



wwPDB EM Validation Summary Report ⓘ

Dec 10, 2022 – 12:46 pm GMT

PDB ID : 4UJC
EMDB ID : EMD-2683
Title : mammalian 80S HCV-IRES initiation complex with eIF5B POST-like state
Authors : Yamamoto, H.; Unbehaun, A.; Loerke, J.; Behrmann, E.; Marianne, C.;
Burger, J.; Mielke, T.; Spahn, C.M.T.
Deposited on : 2014-06-18
Resolution : 9.50 Å(reported)
Based on initial model : 4CXC

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:

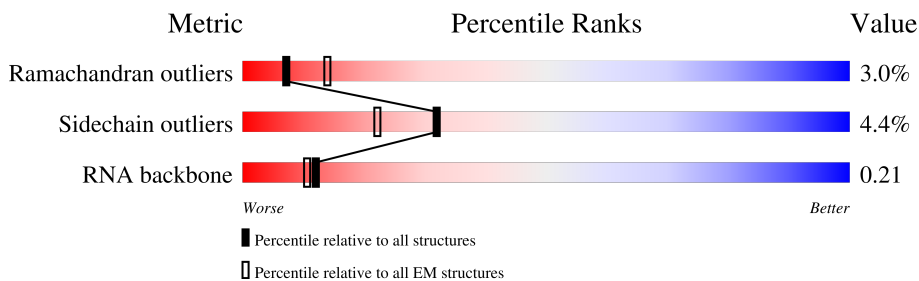
EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : 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 9.50 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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	AA	76	
2	AB	627	
3	AC	504	
4	A2	5025	
5	A3	194	
6	A4	121	
7	BA	257	
8	BB	403	

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Mol	Chain	Length	Quality of chain
9	BC	427	
10	BD	297	
11	BE	158	
12	BF	248	
13	BG	266	
14	BH	192	
15	BI	214	
16	BJ	178	
17	BL	211	
18	BM	215	
19	BN	204	
20	BO	203	
21	BP	184	
22	BQ	188	
23	BR	196	
24	BS	176	
25	BT	160	
26	BU	128	
27	BV	140	
28	BW	157	
29	BX	156	
30	BY	145	
31	BZ	136	
32	Ba	148	
33	Bb	159	

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Mol	Chain	Length	Quality of chain
34	Bc	115	8% 88% 10%
35	Bd	125	8% 83% 13%
36	Be	135	9% 90% 5%
37	Bf	110	5% 86% 10% ..
38	Bg	117	16% 87% 10% ..
39	Bh	123	8% 94% 5% .
40	Bi	105	. 83% 8% . 8%
41	Bj	97	. 84% 12%
42	Bk	70	10% 97% ..
43	Bl	51	8% 94% ..
44	Bm	128	. 38% 59%
45	Bn	25	100%
46	Bo	106	12% 93% 7%
47	Bp	92	8% 93% 5% .
48	Bt	137	20% 86% 7% . 5%
49	Bu	210	90% 92% 8%
50	C1	1869	. 36% 55% 7%
51	CA	263	10% 80% 17%
52	CB	264	9% 71% 8% . 19%
53	CC	293	6% 72% 24%
54	CD	243	14% 81% 6% 13%
55	CE	263	8% 92% 6% .
56	CF	204	6% 83% 9% 8%
57	CG	249	6% 87% 6% 7%
58	CH	194	21% 94% ..

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Mol	Chain	Length	Quality of chain
59	CI	208	13% 91% 8%
60	CJ	194	86% 7% 8%
61	CK	165	7% 52% 5% 43%
62	CL	158	15% 87% 5% 8%
63	CM	132	58% 83% 6% 9%
64	CN	151	13% 95% ..
65	CO	151	12% 85% 5% 9%
66	CP	145	12% 75% 6% 19%
67	CQ	146	5% 91% 5%
68	CR	135	15% 76% 5% 19%
69	CS	152	9% 82% 11% 7%
70	CT	145	8% 92% 6%
71	CU	119	9% 81% 15%
72	CV	83	10% 96% .
73	CW	130	5% 94% 5% .
74	CX	143	7% 85% 8% 6%
75	CY	133	84% 8% 8%
76	CZ	125	6% 55% 6% 39%
77	Ca	115	23% 74% 9% 17%
78	Cb	84	18% 90% 5% 5%
79	Cc	69	12% 83% 7% 10%
80	Cd	56	5% 88% 7% 5%
81	Ce	59	10% 81% 5% 14%
82	Cf	156	24% 37% 61%
83	Cg	317	14% 93% 5% .

2 Entry composition

There are 85 unique types of molecules in this entry. The entry contains 223911 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 RNA chain called TRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	AA	76	1619	723	290	531	75	0	0

- Molecule 2 is a protein called EIF5B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	AB	611	4846	3084	834	906	22	0	0

- Molecule 3 is a RNA chain called HCV-IRES.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	AC	261	5574	2485	1001	1828	260	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	A2	3616	77488	34508	14153	25212	3615	0	0

- Molecule 5 is a RNA chain called 5.8S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
5	A3	157	3334	1489	587	1102	156	0	0

- Molecule 6 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
6	A4	119	2538	1132	454	834	118	0	0

- Molecule 7 is a protein called 60S RIBOSOMAL PROTEIN L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	BA	247	1888	1183	388	311	6	0	1

- Molecule 8 is a protein called 60S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	BB	396	3190	2030	601	545	14	0	1

- Molecule 9 is a protein called 60S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	BC	364	2889	1817	578	480	14	0	1

- Molecule 10 is a protein called 60S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	BD	290	2362	1489	431	428	14	0	0

- Molecule 11 is a protein called 60S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
11	BE	158	1287	834	238	215	0	0

- Molecule 12 is a protein called 60S RIBOSOMAL PROTEIN L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	BF	234	1950	1252	376	313	9	0	0

- Molecule 13 is a protein called 60S RIBOSOMAL PROTEIN L7A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	BG	235	1881	1197	363	317	4	0	1

- Molecule 14 is a protein called 60S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	BH	192	1536	965	286	279	6	0	0

- Molecule 15 is a protein called 60S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	BI	196	1605	1022	308	263	12	0	0

- Molecule 16 is a protein called 60S RIBOSOMAL PROTEIN L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	BJ	170	1363	861	254	242	6	0	0

- Molecule 17 is a protein called 60S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	BL	200	1617	1013	335	265	4	0	1

- Molecule 18 is a protein called 60S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
18	BM	140	1139	730	219	183	7	0	1

- Molecule 19 is a protein called 60S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
19	BN	204	1709	1077	360	267	5	0	0

- Molecule 20 is a protein called 60S RIBOSOMAL PROTEIN L13A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
20	BO	196	1607	1034	316	252	5	0	1

- Molecule 21 is a protein called 60S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	BP	153	1234	771	241	213	9	0	1

- Molecule 22 is a protein called 60S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	BQ	184	1494	933	311	245	5	0	0

- Molecule 23 is a protein called 60S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	BR	183	1526	943	331	242	10	0	1

- Molecule 24 is a protein called 60S RIBOSOMAL PROTEIN L18A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	BS	173	1439	916	280	233	10	0	0

- Molecule 25 is a protein called 60S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	BT	159	1298	823	252	217	6	0	0

- Molecule 26 is a protein called 60S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
26	BU	102	827	529	146	150	2	0	1

- Molecule 27 is a protein called 60S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
27	BV	128	964	610	181	168	5	0	0

- Molecule 28 is a protein called 60S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BW	64	Total	C	N	O	S	0	1
			529	337	104	85	3		

- Molecule 29 is a protein called 60S RIBOSOMAL PROTEIN L23A.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BX	119	Total	C	N	O	S	0	0
			976	624	183	168	1		

- Molecule 30 is a protein called 60S RIBOSOMAL PROTEIN L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BY	128	Total	C	N	O	S	0	1
			1065	668	217	177	3		

- Molecule 31 is a protein called 60S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BZ	136	Total	C	N	O	S	0	0
			1115	719	209	183	4		

- Molecule 32 is a protein called 60S RIBOSOMAL PROTEIN L27A.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Ba	147	Total	C	N	O	S	0	0
			1162	736	237	186	3		

- Molecule 33 is a protein called 60S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Bb	69	Total	C	N	O	S	0	1
			560	344	123	90	3		

- Molecule 34 is a protein called 60S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Bc	104	Total	C	N	O	S	0	1
			802	508	142	145	7		

- Molecule 35 is a protein called 60S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
35	Bd	109	905	570	174	159	2	0	0

- Molecule 36 is a protein called 60S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
36	Be	128	1053	664	219	165	5	0	1

- Molecule 37 is a protein called 60S RIBOSOMAL PROTEIN L35A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
37	Bf	107	866	550	172	141	3	0	0

- Molecule 38 is a protein called 60S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
38	Bg	115	907	566	188	147	6	0	1

- Molecule 39 is a protein called 60S RIBOSOMAL PROTEIN UL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
39	Bh	122	1015	641	205	168	1	0	0

- Molecule 40 is a protein called 60S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
40	Bi	97	783	488	168	122	5	0	1

- Molecule 41 is a protein called 60S RIBOSOMAL PROTEIN L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
41	Bj	85	690	423	153	109	5	0	1

- Molecule 42 is a protein called 60S RIBOSOMAL PROTEIN L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
42	Bk	69	569	366	103	99	1	0	0

- Molecule 43 is a protein called 60S RIBOSOMAL PROTEIN L39.

