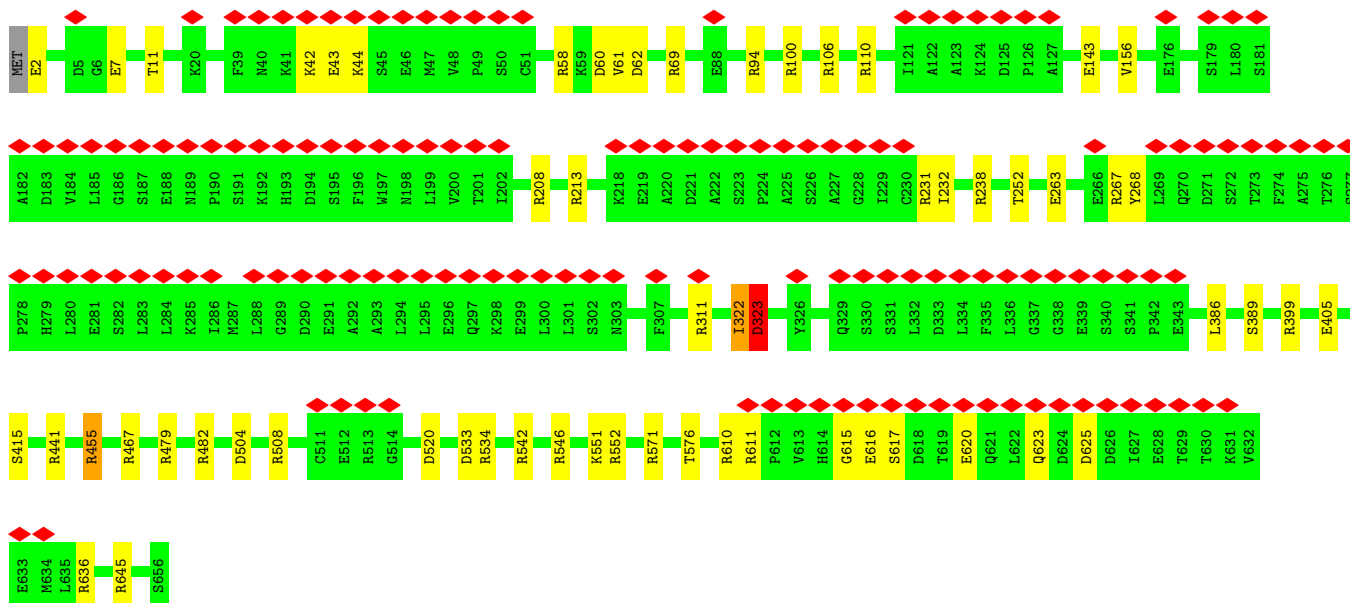
• Molecule 17: Nucleoporin SEH1



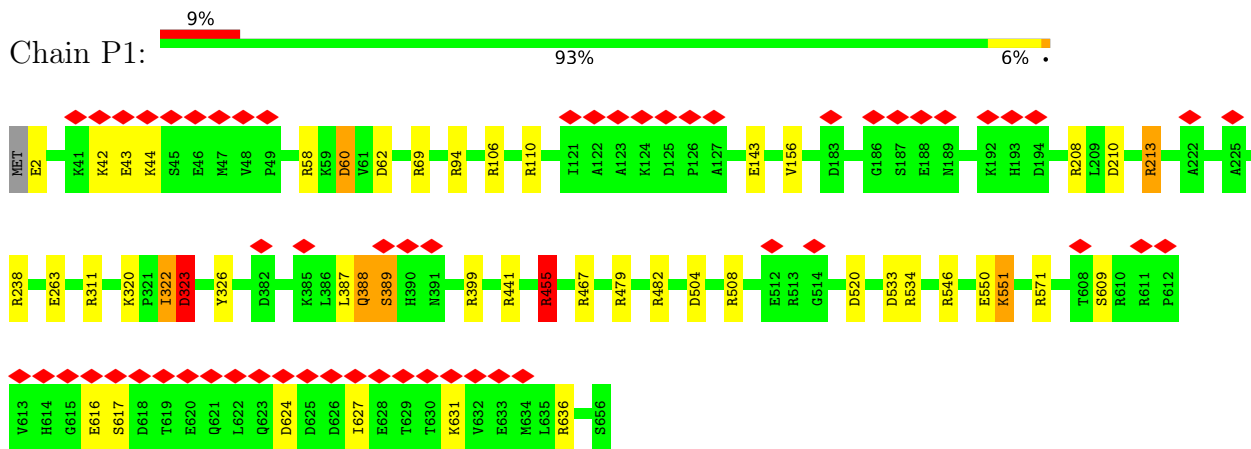
• Molecule 17: Nucleoporin SEH1



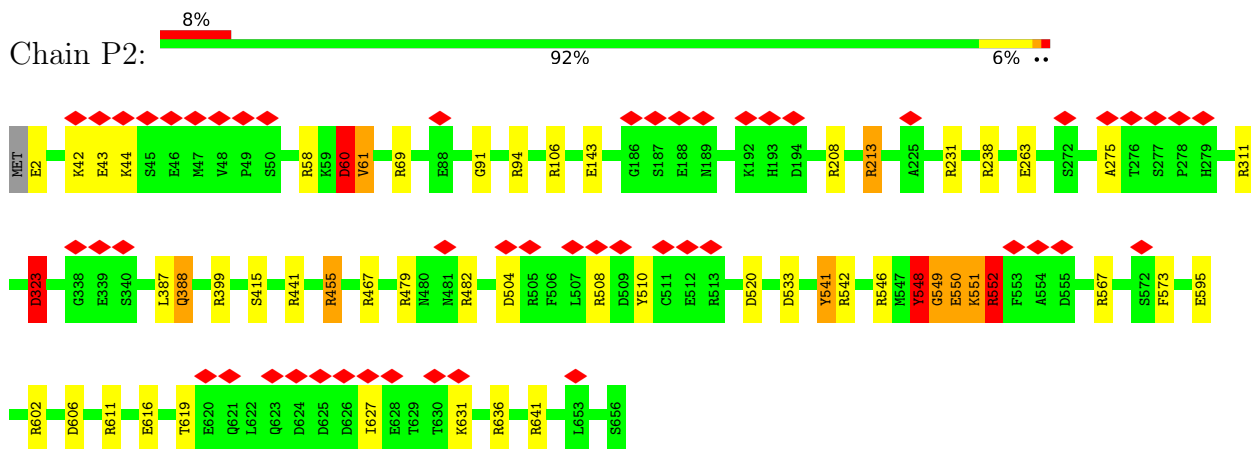
• Molecule 18: Nuclear pore complex protein Nup85



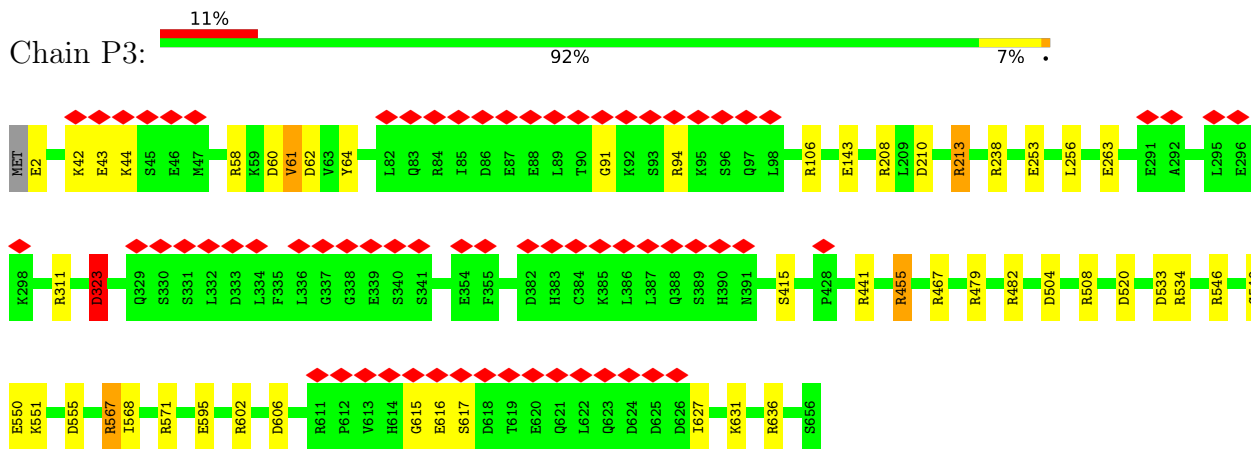
• Molecule 18: Nuclear pore complex protein Nup85



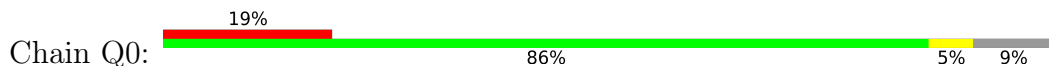
• Molecule 18: Nuclear pore complex protein Nup85

