



wwPDB EM Validation Summary Report ⓘ

Mar 12, 2026 – 06:54 AM UTC

PDB ID : 6Y2L / pdb_00006y2l
EMDB ID : EMD-10674
Title : Structure of human ribosome in POST state
Authors : Bhaskar, V.; Schenk, A.D.; Cavadini, S.; von Loeffelholz, O.; Natchiar, S.K.; Klaholz, B.P.; Chao, J.A.
Deposited on : 2020-02-16
Resolution : 3.00 Å(reported)
Based on initial models : 6QZP, 5AJ0, 5LKS

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.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

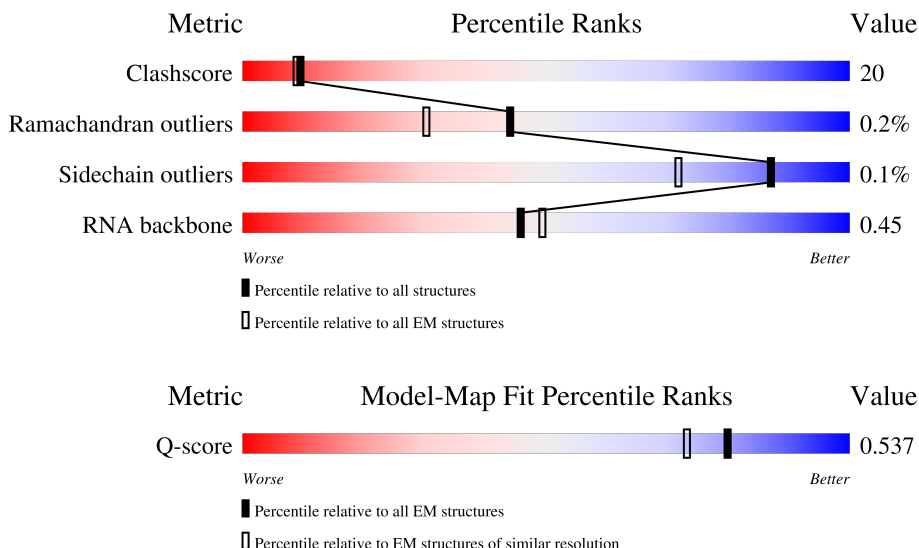
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.00 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.



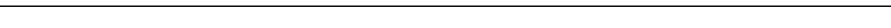
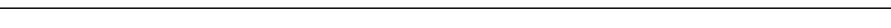
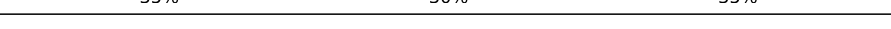
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	14081 (2.50 - 3.50)

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	A4	28	
2	B4	76	
3	C4	2	

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Mol	Chain	Length	Quality of chain
4	L5	5070	
5	L7	120	
6	L8	156	
7	LA	257	
8	LB	403	
9	LC	427	
10	LD	297	
11	LE	288	
12	LF	248	
13	LG	266	
14	LH	192	
15	LI	214	
16	LJ	178	
17	LL	211	
18	LM	215	
19	LN	204	
20	LO	203	
21	LP	184	
22	LQ	188	
23	LR	196	
24	LS	176	
25	LT	160	
26	LU	128	
27	LV	140	
28	LW	157	

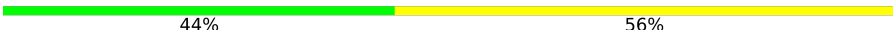
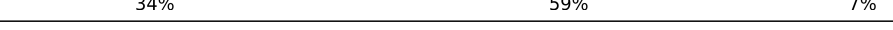
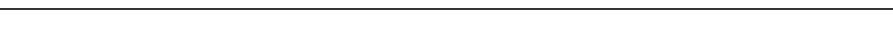
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Mol	Chain	Length	Quality of chain
29	LX	156	
30	LY	145	
31	LZ	136	
32	La	148	
33	Lb	159	
34	Lc	115	
35	Ld	125	
36	Le	135	
37	Lf	110	
38	Lg	117	
39	Lh	123	
40	Li	105	
41	Lj	97	
42	Lk	70	
43	Ll	51	
44	Lm	128	
45	Ln	25	
46	Lo	106	
47	Lp	92	
48	Lr	137	
49	S2	1869	
50	SA	295	
51	SB	264	
52	SC	293	
53	SD	243	

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Mol	Chain	Length	Quality of chain
54	SE	263	
55	SF	204	
56	SG	249	
57	SH	194	
58	SI	208	
59	SJ	194	
60	SK	165	
61	SL	158	
62	SN	151	
63	SO	151	
64	SP	145	
65	SQ	146	
66	SR	135	
67	SS	152	
68	ST	145	
69	SU	119	
70	SV	83	
71	SW	130	
72	SX	143	
73	SY	133	
74	SZ	125	
75	Sa	115	
76	Sb	84	
77	Sc	69	
78	Sd	56	

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Mol	Chain	Length	Quality of chain
79	Se	59	
80	Sg	317	

2 Entry composition [i](#)

There are 84 unique types of molecules in this entry. The entry contains 208946 atoms, of which 23 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 RNA chain called mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A4	15	Total	C	N	O	P	0	0
			300	135	30	120	15		

- Molecule 2 is a RNA chain called tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B4	76	Total	C	N	O	P	0	0
			1623	723	290	534	76		

- Molecule 3 is a protein called Nascent polypeptide.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	C4	2	Total	C	N	O	0	0
			10	6	2	2		

- Molecule 4 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	L5	3613	Total	C	N	O	P	0	0
			77447	34487	14167	25181	3612		

- Molecule 5 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	L7	120	Total	C	N	O	P	0	0
			2558	1141	456	842	119		

- Molecule 6 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	L8	156	Total	C	N	O	P	0	0
			3314	1480	585	1094	155		

- Molecule 7 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	LA	248	Total	C	N	O	S	0	0
			1898	1189	389	314	6		

- Molecule 8 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	LB	395	Total	C	N	O	S	0	0
			3183	2027	597	545	14		

- Molecule 9 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	LC	364	Total	C	N	O	S	0	0
			2884	1814	576	479	15		

- Molecule 10 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	LD	293	Total	C	N	O	S	0	0
			2361	1496	430	421	14		

- Molecule 11 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	LE	219	Total	C	N	O	S	0	0
			1754	1129	334	287	4		

- Molecule 12 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	LF	225	Total	C	N	O	S	0	0
			1870	1202	358	301	9		

- Molecule 13 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	LG	229	Total	C	N	O	S	0	0
			1818	1157	351	306	4		

- Molecule 14 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	LH	190	Total	C	N	O	S	0	0
			1510	950	282	272	6		

- Molecule 15 is a protein called 60S ribosomal protein L10-like.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	LI	206	Total	C	N	O	S	0	0
			1651	1051	318	268	14		

- Molecule 16 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	LJ	169	Total	C	N	O	S	0	0
			1329	841	250	232	6		

- Molecule 17 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	LL	205	Total	C	N	O	S	0	0
			1630	1020	340	266	4		

- Molecule 18 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	LM	139	Total	C	N	O	S	0	0
			1122	720	216	179	7		

- Molecule 19 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	LN	203	Total	C	N	O	S	0	0
			1701	1072	359	266	4		

- Molecule 20 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	LO	200	Total	C	N	O	S	0	0
			1633	1053	318	257	5		

- Molecule 21 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	LP	153	Total	C	N	O	S	0	0
			1234	771	240	214	9		

- Molecule 22 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	LQ	187	Total	C	N	O	S	0	0
			1502	939	313	245	5		

- Molecule 23 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	LR	176	Total	C	N	O	S	0	0
			1452	898	318	227	9		

- Molecule 24 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	LS	175	Total	C	N	O	S	0	0
			1452	925	283	234	10		

- Molecule 25 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	LT	159	Total	C	N	O	S	0	0
			1282	813	250	213	6		

- Molecule 26 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	LU	101	Total	C	N	O	S	0	0
			799	515	140	142	2		

- Molecule 27 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	LV	131	Total	C	N	O	S	0	0
			971	613	183	170	5		

- Molecule 28 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	LW	115	Total	C	N	O	S	0	0
			808	506	160	139	3		

- Molecule 29 is a protein called 60S ribosomal protein L23a.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	LX	120	Total	C	N	O	S	0	0
			981	627	184	169	1		

- Molecule 30 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	LY	134	Total	C	N	O	S	0	0
			1111	697	225	186	3		

- Molecule 31 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	LZ	135	Total	C	N	O	S	0	0
			1107	714	208	182	3		

- Molecule 32 is a protein called 60S ribosomal protein L27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	La	147	Total	C	N	O	S	0	0
			1154	731	236	184	3		

- Molecule 33 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Lb	75	Total	C	N	O	S	0	0
			590	367	123	97	3		

- Molecule 34 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Lc	97	Total	C	N	O	S	0	0
			742	473	130	133	6		

- Molecule 35 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ld	107	Total	C	N	O	S	0	0
			874	554	171	147	2		

- Molecule 36 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Le	128	Total	C	N	O	S	0	0
			1049	664	215	165	5		

- Molecule 37 is a protein called 60S ribosomal protein L35a.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Lf	109	Total	C	N	O	S	0	0
			872	552	173	144	3		

- Molecule 38 is a protein called 60S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Lg	114	Total	C	N	O	S	0	0
			889	557	184	142	6		

- Molecule 39 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Lh	121	Total	C	N	O	S	0	0
			1006	635	203	167	1		

- Molecule 40 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	Li	102	Total	C	N	O	S	0	0
			813	510	176	123	4		

- Molecule 41 is a protein called 60S ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Lj	86	Total	C	N	O	S	0	0
			705	434	155	111	5		

- Molecule 42 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Lk	69	Total	C	N	O	S	0	0
			542	350	100	91	1		

- Molecule 43 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Ll	50	Total	C	N	O	S	0	0
			444	281	98	64	1		

- Molecule 44 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Lm	52	Total	C	N	O	S	0	0
			425	264	90	65	6		

- Molecule 45 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Ln	24	Total	C	N	O	S	0	0
			230	139	62	26	3		

- Molecule 46 is a protein called 60S ribosomal protein L36a.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Lo	105	Total	C	N	O	S	0	0
			848	532	173	137	6		

- Molecule 47 is a protein called 60S ribosomal protein L37a.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	Lp	91	Total	C	N	O	S	0	0
			696	440	135	114	7		

- Molecule 48 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	Lr	125	Total	C	N	O	S	0	0
			997	618	207	168	4		

- Molecule 49 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	S2	1713	Total	C	N	O	P	0	0
			36560	16319	6563	11966	1712		

- Molecule 50 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	SA	216	Total	C	N	O	S	0	0
			1671	1068	297	298	8		

- Molecule 51 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	SB	213	Total	C	N	O	S	0	0
			1718	1092	308	304	14		

- Molecule 52 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	SC	219	Total	C	N	O	S	0	0
			1661	1076	284	291	10		

- Molecule 53 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	SD	223	Total	C	N	O	S	0	0
			1580	1016	286	271	7		

- Molecule 54 is a protein called 40S ribosomal protein S4, X isoform.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	SE	262	Total	C	N	O	S	0	0
			1972	1270	370	324	8		

- Molecule 55 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	SF	187	Total	C	N	O	S	0	0
			1416	886	269	254	7		

- Molecule 56 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	SG	231	Total	C	N	O	S	0	0
			1634	1026	332	269	7		

- Molecule 57 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	SH	183	Total	C	N	O	S	0	0
			1274	819	242	213			

- Molecule 58 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	SI	206	Total	C	N	O	S	0	0
			1574	989	308	272	5		

- Molecule 59 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	SJ	179	Total	C	N	O	S	0	0
			1431	915	290	224	2		

- Molecule 60 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	SK	96	Total	C	N	O	S	0	0
			726	479	127	115	5		

- Molecule 61 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	SL	144	Total	C	N	O	S	0	0
			1143	730	213	194	6		

- Molecule 62 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	SN	150	Total	C	N	O	S	0	0
			1182	758	226	197	1		

- Molecule 63 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	SO	134	Total	C	N	O	S	0	0
			969	596	194	173	6		

- Molecule 64 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	SP	128	Total	C	N	O	S	0	0
			975	617	185	167	6		

- Molecule 65 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	SQ	142	Total	C	N	O	S	0	0
			1071	687	204	177	3		

- Molecule 66 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	SR	131	Total	C	N	O	S	0	0
			942	600	179	159	4		

- Molecule 67 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	SS	141	Total	C	N	O	S	0	0
			1118	706	226	185	1		

- Molecule 68 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	ST	143	Total	C	N	O	S	0	0
			1081	679	210	189	3		

- Molecule 69 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	SU	101	Total	C	N	O	S	0	0
			713	447	137	125	4		

- Molecule 70 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	SV	83	Total	C	N	O	S	0	0
			618	385	115	113	5		

- Molecule 71 is a protein called 40S ribosomal protein S15a.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	SW	129	Total	C	N	O	S	0	0
			1026	655	193	172	6		

- Molecule 72 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	SX	141	Total	C	N	O	S	0	0
			1078	682	212	181	3		

- Molecule 73 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	SY	123	Total	C	N	O	S	0	0
			927	588	183	152	4		

- Molecule 74 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	SZ	75	Total	C	N	O	S	0	0
			559	361	105	92	1		

- Molecule 75 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Sa	99	Total	C	N	O	S	0	0
			781	487	165	124	5		

- Molecule 76 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Sb	83	Total	C	N	O	S	0	0
			618	386	118	107	7		

- Molecule 77 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Sc	63	Total	C	N	O	S	0	0
			472	289	92	89	2		

- Molecule 78 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Sd	53	Total	C	N	O	S	0	0
			433	271	87	70	5		

- Molecule 79 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	Se	57	Total	C	N	O	S	0	0
			426	259	96	70	1		

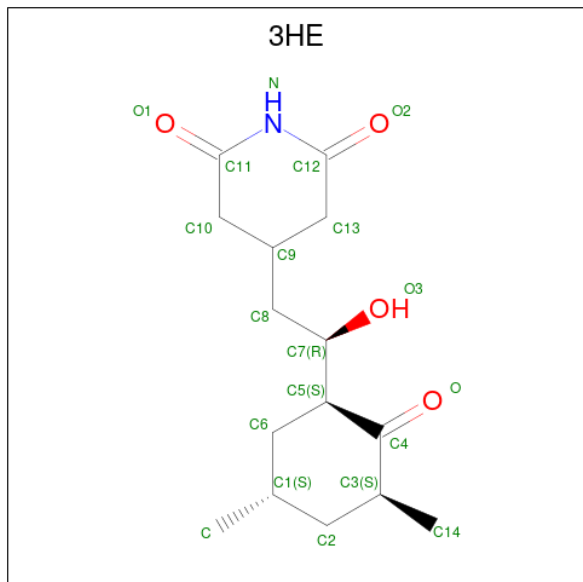
- Molecule 80 is a protein called Receptor of activated protein C kinase 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	Sg	308	Total	C	N	O	S	0	0
			2172	1388	379	394	11		

- Molecule 81 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
81	B4	1	Total	Mg	0
			1	1	
81	L5	129	Total	Mg	0
			129	129	
81	L7	3	Total	Mg	0
			3	3	
81	L8	3	Total	Mg	0
			3	3	
81	LA	1	Total	Mg	0
			1	1	
81	LN	1	Total	Mg	0
			1	1	
81	LP	1	Total	Mg	0
			1	1	
81	LV	1	Total	Mg	0
			1	1	
81	S2	53	Total	Mg	0
			53	53	

- Molecule 82 is 4-{(2R)-2-[(1S,3S,5S)-3,5-dimethyl-2-oxocyclohexyl]-2-hydroxyethyl}piperidine-2,6-dione (CCD ID: 3HE) (formula: C₁₅H₂₃NO₄).