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

- Molecule 44 is a protein called UBIQUITIN-60S RIBOSOMAL PROTEIN L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
44	Bm	52	429	266	90	67	6	0	0

- Molecule 45 is a protein called 60S RIBOSOMAL PROTEIN L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
45	Bn	25	240	145	64	28	3	0	0

- Molecule 46 is a protein called 60S RIBOSOMAL PROTEIN L36A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
46	Bo	106	871	547	176	141	7	0	0

- Molecule 47 is a protein called 60S RIBOSOMAL PROTEIN L37A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
47	Bp	91	708	445	136	120	7	0	0

- Molecule 48 is a protein called 60S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
48	Bt	130	1043	646	220	172	5	0	1

- Molecule 49 is a protein called 60S RIBOSOMAL PROTEIN L10A.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Bu	210	Total	C	N	O	S	0	0
			1622	990	278	348	6		

- Molecule 50 is a RNA chain called 18S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	C1	1742	Total	C	N	O	P	0	0
			37159	16589	6665	12164	1741		

- Molecule 51 is a protein called 40S RIBOSOMAL PROTEIN US2.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	CA	218	Total	C	N	O	S	0	0
			1719	1091	301	319	8		

- Molecule 52 is a protein called 40S RIBOSOMAL PROTEIN ES1.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	CB	213	Total	C	N	O	S	0	0
			1729	1098	309	308	14		

- Molecule 53 is a protein called 40S RIBOSOMAL PROTEIN US5.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	CC	222	Total	C	N	O	S	0	0
			1724	1114	296	304	10		

- Molecule 54 is a protein called 40S RIBOSOMAL PROTEIN US3.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	CD	212	Total	C	N	O	S	0	0
			1646	1050	299	290	7		

- Molecule 55 is a protein called 40S RIBOSOMAL PROTEIN ES4.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	CE	257	Total	C	N	O	S	0	0
			2031	1298	381	344	8		

- Molecule 56 is a protein called 40S RIBOSOMAL PROTEIN US7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
56	CF	188	1486	930	283	266	7	0	0

- Molecule 57 is a protein called 40S RIBOSOMAL PROTEIN ES6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
57	CG	232	1884	1176	379	322	7	0	0

- Molecule 58 is a protein called 40S RIBOSOMAL PROTEIN ES7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
58	CH	191	1535	978	282	274	1	0	0

- Molecule 59 is a protein called 40S RIBOSOMAL PROTEIN ES8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	CI	207	1695	1064	334	292	5	0	0

- Molecule 60 is a protein called 40S RIBOSOMAL PROTEIN US4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	CJ	179	1495	953	299	241	2	0	0

- Molecule 61 is a protein called 40S RIBOSOMAL PROTEIN ES10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
61	CK	94	791	519	138	129	5	0	0

- Molecule 62 is a protein called 40S RIBOSOMAL PROTEIN US17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
62	CL	146	1199	764	224	205	6	0	0

- Molecule 63 is a protein called 40S RIBOSOMAL PROTEIN ES12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
63	CM	120	931	584	164	174	9	0	0

- Molecule 64 is a protein called 40S RIBOSOMAL PROTEIN US15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
64	CN	150	1207	773	229	204	1	0	0

- Molecule 65 is a protein called 40S RIBOSOMAL PROTEIN US11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
65	CO	137	1023	627	200	190	6	0	0

- Molecule 66 is a protein called 40S RIBOSOMAL PROTEIN US19.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
66	CP	118	981	625	183	166	7	0	0

- Molecule 67 is a protein called 40S RIBOSOMAL PROTEIN US9.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
67	CQ	139	1108	704	210	191	3	0	0

- Molecule 68 is a protein called 40S RIBOSOMAL PROTEIN ES17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
68	CR	109	893	561	170	159	3	0	0

- Molecule 69 is a protein called 40S RIBOSOMAL PROTEIN US13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
69	CS	142	1172	736	236	199	1	0	0

- Molecule 70 is a protein called 40S RIBOSOMAL PROTEIN ES19.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
70	CT	143	1112	697	214	198	3	0	0

- Molecule 71 is a protein called 40S RIBOSOMAL PROTEIN US10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
71	CU	101	803	502	153	144	4	0	0

- Molecule 72 is a protein called 40S RIBOSOMAL PROTEIN ES21.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
72	CV	83	636	393	117	121	5	0	0

- Molecule 73 is a protein called 40S RIBOSOMAL PROTEIN US8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
73	CW	129	1033	659	193	175	6	0	0

- Molecule 74 is a protein called 40S RIBOSOMAL PROTEIN US12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
74	CX	134	1046	663	205	176	2	0	0

- Molecule 75 is a protein called 40S RIBOSOMAL PROTEIN ES24.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
75	CY	122	1002	635	196	166	5	0	0

- Molecule 76 is a protein called 40S RIBOSOMAL PROTEIN ES25.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
76	CZ	76	605	387	112	105	1	0	0

- Molecule 77 is a protein called 40S RIBOSOMAL PROTEIN ES26.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Ca	96	Total	C	N	O	S	0	0
			767	476	159	127	5		

- Molecule 78 is a protein called 40S RIBOSOMAL PROTEIN ES27.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Cb	80	Total	C	N	O	S	0	0
			625	391	116	111	7		

- Molecule 79 is a protein called 40S RIBOSOMAL PROTEIN ES28.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	Cc	62	Total	C	N	O	S	0	0
			490	298	99	91	2		

- Molecule 80 is a protein called 40S RIBOSOMAL PROTEIN US14.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	Cd	53	Total	C	N	O	S	0	0
			444	278	90	71	5		

- Molecule 81 is a protein called 40S RIBOSOMAL PROTEIN ES30.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	Ce	51	Total	C	N	O	S	0	0
			412	258	90	63	1		

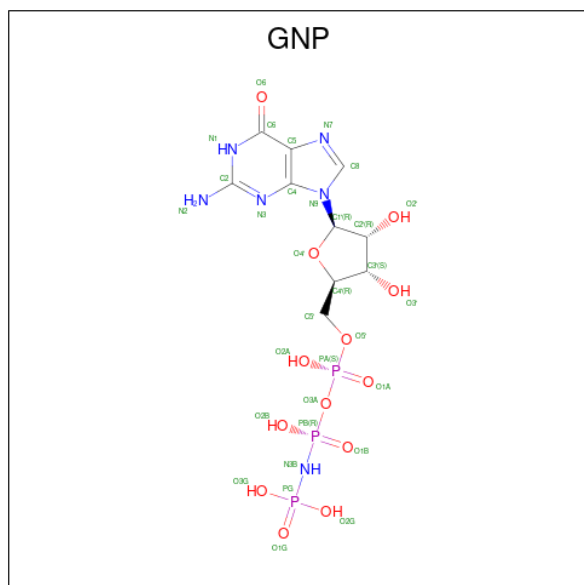
- Molecule 82 is a protein called 40S RIBOSOMAL PROTEIN ES31.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	Cf	61	Total	C	N	O	S	0	0
			497	312	94	84	7		

- Molecule 83 is a protein called 40S RIBOSOMAL PROTEIN RACK1.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Cg	314	Total	C	N	O	S	0	0
			2440	1537	425	466	12		

- Molecule 84 is PHOSPHOAMINOPHOSPHONIC ACID-GUANYLATE ESTER (three-letter code: GNP) (formula: C₁₀H₁₇N₆O₁₃P₃).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
84	AB	1	32	10	6	13	3	0

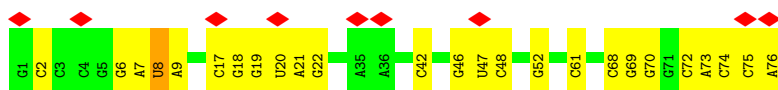
- Molecule 85 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
85	AB	1	1	1	0

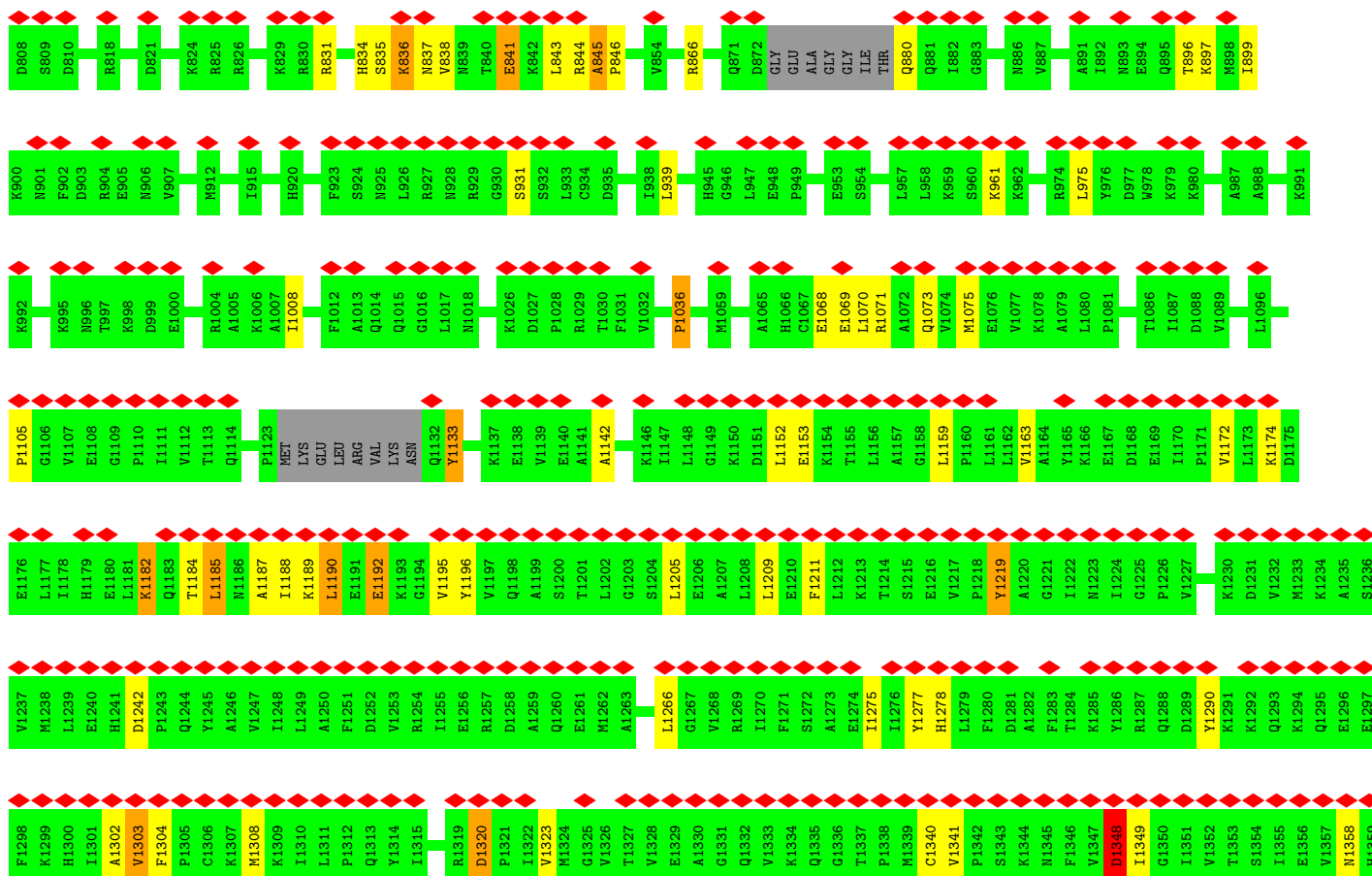
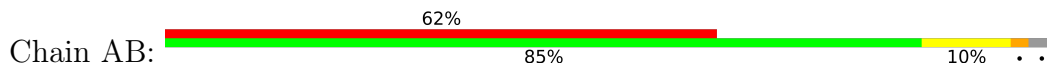
3 Residue-property plots