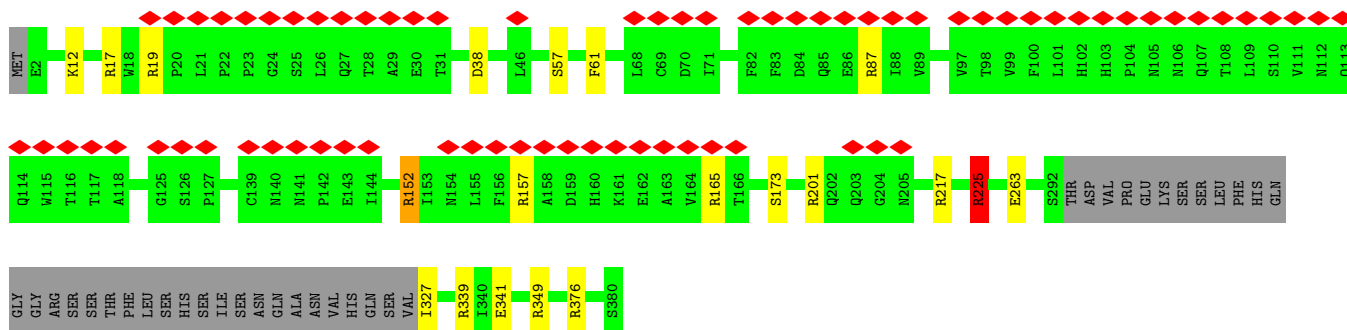


• Molecule 18: Nuclear pore complex protein Nup85

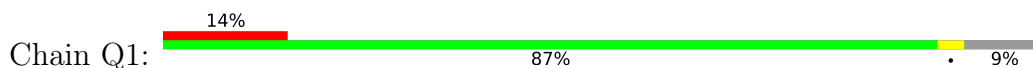


• Molecule 19: Nucleoporin Nup43

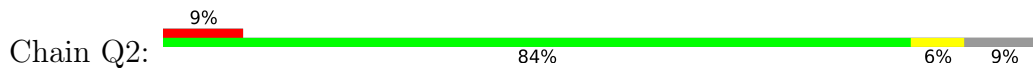




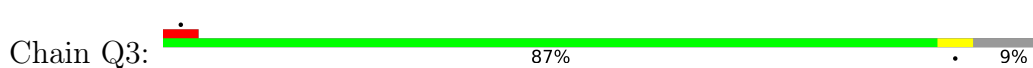
• Molecule 19: Nucleoprin Nup43

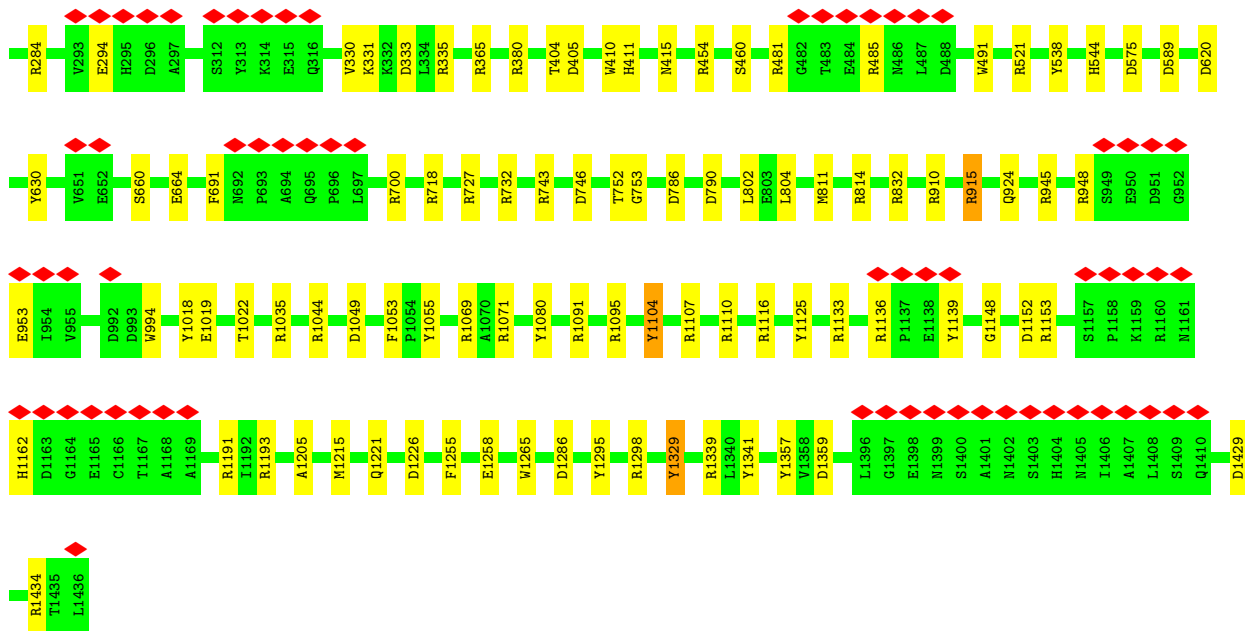


• Molecule 19: Nucleoprin Nup43

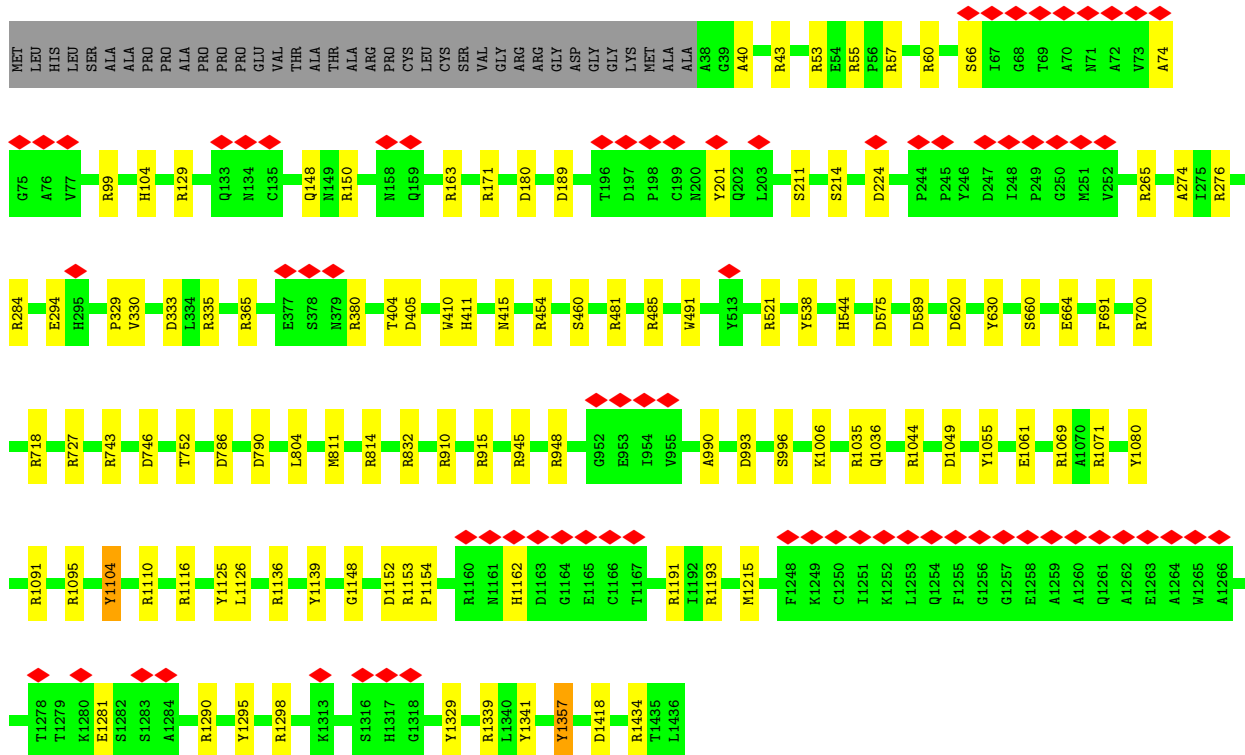
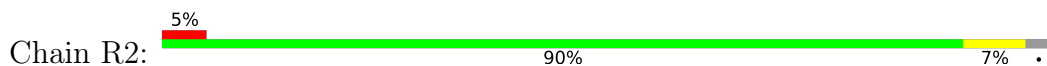


• Molecule 19: Nucleoprin Nup43

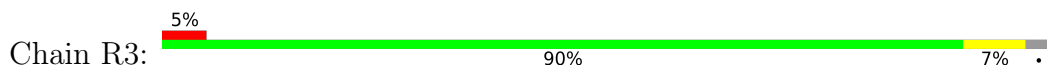


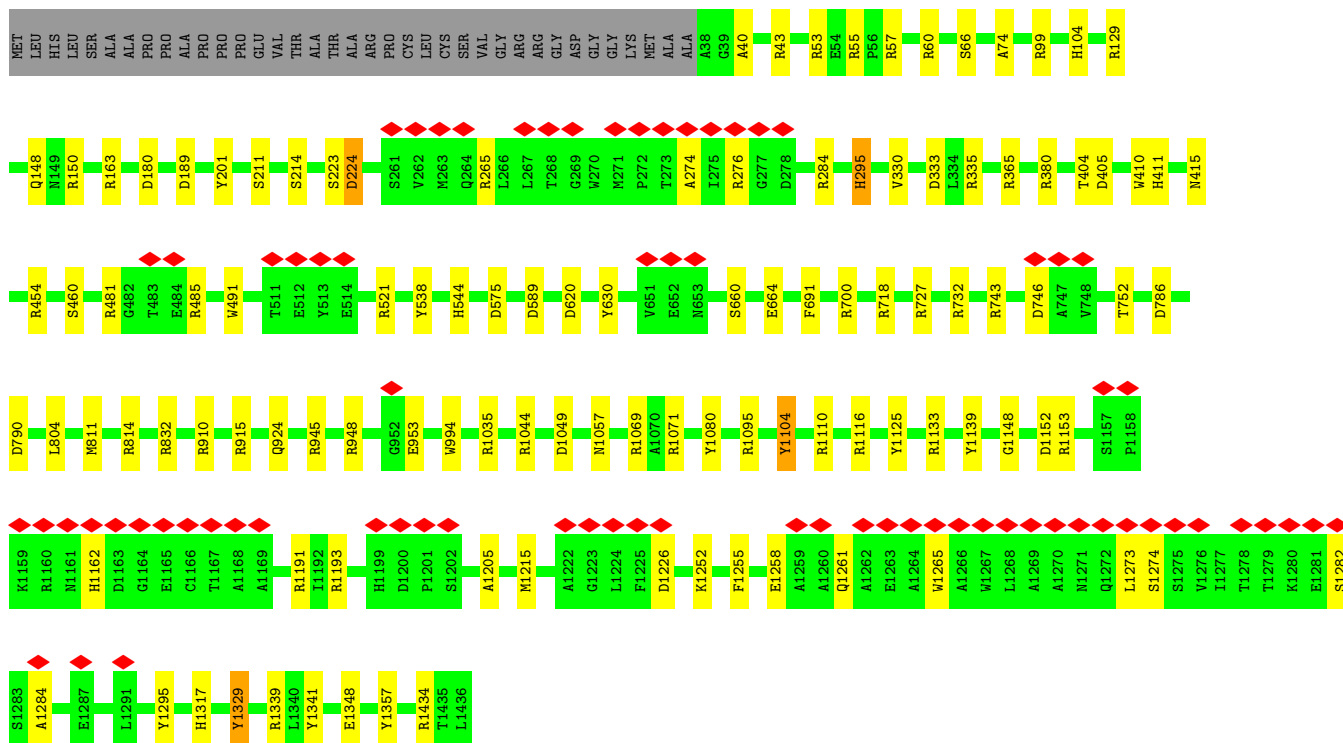


• Molecule 20: Nuclear pore complex protein Nup160

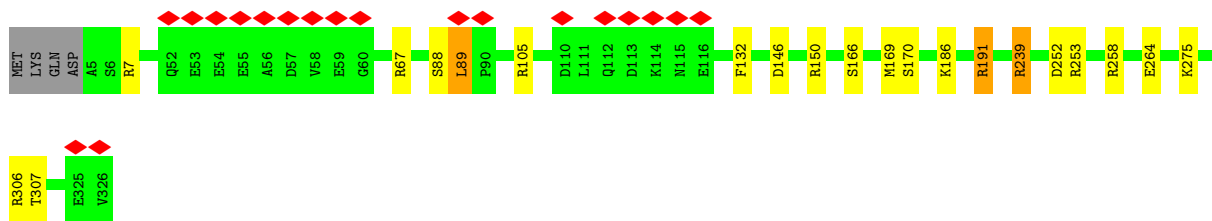


• Molecule 20: Nuclear pore complex protein Nup160

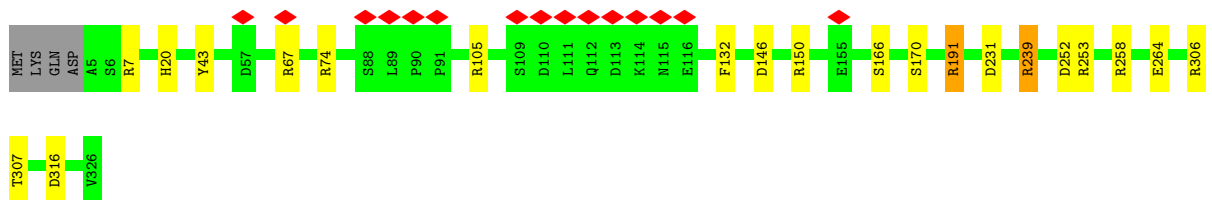
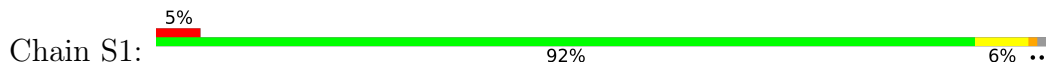