Mol	Chain	Residues	Atoms					AltConf
82	L5	1	Total	C	H	N	O	0
			43	15	23	1	4	

- Molecule 83 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
83	Lg	1	Total	Zn	0
			1	1	
83	Lj	1	Total	Zn	0
			1	1	
83	Lm	1	Total	Zn	0
			1	1	
83	Lo	1	Total	Zn	0
			1	1	
83	Lp	1	Total	Zn	0
			1	1	
83	Sa	1	Total	Zn	0
			1	1	
83	Sd	1	Total	Zn	0
			1	1	

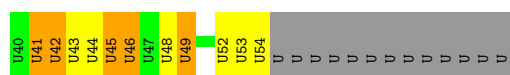
- Molecule 84 is water.

Mol	Chain	Residues	Atoms		AltConf
84	L5	3	Total 3	O 3	0
84	LD	1	Total 1	O 1	0
84	LI	1	Total 1	O 1	0
84	LN	1	Total 1	O 1	0
84	La	1	Total 1	O 1	0
84	Lp	1	Total 1	O 1	0
84	S2	3	Total 3	O 3	0

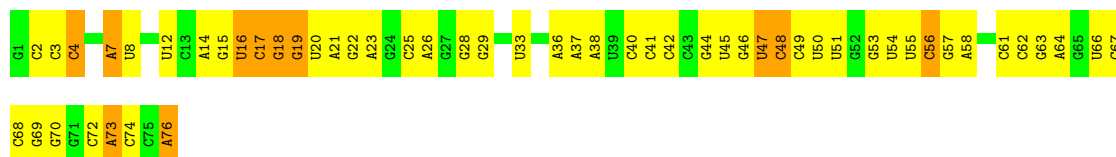
3 Residue-property plots [i](#)

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: mRNA



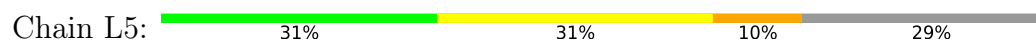
- Molecule 2: tRNA



- Molecule 3: Nascent polypeptide



- Molecule 4: 28S ribosomal RNA





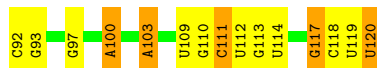




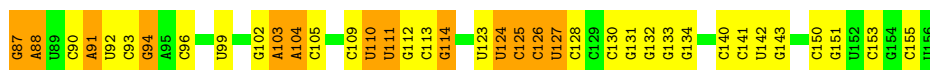
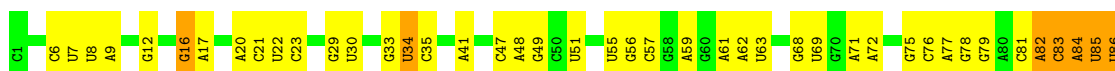




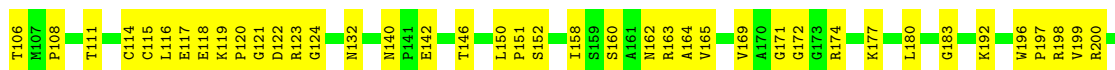
• Molecule 5: 5S ribosomal RNA



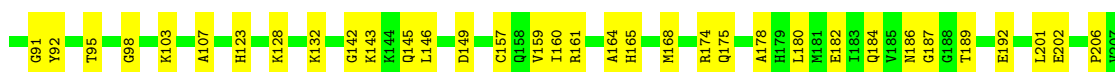
• Molecule 6: 5.8S ribosomal RNA



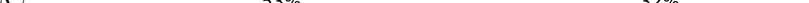
• Molecule 7: 60S ribosomal protein L8

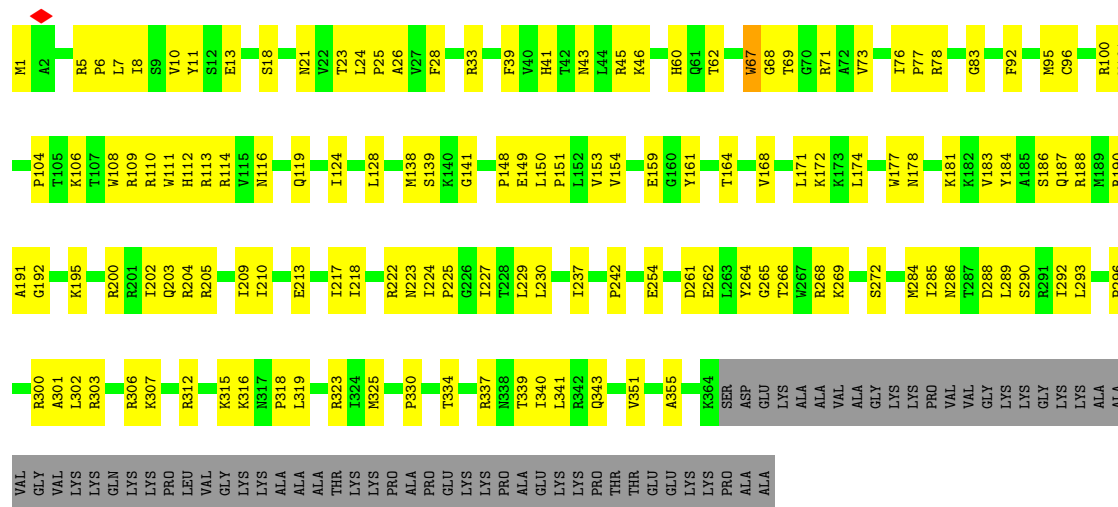


• Molecule 8: 60S ribosomal protein L3



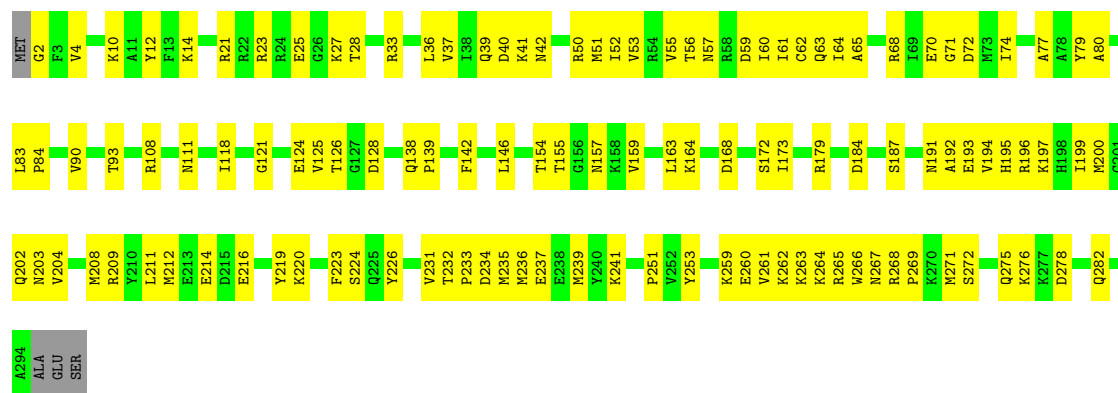
- Molecule 9: 60S ribosomal protein L4

Chain LC: 

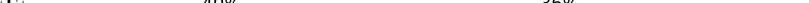


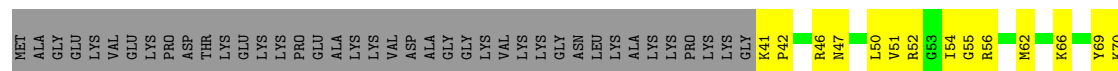
- Molecule 10: 60S ribosomal protein L5

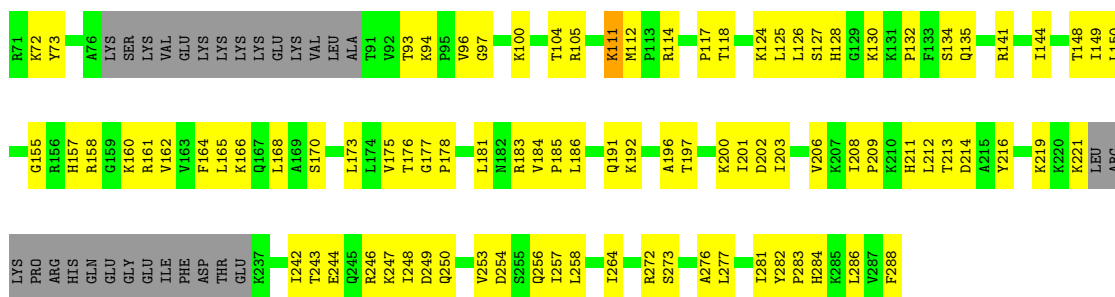
Chain LD:



- Molecule 11: 60S ribosomal protein L6

Chain LE: 

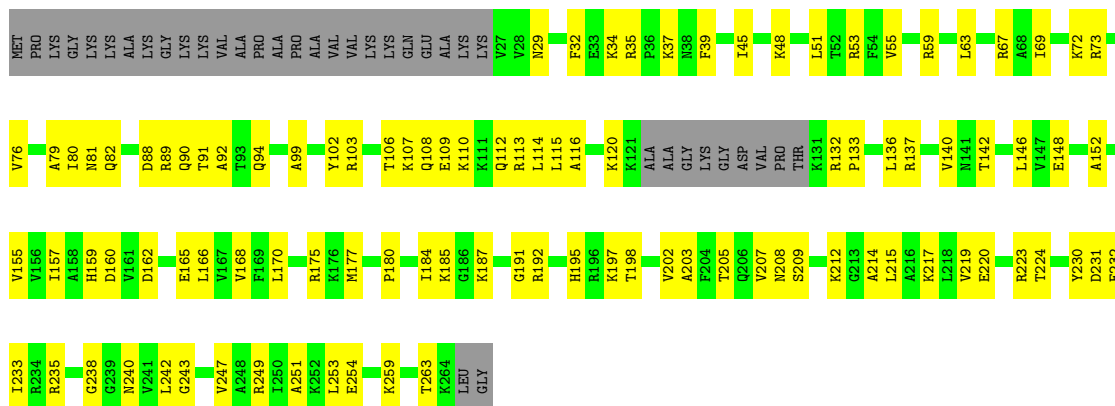




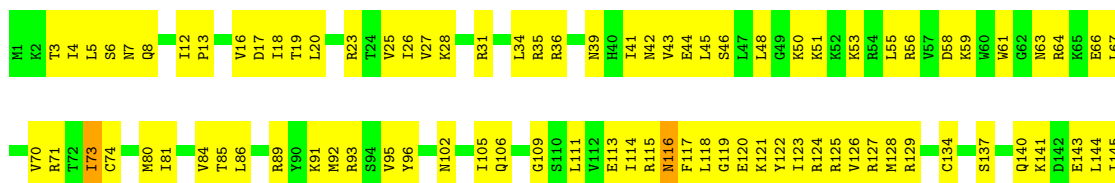
- Molecule 12: 60S ribosomal protein L7



- Molecule 13: 60S ribosomal protein L7a

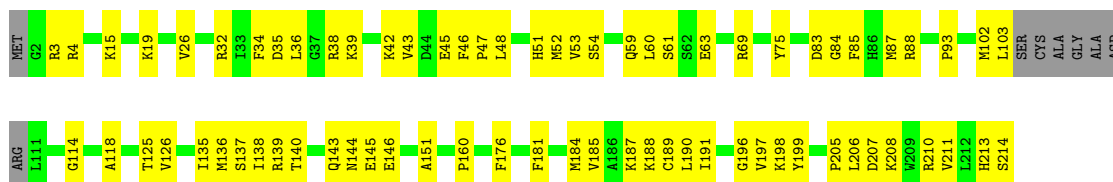


- Molecule 14: 60S ribosomal protein L9

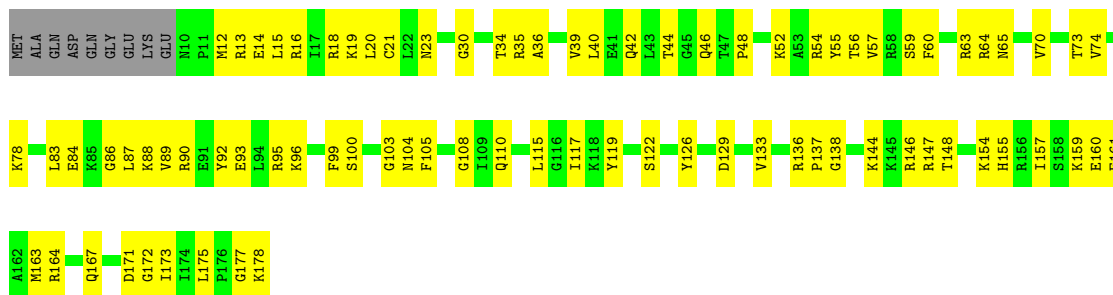




- Molecule 15: 60S ribosomal protein L10-like



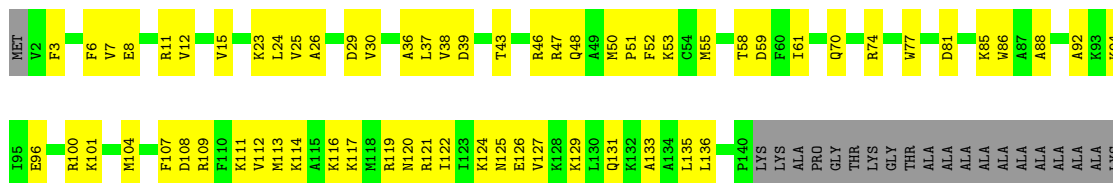
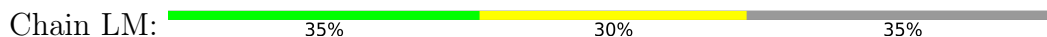
- Molecule 16: 60S ribosomal protein L11



- Molecule 17: 60S ribosomal protein L13

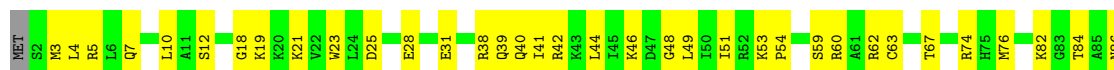


- Molecule 18: 60S ribosomal protein L14





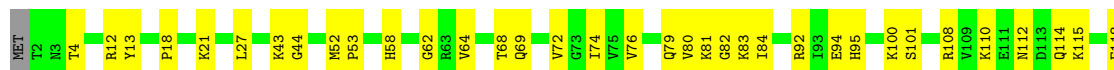
• Molecule 23: 60S ribosomal protein L19