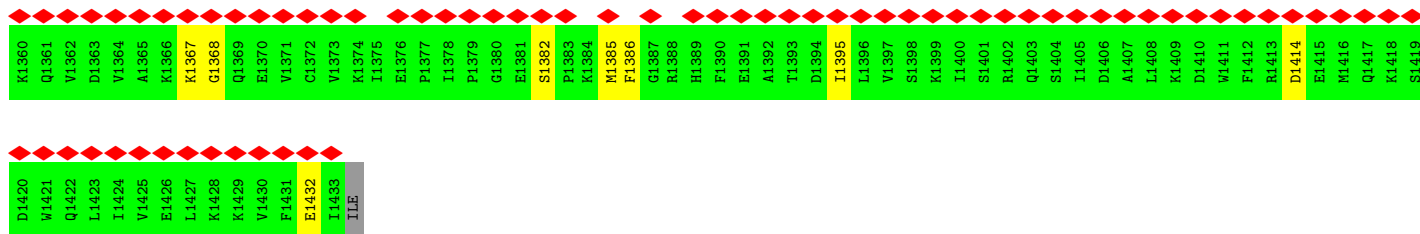
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: TRNA

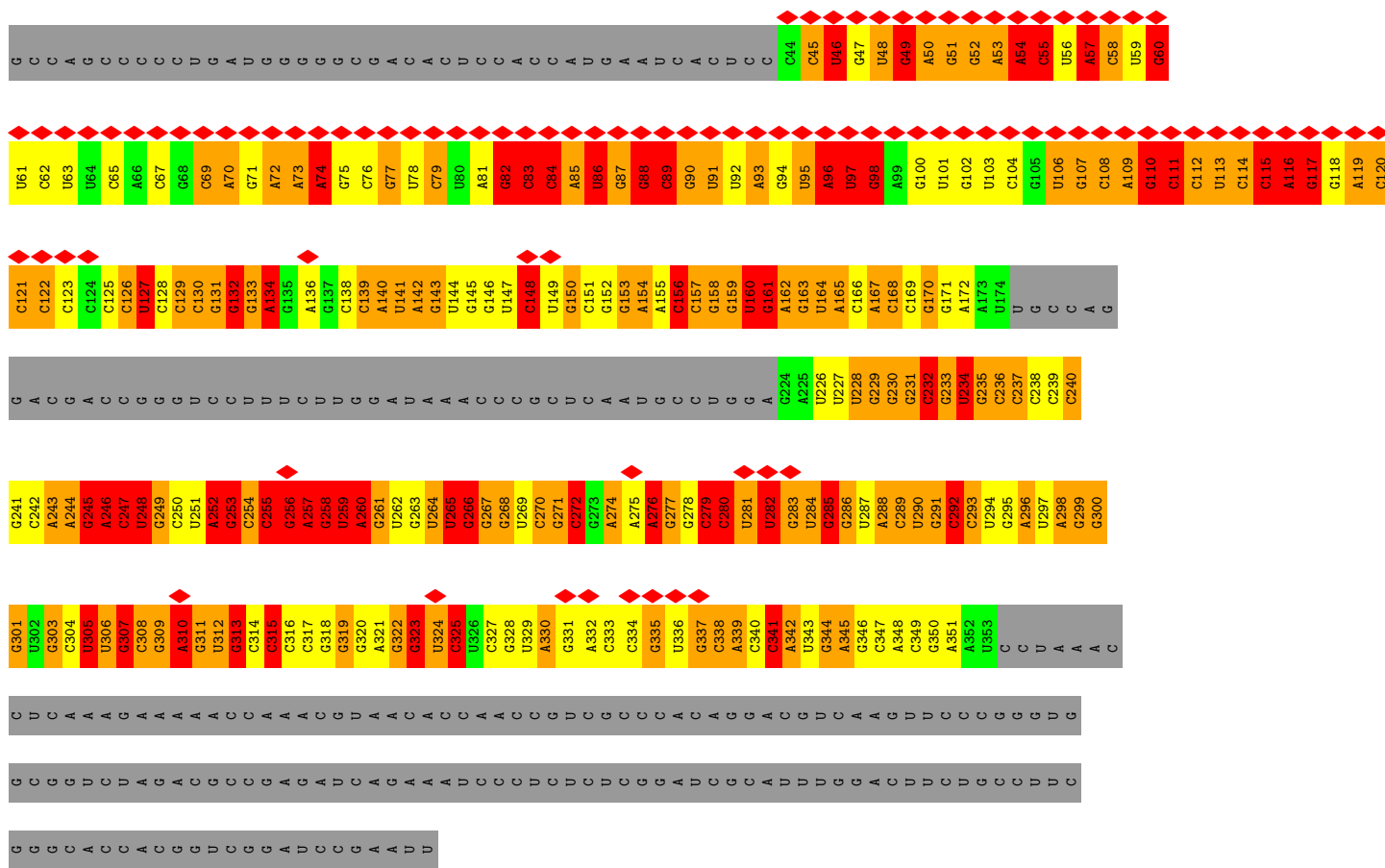
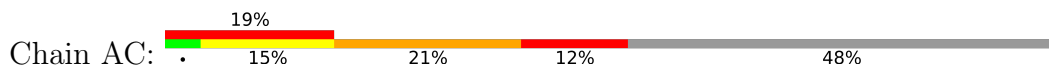