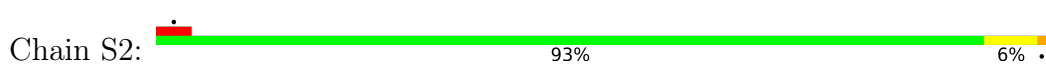
• Molecule 21: Nucleoporin Nup37

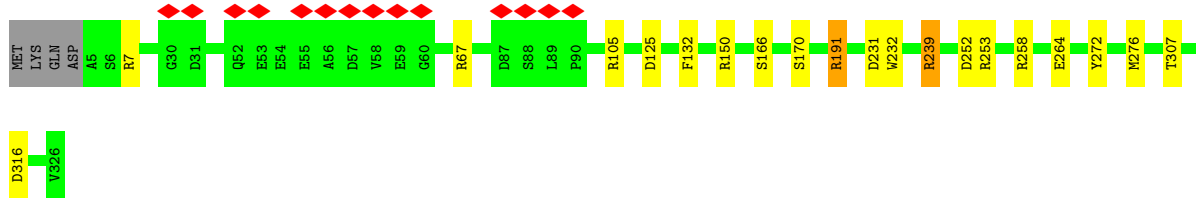


• Molecule 21: Nucleoporin Nup37

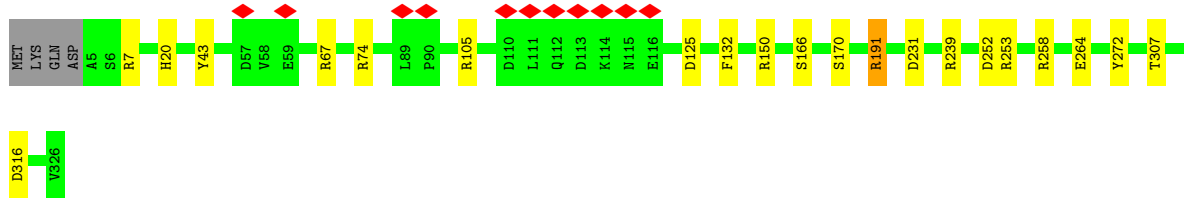


• Molecule 21: Nucleoporin Nup37

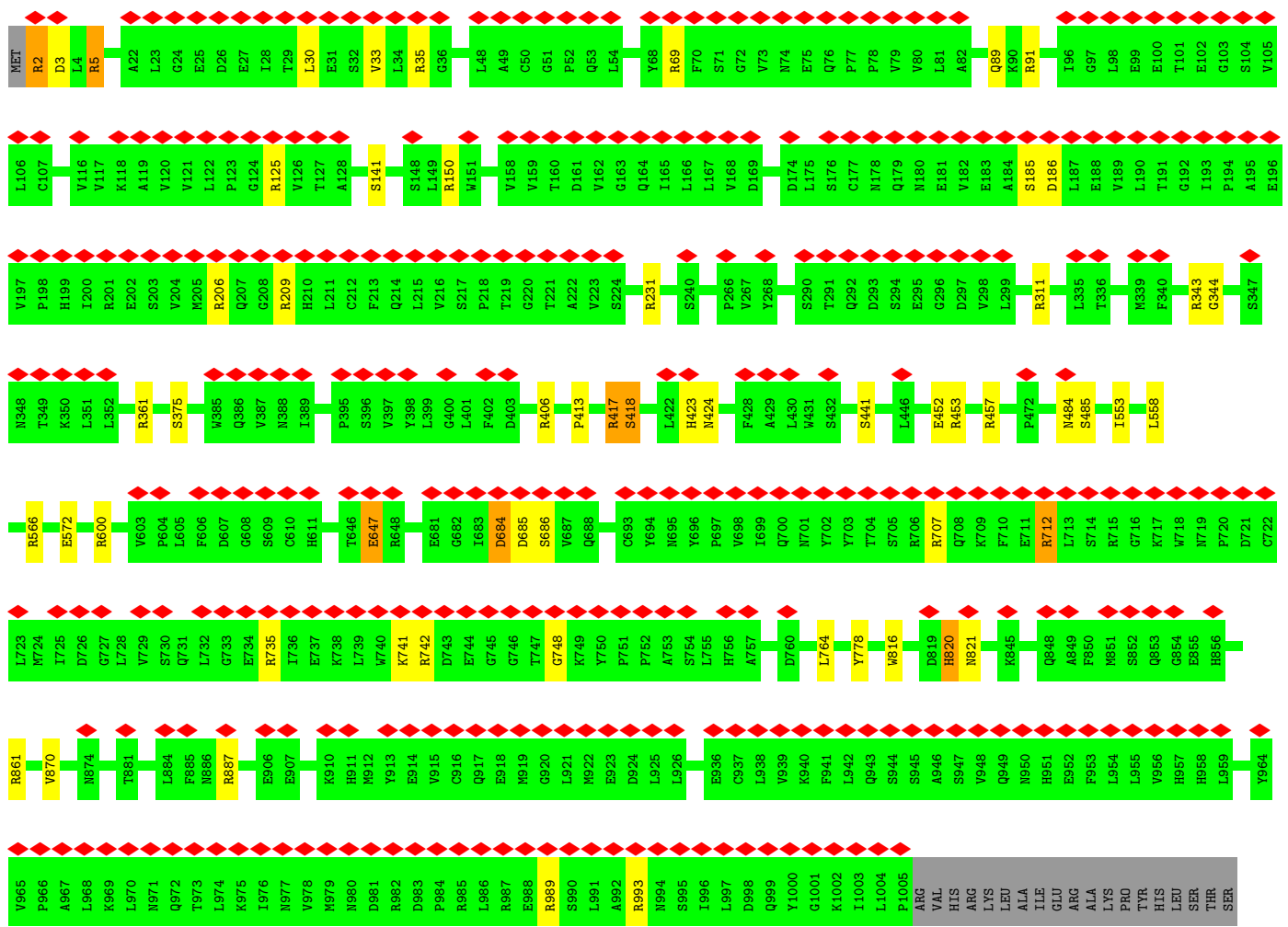
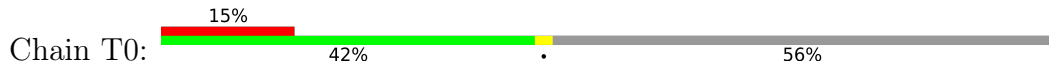




• Molecule 21: Nucleoporin Nup37



• Molecule 22: Protein ELYS

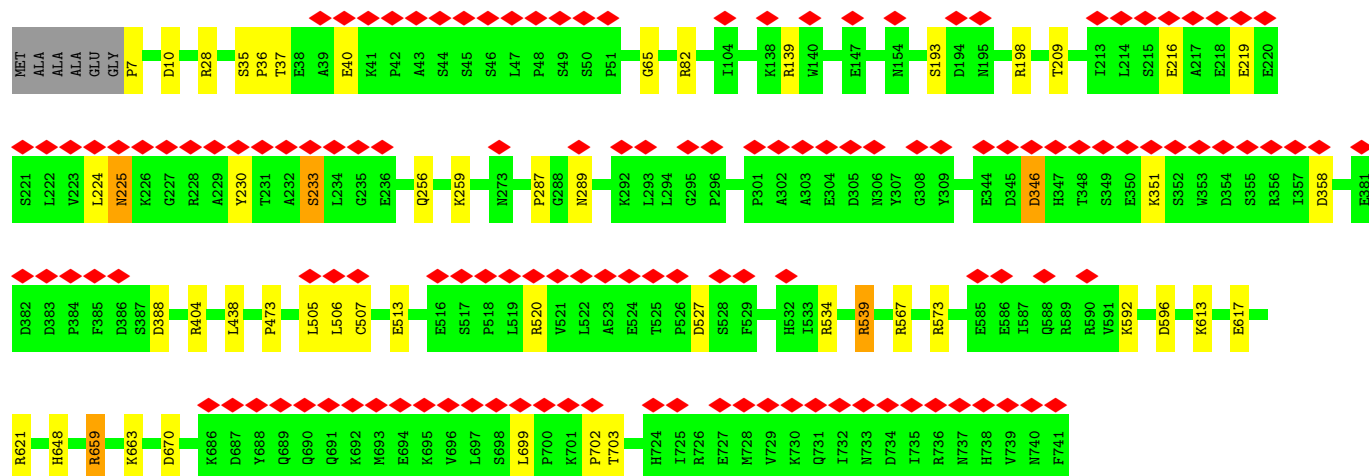


ALA	SER	PRO	ALA	ASP	GLY	VAL	LYS	SER	PRO	LYS	PRO	ARG	LYS	THR	THR	GLU	THR	GLY	THR	GLY	GLY	ARG	ASN	ARG	ARG	LYS	LYS	LEU	SER	SER	TYR	PRO	LYS	GLN	ILE	LEU	ARG	ARG	LYS	LYS	MET	LEU
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● Molecule 22: Protein ELYS