• Molecule 24: 60S ribosomal protein L18a



• Molecule 25: 60S ribosomal protein L21



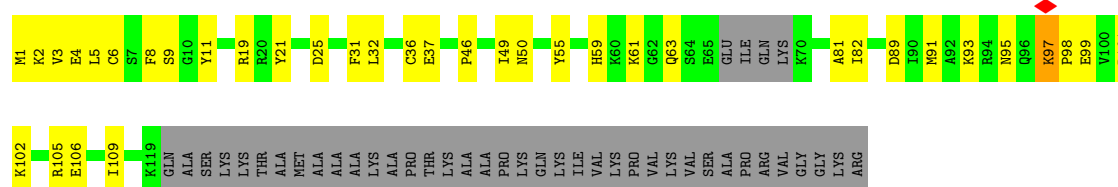
• Molecule 26: 60S ribosomal protein L22



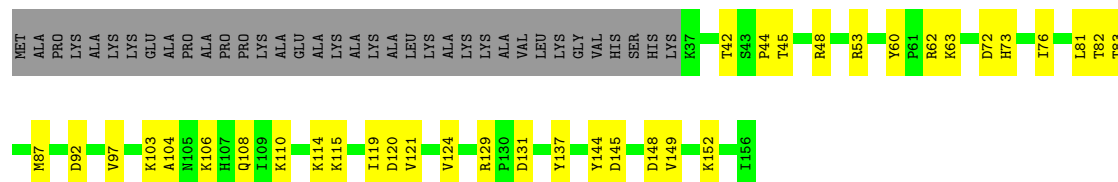
• Molecule 27: 60S ribosomal protein L23



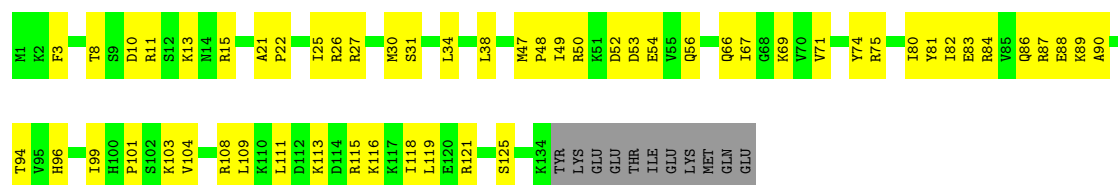
- Molecule 28: 60S ribosomal protein L24



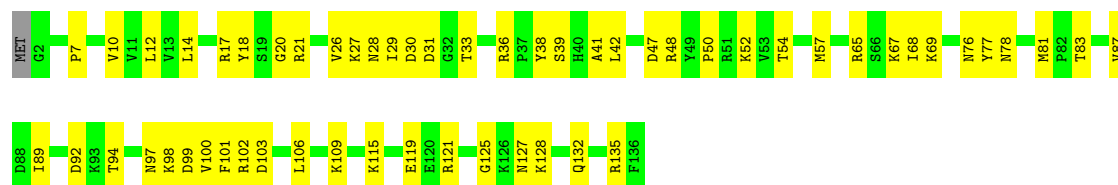
- Molecule 29: 60S ribosomal protein L23a



- Molecule 30: 60S ribosomal protein L26



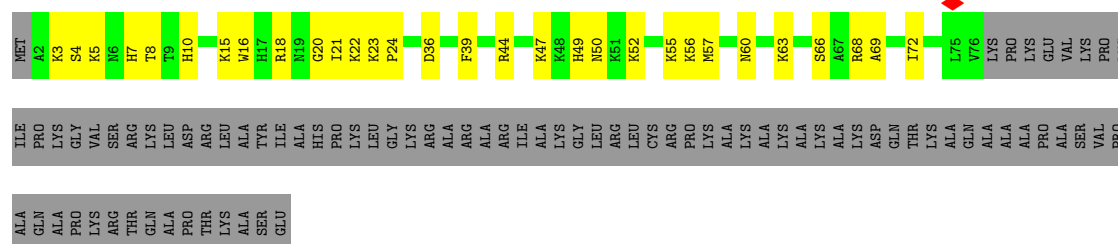
- Molecule 31: 60S ribosomal protein L27



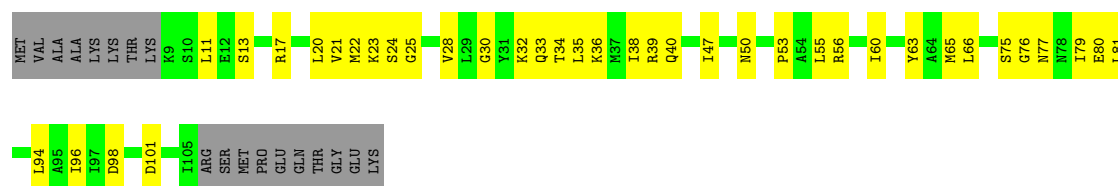
- Molecule 32: 60S ribosomal protein L27a

K116
L117
P118
F128
R131
E135
L146
V147
A148
MET
P2
R9
K10
L11
R12
V15
S16
H17
G18
H19
G20
R21
R26
K27
R32
G37
L38
H41
R42
K47
V48
H49
P50
G51
K64
S65
I66
Q67
S68
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V88
A97
I100
K110
V111
L112
G113
K114
G115

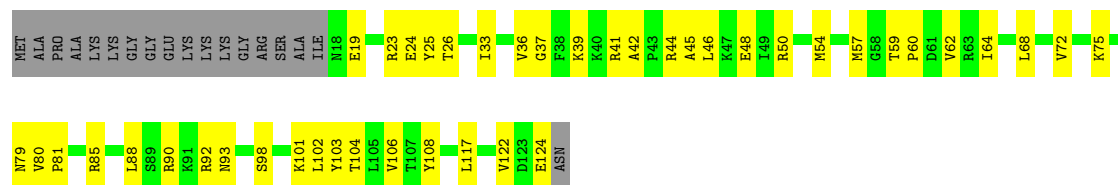
Chain Lb:



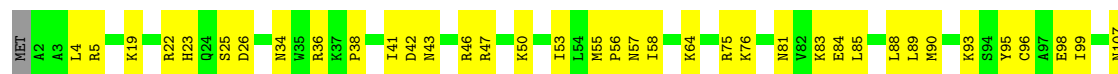
Chain Lc:



Chain Ld:



Chain Le:





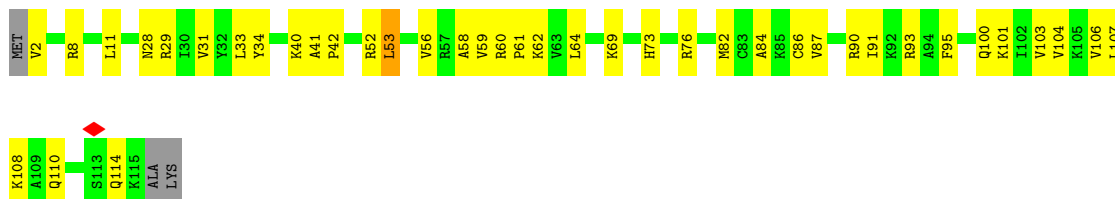
- Molecule 37: 60S ribosomal protein L35a

Chain Lf: 53% 45% ..



- Molecule 38: 60S ribosomal protein L34

Chain Lg: 63% 33% ..



- Molecule 39: 60S ribosomal protein L35

Chain Lh: 66% 33% .



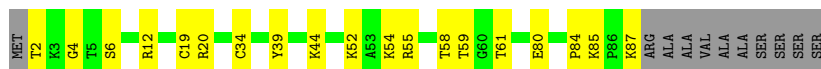
- Molecule 40: 60S ribosomal protein L36

Chain Li: 69% 29% .



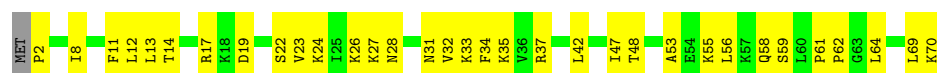
- Molecule 41: 60S ribosomal protein L37

Chain Lj: 69% 20% 11%



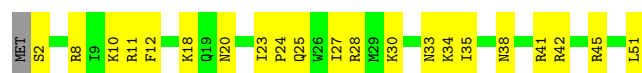
- Molecule 42: 60S ribosomal protein L38

Chain Lk:  51% 47%



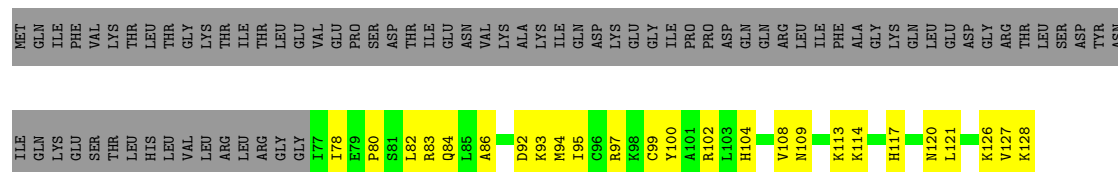
- Molecule 43: 60S ribosomal protein L39

Chain Ll:  57% 41%



- Molecule 44: Ubiquitin-60S ribosomal protein L40

Chain Lm:  21% 20% 59%



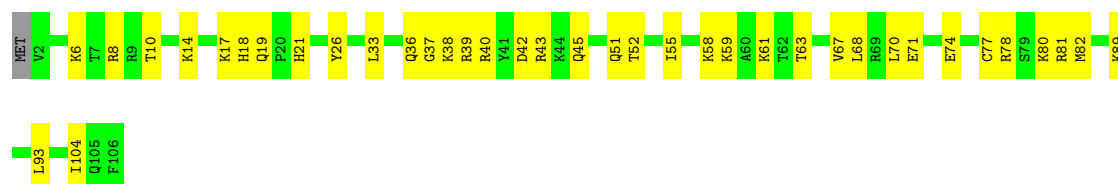
- Molecule 45: 60S ribosomal protein L41

Chain Ln:  64% 32%



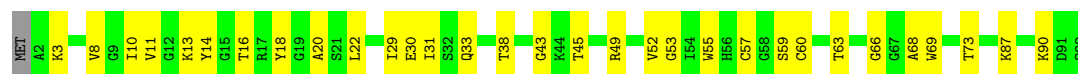
- Molecule 46: 60S ribosomal protein L36a

Chain Lo:  63% 36%



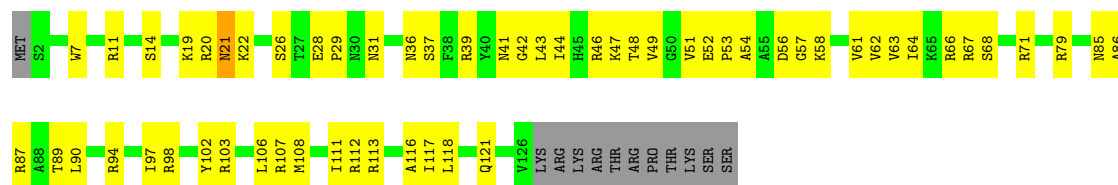
- Molecule 47: 60S ribosomal protein L37a