• Molecule 2: EIF5B



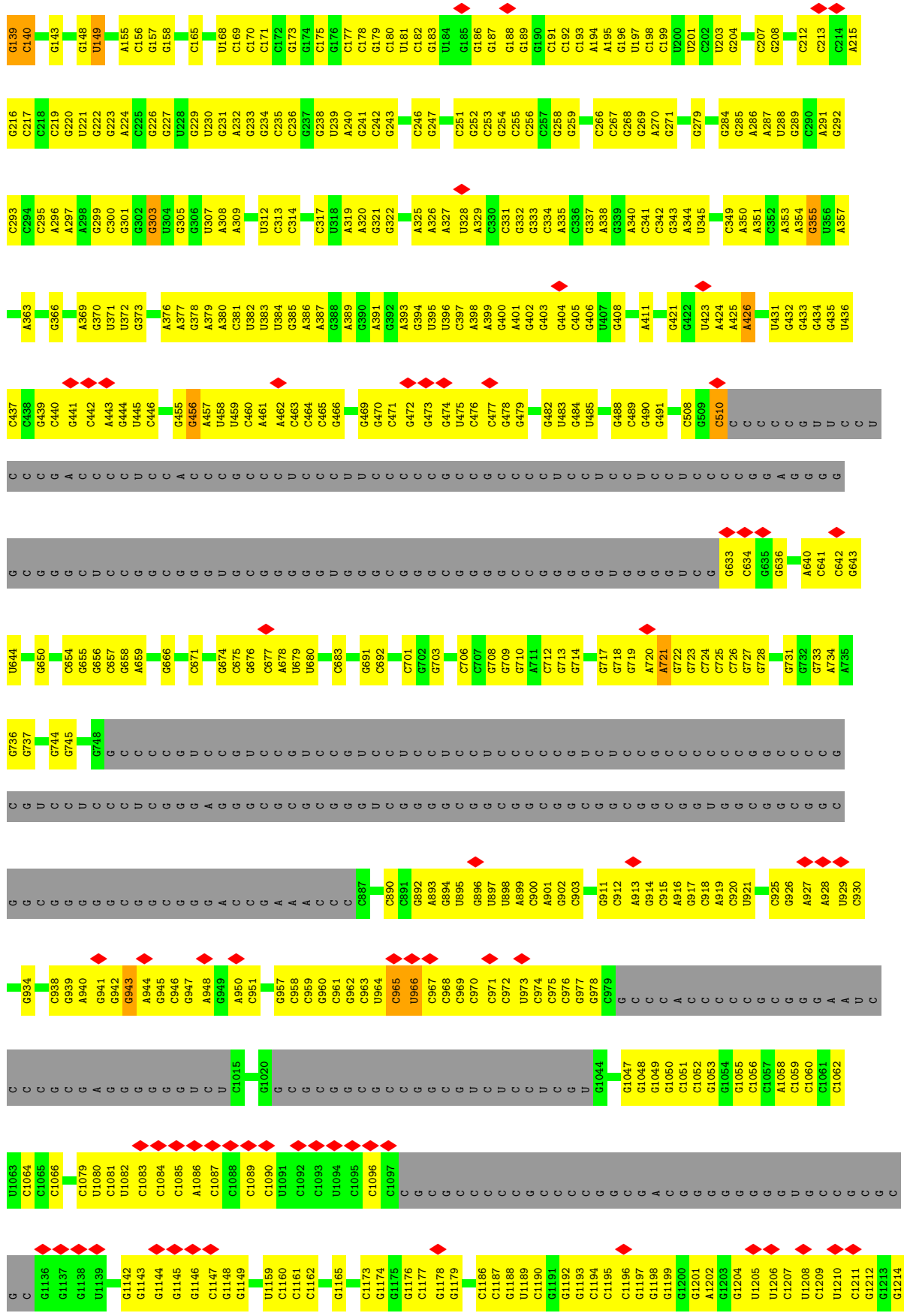


• Molecule 3: HCV-IRES



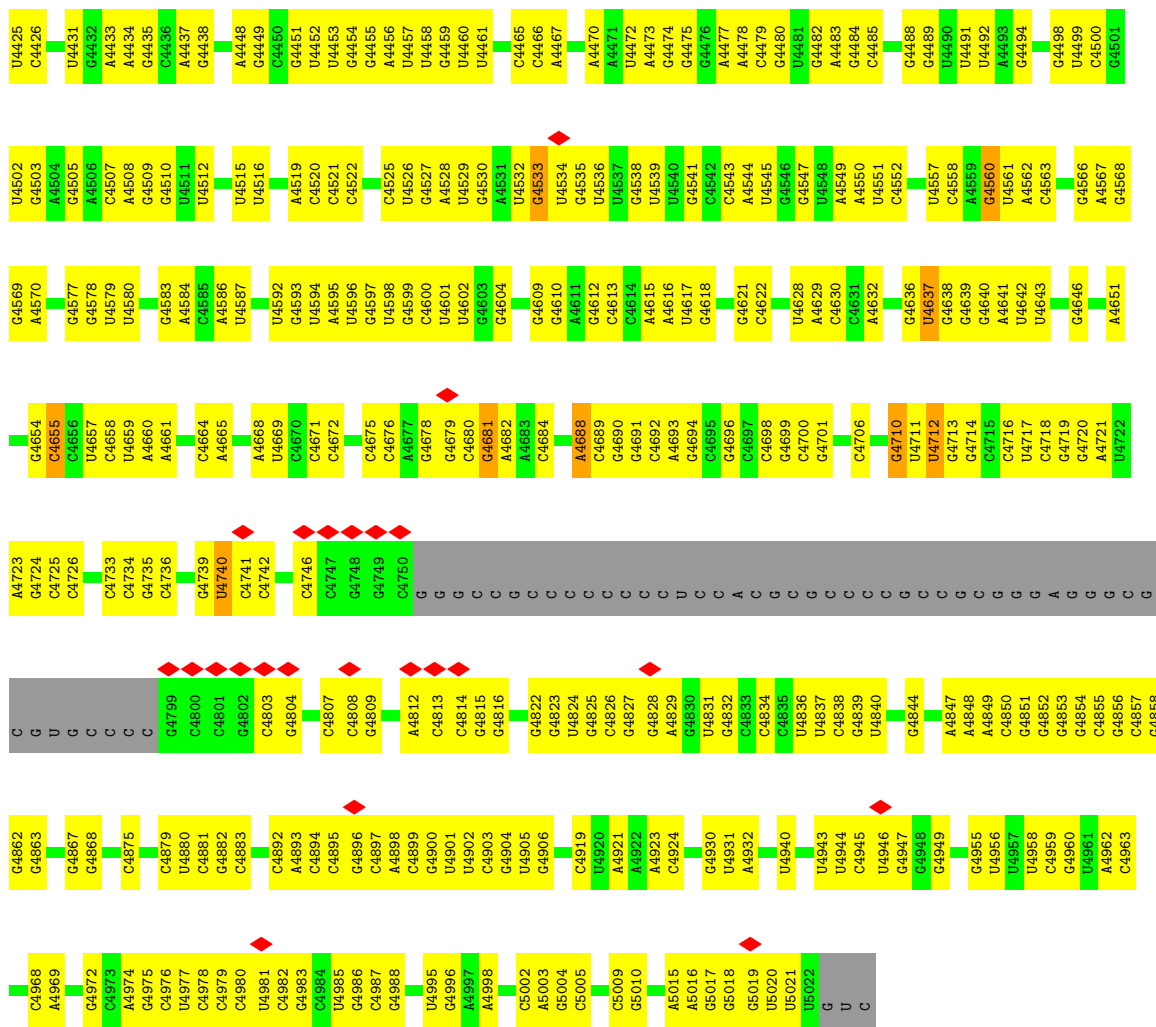
• Molecule 4: 28S RIBOSOMAL RNA





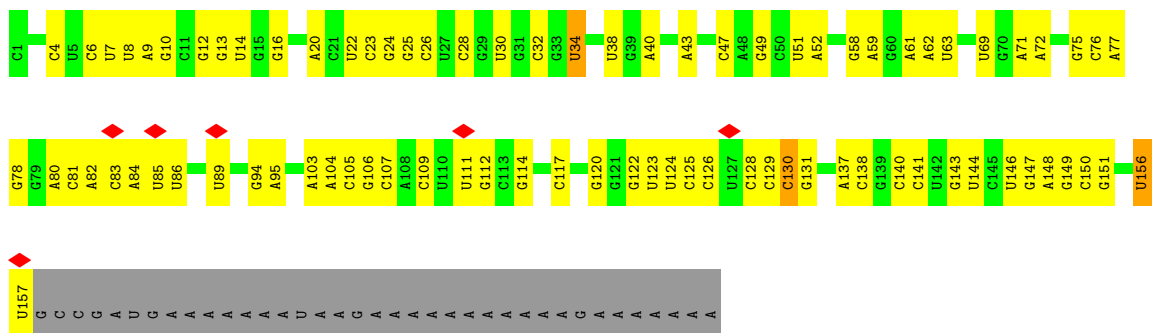
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C1216	C1288	A1367	U1452	C1530	G1608	A1744	G1813	U1883	G2024	A	G
A1217	C1289	G1368	G1454	G1531	G1609	A1745	A1814	U1884	A2025	A	C
C1218	G1291	A1372	C1455	A1532	A1610	A1746	U1816	U1885	U2026	G	C
C1219	C1292	G1373	U1458	A1533	G1611	C1747	G1817	A1886	G2027	U	C
G1220	C1293	U1374	C1459	A1537	G1612	G1748	U1818	C1891	C2028	C	C
C1221	C1294	G1375	C1460	G1540	C1613	A1749	C1819	C1892	C2029	G	C
G1222	U1297	U1376	G1461	G1541	A1614	U1752	G1820	C1893	G2030	A	C
C1223	G1298	A1377	C1462	G1542	U1615	C1753	A1821	G1894	U2031	A	C
G1224	U1299	G1378	U1463	A1543	A1616	A1754	G1822	U1895	G2032	U	C
C1225	U1300	U1384	C1464	A1544	U1617	C1755	C1825	U1896	A2033	C	C
C1229	G1301	G1388	G1465	C1545	U1618	C1756	G1826	C1897	G2034	C	C
G1232	A1302	C1388	C1466	U1548	C1619	U1757	G1827	C1898	G2035	G	C
G	A1303	U1389	G1467	G1549	G1620	U1758	C1828	C1899	G2036	G	C
A	C1304	U1390	G1468	G1550	C1623	U1759	U1829	U1900	C2037	U	C
G	A1305	C1391	U1471	G1553	U1628	U1760	A1836	G1901	G2038	U	C
G	C1306	C1392	G1475	A1554	A1629	U1761	U1837	A1902	U2039	A	C
A	A1307	U1393	A1476	G1555	G1633	A1766	A1838	A1912	G2040	A	C
G	G1308	C1398	G1477	U1556	U1634	C1767	U1839	G1911	G2041	G	C
G1238	A1313	G1399	U1478	G1557	G1635	G1768	U1840	A1912	G2042	U	C
G1242	A1314	A1400	C1479	U1558	U1636	U1772	U1841	C1916	G2043	U	C
G1245	G1318	G1401	A1480	G1559	G1637	A1773	U1842	A1917	C2044	U	C
G1246	A1323	G1402	G1482	U1561	U1638	U1774	A1843	G1918	G2045	U	C
C1247	C1324	G1406	U1483	U1562	U1639	U1775	U1844	A1919	A2046	U	C
G1248	A1325	C1409	C1484	U1563	U1704	U1779	G1845	A1920	U2047	U	C
G1249	C1326	C1410	A1487	U1564	U1705	A1780	U1846	G1921	U2048	U	C
A1250	G1329	C1411	C1488	G1570	U1706	A1781	U1847	U1922	A2049	U	C
A1254	A1332	G1412	U1489	G1571	C1644	G1782	A1848	G1926	G2051	C	C
G1255	G1333	C1416	G1495	U1572	A1648	A1783	U1849	A1926	C2052	C	C
C1256	A1334	U1417	G1496	C1573	G1649	A1784	U1850	G1929	C2056	C	C
G1257	G1335	C1418	U1497	U1574	U1650	G1785	G1851	U1930	G2057	C	C
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A1259	C1337	U1420	C1499	G1576	U1652	C1787	G1853	A1936	C2062	C	C
G1262	G1338	C1421	C1500	A1580	U1653	G1788	U1854	U1937	G2063	C	C
G1263	A1340	C1422	G1501	U1581	C1654	G1789	A1855	C2000	G2064	A	C
G1264	G1341	A1423	U1425	C1582	U1655	G1790	G1856	C2001	G	G	C
G1267	C1345	G1424	C1426	G1583	C1657	U1791	U1857	C2002	A	C	C
G1268	A1348	G1427	G1428	U1584	A1658	C1792	G1858	A2003	U	C	C
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C1275	A1351	G1433	A1432	A1588	G1660	U1794	U1860	C2006	A	C	C
U1277	G1354	G1434	G1435	U1594	U1661	U1795	G1861	A2007	G	C	C
U1278	C1355	G1436	C1437	U1595	U1662	U1796	G1862	C2008	G	C	C
G1279	C1356	G1437	U1438	G1596	G1663	G1802	A1863	A2009	U	C	C
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C1284	U1361	G1446	G1446	G1603	U1668	G1809	U1868	A1875	U	C	C
C1285	U1361	G1446	G1446	U1604	G1669	G1810	G1880	G1876	G	C	C
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					U1673	G1810		A2020	G	C	C
					C1673	G1811		U2022	G	C	C
					U						