MET	R2	D3	L4	R5	A6	Q7	T19	A22	L23	G24	E25	V26	D26	E27	I28	T29	L30	E31	S32	V33	L34	R35	G36	K37	F38	A39	A40	G41	K42	N43	G44	L45	A46	C47	L48	A49	C50	G51	P52	Q53	L54	E55	V56	V57	R64	L65	S66	A67	Y68	R69	F70	S71	G72	V73	N74	E75	Q76	P77	P78	V79	V80	L81	A82	V83	K84	E85	F86	S87	W88	Q89	K90	R91	T92	G93	L94	L95	I96	G97	L98	E99	E100	E102	G103	S104	V105	L106	C107	L108	Y109	D110	L111	G112	I113	S114	K115	V116	V117	K118	A119	V120	V121	L122	P123	G124	R125	V126	T127	A128	I129	E130	P131	I132	I133	N134	H135	G136	G137	A138	S139	A140	S141	T142	Q143	H144	L145	H146	P147	S148	L149	R150	W151	L152	F153	G154	V155	A156	A157	V158	V159	T160	D161	E162	G163	Q164	I165	L166	L167	V168	D169	L170	C171	L172	D173	D174	L175	S176	C177	M178	Q179	M180	E181	V182	E183	A184	S185	D186	L187	E188	V189	M190	K250	T191	G251	M252	I253	P194	A195	E196	V197	P198	H199	I200	E201	E202	S203	V204	M205	R206	Q207	G208	R209	H210	L211	C212	F213	Q214	L215	V216	S217	P218	T219	G220	T221	A222	V223	S224	T225	L226	S227	Y228	Q229	S230	R231	T232	N233	Q234	L235	A236	V237	G238	F239	S240	D241	G242	Y243	L244	A245	Q246	W247	N248	M249	K250	T251	M252	K253	L254	A255	S316	Y256	Y257	I258	Q259	L260	E261	S262	S263	Q264	V265	P266	V267	Y268	A269	R270	H271	F272	Q273	E274	P275	E276	D277	D278	P279	R280	N281	C282	C283	Y284	L285	V286	A287	V288	Q289	S290	T291	Q292	D293	S294	E295	G296	D297	V298	L299	S300	L301	H302	L303	L304	Q305	D306	A307	F308	G309	N310	R311	K312	C313	L314	A315	S316	G317	Q318	I319	L320	E321	G322	G323	L324	Y325	Y326	C327	E328	E329	R330	Y331	T332	L333	D334	L335	T336	G337	M338	F339	F340	P341	L342	R343	G344	Q345	T346	S347	N348	T349	K350	L351	L352	G353	Q355	S356	I357	E358	K359	F360	R361	S362	H363	G364	D365	D366	E367	E368	G369	V370	N371	E372	A373	L374	S375	P376	D377	T378	S379	V380	S381	V382	F383	T384	W385	Q386	V387	N388	I389	Y390	P395	S396	V397	Y398	L399	G400	F401	D402	I403	I404	M405	R406	W407	Y408	H409	A410	Q411	M412	P413	D414	S415	L416	R417	S418	G419	E420	Y421	L422	H423	M424	C425	S426	Y427	F428	A429	L430	W431	S432	L433	G434	E435	S436	L510	N511	G444	I445	L446	D447	I448	L449	V450	E451	R452	S453	S454	L455	M456	R457	G458	V459	P460	S461	S462	Y463	P464	P465	P466	E467	Q468	F469	F470	M471	P472	S473	Y474	Y475	M476	F477	L482	L483	M484	S485	T491	C492	G493	G494	E495	Q496	K497	E498	S499	S500	A501	A502	Q503	S504	T505	S506	S507	S508	S509	L510	N511	E512	L513	I514	P515	D516	G517	Y518	N519	R520	C521	L522	V523	A524	G525	L526	L527	S528	P529	R530	F531	V532	D533	V534	Q535	P536	S537	S538	L539	S540	Q541	E542	E543	Q544	L545	E546	A547	I548	L549	S550	A551	A552	I553	Q554	T555	S556	S557	L558	E571	E572	Q573	P574	N575	S576	A577	T578	N579	L580	R581	F582	V583	L584	E585	R600	V603	P604	L605	F606	D607	G608	S609	C610	H611	F612	E644	I645	T646	E647	R648	G649	L650	I651	D652	N655	L678	L679	P680	E681	G682	I683	D684	D685	S686	V687	Q688	L689	S690	R691	L692	C693	Y694	N695	Y696	P697	V698	I699	Q700	N701	Y702	Y703	T704	S705	R706	Y707	Q708	K709	F710	E711	R712	L713	S714	R715	G716	K717	M718	M719	P720	D721	C722	L723	M724	I725	F726	P727	T728	V729	S730	Q731	L732	G733	E734	R735	I736	E737	K738	L739	E740	K741	R742	D743	E744	G745	G746	T747	G748	K749	Y750	P751	P752	A753	S754	L755	H756	A757	V758	L759	D760	M761	Y762	L763	L764	D765	G766	V767	A771	K772	H773	S774	I775	T776	I777	Y778	L779	L780	L781	D782	I783	M784	Y785	S786	F787	P788	M789	K790	T791	D792	V809	R810	L811	I812	Q813	G814	F815	M816	L817	L818	D819	H820	N821	D822	Y823	E824	S825	G826	L827	D828	L829	L830	H841	Q842	H843	S844	K845	L846	L847	Q848	A849	F850	M851	S852	Q853	G854
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4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, Not provided	
Number of subtomograms used	150	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	130	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.878	Depositor
Minimum map value	-0.768	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.063	Depositor
Recommended contour level	0.0891	Depositor
Map size (\AA)	1987.2001, 1987.2001, 1987.2001	wwPDB
Map dimensions	144, 144, 144	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	13.8, 13.8, 13.8	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	00	0.69	0/6212	1.04	21/8405 (0.2%)
1	01	0.69	0/6212	1.04	20/8405 (0.2%)
1	02	0.69	0/6212	1.04	18/8405 (0.2%)
1	03	0.69	0/6212	1.04	19/8405 (0.2%)
1	04	0.69	0/6212	1.04	21/8405 (0.2%)
2	10	1.01	5/14350 (0.0%)	1.01	49/19560 (0.3%)
2	11	0.65	0/14350	0.97	32/19560 (0.2%)
2	12	0.65	0/14350	0.97	37/19560 (0.2%)
2	13	0.65	0/14350	0.97	35/19560 (0.2%)
2	14	0.66	0/14350	0.98	42/19560 (0.2%)
2	15	0.65	0/14350	0.98	38/19560 (0.2%)
2	16	0.65	0/14350	0.98	38/19560 (0.2%)
2	17	0.68	7/14350 (0.0%)	1.01	51/19560 (0.3%)
3	40	0.68	0/3007	1.04	7/4114 (0.2%)
3	41	0.68	0/3007	1.04	7/4114 (0.2%)
4	A0	0.71	0/6687	1.07	31/9036 (0.3%)
4	A1	0.70	0/6687	1.06	31/9036 (0.3%)
4	A2	0.71	0/6687	1.08	29/9036 (0.3%)
4	A3	0.70	0/6687	1.05	29/9036 (0.3%)
4	A4	0.71	0/5972	1.05	27/8068 (0.3%)
4	A5	0.71	0/5972	1.03	25/8068 (0.3%)
4	A6	0.71	0/5972	1.04	27/8068 (0.3%)
5	B0	0.68	0/14018	1.02	44/19022 (0.2%)
5	B1	0.68	0/14018	1.01	36/19022 (0.2%)
6	C0	0.69	0/16330	1.04	76/22131 (0.3%)
6	C1	0.69	0/16330	1.04	73/22131 (0.3%)
6	C2	0.92	5/16330 (0.0%)	1.00	52/22131 (0.2%)
6	C3	0.69	0/16330	1.03	69/22131 (0.3%)
6	C4	0.69	0/16330	1.03	67/22131 (0.3%)
7	D0	0.67	0/10568	1.03	42/14320 (0.3%)
7	D1	0.98	3/10568 (0.0%)	1.05	48/14320 (0.3%)
7	D2	0.67	0/10568	1.02	39/14320 (0.3%)
7	D3	0.68	0/10568	1.02	36/14320 (0.3%)
7	D4	0.85	5/10568 (0.0%)	1.05	46/14320 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
7	D5	0.67	0/10568	1.01	36/14320 (0.3%)
8	E0	1.17	11/4563 (0.2%)	1.11	28/6214 (0.5%)
8	E1	0.79	2/4563 (0.0%)	1.06	23/6214 (0.4%)
9	F0	0.70	0/1882	1.08	3/2556 (0.1%)
9	F1	0.70	0/1882	1.05	4/2556 (0.2%)
9	F2	0.71	0/1882	1.11	5/2556 (0.2%)
9	F3	0.72	0/1882	1.05	3/2556 (0.1%)
10	H0	0.64	0/3114	1.02	13/4211 (0.3%)
10	H1	0.64	0/3114	1.01	12/4211 (0.3%)
10	H2	0.64	0/3114	1.00	11/4211 (0.3%)
10	H3	0.64	0/3114	1.01	12/4211 (0.3%)
11	I0	0.65	0/1416	0.97	4/1911 (0.2%)
11	I1	0.65	0/1416	0.98	4/1911 (0.2%)
11	I2	0.65	0/1416	0.97	4/1911 (0.2%)
11	I3	0.65	0/1416	0.97	3/1911 (0.2%)
12	J0	0.63	0/1420	0.95	2/1915 (0.1%)
12	J1	0.63	0/1420	0.97	2/1915 (0.1%)
12	J2	0.64	0/1420	0.98	3/1915 (0.2%)
12	J3	0.63	0/1420	0.97	1/1915 (0.1%)
12	J4	0.63	0/1420	0.98	3/1915 (0.2%)
13	K0	0.68	0/8740	1.01	27/11848 (0.2%)
13	K1	0.68	0/8740	1.01	25/11848 (0.2%)
13	K2	0.68	0/8740	1.01	27/11848 (0.2%)
13	K3	0.68	0/8740	1.01	24/11848 (0.2%)
14	L0	0.71	0/6518	1.09	35/8819 (0.4%)
14	L1	0.70	0/6518	1.06	34/8819 (0.4%)
14	L2	0.70	0/6518	1.07	29/8819 (0.3%)
14	L3	0.71	0/6518	1.06	29/8819 (0.3%)
15	M0	0.70	0/5588	1.11	31/7581 (0.4%)
15	M1	0.70	0/5588	1.11	37/7581 (0.5%)
15	M2	0.70	0/5588	1.10	31/7581 (0.4%)
15	M3	0.70	0/5588	1.10	33/7581 (0.4%)
16	N0	0.67	0/2419	1.07	7/3301 (0.2%)
16	N1	0.67	0/2419	1.08	7/3301 (0.2%)
16	N2	0.67	0/2419	1.05	4/3301 (0.1%)
16	N3	0.67	0/2419	1.07	7/3301 (0.2%)
17	O0	0.68	0/2593	1.07	12/3520 (0.3%)
17	O1	0.68	0/2593	1.08	12/3520 (0.3%)
17	O2	0.67	0/2593	1.06	10/3520 (0.3%)
17	O3	0.67	0/2593	1.08	10/3520 (0.3%)
18	P0	0.70	0/5365	1.07	31/7257 (0.4%)
18	P1	0.70	0/5365	1.04	26/7257 (0.4%)
18	P2	0.71	0/5365	1.07	34/7257 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
18	P3	0.70	0/5365	1.03	20/7257 (0.3%)
19	Q0	0.67	0/2775	1.06	13/3786 (0.3%)
19	Q1	0.67	0/2775	1.05	12/3786 (0.3%)
19	Q2	0.67	0/2775	1.07	15/3786 (0.4%)
19	Q3	0.67	0/2775	1.05	12/3786 (0.3%)
20	R0	1.12	2/11371 (0.0%)	1.07	61/15446 (0.4%)
20	R1	0.70	0/11371	1.05	54/15446 (0.3%)
20	R2	0.70	0/11371	1.05	53/15446 (0.3%)
20	R3	0.70	0/11371	1.04	48/15446 (0.3%)
21	S0	0.70	0/2623	1.05	10/3568 (0.3%)
21	S1	0.70	0/2623	1.04	10/3568 (0.3%)
21	S2	0.70	0/2623	1.03	8/3568 (0.2%)
21	S3	0.70	0/2623	1.03	8/3568 (0.2%)
22	T0	0.70	0/8141	1.03	26/11065 (0.2%)
22	T1	0.70	0/8141	1.02	25/11065 (0.2%)
23	U0	0.72	0/1217	1.06	4/1644 (0.2%)
23	U1	0.94	0/152	1.56	5/204 (2.5%)
23	U2	0.95	0/152	1.45	3/204 (1.5%)
23	U3	0.93	0/152	1.51	4/204 (2.0%)
23	U4	1.03	0/152	1.48	3/204 (1.5%)
23	U5	0.95	0/152	1.54	5/204 (2.5%)
23	U6	0.92	0/152	1.40	3/204 (1.5%)
24	V0	0.67	0/2240	1.06	10/3019 (0.3%)
25	W0	0.69	0/5972	1.02	12/8105 (0.1%)
All	All	0.72	40/630097 (0.0%)	1.03	2384/855041 (0.3%)

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	00	0	4
1	01	0	4
1	02	0	3
1	03	0	3
1	04	0	1
2	10	1	9
2	11	0	3
2	12	1	7
2	13	1	3
2	14	0	8

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	15	0	7
2	16	0	7
2	17	0	8
3	40	0	5
3	41	0	4
4	A0	0	11
4	A1	0	12
4	A2	0	12
4	A3	0	9
4	A4	0	7
4	A5	0	6
4	A6	1	9
5	B0	0	22
5	B1	0	26
6	C0	1	17
6	C1	1	13
6	C2	1	17
6	C3	1	15
6	C4	1	15
7	D0	0	16
7	D1	0	13
7	D2	0	18
7	D3	0	14
7	D4	1	19
7	D5	0	15
8	E0	0	5
8	E1	0	2
9	F0	0	3
9	F1	0	2
9	F2	0	3
9	F3	0	1
10	H0	0	5
10	H1	0	1
10	H2	0	2
10	H3	0	2
12	J0	0	1
12	J1	0	1
12	J2	0	1
12	J3	0	1
13	K0	0	10
13	K1	0	9
13	K2	0	12

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Mol	Chain	#Chirality outliers	#Planarity outliers
13	K3	0	8
14	L0	0	8
14	L1	0	5
14	L2	0	6
14	L3	0	6
15	M0	0	7
15	M1	0	5
15	M2	0	9
15	M3	1	6
16	N0	0	4
16	N1	0	2
16	N2	0	2
16	N3	0	2
17	O0	0	1
17	O1	0	2
17	O2	0	2
17	O3	0	2
18	P0	0	9
18	P1	0	10
18	P2	1	17
18	P3	0	10
19	Q0	0	3
19	Q1	0	3
19	Q2	0	3
19	Q3	0	2
20	R0	0	15
20	R1	0	16
20	R2	0	15
20	R3	0	15
21	S0	0	4
21	S1	0	5
21	S2	0	5
21	S3	0	5
22	T0	2	13
22	T1	2	14
24	V0	0	5
25	W0	0	7
All	All	16	676

The worst 5 of 40 bond length outliers are listed below:

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	R0	1111	GLU	CD-OE1	92.11	2.27	1.25
2	10	1824	MET	N-CA	90.35	3.27	1.46
7	D1	1002	PRO	CA-C	73.09	2.99	1.52
6	C2	484	HIS	CD2-NE2	41.61	2.29	1.38
6	C2	484	HIS	CG-CD2	39.34	2.02	1.35

The worst 5 of 2384 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	17	1788	ASP	C-N-CA	16.59	163.16	121.70
8	E1	240	ALA	CB-CA-C	14.66	132.09	110.10
20	R0	1111	GLU	CG-CD-OE2	-13.88	90.54	118.30
8	E0	19	ARG	NE-CZ-NH1	13.82	127.21	120.30
8	E1	243	SER	CA-C-O	-12.90	93.01	120.10

5 of 16 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	10	167	ALA	CA
2	12	167	ALA	CA
2	13	1773	THR	CA
4	A6	96	THR	CA
6	C0	174	THR	CB

5 of 676 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	00	132	TYR	Sidechain
1	00	161	ARG	Peptide
1	00	175	TYR	Sidechain
1	00	193	ARG	Sidechain
1	01	11	TYR	Sidechain

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	00	6085	0	6080	35	0
1	01	6085	0	6080	38	0
1	02	6085	0	6080	7	0
1	03	6085	0	6080	9	0
1	04	6085	0	6080	9	0
2	10	14046	0	14194	127	0
2	11	14046	0	14194	23	0
2	12	14046	0	14194	19	0
2	13	14046	0	14194	8	0
2	14	14046	0	14194	27	0
2	15	14046	0	14194	60	0
2	16	14046	0	14194	49	0
2	17	14046	0	14193	75	0
3	40	2922	0	2899	4	0
3	41	2922	0	2899	2	0
4	A0	6568	0	6527	43	0
4	A1	6568	0	6527	7	0
4	A2	6568	0	6527	32	0
4	A3	6568	0	6527	9	0
4	A4	5860	0	5828	27	0
4	A5	5860	0	5828	8	0
4	A6	5860	0	5828	8	0
5	B0	13746	0	13949	12	0
5	B1	13746	0	13949	14	0
6	C0	16013	0	16224	19	0
6	C1	16013	0	16224	28	0
6	C2	16013	0	16224	67	0
6	C3	16013	0	16224	44	0
6	C4	16013	0	16224	38	0
7	D0	10363	0	10400	63	0
7	D1	10363	0	10400	132	0
7	D2	10363	0	10400	53	0
7	D3	10363	0	10400	81	0
7	D4	10363	0	10400	129	0
7	D5	10363	0	10400	51	0
8	E0	4432	0	4472	133	0
8	E1	4432	0	4472	64	0
9	F0	1837	0	1825	1	0
9	F1	1837	0	1825	14	0
9	F2	1837	0	1825	0	0
9	F3	1837	0	1825	0	0
10	H0	3066	0	3103	3	0
10	H1	3066	0	3103	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	H2	3066	0	3103	4	0
10	H3	3066	0	3103	1	0
11	I0	1398	0	1431	4	0
11	I1	1398	0	1431	2	0
11	I2	1398	0	1431	5	0
11	I3	1398	0	1431	2	0
12	J0	1403	0	1391	1	0
12	J1	1403	0	1391	2	0
12	J2	1403	0	1391	1	0
12	J3	1403	0	1391	1	0
12	J4	1403	0	1391	2	0
13	K0	8574	0	8438	9	0
13	K1	8574	0	8438	5	0
13	K2	8574	0	8438	47	0
13	K3	8574	0	8438	30	0
14	L0	6383	0	6313	30	0
14	L1	6383	0	6313	59	0
14	L2	6383	0	6313	25	0
14	L3	6383	0	6313	12	0
15	M0	5461	0	5443	10	0
15	M1	5461	0	5443	12	0
15	M2	5461	0	5443	10	0
15	M3	5461	0	5443	6	0
16	N0	2352	0	2220	19	0
16	N1	2352	0	2220	1	0
16	N2	2352	0	2220	2	0
16	N3	2352	0	2220	0	0
17	O0	2528	0	2444	8	0
17	O1	2528	0	2444	2	0
17	O2	2528	0	2444	2	0
17	O3	2528	0	2444	5	0
18	P0	5257	0	5249	15	0
18	P1	5257	0	5249	9	0
18	P2	5257	0	5249	4	0
18	P3	5257	0	5249	6	0
19	Q0	2703	0	2555	12	0
19	Q1	2703	0	2555	1	0
19	Q2	2703	0	2555	15	0
19	Q3	2703	0	2555	1	0
20	R0	11132	0	11066	39	0
20	R1	11132	0	11066	13	0
20	R2	11132	0	11066	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	R3	11132	0	11066	26	0
21	S0	2552	0	2452	4	0
21	S1	2552	0	2452	1	0
21	S2	2552	0	2452	3	0
21	S3	2552	0	2452	1	0
22	T0	7960	0	7896	13	0
22	T1	7960	0	7896	1	0
23	U0	1193	0	1188	4	0
23	U1	151	0	167	60	0
23	U2	151	0	167	36	0
23	U3	151	0	167	47	0
23	U4	151	0	167	36	0
23	U5	151	0	167	47	0
23	U6	151	0	167	36	0
24	V0	2203	0	2226	12	0
25	W0	5836	0	5850	20	0
All	All	617133	0	616872	1415	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 1.