Chain Lp:  65% 34%

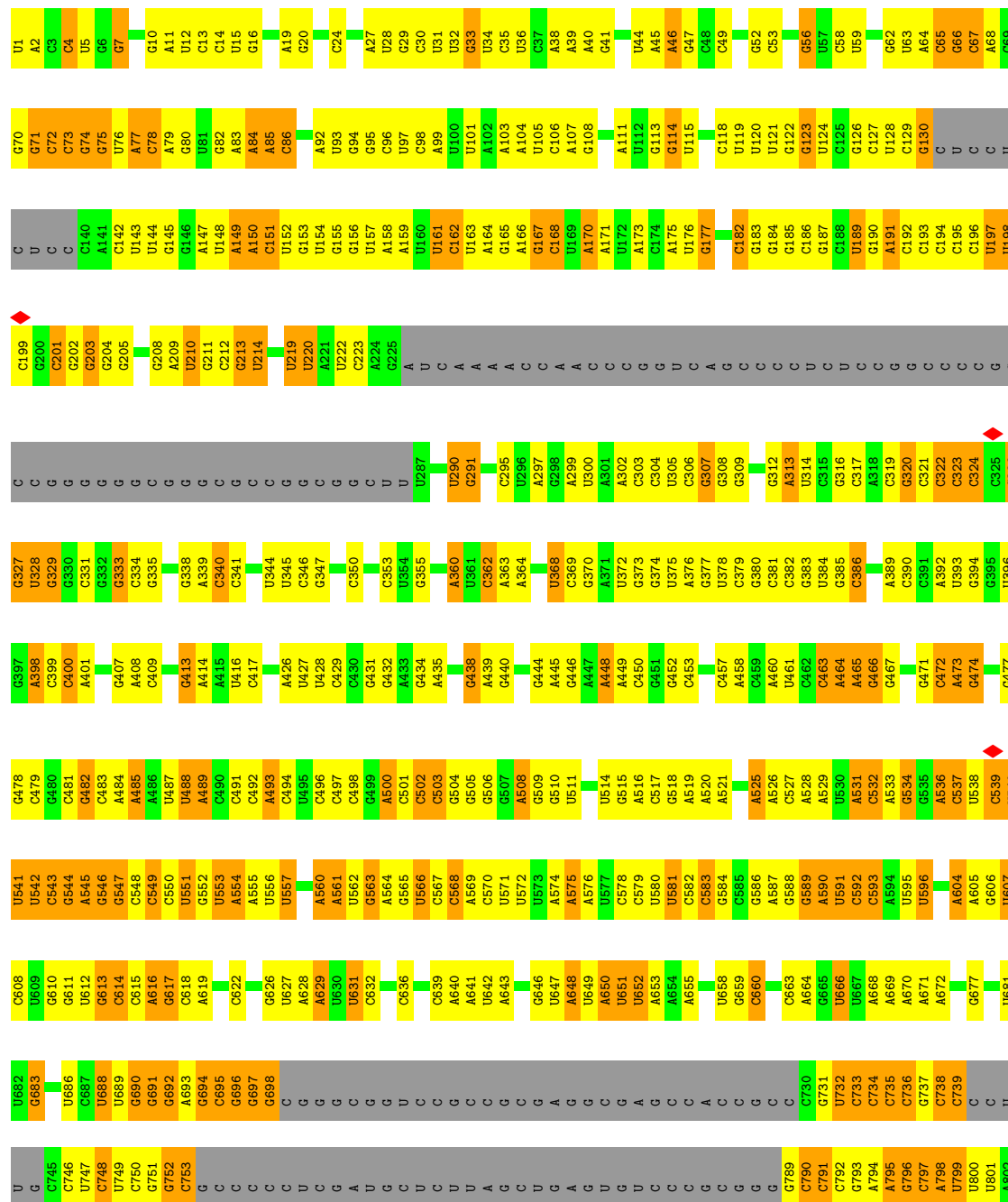


- Molecule 48: 60S ribosomal protein L28

Chain Lr:  49% 42% 9%

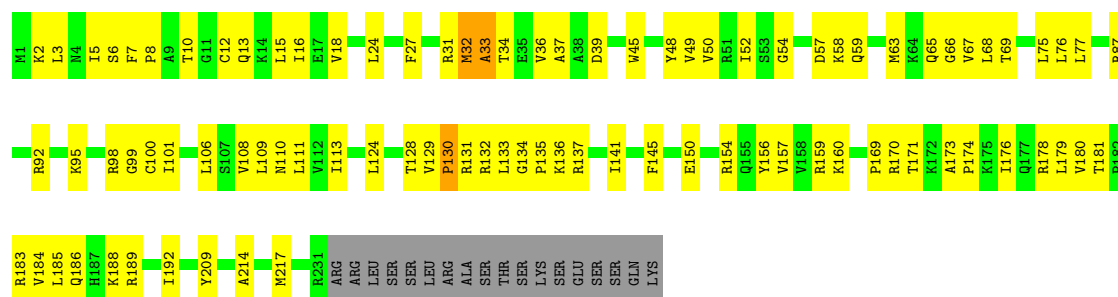


• Molecule 49: 18S ribosomal RNA



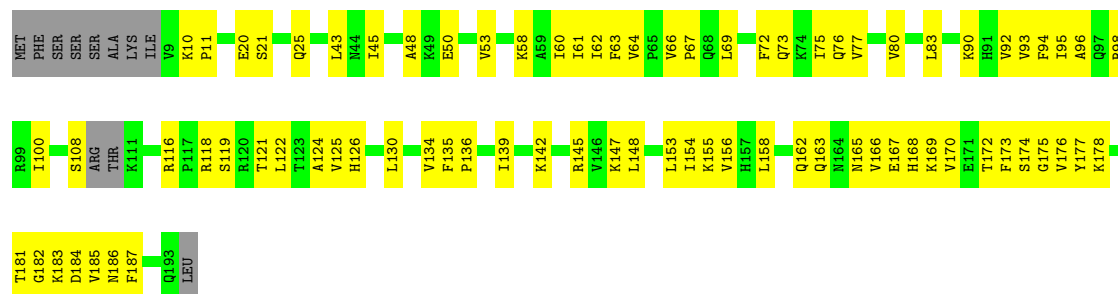
C1802	U1728	A1580	U1519	A1448	A1378	A1301	U1232	A1150	A1084	A1009	C931	A869	C803
U1803	U1729	C1581	G1520	G1449	A1379	G1302	G1233	G1151	C1085	A1009	G932	A870	U804
U1804		C1582	G1520	G1450	C1380	G1302	C1234	U1152	C1086	A1010	G933	U871	U805
G1805	G1734	C1583	G1521	G1451	G1381	U1304	G1235	C1153	A1087	A1011	G934	A872	U806
A1806		G1584	A1522	A1452	A1382		G1236	U1155	U1088	U1012	G935	G874	G807
C1807	U1741	U1585	C1523	C1453	A1383	U1308	C1237	U1156	G1089	U1013	G936	G874	A808
U1808	C1742	U1586	G1524	A1454	C1384	C1309	U1238	U1157	C1090	G1014	C937	A875	A809
A1809	G1743	G1587	C1525	A1455	G1385	U1310	U1239	G1158	C1091	U1015	A938	C876	A810
U1810	G1743	A1588	C1526	A1456	A1386	C1311	A1240	G1158	G1092	U1016	U939	C877	A811
C1811	A1745	C1590	C1527	U1457	A1387	G1312	U1241		A1093	U1017	U940	G878	A812
U1812	C1746	C1591	C1529	G1461	A1388	A1313	U1242	G1164	C1094	U1018	C941	C879	A813
A1813	C1747	C1592	U1530	U1462	C1389	U1314	U1243	G1165	U1095	C1019	G942	G880	U814
G1814	G1748	C1593	A1531	U1463	U1390	U1315		G1166	G1096	A1020	U943	G881	U815
A1815		A1594	C1532	C1464	C1391	C1316	U1248		G1097	U1021	A944	U882	A816
G1816	C1752	A1595	A1533	A1465			C1249	G1171	C1098	U1022	U945	U883	G817
C1817	G1753	U1595	C1534	G1466	C1395	U1319	A1250		C1099	A1023	U946	U883	A818
A1818	G1754	C1596	U1535	C1467	A1396	G1320	C1251	G1179	A1100	U1025	G947	U885	G819
U1819	C1755	C1597	U1536	G1468	U1397	G1321	A1252	G1180	U1101	U1026	C948	U820	U820
A1820	G1756	U1598	G1536	A1469	G1398	G1322	A1253	A1181	G1102	C1026	G949	G821	U821
U1821	C1758	U1599	A1537	A1470	C1399	U1323	C1254	A1182	G1103	A1027	C950	U822	U822
A1822	G1758	G1600	C1538	C1471	U1400	G1324	G1255	A1183	C1104	U1028	C951	U823	U823
C1823	G1759	A1601	U1539	C1472	A1401	G1325	G1256	G1184	G1105		C952	G891	C824
A1824	G1760	U1602	G1540	C1473	A1402	U1326	G1257		C1106	C1032		U892	A825
U1825		G1603	G1541	G1474	C1403	G1327	A1258	G1187	G1107	G1033	A955	G893	A826
G1826		G1604	C1542	A1474	U1404		A1259		G1108	A1034	G956	G894	A827
C1827		G1605	U1543	G1475	A1405	G1330	A1260			A1035	A957	G895	G828
U1828		G1606	C1544	A1476	U1406	C1331		U1192	A1113	A1036	G958	U896	C829
G1829		A1607	G1545	U1477	G1407	A1332	C1264		U1114	G1037	G959	U897	A830
C1830		G1680	C1546		U1408	U1333	C1265		C1115		U960	U898	
		U1681	G1547		C1410	G1334			C1116	G1040	G961	U899	C834
A1834		G1686	G1548	A1480	G1411	G1335	G1269		C1117	A1041	A962	C900	C835
C1835		C1687	U1549	G1481	G1414	C1336	G1270		G1118	A1042	A963	G901	G836
G1836		G1692	C1552	A1484	C1415		C1271		A1119	G1043		G902	A837
U1837	G1772	U1615	G1553	U1485	C1416	U1342	C1272		U1120	G1044	U968	A903	G838
C1838	G1773	C1616	C1554	A1486	C1417	U1343	C1273		U1121	U1045	U969	A904	C839
U1840	C1774	U1617	U1555	A1487	G1418	G1345	G1274		A1122	U1046	G970	C905	C840
C1841	U1775	C1618	U1556	C1488	C1419	U1346	G1275		G1123		G971	U906	G841
G1842	G1776	A1566	C1557	A1489	G1420	U1347	A1276		C1124	A1050	A972	G907	C842
U1843	C1777	C1558	C1557	G1490	A1421	G1348	C1277		G1126	G1051		A908	C843
A1844	G1778	U1492	G1559	G1491	G1422	U1349	A1278		C	A1052	C977	G909	U844
U1845	G1779	U1560	C1561	C1493	C1423	U1350	G1279		G1129	C1053	G978	G910	G845
	G1780	A1561			G1424	G1351	G1280		G1130	U1055	A980	C911	G846
G1849	A1781	C1562		G1497		G1354	G1281		G1131	C1056		A912	A847
A1850	G1782	G1563		A1498			A1282		G1132	C1057	A983	A913	U848
C1851	C1783	C1564		G1498		A1357	C1283		G1133	A1058	C984	U914	A849
G1852	G1784	C1565		U1504	U1432	U1358	A1284		G1134	G1059	A987	U917	A854
C1853	C1785	G1566		U1505	C	G1365	G1285			A1060		U918	G855
U1854	U1786	G1567		A1506	C	U1364	G1286			U1061	A989	A919	C856
	G1787	C1568		G1507	C	U1365	U1287			C1062	G991	A920	U857
G1857	G1788	U1631		A1508	C1436	G1366	U1288			G1063	A992	G921	A858
C1858	A1789	G1569		U1509	C1437	U1366	U1289			C1064		A922	G859
A1859	U1790	G1570		G1510	A1438	U1367				A1070	G999	G923	G860
U1860	A1791	C1571		U1511	C1292	U1368	C1292			G1071	G999	G924	A861
G1861	G1792	C1572		C1512	A1293	A1369	A1293				A1000	G925	A862
C1862		G1573		U1442	U1370	G1294	G1294				A1001	A926	U863
A1863		C1574		C1443	U1371	A1228				A1080	U1002	C927	
U1864	U1797	U1578		A1446	U1372	G1298				U1081		G928	U866
G1865	G1799	G1514		G1447	C1373	C1229				A1082	G1005	G929	A867
		G1516				U1300				A1083	C1006	U1082	G868

Chain SG:  56% 35% 7%



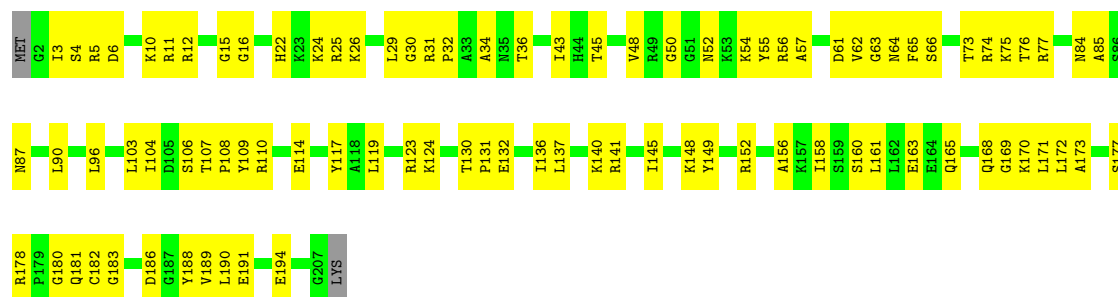
• Molecule 57: 40S ribosomal protein S7

Chain SH:  54% 41% 6%



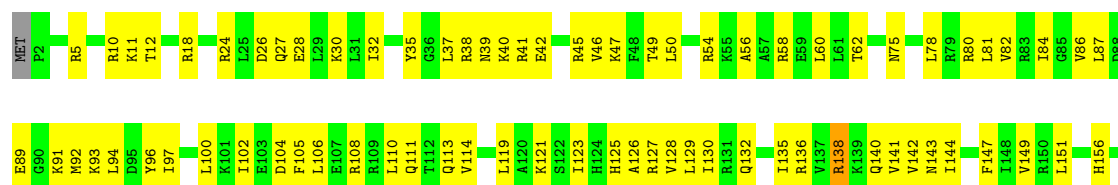
• Molecule 58: 40S ribosomal protein S8

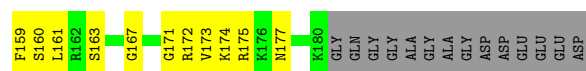
Chain SI:  55% 44% 1%



• Molecule 59: 40S ribosomal protein S9

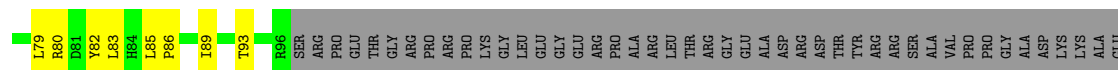
Chain SJ:  48% 44% 8%





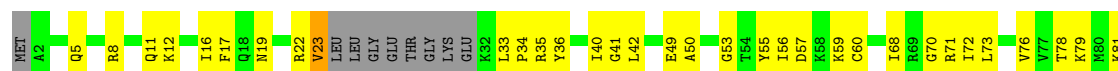
- Molecule 60: 40S ribosomal protein S10

Chain SK: 27% 32% 42%



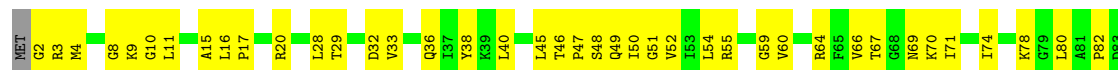
- Molecule 61: 40S ribosomal protein S11

Chain SL: 53% 37% 9%



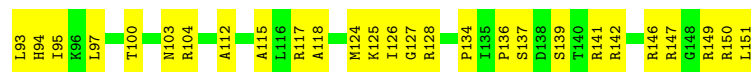
- Molecule 62: 40S ribosomal protein S13

Chain SN: 65% 34% 1%



- Molecule 63: 40S ribosomal protein S14

Chain SO: 54% 35% 11%

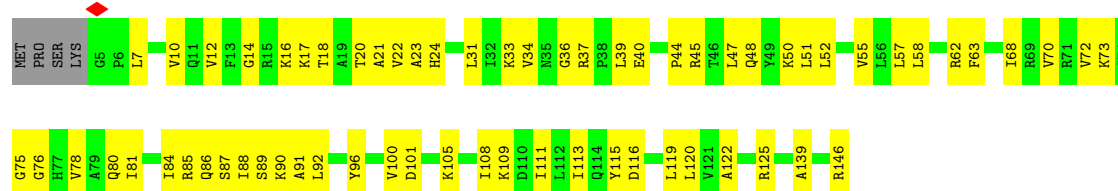


- Molecule 64: 40S ribosomal protein S15

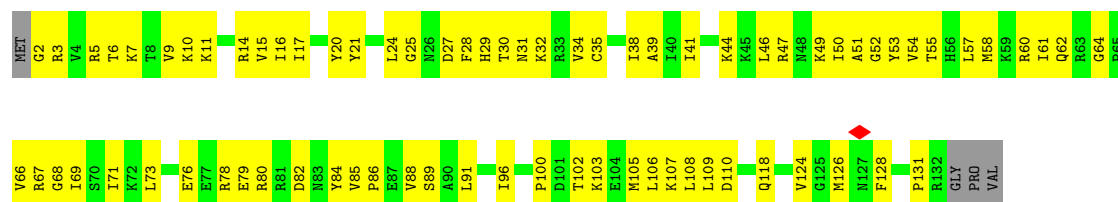
Chain SP: 40% 48% 12%



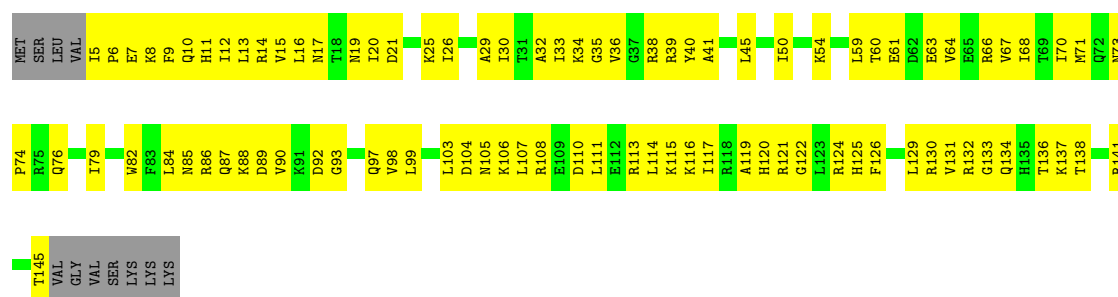
- Molecule 65: 40S ribosomal protein S16



- Molecule 66: 40S ribosomal protein S17



- Molecule 67: 40S ribosomal protein S18



- Molecule 68: 40S ribosomal protein S19





- Molecule 69: 40S ribosomal protein S20



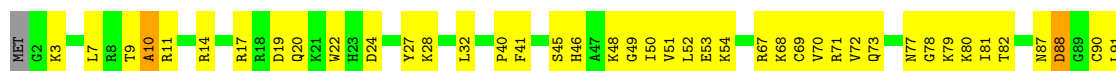
- Molecule 70: 40S ribosomal protein S21