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C4357	G4211	C4122	C4047	C	C3917	G3761	U3678	A3599	U
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U4363	G4214	G4126	A4053	C	G3922	G3852	U3682	A3604	C
U4366	A4215	C4129	U4054	C	U3923	U3853	G3683	C3605	C
U4367	G4226	A4130	G4055	C	A3923	U3767	U3610	U3610	U
C4370	A4227	C4131	C4056	C	G3924	A3768	A3611	A3611	C
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U4375	A4236	C4143	A4066	C	G3930	C3777	A3617	A3617	C
U4376	G4237	G4144	G4067	C	A3931	G3778	A3618	A3618	C
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C4378	A4239	G4145	C4069	C	U3933	C3780	A3622	A3622	C
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U4380	A4241	G4151	C4069	U	G3935	A3782	A3624	A3624	C
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U4383	U4245	G4156	A4072	C	G3938	G3788	A3631	A3631	C
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U4385	G4247	C4159	G4074	C	G3942	A3793	G3635	G3635	C
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U4387	G4251	C4164	U4080	C	G3944	C3798	G3641	G3641	C
U4388	A4252	A4165	C4081	C	C3945	A3799	G3642	G3642	C
U4389	C4253	C4166	G4082	C	C	U3800	C3643	C3643	C
U4390	U4254	C4166	C4083	C	C	U3801	U3644	U3644	C
C4394	C4255	U4168	U4084	C	C	C3802	A3645	A3645	C
U4395	U4256	U4168	U4085	C	C	C3803	U3646	U3646	C
U4396	U4261	A4174	C4086	C	C	U3731	G3647	G3647	C
U4397	U4262	C4175	U4087	C	C	A3732	A3567	A3567	C
A4401	C4263	C4176	G4088	C	C	U3733	A3568	A3568	C
C4404	A4264	G4177	G4089	C	C	G3734	G3569	G3569	C
U4405	G4265	U4178	C4089	C	C	A3735	C3570	C3570	C
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C4407	A4267	C4181	C4092	C	C	U3737	U3575	U3575	C
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A4409	G4269	G4185	A4094	C	C	U3742	A3579	A3579	C
U4410	A4270	C4186	C4101	C	C	A3743	U3657	U3657	C
U4411	G4271	U4187	G4102	C	C	A3744	G3583	G3583	C
U4412	U4272	C4188	C4103	C	C	G3745	U3584	U3584	C
C4413	A4273	U4189	U4026	C	C	G3746	U3585	U3585	C
G4414	G4274	C4190	C4027	C	C	A3830	G3586	G3586	C
G4415	U4276	G4191	G4106	C	C	C3833	C3587	C3587	C
C4416	A4277	U4192	G4107	C	C	A3834	U3663	U3663	C
U4420	C4278	C4108	C4108	C	C	C3751	G3588	G3588	C
C4421	G4279	A4193	C4109	C	C	A3752	G3589	G3589	C
U4422	C4280	U4194	G4110	C	C	A3753	U3666	U3666	C
A4424	A4283	G4195	G4111	C	C	U3754	G3667	G3667	C
	G4286	A4199	A4117	C	C	U3755	C3668	C3668	C
		C4200	C4118	C	C	G3756	C3675	C3675	C
			U4043	C	C				
			C4044	C	C				



• Molecule 5: 5.8S RIBOSOMAL RNA

Chain A3: 38% 41% 19%



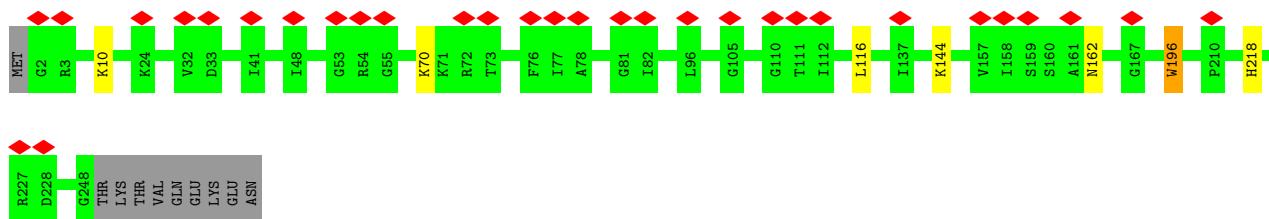
• Molecule 6: 5S RIBOSOMAL RNA

Chain A4: 40% 56%

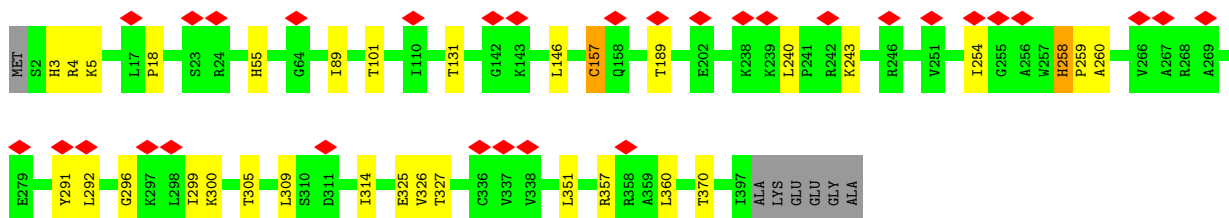
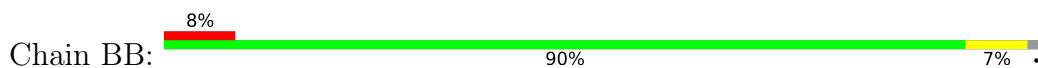




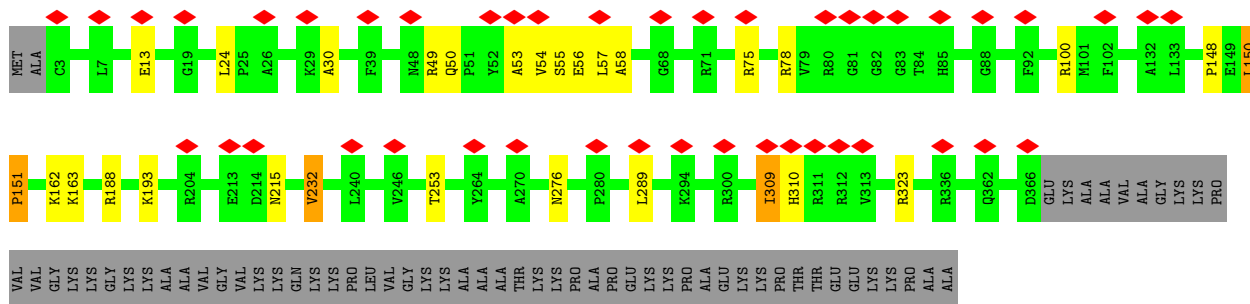
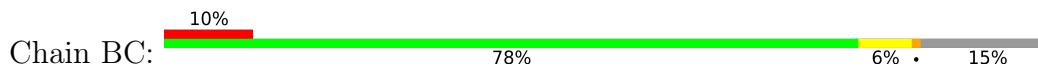
• Molecule 7: 60S RIBOSOMAL PROTEIN L8



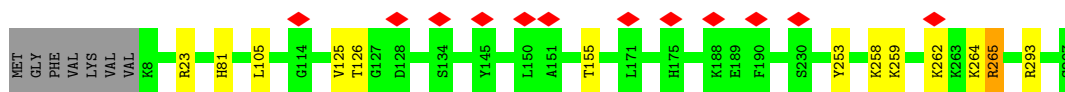
• Molecule 8: 60S RIBOSOMAL PROTEIN L3



• Molecule 9: 60S RIBOSOMAL PROTEIN L4

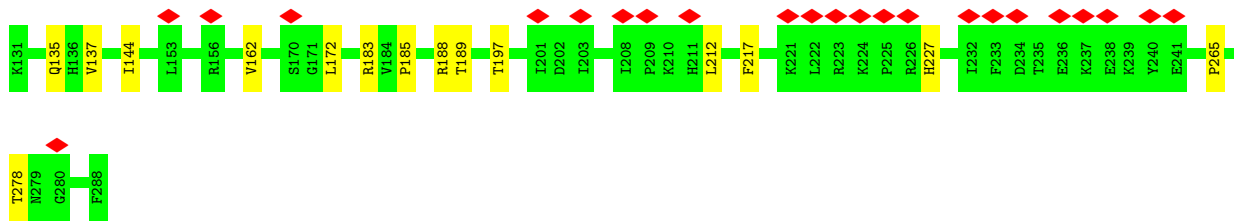


• Molecule 10: 60S RIBOSOMAL PROTEIN L5

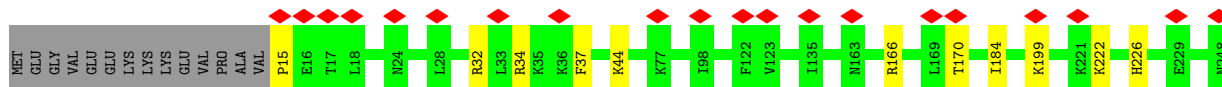
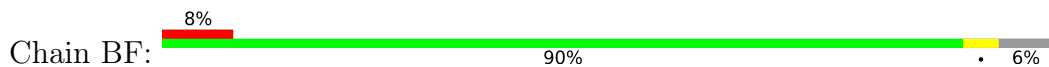


• Molecule 11: 60S RIBOSOMAL PROTEIN L6

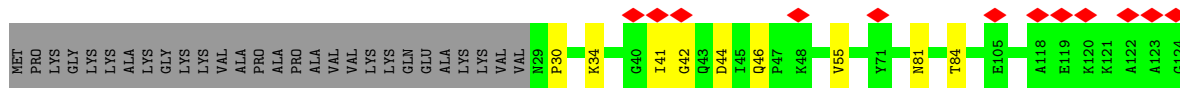
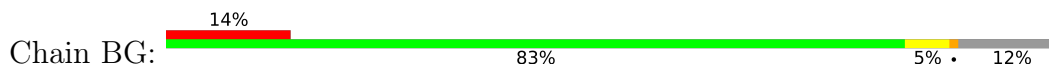




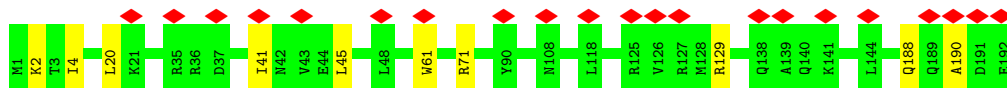
• Molecule 12: 60S RIBOSOMAL PROTEIN L7



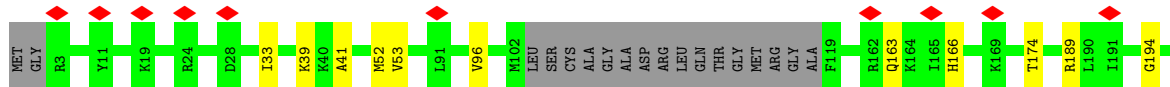
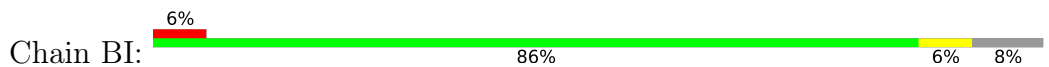
• Molecule 13: 60S RIBOSOMAL PROTEIN L7A



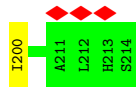
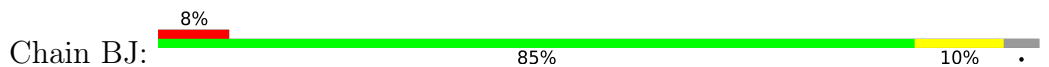
• Molecule 14: 60S RIBOSOMAL PROTEIN L9