The worst 5 of 1415 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)
8:E0:18:TRP:CD2	8:E0:18:TRP:CG	1.82	1.64
8:E1:244:THR:N	8:E1:244:THR:CA	1.69	1.52
2:17:1788:ASP:C	2:17:1788:ASP:CA	1.75	1.51
2:10:1824:MET:C	2:10:1824:MET:CA	1.75	1.50
8:E0:18:TRP:NE1	8:E0:18:TRP:CE2	1.80	1.49

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	00	754/3224 (23%)	707 (94%)	43 (6%)	4 (0%)	29	69
1	01	754/3224 (23%)	705 (94%)	44 (6%)	5 (1%)	22	63
1	02	754/3224 (23%)	703 (93%)	46 (6%)	5 (1%)	22	63
1	03	754/3224 (23%)	705 (94%)	43 (6%)	6 (1%)	19	60
1	04	754/3224 (23%)	704 (93%)	47 (6%)	3 (0%)	34	72
2	10	1829/1887 (97%)	1727 (94%)	90 (5%)	12 (1%)	22	63
2	11	1829/1887 (97%)	1742 (95%)	80 (4%)	7 (0%)	34	72
2	12	1829/1887 (97%)	1738 (95%)	86 (5%)	5 (0%)	41	77
2	13	1829/1887 (97%)	1735 (95%)	88 (5%)	6 (0%)	41	77
2	14	1829/1887 (97%)	1714 (94%)	103 (6%)	12 (1%)	22	63
2	15	1829/1887 (97%)	1725 (94%)	85 (5%)	19 (1%)	15	55
2	16	1829/1887 (97%)	1731 (95%)	88 (5%)	10 (0%)	29	69
2	17	1829/1887 (97%)	1720 (94%)	95 (5%)	14 (1%)	19	60
3	40	379/546 (69%)	352 (93%)	26 (7%)	1 (0%)	41	77
3	41	379/546 (69%)	349 (92%)	29 (8%)	1 (0%)	41	77
4	A0	816/819 (100%)	761 (93%)	47 (6%)	8 (1%)	15	55
4	A1	816/819 (100%)	760 (93%)	52 (6%)	4 (0%)	29	69
4	A2	816/819 (100%)	765 (94%)	45 (6%)	6 (1%)	22	63
4	A3	816/819 (100%)	762 (93%)	48 (6%)	6 (1%)	22	63
4	A4	724/819 (88%)	683 (94%)	37 (5%)	4 (1%)	25	66
4	A5	724/819 (88%)	685 (95%)	37 (5%)	2 (0%)	41	77
4	A6	724/819 (88%)	683 (94%)	37 (5%)	4 (1%)	25	66
5	B0	1746/1749 (100%)	1629 (93%)	97 (6%)	20 (1%)	14	52
5	B1	1746/1749 (100%)	1633 (94%)	88 (5%)	25 (1%)	11	46
6	C0	2009/2012 (100%)	1875 (93%)	111 (6%)	23 (1%)	14	52
6	C1	2009/2012 (100%)	1874 (93%)	113 (6%)	22 (1%)	14	52
6	C2	2009/2012 (100%)	1886 (94%)	107 (5%)	16 (1%)	19	60
6	C3	2009/2012 (100%)	1873 (93%)	122 (6%)	14 (1%)	22	63
6	C4	2009/2012 (100%)	1866 (93%)	127 (6%)	16 (1%)	19	60
7	D0	1308/1391 (94%)	1215 (93%)	79 (6%)	14 (1%)	14	52

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	D1	1308/1391 (94%)	1208 (92%)	84 (6%)	16 (1%)	13	50
7	D2	1308/1391 (94%)	1211 (93%)	85 (6%)	12 (1%)	17	57
7	D3	1308/1391 (94%)	1218 (93%)	78 (6%)	12 (1%)	17	57
7	D4	1308/1391 (94%)	1209 (92%)	81 (6%)	18 (1%)	11	46
7	D5	1308/1391 (94%)	1221 (93%)	75 (6%)	12 (1%)	17	57
8	E0	544/674 (81%)	516 (95%)	25 (5%)	3 (1%)	25	66
8	E1	544/674 (81%)	518 (95%)	22 (4%)	4 (1%)	22	63
9	F0	239/326 (73%)	193 (81%)	31 (13%)	15 (6%)	1	17
9	F1	239/326 (73%)	191 (80%)	33 (14%)	15 (6%)	1	17
9	F2	239/326 (73%)	187 (78%)	41 (17%)	11 (5%)	2	21
9	F3	239/326 (73%)	190 (80%)	41 (17%)	8 (3%)	4	26
10	H0	381/507 (75%)	369 (97%)	12 (3%)	0	100	100
10	H1	381/507 (75%)	363 (95%)	17 (4%)	1 (0%)	41	77
10	H2	381/507 (75%)	368 (97%)	13 (3%)	0	100	100
10	H3	381/507 (75%)	366 (96%)	15 (4%)	0	100	100
11	I0	171/599 (28%)	170 (99%)	1 (1%)	0	100	100
11	I1	171/599 (28%)	170 (99%)	0	1 (1%)	25	66
11	I2	171/599 (28%)	170 (99%)	1 (1%)	0	100	100
11	I3	171/599 (28%)	170 (99%)	0	1 (1%)	25	66
12	J0	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
12	J1	169/522 (32%)	168 (99%)	1 (1%)	0	100	100
12	J2	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
12	J3	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
12	J4	169/522 (32%)	167 (99%)	2 (1%)	0	100	100
13	K0	1084/1156 (94%)	997 (92%)	77 (7%)	10 (1%)	17	57
13	K1	1084/1156 (94%)	996 (92%)	77 (7%)	11 (1%)	15	55
13	K2	1084/1156 (94%)	996 (92%)	75 (7%)	13 (1%)	13	50
13	K3	1084/1156 (94%)	990 (91%)	82 (8%)	12 (1%)	14	52
14	L0	780/925 (84%)	731 (94%)	43 (6%)	6 (1%)	19	60
14	L1	780/925 (84%)	733 (94%)	40 (5%)	7 (1%)	17	57
14	L2	780/925 (84%)	736 (94%)	40 (5%)	4 (0%)	29	69

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	L3	780/925 (84%)	737 (94%)	35 (4%)	8 (1%)	15	55
15	M0	669/937 (71%)	616 (92%)	46 (7%)	7 (1%)	15	55
15	M1	669/937 (71%)	618 (92%)	45 (7%)	6 (1%)	17	57
15	M2	669/937 (71%)	616 (92%)	47 (7%)	6 (1%)	17	57
15	M3	669/937 (71%)	616 (92%)	48 (7%)	5 (1%)	22	63
16	N0	299/322 (93%)	272 (91%)	24 (8%)	3 (1%)	15	55
16	N1	299/322 (93%)	272 (91%)	25 (8%)	2 (1%)	22	63
16	N2	299/322 (93%)	273 (91%)	23 (8%)	3 (1%)	15	55
16	N3	299/322 (93%)	271 (91%)	25 (8%)	3 (1%)	15	55
17	O0	321/360 (89%)	300 (94%)	21 (6%)	0	100	100
17	O1	321/360 (89%)	299 (93%)	20 (6%)	2 (1%)	25	66
17	O2	321/360 (89%)	300 (94%)	19 (6%)	2 (1%)	25	66
17	O3	321/360 (89%)	299 (93%)	21 (6%)	1 (0%)	41	77
18	P0	653/656 (100%)	613 (94%)	35 (5%)	5 (1%)	19	60
18	P1	653/656 (100%)	614 (94%)	33 (5%)	6 (1%)	17	57
18	P2	653/656 (100%)	609 (93%)	34 (5%)	10 (2%)	10	46
18	P3	653/656 (100%)	613 (94%)	34 (5%)	6 (1%)	17	57
19	Q0	341/380 (90%)	321 (94%)	19 (6%)	1 (0%)	41	77
19	Q1	341/380 (90%)	319 (94%)	21 (6%)	1 (0%)	41	77
19	Q2	341/380 (90%)	322 (94%)	18 (5%)	1 (0%)	41	77
19	Q3	341/380 (90%)	318 (93%)	22 (6%)	1 (0%)	41	77
20	R0	1397/1436 (97%)	1291 (92%)	88 (6%)	18 (1%)	12	48
20	R1	1397/1436 (97%)	1299 (93%)	84 (6%)	14 (1%)	15	55
20	R2	1397/1436 (97%)	1297 (93%)	87 (6%)	13 (1%)	17	57
20	R3	1397/1436 (97%)	1295 (93%)	89 (6%)	13 (1%)	17	57
21	S0	320/326 (98%)	287 (90%)	33 (10%)	0	100	100
21	S1	320/326 (98%)	287 (90%)	32 (10%)	1 (0%)	41	77
21	S2	320/326 (98%)	289 (90%)	30 (9%)	1 (0%)	41	77
21	S3	320/326 (98%)	288 (90%)	31 (10%)	1 (0%)	41	77
22	T0	1002/2266 (44%)	920 (92%)	68 (7%)	14 (1%)	11	46
22	T1	1002/2266 (44%)	922 (92%)	65 (6%)	15 (2%)	10	46

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	U0	148/880 (17%)	137 (93%)	10 (7%)	1 (1%)	22	63
23	U1	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U2	17/880 (2%)	14 (82%)	2 (12%)	1 (6%)	1	17
23	U3	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U4	17/880 (2%)	14 (82%)	2 (12%)	1 (6%)	1	17
23	U5	17/880 (2%)	15 (88%)	2 (12%)	0	100	100
23	U6	17/880 (2%)	14 (82%)	3 (18%)	0	100	100
24	V0	271/2090 (13%)	250 (92%)	16 (6%)	5 (2%)	8	40
25	W0	733/741 (99%)	684 (93%)	37 (5%)	12 (2%)	9	44
All	All	77792/109146 (71%)	72581 (93%)	4536 (6%)	675 (1%)	21	57

5 of 675 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	10	167	ALA
2	14	174	HIS
2	14	1688	SER
2	15	174	HIS
2	15	1788	ASP

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	00	675/2818 (24%)	656 (97%)	19 (3%)	43	65
1	01	675/2818 (24%)	657 (97%)	18 (3%)	44	65
1	02	675/2818 (24%)	658 (98%)	17 (2%)	47	68
1	03	675/2818 (24%)	660 (98%)	15 (2%)	52	71
1	04	675/2818 (24%)	659 (98%)	16 (2%)	49	69
2	10	1565/1608 (97%)	1539 (98%)	26 (2%)	60	78
2	11	1565/1608 (97%)	1542 (98%)	23 (2%)	65	80