- Molecule 71: 40S ribosomal protein S15a



- Molecule 72: 40S ribosomal protein S23



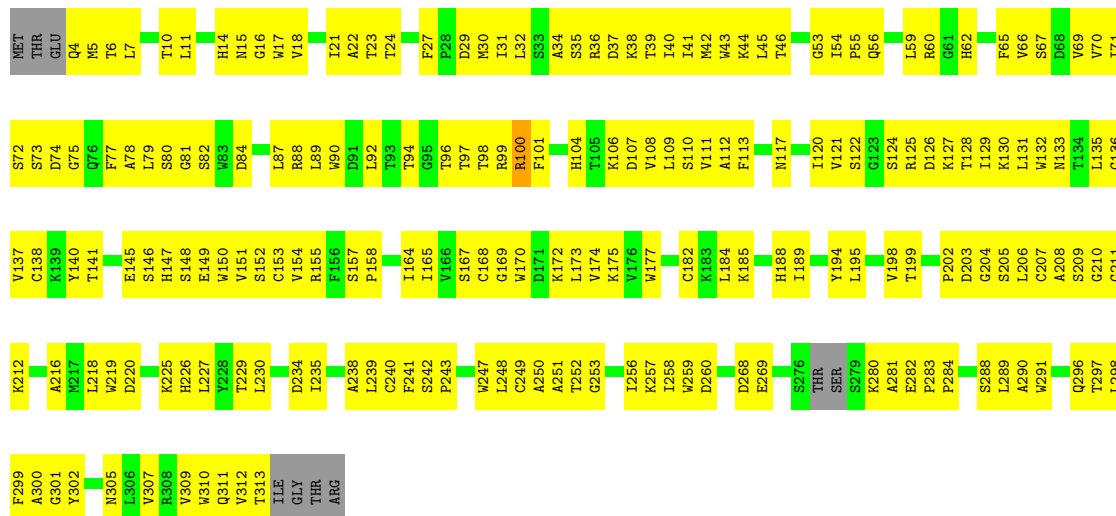
- Molecule 73: 40S ribosomal protein S24





- Molecule 80: Receptor of activated protein C kinase 1

Chain Sg: 35% 62%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	64926	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.115	Depositor
Minimum map value	-0.028	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.009	Depositor
Map size (Å)	473.0, 473.0, 473.0	wwPDB
Map dimensions	550, 550, 550	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.86, 0.86, 0.86	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ZN, 3HE

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	A4	0.17	0/329	0.26	0/506
2	B4	0.17	0/1813	0.20	0/2823
4	L5	0.31	0/86626	0.25	0/135120
5	L7	0.31	0/2858	0.22	0/4455
6	L8	0.32	0/3701	0.25	0/5766
7	LA	0.33	0/1936	0.44	0/2596
8	LB	0.30	0/3251	0.42	0/4352
9	LC	0.33	0/2938	0.43	0/3947
10	LD	0.27	0/2407	0.40	0/3227
11	LE	0.28	0/1788	0.48	0/2399
12	LF	0.33	0/1905	0.42	1/2539 (0.0%)
13	LG	0.28	0/1849	0.43	0/2496
14	LH	0.28	0/1529	0.42	0/2058
15	LI	0.28	0/1690	0.40	0/2258
16	LJ	0.25	0/1352	0.43	0/1813
17	LL	0.31	0/1661	0.45	0/2229
18	LM	0.29	0/1145	0.46	1/1536 (0.1%)
19	LN	0.36	0/1746	0.42	0/2338
20	LO	0.31	0/1665	0.37	0/2229
21	LP	0.32	0/1260	0.37	0/1692
22	LQ	0.33	0/1526	0.42	0/2038
23	LR	0.30	0/1468	0.41	0/1945
24	LS	0.32	0/1492	0.40	0/2003
25	LT	0.31	0/1310	0.48	2/1752 (0.1%)
26	LU	0.25	0/813	0.38	0/1093
27	LV	0.29	0/985	0.37	0/1323
28	LW	0.26	0/820	0.52	0/1104
29	LX	0.30	0/998	0.39	0/1341
30	LY	0.31	0/1128	0.41	0/1500
31	LZ	0.29	0/1130	0.39	0/1507
32	La	0.34	0/1183	0.40	0/1582
33	Lb	0.27	0/600	0.39	0/796

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
34	Lc	0.31	0/752	0.37	0/1011
35	Ld	0.29	0/889	0.38	0/1198
36	Le	0.32	0/1067	0.40	0/1425
37	Lf	0.32	0/891	0.51	2/1194 (0.2%)
38	Lg	0.32	0/899	0.50	1/1200 (0.1%)
39	Lh	0.30	0/1014	0.37	0/1340
40	Li	0.27	0/824	0.39	0/1093
41	Lj	0.35	0/720	0.44	0/952
42	Lk	0.26	0/548	0.37	0/730
43	Ll	0.32	0/454	0.40	0/599
44	Lm	0.27	0/431	0.36	0/570
45	Ln	0.31	0/231	0.47	0/294
46	Lo	0.31	0/861	0.40	0/1137
47	Lp	0.30	0/706	0.37	0/939
48	Lr	0.32	0/1012	0.42	0/1358
49	S2	0.27	0/40879	0.27	1/63710 (0.0%)
50	SA	0.26	0/1708	0.46	0/2324
51	SB	0.27	0/1745	0.38	0/2337
52	SC	0.27	0/1697	0.42	0/2301
53	SD	0.22	0/1606	0.43	1/2181 (0.0%)
54	SE	0.24	0/2014	0.47	0/2726
55	SF	0.24	0/1437	0.44	0/1936
56	SG	0.22	0/1657	0.48	0/2247
57	SH	0.23	0/1295	0.44	0/1763
58	SI	0.26	0/1603	0.41	0/2161
59	SJ	0.24	0/1456	0.43	0/1957
60	SK	0.19	0/750	0.43	0/1026
61	SL	0.30	0/1163	0.43	0/1562
62	SN	0.29	0/1206	0.41	0/1626
63	SO	0.28	0/982	0.44	0/1320
64	SP	0.19	0/995	0.40	0/1344
65	SQ	0.25	0/1089	0.49	1/1465 (0.1%)
66	SR	0.25	0/955	0.52	0/1294
67	SS	0.23	0/1136	0.53	0/1528
68	ST	0.21	0/1100	0.37	0/1479
69	SU	0.25	0/722	0.54	0/983
70	SV	0.25	0/625	0.45	0/837
71	SW	0.31	0/1043	0.44	0/1396
72	SX	0.29	0/1096	0.53	1/1467 (0.1%)
73	SY	0.22	0/944	0.44	0/1271
74	SZ	0.23	0/565	0.53	1/764 (0.1%)
75	Sa	0.29	0/794	0.48	0/1065
76	Sb	0.25	0/632	0.48	0/851

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
77	Sc	0.25	0/474	0.58	0/638
78	Sd	0.23	0/443	0.41	0/589
79	Se	0.21	0/431	0.42	0/570
80	Sg	0.23	0/2227	0.61	0/3059
All	All	0.29	0/224670	0.33	12/331180 (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
17	LL	0	1
56	SG	0	1
67	SS	0	1
All	All	0	3

There are no bond length outliers.

The worst 5 of 12 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	S2	808	A	C2'-C3'-O3'	6.46	119.20	109.50
72	SX	106	GLY	N-CA-C	-6.29	104.76	112.68
37	Lf	52	LYS	CA-C-N	-6.12	114.19	121.90
37	Lf	52	LYS	C-N-CA	-6.12	114.19	121.90
65	SQ	116	ASP	N-CA-CB	-6.00	107.33	114.17

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
17	LL	47	ALA	Peptide
56	SG	32	MET	Peptide
67	SS	11	HIS	Peptide

5.2 Too-close contacts [i](#)

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

the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A4	300	0	151	10	0
2	B4	1623	0	821	37	0
3	C4	10	0	4	1	0
4	L5	77447	0	39147	1702	0
5	L7	2558	0	1296	58	0
6	L8	3314	0	1683	66	0
7	LA	1898	0	1993	91	0
8	LB	3183	0	3316	143	0
9	LC	2884	0	3050	126	0
10	LD	2361	0	2378	123	0
11	LE	1754	0	1899	114	0
12	LF	1870	0	1996	76	0
13	LG	1818	0	1911	90	0
14	LH	1510	0	1579	104	0
15	LI	1651	0	1692	65	0
16	LJ	1329	0	1348	75	0
17	LL	1630	0	1715	78	0
18	LM	1122	0	1174	74	0
19	LN	1701	0	1749	90	0
20	LO	1633	0	1771	83	0
21	LP	1234	0	1254	63	0
22	LQ	1502	0	1616	65	0
23	LR	1452	0	1580	59	0
24	LS	1452	0	1490	56	0
25	LT	1282	0	1336	59	0
26	LU	799	0	811	52	0
27	LV	971	0	1024	52	0
28	LW	808	0	726	33	0
29	LX	981	0	1055	31	0
30	LY	1111	0	1194	59	0
31	LZ	1107	0	1182	50	0
32	La	1154	0	1198	53	0
33	Lb	590	0	613	32	0
34	Lc	742	0	774	29	0
35	Ld	874	0	918	35	0
36	Le	1049	0	1136	46	0
37	Lf	872	0	901	45	0
38	Lg	889	0	968	43	0
39	Lh	1006	0	1132	45	0
40	Li	813	0	887	32	0
41	Lj	705	0	737	21	0
42	Lk	542	0	590	28	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	Ll	444	0	483	23	0
44	Lm	425	0	462	25	0
45	Ln	230	0	276	6	0
46	Lo	848	0	911	38	0
47	Lp	696	0	745	32	0
48	Lr	997	0	1054	57	0
49	S2	36560	0	18473	1170	0
50	SA	1671	0	1672	128	0
51	SB	1718	0	1786	122	0
52	SC	1661	0	1710	98	0
53	SD	1580	0	1545	108	0
54	SE	1972	0	2012	150	0
55	SF	1416	0	1408	108	0
56	SG	1634	0	1568	123	0
57	SH	1274	0	1196	81	0
58	SI	1574	0	1540	92	0
59	SJ	1431	0	1497	93	0
60	SK	726	0	674	64	0
61	SL	1143	0	1177	53	0
62	SN	1182	0	1249	57	0
63	SO	969	0	982	61	0
64	SP	975	0	950	90	0
65	SQ	1071	0	1106	69	0
66	SR	942	0	913	98	0
67	SS	1118	0	1145	104	0
68	ST	1081	0	1093	82	0
69	SU	713	0	692	64	0
70	SV	618	0	617	38	0
71	SW	1026	0	1072	55	0
72	SX	1078	0	1130	68	0
73	SY	927	0	914	66	0
74	SZ	559	0	594	47	0
75	Sa	781	0	831	46	0
76	Sb	618	0	604	34	0
77	Sc	472	0	484	46	0
78	Sd	433	0	416	32	0
79	Se	426	0	438	24	0
80	Sg	2172	0	1951	230	0
81	B4	1	0	0	0	0
81	L5	129	0	0	0	0
81	L7	3	0	0	0	0
81	L8	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
81	LA	1	0	0	0	0
81	LN	1	0	0	0	0
81	LP	1	0	0	0	0
81	LV	1	0	0	0	0
81	S2	53	0	0	0	0
82	L5	20	23	23	2	0
83	Lg	1	0	0	0	0
83	Lj	1	0	0	0	0
83	Lm	1	0	0	0	0
83	Lo	1	0	0	0	0
83	Lp	1	0	0	0	0
83	Sa	1	0	0	0	0
83	Sd	1	0	0	0	0
84	L5	3	0	0	1	0
84	LD	1	0	0	1	0
84	LI	1	0	0	0	0
84	LN	1	0	0	0	0
84	La	1	0	0	0	0
84	Lp	1	0	0	1	0
84	S2	3	0	0	0	0
All	All	208923	23	151188	6850	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 20.

The worst 5 of 6850 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)
80:Sg:195:LEU:HA	80:Sg:211:GLY:HA3	1.32	1.11
49:S2:1091:C:HO2'	71:SW:2:VAL:N	1.49	1.11
69:SU:61:LEU:HB2	69:SU:82:MET:HB3	1.36	1.07
64:SP:44:ARG:HD3	64:SP:84:ILE:HD11	1.37	1.06
63:SO:92:ALA:HB2	63:SO:125:LYS:HB2	1.37	1.04

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	LA	246/257 (96%)	229 (93%)	17 (7%)	0	100	100
8	LB	393/403 (98%)	363 (92%)	29 (7%)	1 (0%)	36	70
9	LC	362/427 (85%)	335 (92%)	25 (7%)	2 (1%)	21	56
10	LD	291/297 (98%)	268 (92%)	23 (8%)	0	100	100
11	LE	213/288 (74%)	188 (88%)	24 (11%)	1 (0%)	24	60
12	LF	223/248 (90%)	208 (93%)	15 (7%)	0	100	100
13	LG	225/266 (85%)	208 (92%)	17 (8%)	0	100	100
14	LH	188/192 (98%)	174 (93%)	13 (7%)	1 (0%)	24	60
15	LI	202/214 (94%)	187 (93%)	15 (7%)	0	100	100
16	LJ	167/178 (94%)	158 (95%)	9 (5%)	0	100	100
17	LL	203/211 (96%)	190 (94%)	12 (6%)	1 (0%)	24	60
18	LM	137/215 (64%)	126 (92%)	11 (8%)	0	100	100
19	LN	201/204 (98%)	196 (98%)	5 (2%)	0	100	100
20	LO	198/203 (98%)	195 (98%)	3 (2%)	0	100	100
21	LP	151/184 (82%)	141 (93%)	10 (7%)	0	100	100
22	LQ	185/188 (98%)	172 (93%)	13 (7%)	0	100	100
23	LR	174/196 (89%)	172 (99%)	2 (1%)	0	100	100
24	LS	173/176 (98%)	157 (91%)	16 (9%)	0	100	100
25	LT	157/160 (98%)	142 (90%)	14 (9%)	1 (1%)	21	56
26	LU	99/128 (77%)	89 (90%)	10 (10%)	0	100	100
27	LV	129/140 (92%)	117 (91%)	12 (9%)	0	100	100
28	LW	111/157 (71%)	97 (87%)	12 (11%)	2 (2%)	6	31
29	LX	118/156 (76%)	107 (91%)	11 (9%)	0	100	100
30	LY	132/145 (91%)	122 (92%)	10 (8%)	0	100	100
31	LZ	133/136 (98%)	127 (96%)	6 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	La	145/148 (98%)	132 (91%)	13 (9%)	0	100	100
33	Lb	73/159 (46%)	68 (93%)	5 (7%)	0	100	100
34	Lc	95/115 (83%)	87 (92%)	8 (8%)	0	100	100
35	Ld	105/125 (84%)	99 (94%)	6 (6%)	0	100	100
36	Le	126/135 (93%)	120 (95%)	6 (5%)	0	100	100
37	Lf	107/110 (97%)	99 (92%)	8 (8%)	0	100	100
38	Lg	112/117 (96%)	104 (93%)	8 (7%)	0	100	100
39	Lh	119/123 (97%)	114 (96%)	5 (4%)	0	100	100
40	Li	100/105 (95%)	97 (97%)	3 (3%)	0	100	100
41	Lj	84/97 (87%)	82 (98%)	2 (2%)	0	100	100
42	Lk	67/70 (96%)	59 (88%)	8 (12%)	0	100	100
43	Ll	48/51 (94%)	46 (96%)	2 (4%)	0	100	100
44	Lm	50/128 (39%)	49 (98%)	1 (2%)	0	100	100
45	Ln	22/25 (88%)	21 (96%)	1 (4%)	0	100	100
46	Lo	103/106 (97%)	98 (95%)	5 (5%)	0	100	100
47	Lp	89/92 (97%)	83 (93%)	6 (7%)	0	100	100
48	Lr	123/137 (90%)	117 (95%)	6 (5%)	0	100	100
50	SA	214/295 (72%)	200 (94%)	12 (6%)	2 (1%)	14	48
51	SB	211/264 (80%)	199 (94%)	12 (6%)	0	100	100
52	SC	217/293 (74%)	204 (94%)	13 (6%)	0	100	100
53	SD	219/243 (90%)	198 (90%)	21 (10%)	0	100	100
54	SE	260/263 (99%)	249 (96%)	11 (4%)	0	100	100
55	SF	185/204 (91%)	168 (91%)	16 (9%)	1 (0%)	24	60
56	SG	229/249 (92%)	208 (91%)	19 (8%)	2 (1%)	14	48
57	SH	179/194 (92%)	169 (94%)	10 (6%)	0	100	100
58	SI	204/208 (98%)	191 (94%)	13 (6%)	0	100	100
59	SJ	177/194 (91%)	172 (97%)	4 (2%)	1 (1%)	21	56
60	SK	94/165 (57%)	89 (95%)	5 (5%)	0	100	100
61	SL	140/158 (89%)	130 (93%)	10 (7%)	0	100	100
62	SN	148/151 (98%)	140 (95%)	8 (5%)	0	100	100
63	SO	132/151 (87%)	116 (88%)	16 (12%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
64	SP	126/145 (87%)	116 (92%)	10 (8%)	0	100	100
65	SQ	140/146 (96%)	127 (91%)	13 (9%)	0	100	100
66	SR	129/135 (96%)	113 (88%)	16 (12%)	0	100	100
67	SS	139/152 (91%)	122 (88%)	17 (12%)	0	100	100
68	ST	141/145 (97%)	135 (96%)	6 (4%)	0	100	100
69	SU	99/119 (83%)	90 (91%)	8 (8%)	1 (1%)	12	45
70	SV	81/83 (98%)	76 (94%)	5 (6%)	0	100	100
71	SW	127/130 (98%)	120 (94%)	7 (6%)	0	100	100
72	SX	139/143 (97%)	123 (88%)	14 (10%)	2 (1%)	9	36
73	SY	121/133 (91%)	115 (95%)	6 (5%)	0	100	100
74	SZ	73/125 (58%)	65 (89%)	8 (11%)	0	100	100
75	Sa	97/115 (84%)	84 (87%)	13 (13%)	0	100	100
76	Sb	81/84 (96%)	76 (94%)	5 (6%)	0	100	100
77	Sc	61/69 (88%)	52 (85%)	9 (15%)	0	100	100
78	Sd	51/56 (91%)	50 (98%)	1 (2%)	0	100	100
79	Se	55/59 (93%)	44 (80%)	11 (20%)	0	100	100
80	Sg	304/317 (96%)	242 (80%)	61 (20%)	1 (0%)	36	70
All	All	10952/12400 (88%)	10126 (92%)	807 (7%)	19 (0%)	44	76