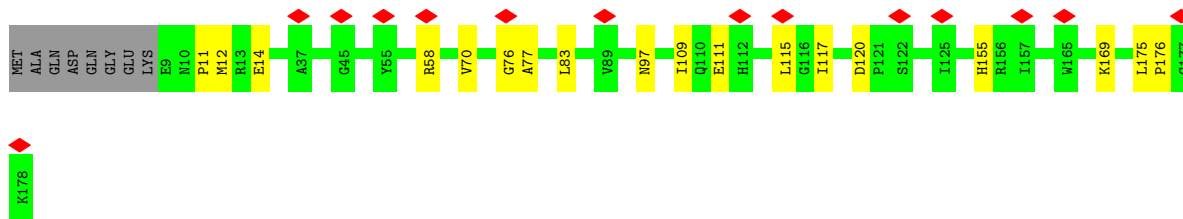


• Molecule 15: 60S RIBOSOMAL PROTEIN L10

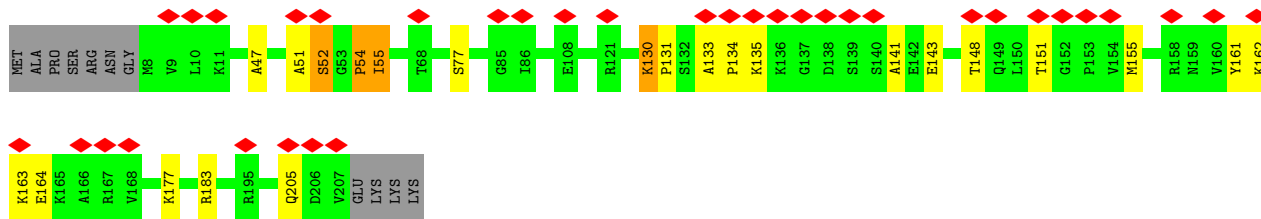
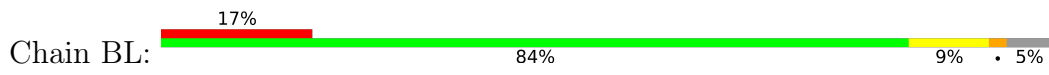


• Molecule 16: 60S RIBOSOMAL PROTEIN L11

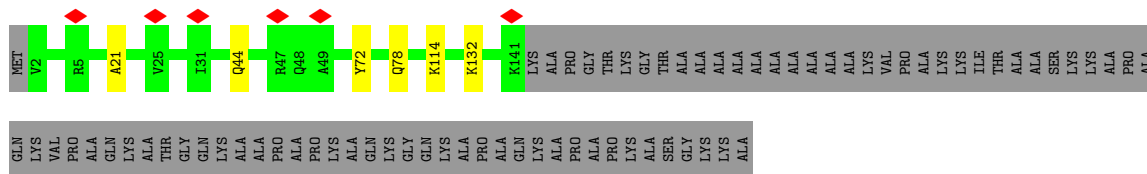




• Molecule 17: 60S RIBOSOMAL PROTEIN L13



• Molecule 18: 60S RIBOSOMAL PROTEIN L14



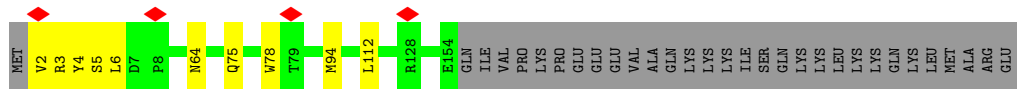
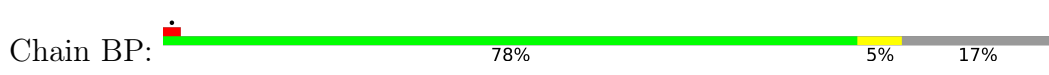
• Molecule 19: 60S RIBOSOMAL PROTEIN L15



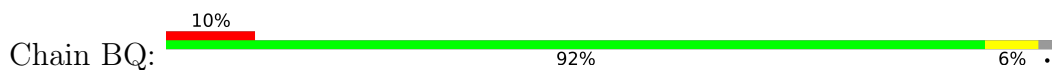
• Molecule 20: 60S RIBOSOMAL PROTEIN L13A



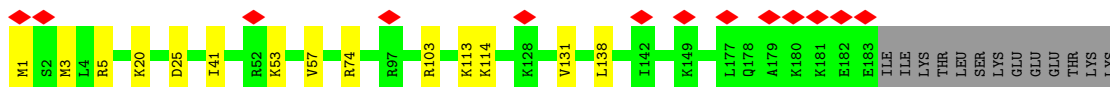
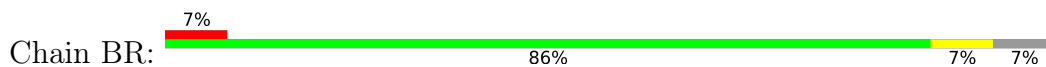
• Molecule 21: 60S RIBOSOMAL PROTEIN L17



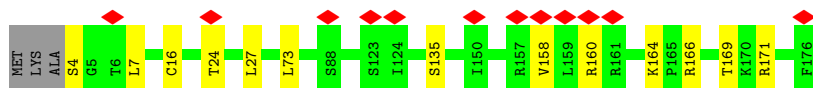
- Molecule 22: 60S RIBOSOMAL PROTEIN L18



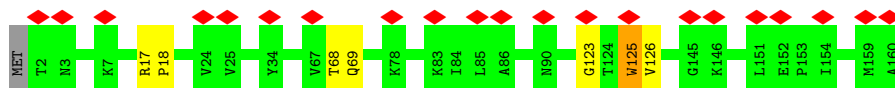
- Molecule 23: 60S RIBOSOMAL PROTEIN L19



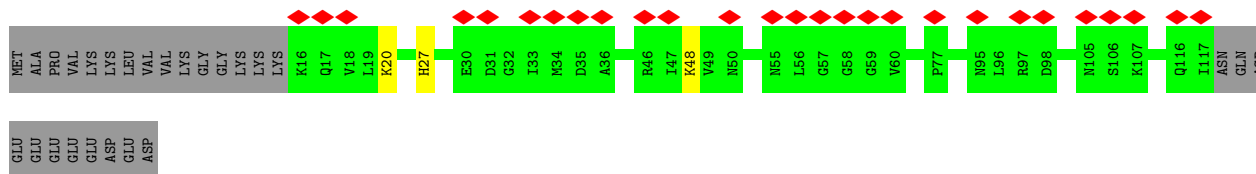
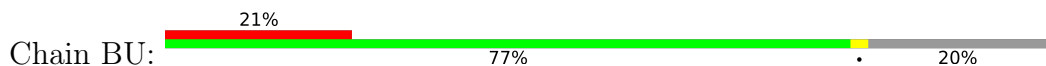
- Molecule 24: 60S RIBOSOMAL PROTEIN L18A



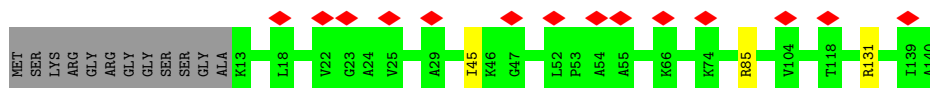
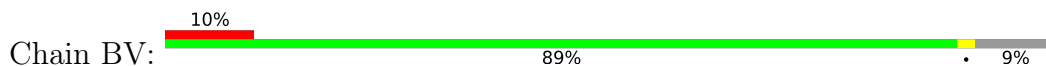
- Molecule 25: 60S RIBOSOMAL PROTEIN L21



- Molecule 26: 60S RIBOSOMAL PROTEIN L22

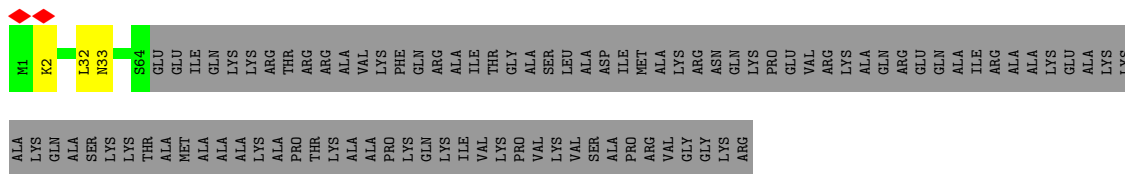


- Molecule 27: 60S RIBOSOMAL PROTEIN L23

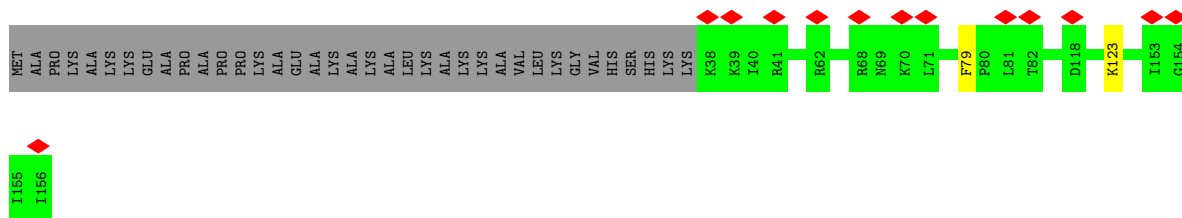
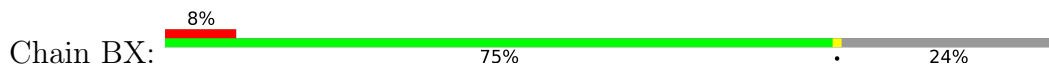


- Molecule 28: 60S RIBOSOMAL PROTEIN L24

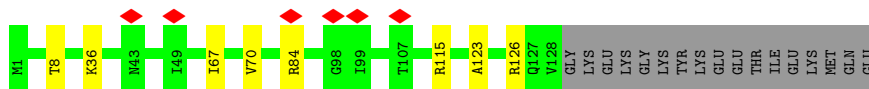
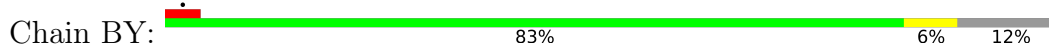




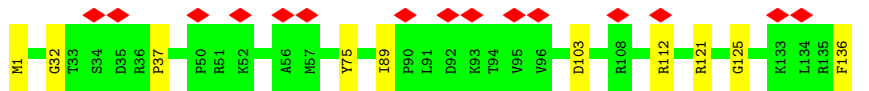
• Molecule 29: 60S RIBOSOMAL PROTEIN L23A