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	1565/1608 (97%)	1538 (98%)	27 (2%)	60	78
2	13	1565/1608 (97%)	1543 (99%)	22 (1%)	67	80
2	14	1565/1608 (97%)	1541 (98%)	24 (2%)	65	80
2	15	1565/1608 (97%)	1542 (98%)	23 (2%)	65	80
2	16	1565/1608 (97%)	1541 (98%)	24 (2%)	65	80
2	17	1565/1608 (97%)	1539 (98%)	26 (2%)	60	78
3	40	323/463 (70%)	317 (98%)	6 (2%)	57	75
3	41	323/463 (70%)	315 (98%)	8 (2%)	47	68
4	A0	725/726 (100%)	708 (98%)	17 (2%)	50	70
4	A1	725/726 (100%)	709 (98%)	16 (2%)	52	71
4	A2	725/726 (100%)	710 (98%)	15 (2%)	53	72
4	A3	725/726 (100%)	710 (98%)	15 (2%)	53	72
4	A4	647/726 (89%)	631 (98%)	16 (2%)	47	68
4	A5	647/726 (89%)	635 (98%)	12 (2%)	57	75
4	A6	647/726 (89%)	628 (97%)	19 (3%)	42	64
5	B0	1540/1541 (100%)	1512 (98%)	28 (2%)	59	77
5	B1	1540/1541 (100%)	1512 (98%)	28 (2%)	59	77
6	C0	1776/1777 (100%)	1743 (98%)	33 (2%)	57	75
6	C1	1776/1777 (100%)	1738 (98%)	38 (2%)	53	72
6	C2	1776/1777 (100%)	1743 (98%)	33 (2%)	57	75
6	C3	1776/1777 (100%)	1743 (98%)	33 (2%)	57	75
6	C4	1776/1777 (100%)	1741 (98%)	35 (2%)	55	74
7	D0	1157/1222 (95%)	1127 (97%)	30 (3%)	46	66
7	D1	1157/1222 (95%)	1123 (97%)	34 (3%)	42	64
7	D2	1157/1222 (95%)	1126 (97%)	31 (3%)	44	65
7	D3	1157/1222 (95%)	1124 (97%)	33 (3%)	42	64
7	D4	1157/1222 (95%)	1117 (96%)	40 (4%)	36	59
7	D5	1157/1222 (95%)	1128 (98%)	29 (2%)	47	68
8	E0	489/604 (81%)	483 (99%)	6 (1%)	71	83
8	E1	489/604 (81%)	485 (99%)	4 (1%)	81	89
9	F0	210/277 (76%)	200 (95%)	10 (5%)	25	51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	F1	210/277 (76%)	201 (96%)	9 (4%)	29	53
9	F2	210/277 (76%)	202 (96%)	8 (4%)	33	57
9	F3	210/277 (76%)	202 (96%)	8 (4%)	33	57
10	H0	345/425 (81%)	342 (99%)	3 (1%)	78	87
10	H1	345/425 (81%)	341 (99%)	4 (1%)	71	83
10	H2	345/425 (81%)	342 (99%)	3 (1%)	78	87
10	H3	345/425 (81%)	341 (99%)	4 (1%)	71	83
11	I0	155/459 (34%)	153 (99%)	2 (1%)	69	81
11	I1	155/459 (34%)	153 (99%)	2 (1%)	69	81
11	I2	155/459 (34%)	152 (98%)	3 (2%)	57	75
11	I3	155/459 (34%)	152 (98%)	3 (2%)	57	75
12	J0	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J1	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J2	158/401 (39%)	156 (99%)	2 (1%)	69	81
12	J3	158/401 (39%)	157 (99%)	1 (1%)	86	92
12	J4	158/401 (39%)	156 (99%)	2 (1%)	69	81
13	K0	958/1013 (95%)	929 (97%)	29 (3%)	41	63
13	K1	958/1013 (95%)	930 (97%)	28 (3%)	42	64
13	K2	958/1013 (95%)	928 (97%)	30 (3%)	40	62
13	K3	958/1013 (95%)	929 (97%)	29 (3%)	41	63
14	L0	701/827 (85%)	685 (98%)	16 (2%)	50	70
14	L1	701/827 (85%)	690 (98%)	11 (2%)	62	79
14	L2	701/827 (85%)	689 (98%)	12 (2%)	60	78
14	L3	701/827 (85%)	688 (98%)	13 (2%)	57	75
15	M0	602/840 (72%)	591 (98%)	11 (2%)	59	77
15	M1	602/840 (72%)	588 (98%)	14 (2%)	50	70
15	M2	602/840 (72%)	591 (98%)	11 (2%)	59	77
15	M3	602/840 (72%)	589 (98%)	13 (2%)	52	71
16	N0	255/272 (94%)	247 (97%)	8 (3%)	40	62
16	N1	255/272 (94%)	247 (97%)	8 (3%)	40	62
16	N2	255/272 (94%)	248 (97%)	7 (3%)	44	65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	N3	255/272 (94%)	249 (98%)	6 (2%)	49	69
17	O0	279/310 (90%)	274 (98%)	5 (2%)	59	77
17	O1	279/310 (90%)	274 (98%)	5 (2%)	59	77
17	O2	279/310 (90%)	273 (98%)	6 (2%)	52	71
17	O3	279/310 (90%)	274 (98%)	5 (2%)	59	77
18	P0	584/585 (100%)	570 (98%)	14 (2%)	49	69
18	P1	584/585 (100%)	572 (98%)	12 (2%)	53	72
18	P2	584/585 (100%)	573 (98%)	11 (2%)	57	75
18	P3	584/585 (100%)	570 (98%)	14 (2%)	49	69
19	Q0	303/335 (90%)	300 (99%)	3 (1%)	76	86
19	Q1	303/335 (90%)	301 (99%)	2 (1%)	84	90
19	Q2	303/335 (90%)	299 (99%)	4 (1%)	69	81
19	Q3	303/335 (90%)	301 (99%)	2 (1%)	84	90
20	R0	1233/1259 (98%)	1207 (98%)	26 (2%)	53	72
20	R1	1233/1259 (98%)	1204 (98%)	29 (2%)	49	69
20	R2	1233/1259 (98%)	1202 (98%)	31 (2%)	47	68
20	R3	1233/1259 (98%)	1206 (98%)	27 (2%)	52	71
21	S0	278/282 (99%)	273 (98%)	5 (2%)	59	77
21	S1	278/282 (99%)	272 (98%)	6 (2%)	52	71
21	S2	278/282 (99%)	271 (98%)	7 (2%)	47	68
21	S3	278/282 (99%)	271 (98%)	7 (2%)	47	68
22	T0	891/2037 (44%)	881 (99%)	10 (1%)	73	84
22	T1	891/2037 (44%)	879 (99%)	12 (1%)	69	81
23	U0	131/703 (19%)	125 (95%)	6 (5%)	27	52
23	U1	19/703 (3%)	17 (90%)	2 (10%)	7	24
23	U2	19/703 (3%)	18 (95%)	1 (5%)	22	47
23	U3	19/703 (3%)	17 (90%)	2 (10%)	7	24
23	U4	19/703 (3%)	18 (95%)	1 (5%)	22	47
23	U5	19/703 (3%)	17 (90%)	2 (10%)	7	24
23	U6	19/703 (3%)	18 (95%)	1 (5%)	22	47
24	V0	249/1685 (15%)	241 (97%)	8 (3%)	39	61

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
25	W0	661/663 (100%)	648 (98%)	13 (2%)	55 74
All	All	68601/94353 (73%)	67169 (98%)	1432 (2%)	56 72

5 of 1432 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
13	K0	790	TYR
16	N2	246	ASP
13	K1	790	TYR
13	K0	718	SER
14	L1	205	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 135 such sidechains are listed below:

Mol	Chain	Res	Type
23	U1	604	ASN
23	U2	609	ASN
23	U6	604	ASN
6	C2	854	ASN
6	C2	544	ASN

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

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

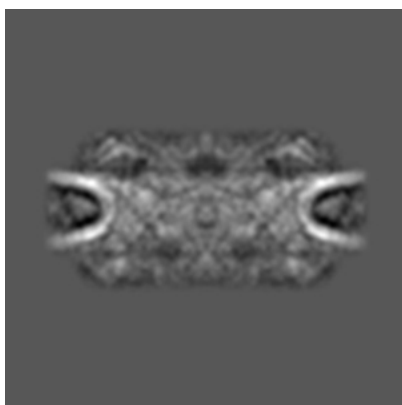
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-14321. 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](#)

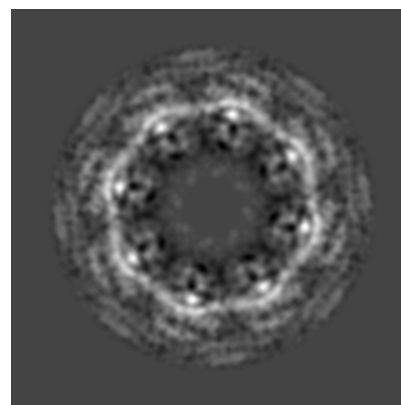
6.1.1 Primary map



X



Y



Z

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

6.2 Central slices [i](#)

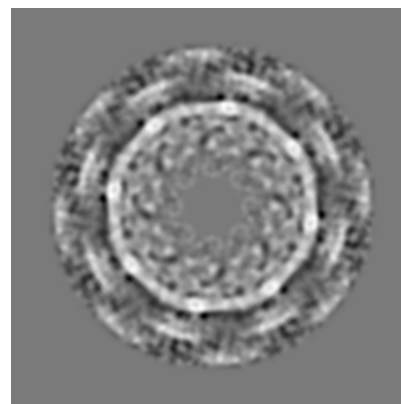
6.2.1 Primary map



X Index: 72



Y Index: 72



Z Index: 72

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

6.3 Largest variance slices [i](#)

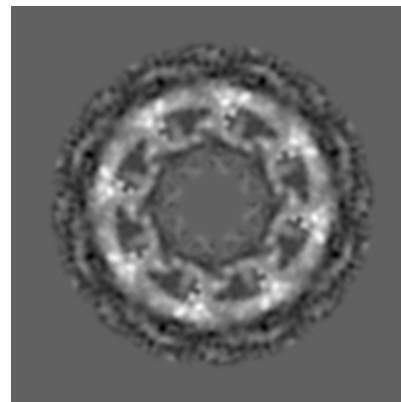
6.3.1 Primary map



X Index: 36



Y Index: 36

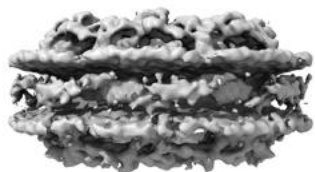


Z Index: 77

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

6.4 Orthogonal surface views [i](#)

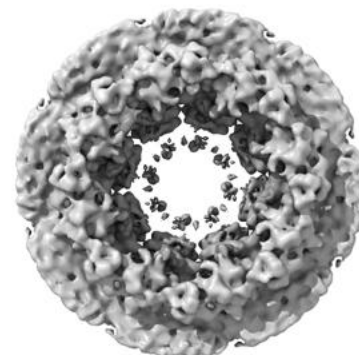
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0891. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