5 of 19 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	LB	393	LYS
9	LC	111	TRP
14	LH	116	ASN
28	LW	98	PRO
55	SF	80	GLY

5.3.2 Protein sidechains ⓘ

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	
7	LA	190/199 (96%)	190 (100%)	0	100	100
8	LB	343/349 (98%)	343 (100%)	0	100	100
9	LC	299/348 (86%)	299 (100%)	0	100	100
10	LD	241/250 (96%)	241 (100%)	0	100	100
11	LE	191/252 (76%)	191 (100%)	0	100	100
12	LF	194/215 (90%)	194 (100%)	0	100	100
13	LG	188/223 (84%)	188 (100%)	0	100	100
14	LH	167/171 (98%)	166 (99%)	1 (1%)	78	88
15	LI	172/181 (95%)	172 (100%)	0	100	100
16	LJ	136/149 (91%)	136 (100%)	0	100	100
17	LL	164/177 (93%)	164 (100%)	0	100	100
18	LM	114/161 (71%)	114 (100%)	0	100	100
19	LN	171/172 (99%)	171 (100%)	0	100	100
20	LO	170/174 (98%)	170 (100%)	0	100	100
21	LP	132/163 (81%)	132 (100%)	0	100	100
22	LQ	161/165 (98%)	161 (100%)	0	100	100
23	LR	150/175 (86%)	150 (100%)	0	100	100
24	LS	156/157 (99%)	156 (100%)	0	100	100
25	LT	135/140 (96%)	135 (100%)	0	100	100
26	LU	84/115 (73%)	84 (100%)	0	100	100
27	LV	99/107 (92%)	99 (100%)	0	100	100
28	LW	61/126 (48%)	61 (100%)	0	100	100
29	LX	107/133 (80%)	107 (100%)	0	100	100
30	LY	123/135 (91%)	123 (100%)	0	100	100
31	LZ	117/118 (99%)	117 (100%)	0	100	100
32	La	118/121 (98%)	118 (100%)	0	100	100
33	Lb	59/126 (47%)	59 (100%)	0	100	100
34	Lc	79/97 (81%)	79 (100%)	0	100	100
35	Ld	94/110 (86%)	94 (100%)	0	100	100
36	Le	113/121 (93%)	113 (100%)	0	100	100
37	Lf	87/89 (98%)	87 (100%)	0	100	100
38	Lg	93/100 (93%)	93 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	Lh	108/110 (98%)	108 (100%)	0	100	100
40	Li	81/89 (91%)	81 (100%)	0	100	100
41	Lj	73/80 (91%)	73 (100%)	0	100	100
42	Lk	57/65 (88%)	57 (100%)	0	100	100
43	Ll	47/48 (98%)	47 (100%)	0	100	100
44	Lm	47/116 (40%)	47 (100%)	0	100	100
45	Ln	23/24 (96%)	23 (100%)	0	100	100
46	Lo	90/94 (96%)	90 (100%)	0	100	100
47	Lp	71/75 (95%)	71 (100%)	0	100	100
48	Lr	107/121 (88%)	106 (99%)	1 (1%)	70	85
50	SA	170/243 (70%)	170 (100%)	0	100	100
51	SB	191/231 (83%)	191 (100%)	0	100	100
52	SC	175/225 (78%)	175 (100%)	0	100	100
53	SD	145/202 (72%)	145 (100%)	0	100	100
54	SE	196/225 (87%)	196 (100%)	0	100	100
55	SF	139/170 (82%)	139 (100%)	0	100	100
56	SG	138/218 (63%)	138 (100%)	0	100	100
57	SH	109/174 (63%)	109 (100%)	0	100	100
58	SI	149/180 (83%)	149 (100%)	0	100	100
59	SJ	143/168 (85%)	143 (100%)	0	100	100
60	SK	65/136 (48%)	65 (100%)	0	100	100
61	SL	121/142 (85%)	120 (99%)	1 (1%)	73	86
62	SN	123/131 (94%)	123 (100%)	0	100	100
63	SO	95/119 (80%)	95 (100%)	0	100	100
64	SP	96/130 (74%)	96 (100%)	0	100	100
65	SQ	102/121 (84%)	102 (100%)	0	100	100
66	SR	84/122 (69%)	84 (100%)	0	100	100
67	SS	110/132 (83%)	110 (100%)	0	100	100
68	ST	105/115 (91%)	105 (100%)	0	100	100
69	SU	68/107 (64%)	67 (98%)	1 (2%)	57	80
70	SV	62/67 (92%)	61 (98%)	1 (2%)	55	79

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
71	SW	110/113 (97%)	110 (100%)	0	100	100
72	SX	109/115 (95%)	109 (100%)	0	100	100
73	SY	86/115 (75%)	86 (100%)	0	100	100
74	SZ	56/103 (54%)	56 (100%)	0	100	100
75	Sa	83/98 (85%)	83 (100%)	0	100	100
76	Sb	65/76 (86%)	65 (100%)	0	100	100
77	Sc	51/62 (82%)	51 (100%)	0	100	100
78	Sd	44/49 (90%)	44 (100%)	0	100	100
79	Se	39/48 (81%)	39 (100%)	0	100	100
80	Sg	199/275 (72%)	199 (100%)	0	100	100
All	All	8840/10553 (84%)	8835 (100%)	5 (0%)	87	93

All (5) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
14	LH	73	ILE
48	Lr	21	ASN
61	SL	23	VAL
69	SU	84	ILE
70	SV	83	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 153 such sidechains are listed below:

Mol	Chain	Res	Type
58	SI	168	GLN
76	Sb	51	GLN
61	SL	106	HIS
67	SS	85	ASN
80	Sg	117	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A4	14/28 (50%)	7 (50%)	0
2	B4	75/76 (98%)	22 (29%)	0
4	L5	3596/5070 (70%)	814 (22%)	29 (0%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
49	S2	1704/1869 (91%)	505 (29%)	22 (1%)
5	L7	119/120 (99%)	17 (14%)	0
6	L8	155/156 (99%)	31 (20%)	3 (1%)
All	All	5663/7319 (77%)	1396 (24%)	54 (0%)

5 of 1396 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A4	41	U
1	A4	42	U
1	A4	45	U
1	A4	46	U
1	A4	49	U

5 of 54 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
4	L5	5027	C
49	S2	213	G
49	S2	1535	U
6	L8	16	G
49	S2	85	A

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](#)

Of 201 ligands modelled in this entry, 200 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
82	3HE	L5	5101	-	21,21,21	0.94	2 (9%)	23,30,30	1.87	7 (30%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
82	3HE	L5	5101	-	-	1/8/36/36	0/2/2/2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	L5	5101	3HE	C12-N	-2.58	1.33	1.37
82	L5	5101	3HE	C11-N	-2.47	1.33	1.37

The worst 5 of 7 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	L5	5101	3HE	C13-C12-N	3.89	120.64	115.92
82	L5	5101	3HE	C10-C11-N	3.35	119.99	115.92
82	L5	5101	3HE	C11-N-C12	-3.20	122.02	125.87
82	L5	5101	3HE	C9-C10-C11	-2.77	109.81	114.46
82	L5	5101	3HE	C-C1-C2	-2.50	107.03	111.17

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
82	L5	5101	3HE	C7-C8-C9-C10

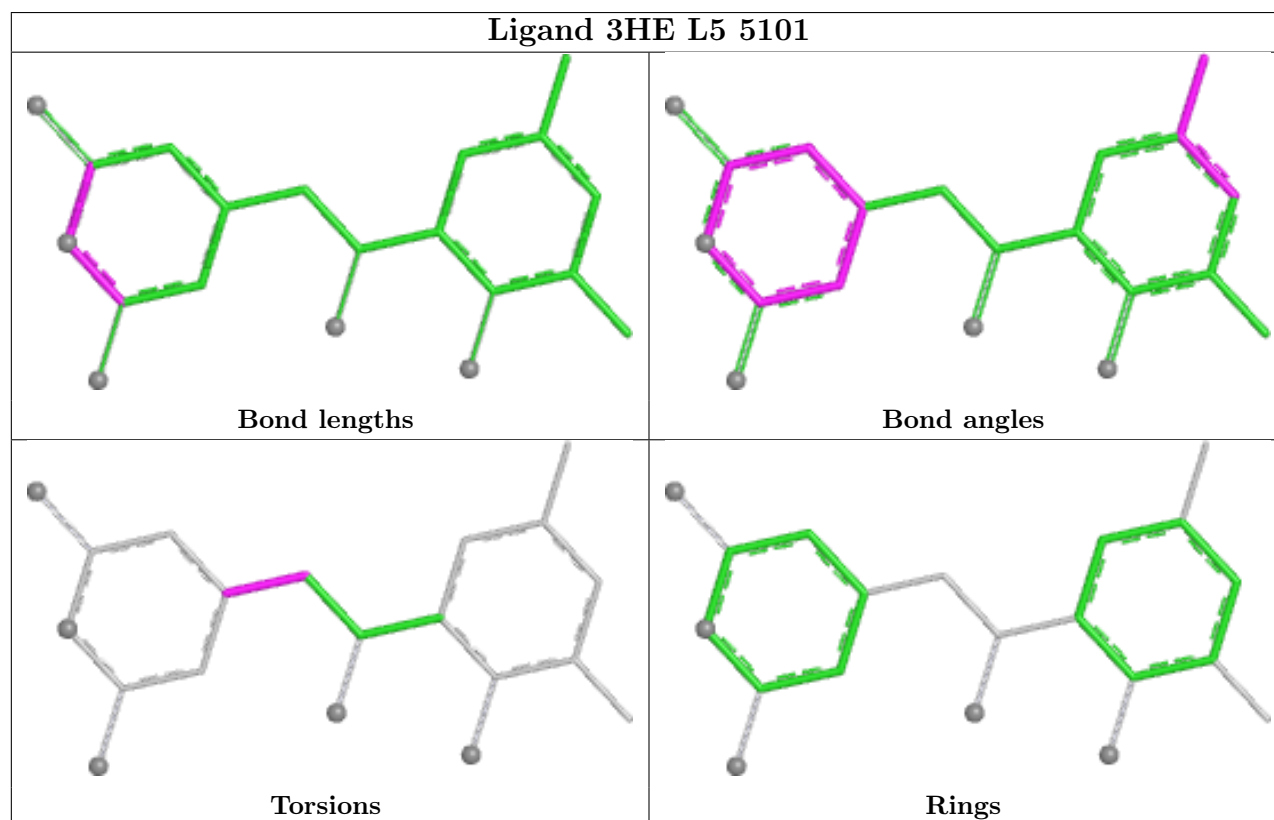
There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	L5	5101	3HE	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths,

bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

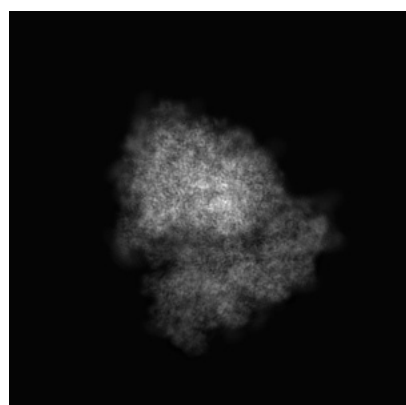
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10674. These allow visual inspection of the internal detail of the map and identification of artifacts.