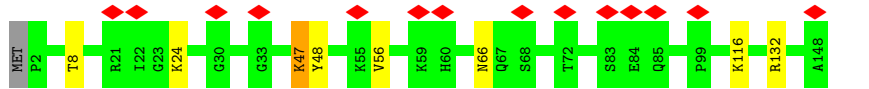
• Molecule 30: 60S RIBOSOMAL PROTEIN L26



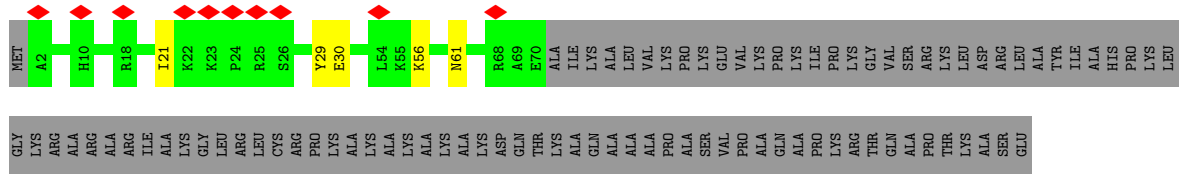
• Molecule 31: 60S RIBOSOMAL PROTEIN L27



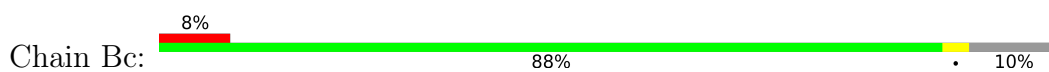
• Molecule 32: 60S RIBOSOMAL PROTEIN L27A



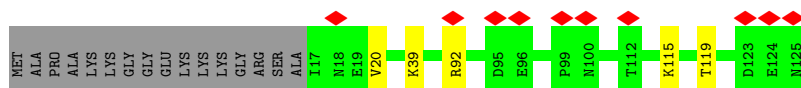
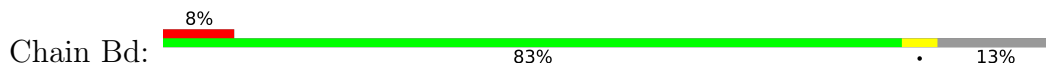
• Molecule 33: 60S RIBOSOMAL PROTEIN L29



• Molecule 34: 60S RIBOSOMAL PROTEIN L30



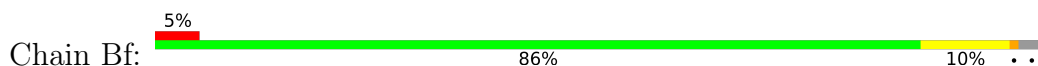
- Molecule 35: 60S RIBOSOMAL PROTEIN L31



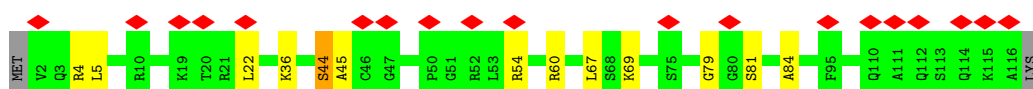
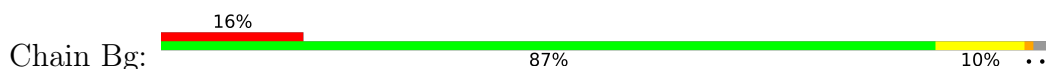
- Molecule 36: 60S RIBOSOMAL PROTEIN L32



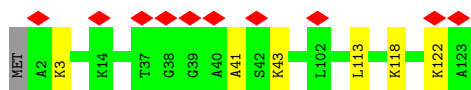
- Molecule 37: 60S RIBOSOMAL PROTEIN L35A



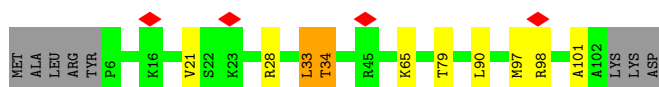
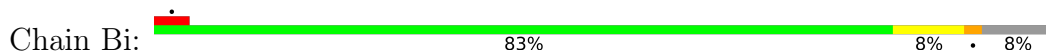
- Molecule 38: 60S RIBOSOMAL PROTEIN L34

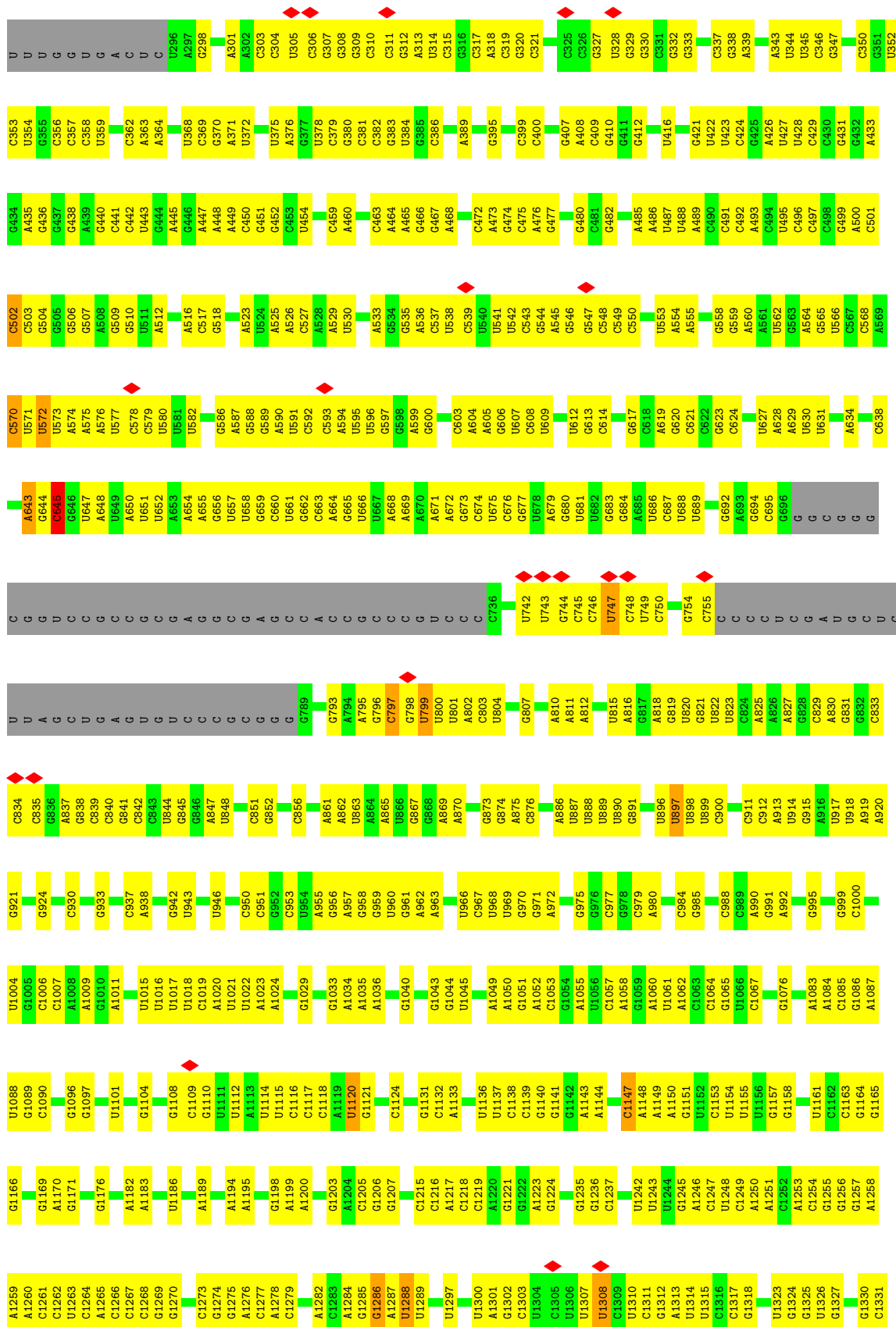


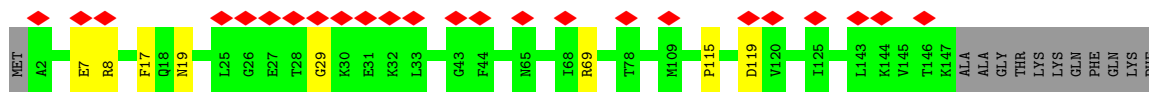
- Molecule 39: 60S RIBOSOMAL PROTEIN UL29



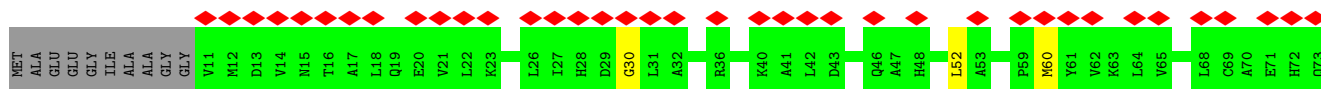
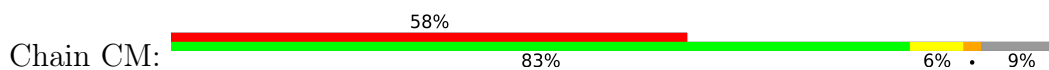
- Molecule 40: 60S RIBOSOMAL PROTEIN L36



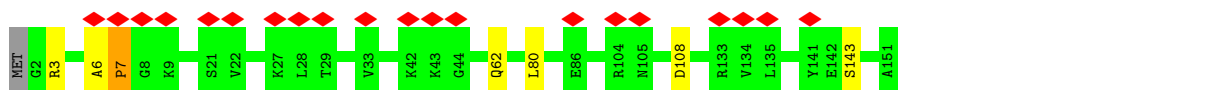




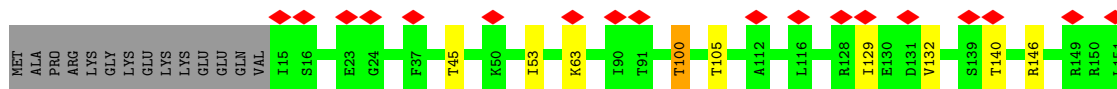
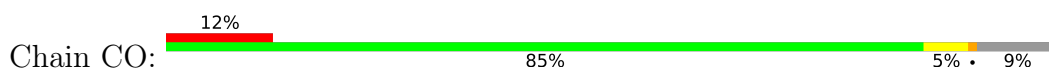
• Molecule 63: 40S RIBOSOMAL PROTEIN ES12