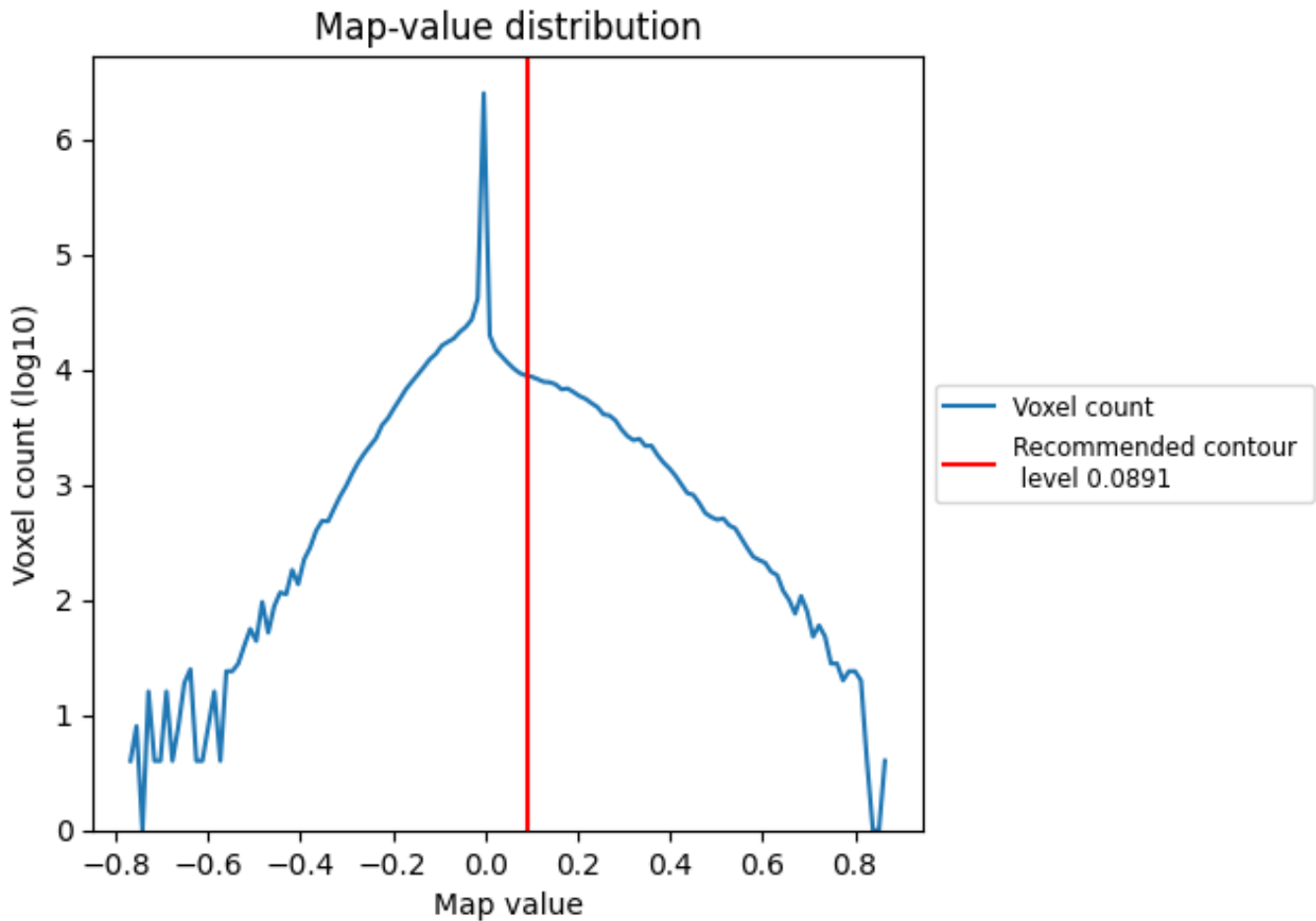
6.5 Mask visualisation

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

7 Map analysis [i](#)

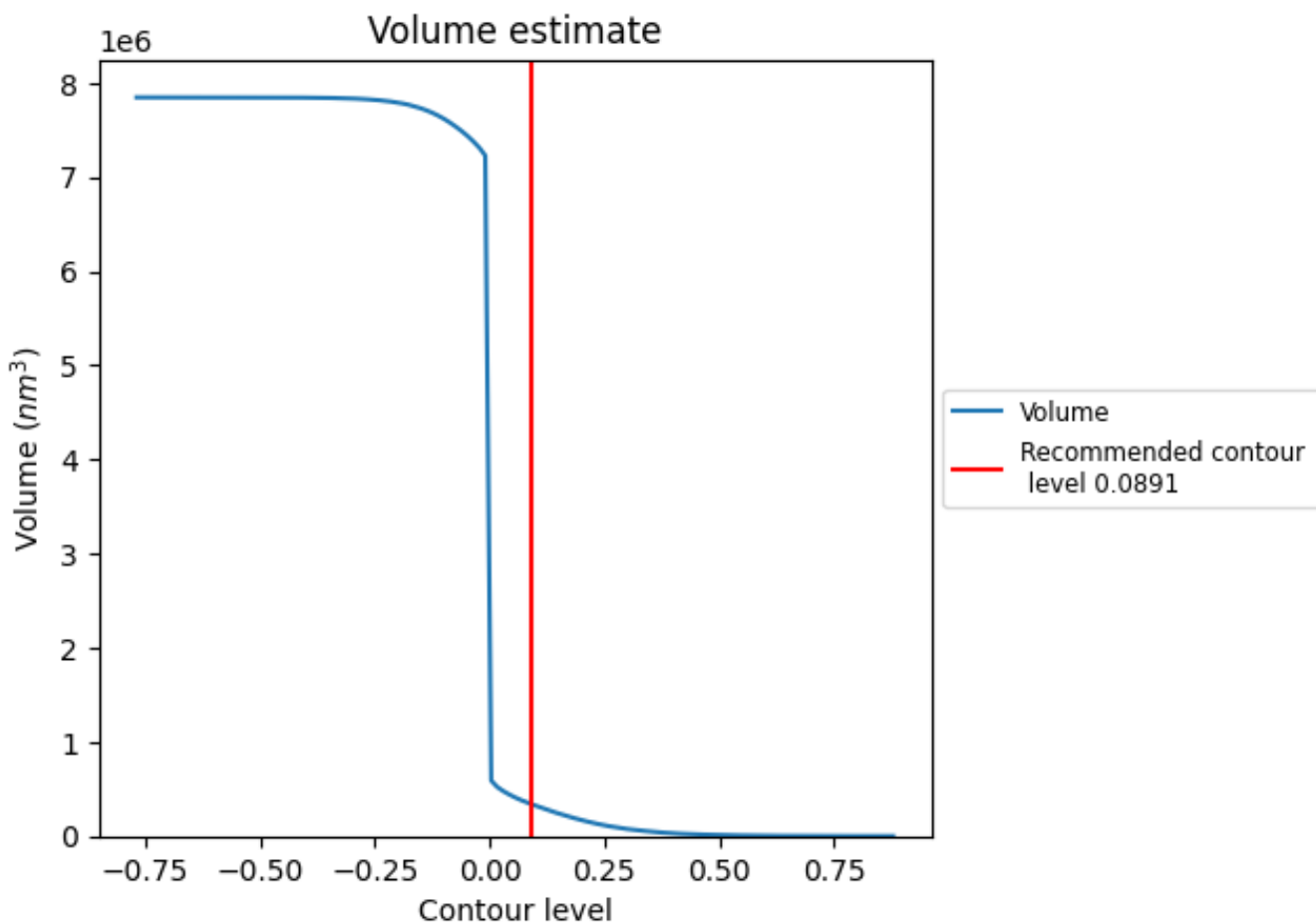
This section contains the results of statistical analysis of the map.

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.

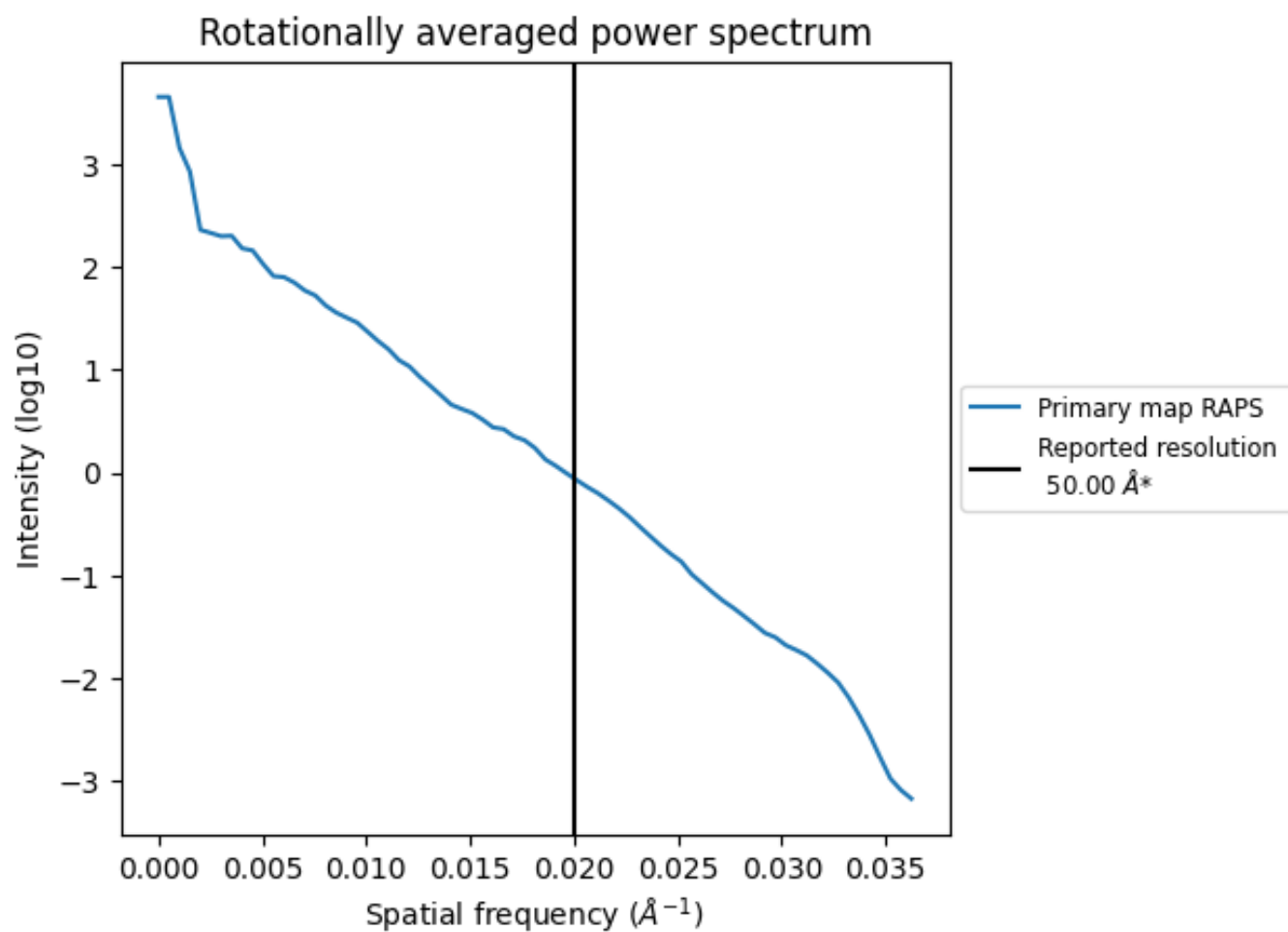
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 342613 nm³; this corresponds to an approximate mass of 309491 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 0.020 Å⁻¹

8 Fourier-Shell correlation

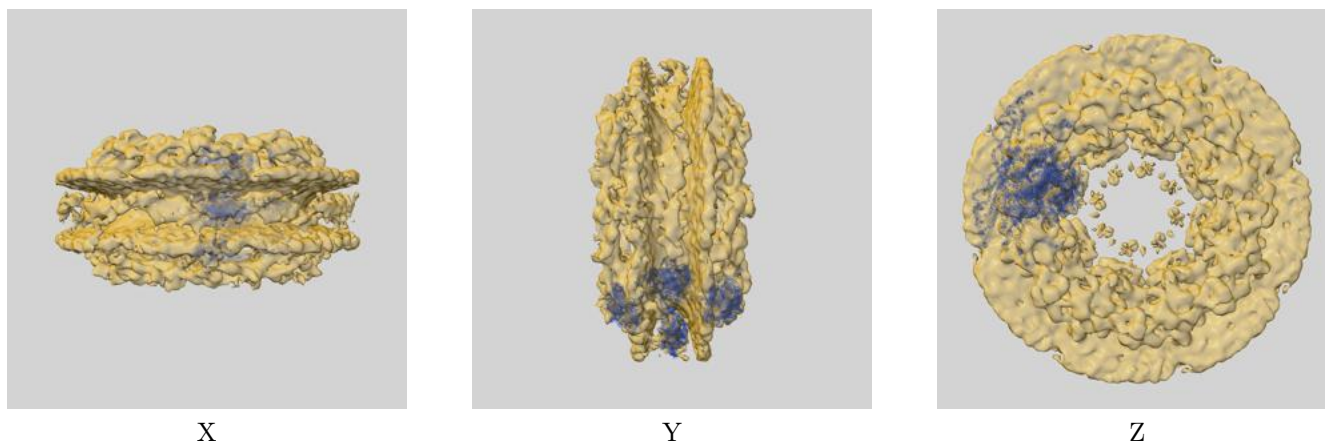
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

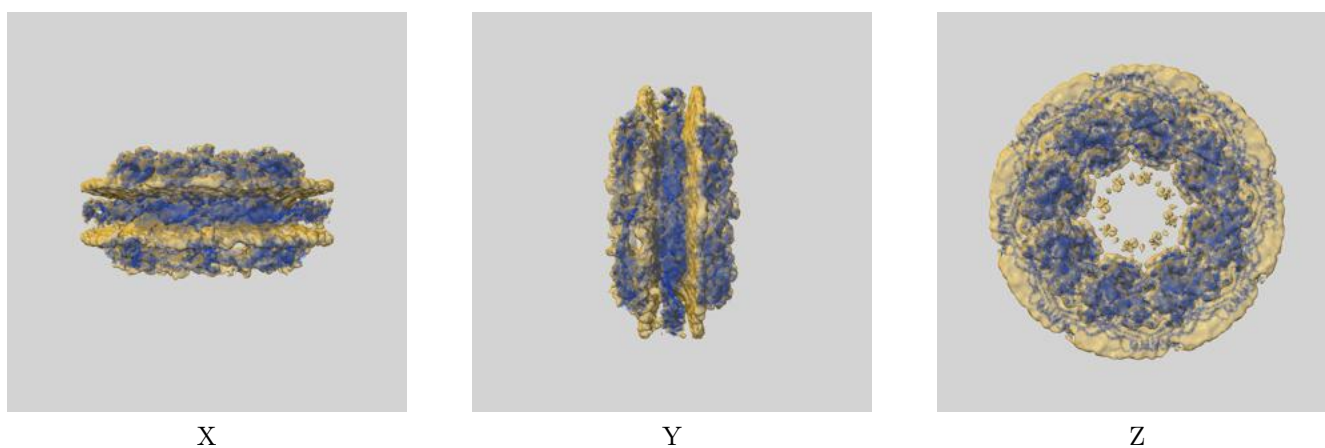
This section contains information regarding the fit between EMDB map EMD-14321 and PDB model 7R5J. Per-residue inclusion information can be found in section 3 on page 15.