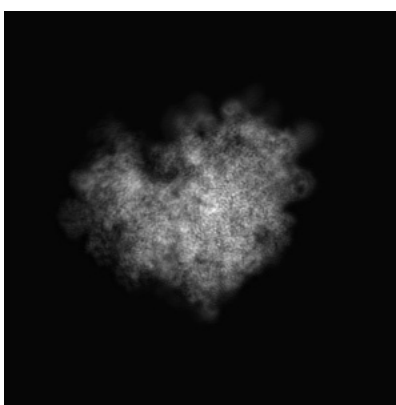
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

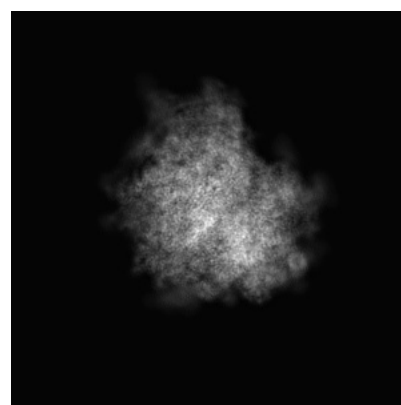
6.1.1 Primary map



X



Y

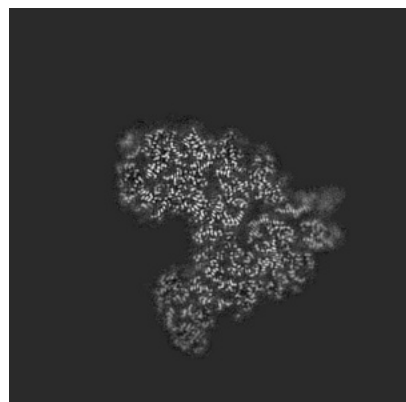


Z

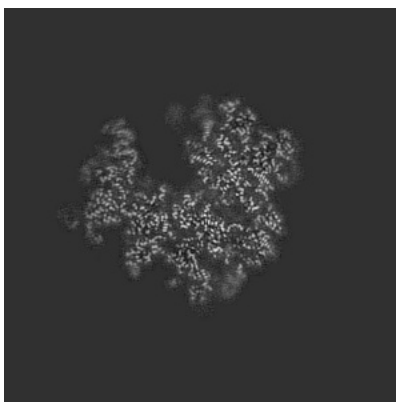
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

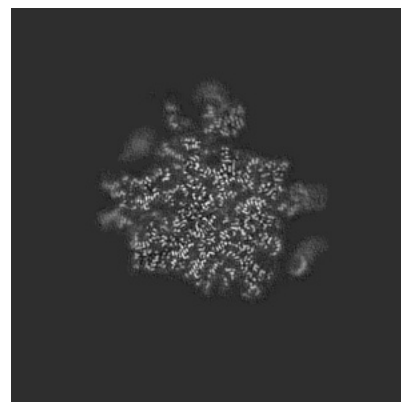
6.2.1 Primary map



X Index: 275



Y Index: 275

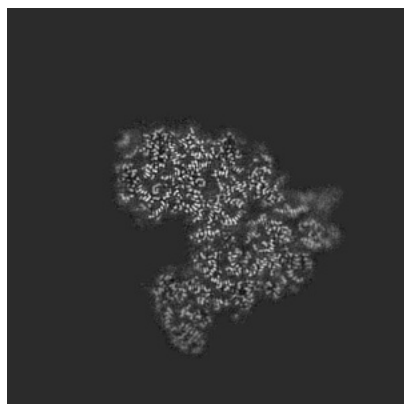


Z Index: 275

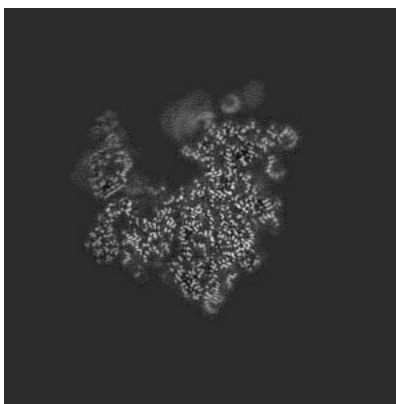
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

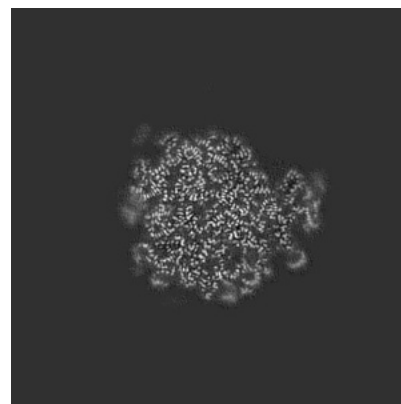
6.3.1 Primary map



X Index: 276



Y Index: 297

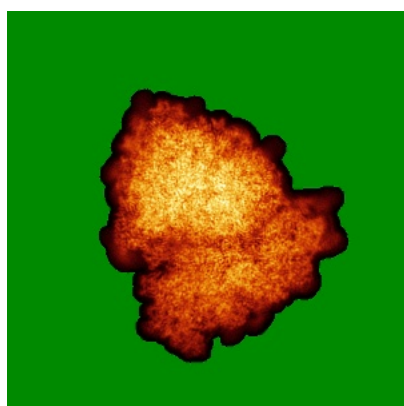


Z Index: 308

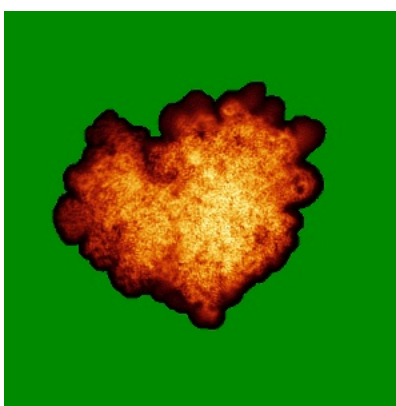
The images above show the largest variance slices of the map in three orthogonal directions.

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

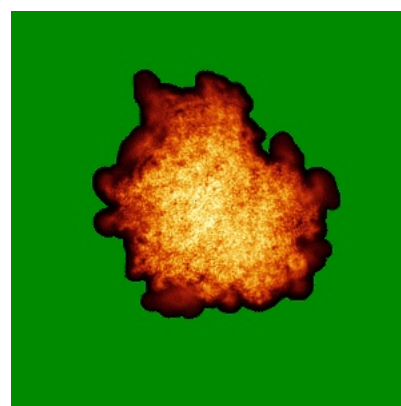
6.4.1 Primary map



X



Y

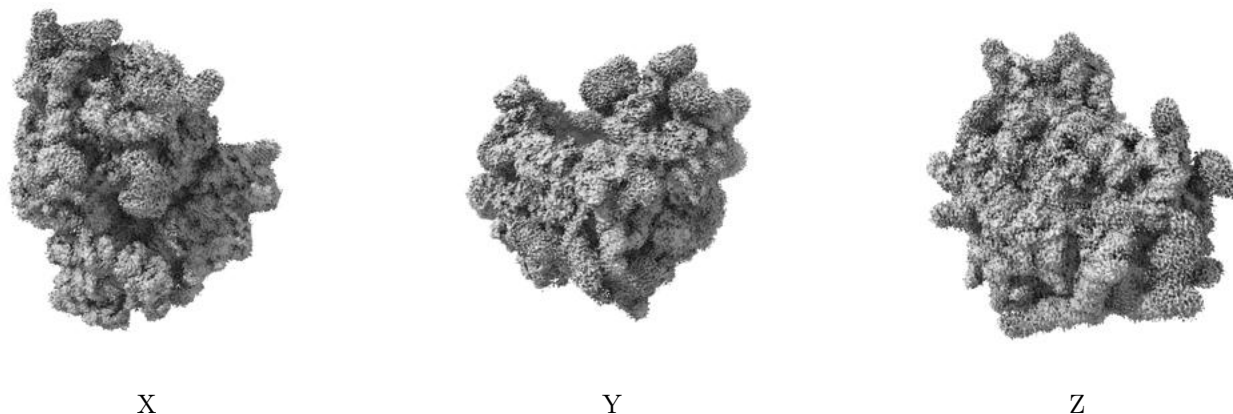


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.009. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

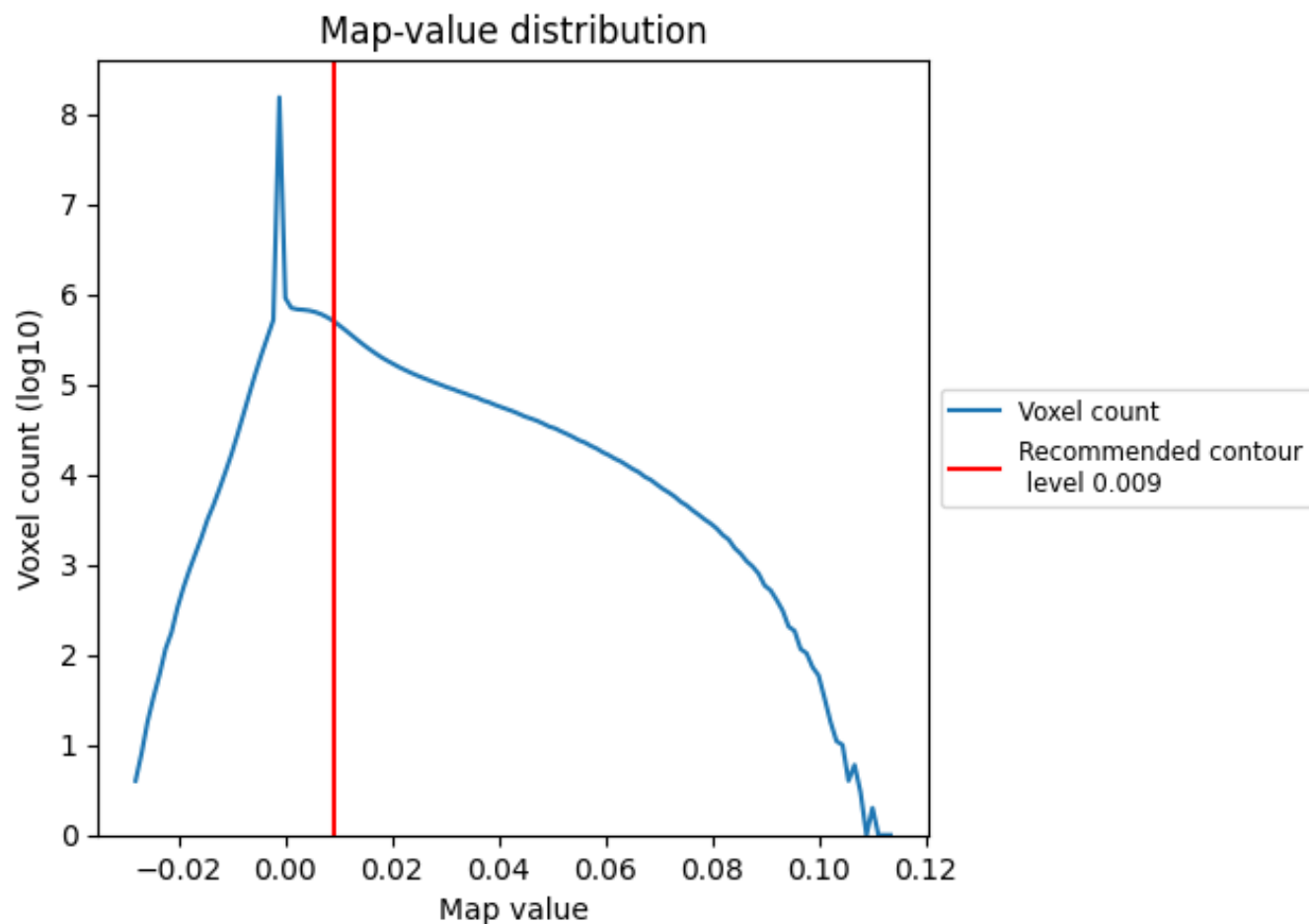
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

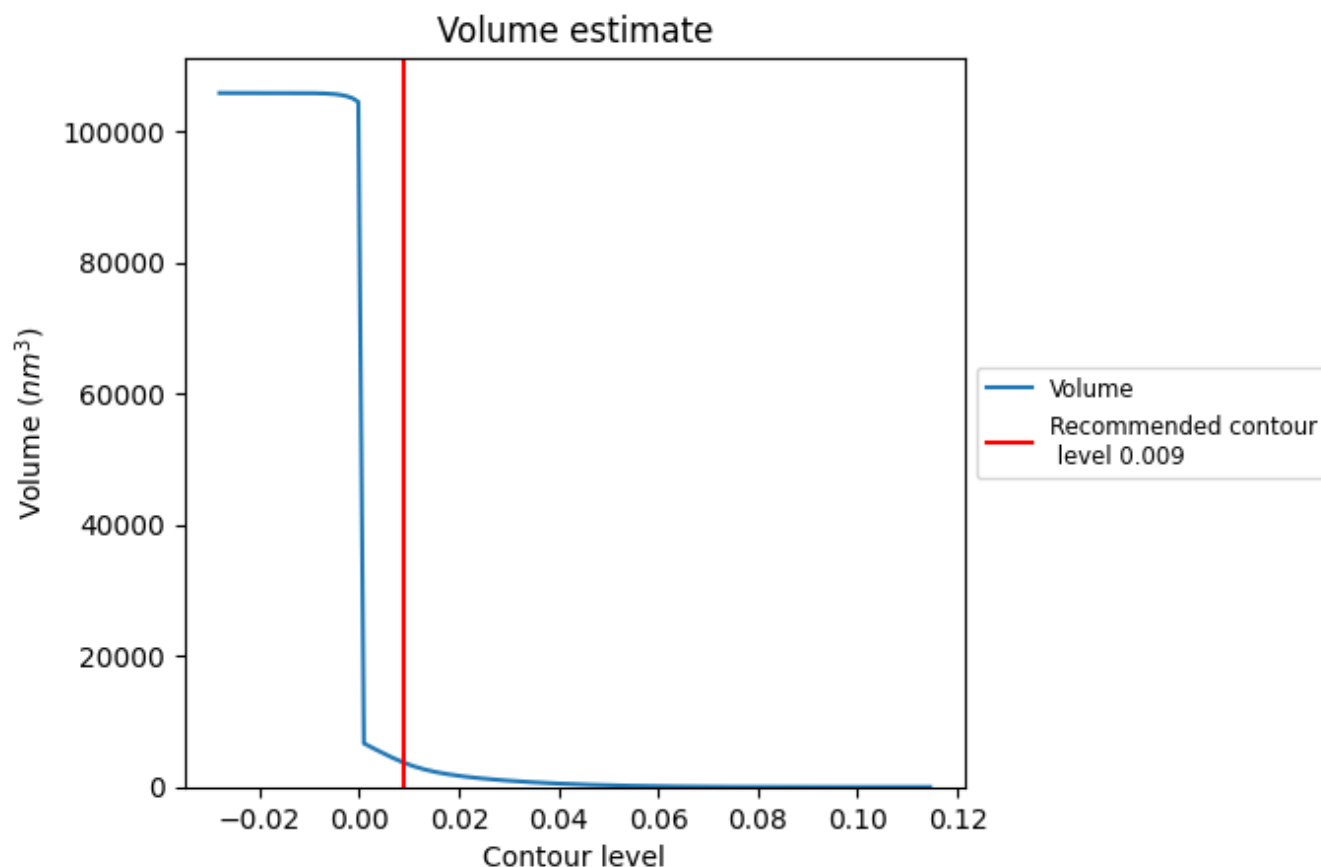
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

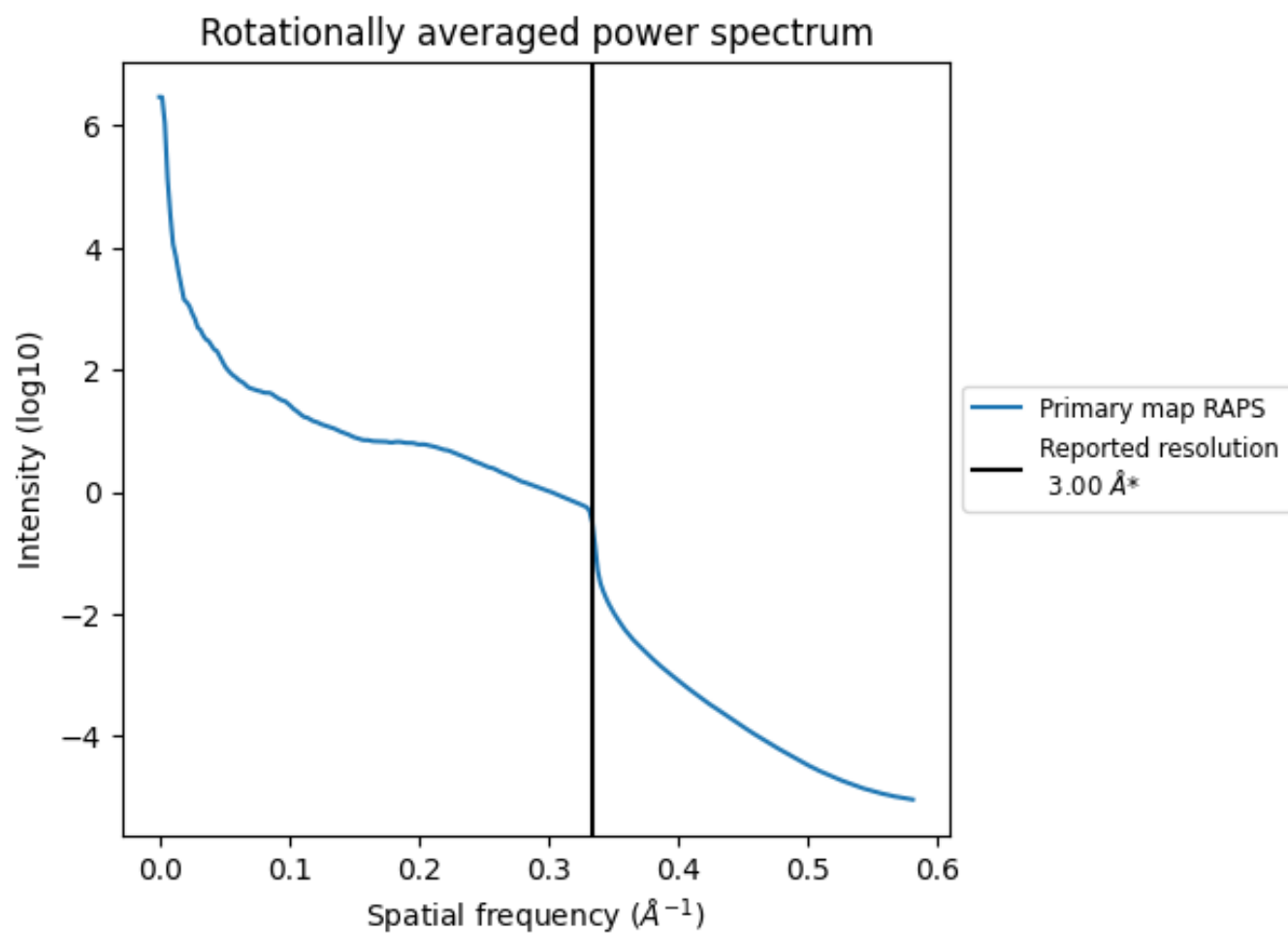
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 3703 nm^3 ; this corresponds to an approximate mass of 3345 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.333 Å⁻¹

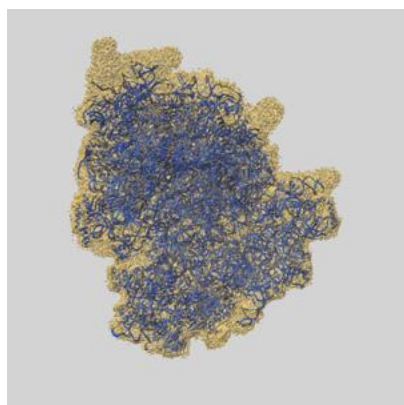
8 Fourier-Shell correlation

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

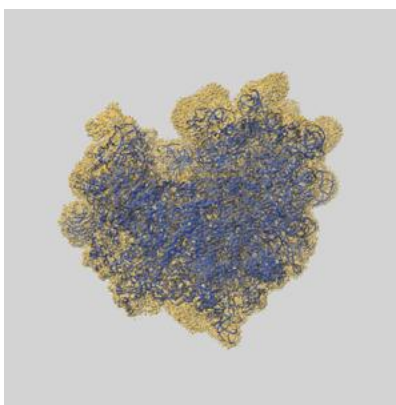
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-10674 and PDB model 6Y2L. Per-residue inclusion information can be found in section [3](#) on page [21](#).

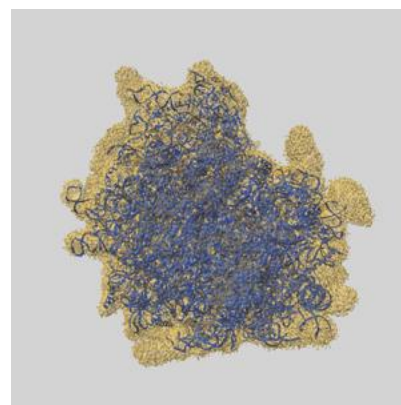
9.1 Map-model overlay [i](#)



X



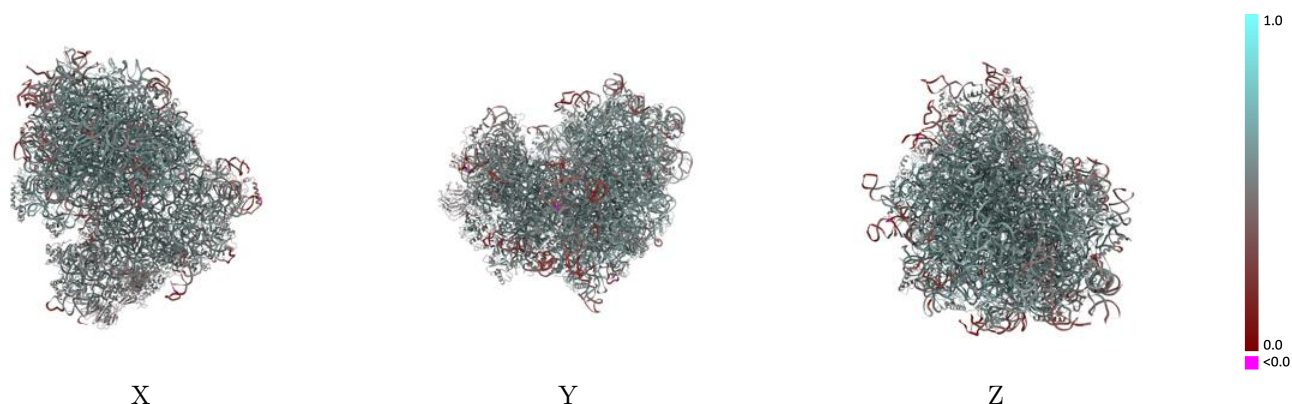
Y



Z

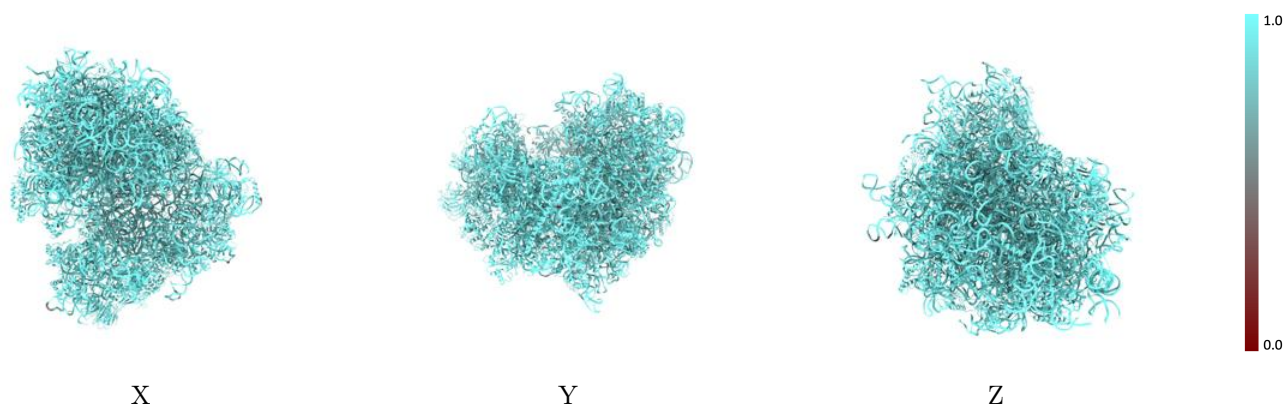
The images above show the 3D surface view of the map at the recommended contour level 0.009 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



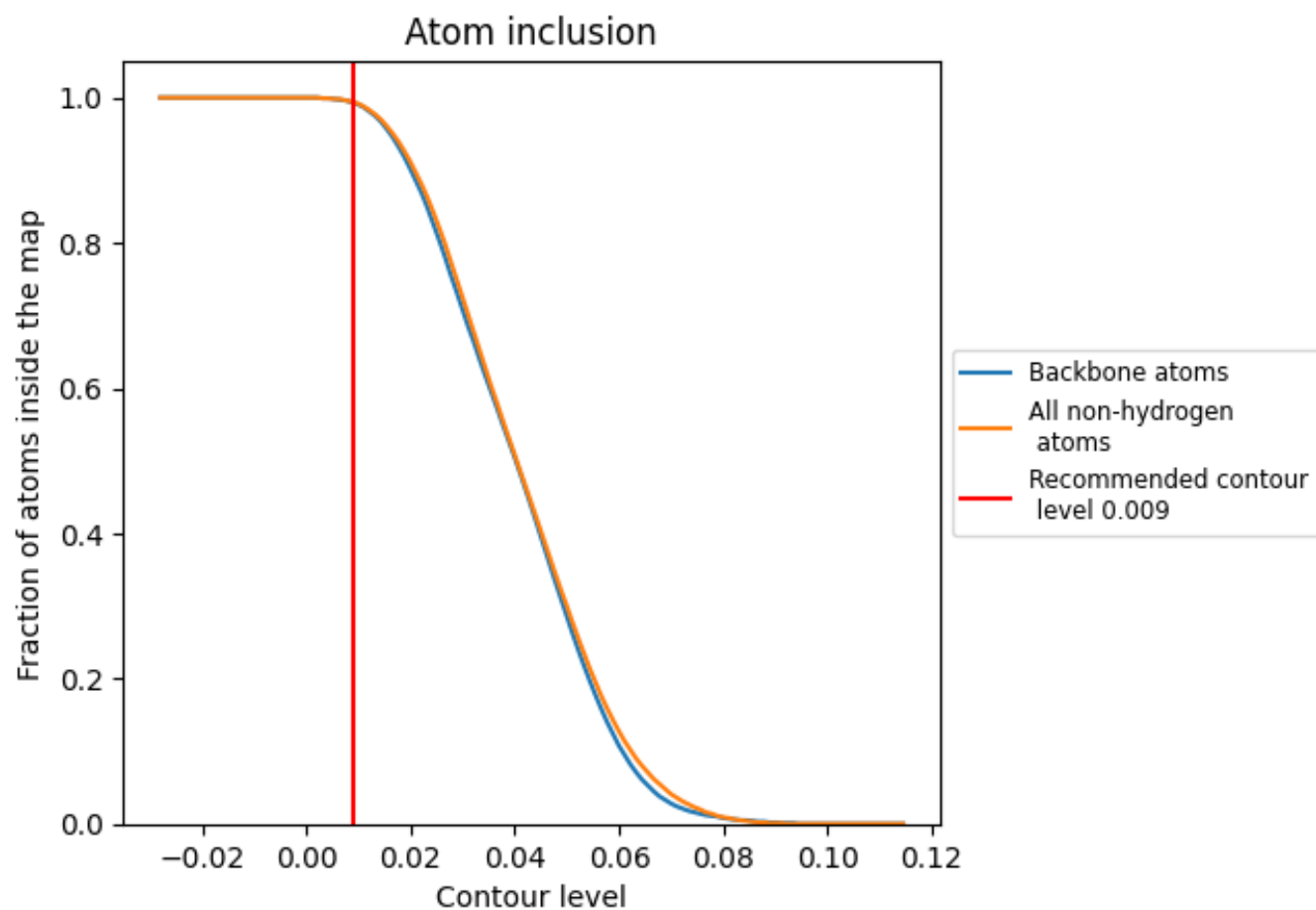
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.009).

9.4 Atom inclusion [i](#)



At the recommended contour level, 99% of all backbone atoms, 99% 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 (0.009) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9940	 0.5370
A4	 0.9870	 0.4160
B4	 0.9870	 0.4860
C4	 0.9000	 0.4000
L5	 0.9970	 0.5420
L7	 0.9990	 0.5730
L8	 0.9970	 0.5640
LA	 0.9950	 0.5910
LB	 0.9940	 0.5690
LC	 0.9950	 0.5740
LD	 0.9980	 0.5370
LE	 0.9940	 0.5310
LF	 0.9970	 0.5730
LG	 0.9890	 0.5420
LH	 0.9920	 0.5400
LI	 0.9940	 0.5570
LJ	 0.9880	 0.5270
LL	 0.9940	 0.5630
LM	 0.9950	 0.5520
LN	 0.9980	 0.5980
LO	 0.9960	 0.5700
LP	 0.9980	 0.5790
LQ	 0.9980	 0.5870
LR	 0.9930	 0.5590
LS	 0.9970	 0.5770
LT	 0.9920	 0.5590
LU	 0.9920	 0.5160
LV	 0.9970	 0.5720
LW	 0.9770	 0.4750
LX	 0.9990	 0.5650
LY	 0.9950	 0.5690
LZ	 0.9940	 0.5580
La	 0.9980	 0.5900
Lb	 0.9780	 0.5280
Lc	 0.9960	 0.5670



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Chain	Atom inclusion	Q-score
Ld	 0.9990	 0.5630
Le	 0.9980	 0.5890
Lf	 0.9930	 0.5840
Lg	 0.9930	 0.5600
Lh	 0.9960	 0.5570
Li	 0.9940	 0.5480
Lj	 0.9970	 0.5930
Lk	 0.9870	 0.5320
Ll	 0.9980	 0.5660
Lm	 0.9880	 0.5560
Ln	 1.0000	 0.5930
Lo	 0.9950	 0.5710
Lp	 0.9970	 0.5810
Lr	 0.9960	 0.5730
S2	 0.9920	 0.5130
SA	 0.9750	 0.5240
SB	 0.9860	 0.5450
SC	 0.9870	 0.5380
SD	 0.9860	 0.4900
SE	 0.9890	 0.5270
SF	 0.9890	 0.5050
SG	 0.9980	 0.4830
SH	 0.9860	 0.5050
SI	 0.9950	 0.5440
SJ	 0.9940	 0.5190
SK	 0.9900	 0.4650
SL	 0.9920	 0.5580
SN	 0.9910	 0.5550
SO	 0.9870	 0.5520
SP	 0.9850	 0.4910
SQ	 0.9860	 0.5000
SR	 0.9730	 0.4870
SS	 0.9890	 0.4900
ST	 0.9860	 0.5000
SU	 0.9870	 0.4770
SV	 0.9830	 0.5290
SW	 0.9950	 0.5560
SX	 0.9950	 0.5470
SY	 0.9940	 0.5010
SZ	 0.9870	 0.4800
Sa	 0.9960	 0.5520
Sb	 0.9850	 0.5220

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Chain	Atom inclusion	Q-score
Sc	 0.9830	 0.5090
Sd	 0.9980	 0.5370
Se	 0.9810	 0.4750
Sg	 0.9750	 0.4470