9.1 Map-model overlays

9.1.1 Map-model overlay [i](#)

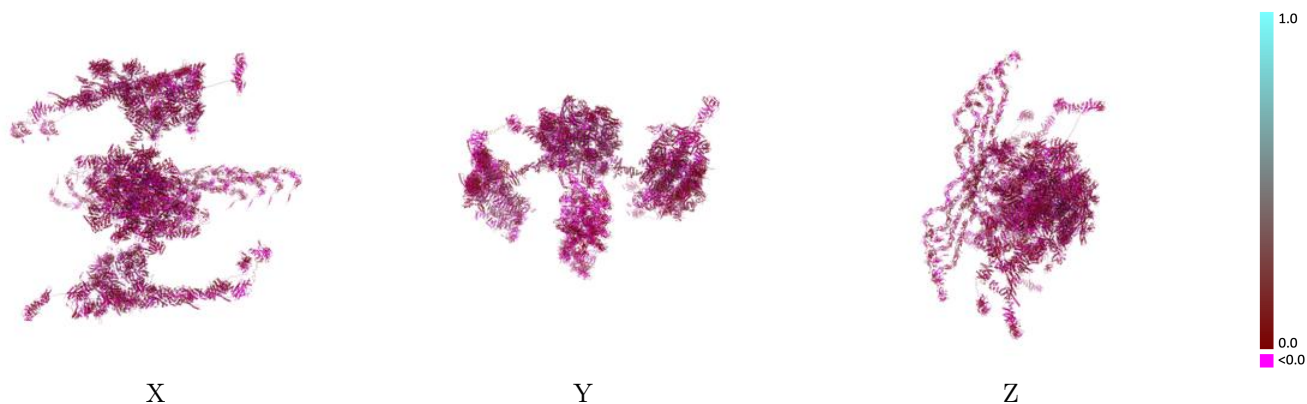


9.1.2 Map-model assembly overlay [i](#)



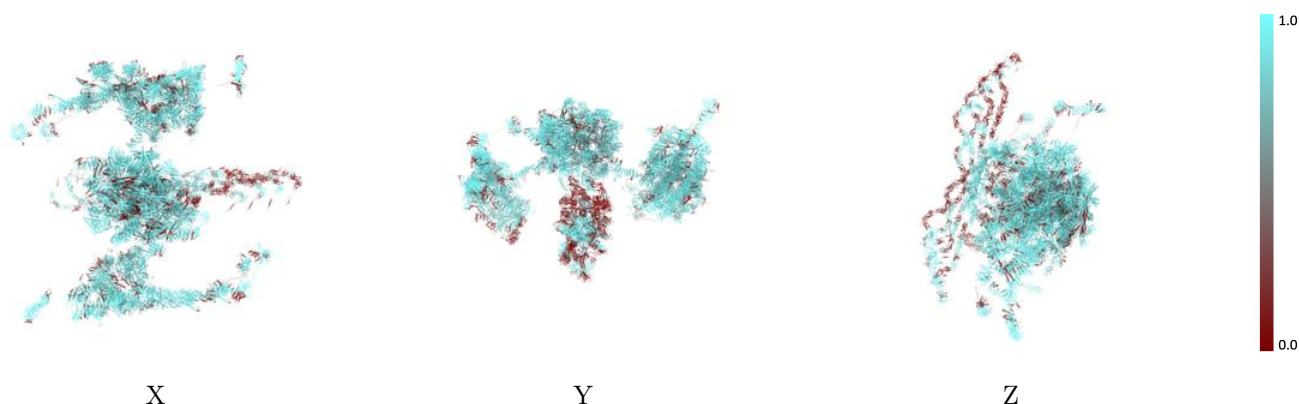
The images above show the 3D surface view of the map at the recommended contour level 0.0891 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



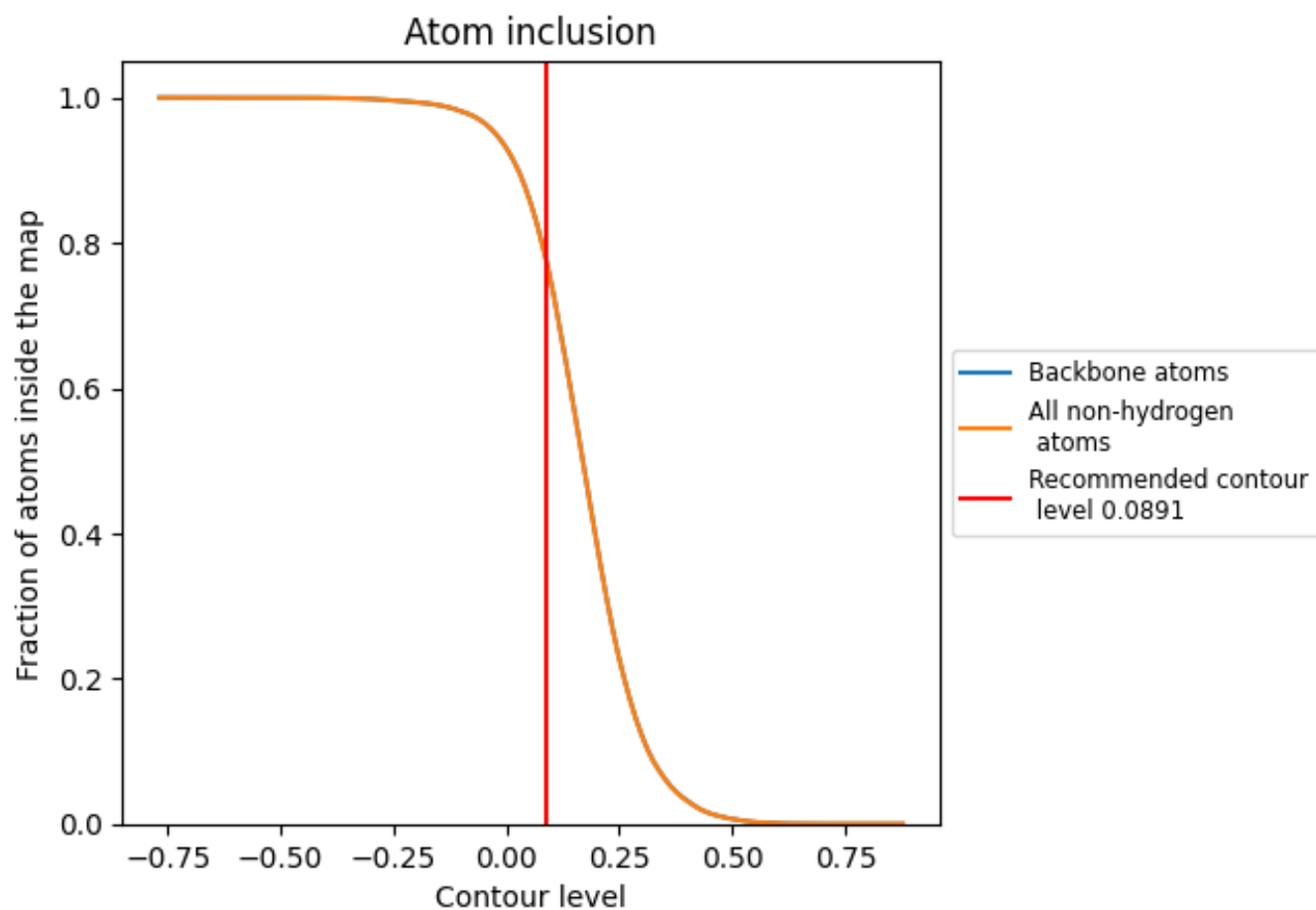
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.0891).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 78% of all backbone atoms, 77% 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 (0.0891) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7742	 0.0260
00	 0.6938	 0.0260
01	 0.8322	 0.0420
02	 0.8559	 0.0400
03	 0.7253	 0.0340
04	 0.8888	 0.0480
10	 0.2441	 0.0150
11	 0.4849	 0.0150
12	 0.6711	 0.0220
13	 0.5791	 0.0240
14	 0.2915	 0.0000
15	 0.7145	 0.0220
16	 0.7297	 0.0210
17	 0.5870	 0.0250
40	 0.9955	 0.0240
41	 0.9993	 0.0270
A0	 0.9254	 0.0220
A1	 0.8518	 0.0330
A2	 0.9071	 0.0210
A3	 0.8761	 0.0420
A4	 0.8379	 0.0400
A5	 0.7589	 0.0160
A6	 0.9110	 0.0340
B0	 0.8480	 0.0340
B1	 0.8546	 0.0320
C0	 0.8061	 0.0240
C1	 0.8360	 0.0180
C2	 0.8300	 0.0340
C3	 0.8515	 0.0170
C4	 0.8216	 0.0280
D0	 0.8472	 0.0270
D1	 0.8023	 0.0260
D2	 0.8970	 0.0310
D3	 0.7722	 0.0200
D4	 0.8918	 0.0350





















































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Chain	Atom inclusion	Q-score
D5	 0.8263	 0.0310
E0	 0.9903	 0.0160
E1	 0.9802	 0.0080
F0	 0.8736	 0.0280
F1	 0.7040	 0.0170
F2	 0.7788	 0.0280
F3	 0.6713	 0.0170
H0	 0.7580	 0.0260
H1	 0.7633	 0.0350
H2	 0.7226	 0.0180
H3	 0.8257	 0.0390
I0	 0.5813	 0.0190
I1	 0.6703	 0.0260
I2	 0.7209	 0.0430
I3	 0.6500	 0.0200
J0	 0.6842	 0.0250
J1	 0.5621	 0.0110
J2	 0.7977	 0.0440
J3	 0.5780	 0.0030
J4	 0.8316	 0.0220
K0	 0.7784	 0.0200
K1	 0.8211	 0.0400
K2	 0.7117	 0.0140
K3	 0.7454	 0.0430
L0	 0.9133	 0.0390
L1	 0.7034	 0.0100
L2	 0.7545	 0.0260
L3	 0.8895	 0.0310
M0	 0.9298	 0.0420
M1	 0.7501	 0.0430
M2	 0.9599	 0.0380
M3	 0.8002	 0.0370
N0	 0.7935	 0.0160
N1	 0.9134	 0.0400
N2	 0.9892	 0.0250
N3	 0.9203	 0.0380
O0	 0.8334	 0.0330
O1	 0.9645	 0.0360
O2	 0.8838	 0.0290
O3	 0.9173	 0.0240
P0	 0.7832	 0.0380
P1	 0.9054	 0.0250

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Chain	Atom inclusion	Q-score
P2	 0.9037	 0.0330
P3	 0.8848	 0.0300
Q0	 0.7679	 0.0330
Q1	 0.8236	 0.0380
Q2	 0.8962	 0.0260
Q3	 0.9454	 0.0330
R0	 0.8853	 0.0290
R1	 0.8766	 0.0250
R2	 0.9451	 0.0280
R3	 0.9436	 0.0240
S0	 0.9315	 0.0430
S1	 0.9474	 0.0370
S2	 0.9458	 0.0200
S3	 0.9566	 0.0410
T0	 0.6368	 -0.0040
T1	 0.1821	 -0.0130
U0	 0.4425	 0.0070
U1	 0.5563	 0.0070
U2	 0.2649	 0.0290
U3	 0.9205	 0.0140
U4	 0.3841	 0.0040
U5	 0.1987	 0.0090
U6	 0.7881	 0.0380
V0	 0.7205	 0.0220
W0	 0.8028	 0.0250