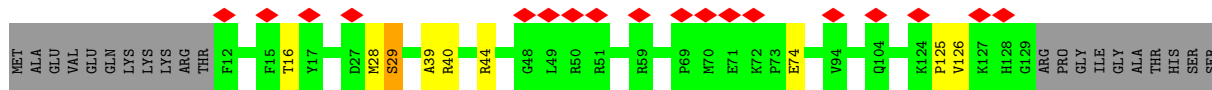
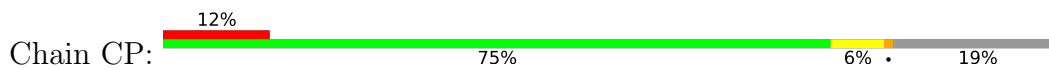
• Molecule 64: 40S RIBOSOMAL PROTEIN US15



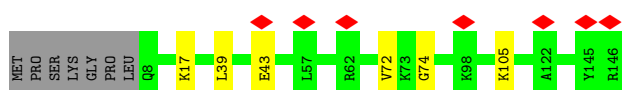
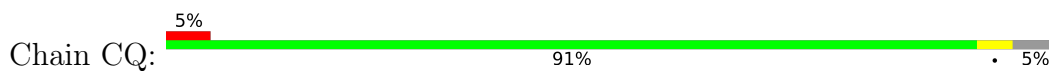
• Molecule 65: 40S RIBOSOMAL PROTEIN US11



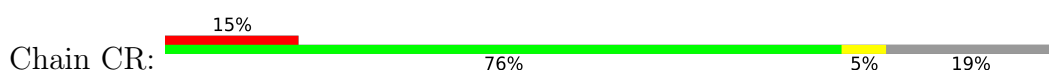
• Molecule 66: 40S RIBOSOMAL PROTEIN US19

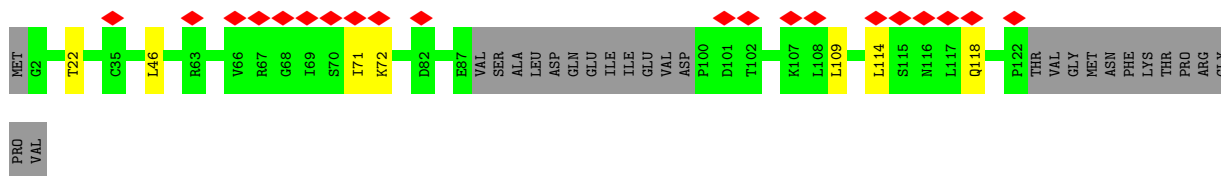


• Molecule 67: 40S RIBOSOMAL PROTEIN US9

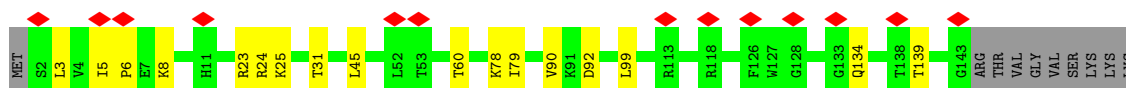
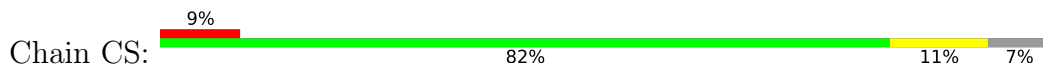


• Molecule 68: 40S RIBOSOMAL PROTEIN ES17

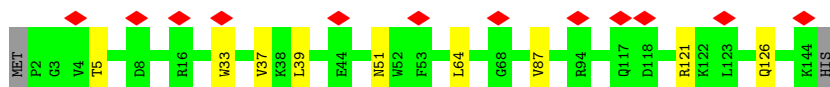




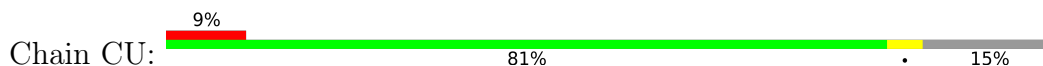
- Molecule 69: 40S RIBOSOMAL PROTEIN US13



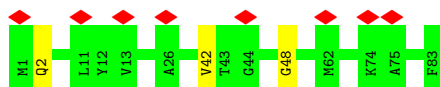
- Molecule 70: 40S RIBOSOMAL PROTEIN ES19



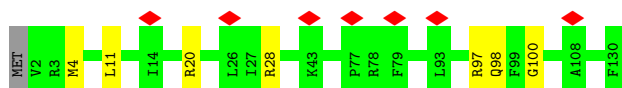
- Molecule 71: 40S RIBOSOMAL PROTEIN US10



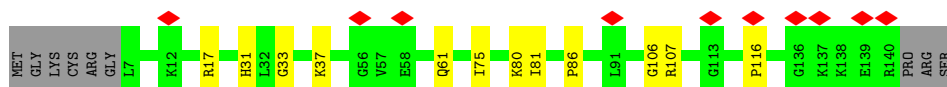
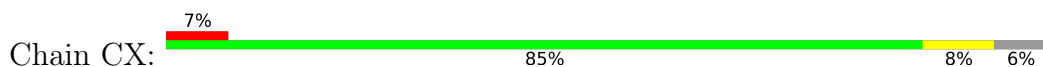
- Molecule 72: 40S RIBOSOMAL PROTEIN ES21




- Molecule 73: 40S RIBOSOMAL PROTEIN US8

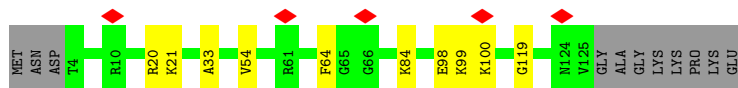


- Molecule 74: 40S RIBOSOMAL PROTEIN US12



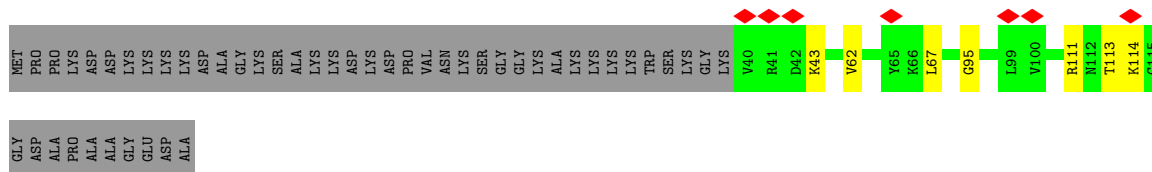
- Molecule 75: 40S RIBOSOMAL PROTEIN ES24

Chain CY: 




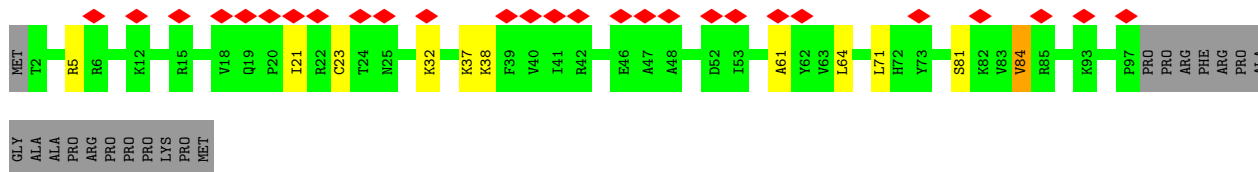
- Molecule 76: 40S RIBOSOMAL PROTEIN ES25

Chain CZ: 

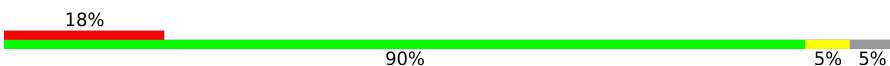


- Molecule 77: 40S RIBOSOMAL PROTEIN ES26

Chain Ca: 




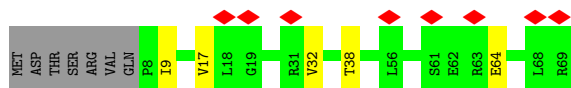
- Molecule 78: 40S RIBOSOMAL PROTEIN ES27

Chain Cb: 



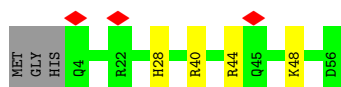
- Molecule 79: 40S RIBOSOMAL PROTEIN ES28

Chain Cc: 

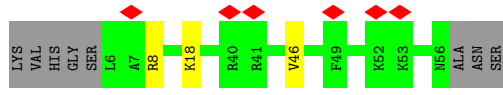
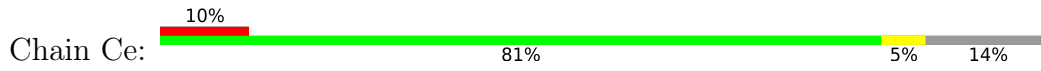


- Molecule 80: 40S RIBOSOMAL PROTEIN US14

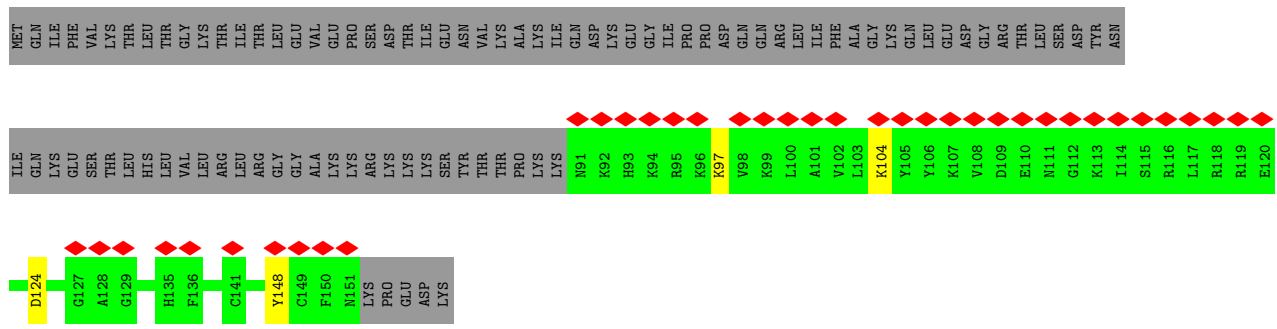
Chain Cd: 



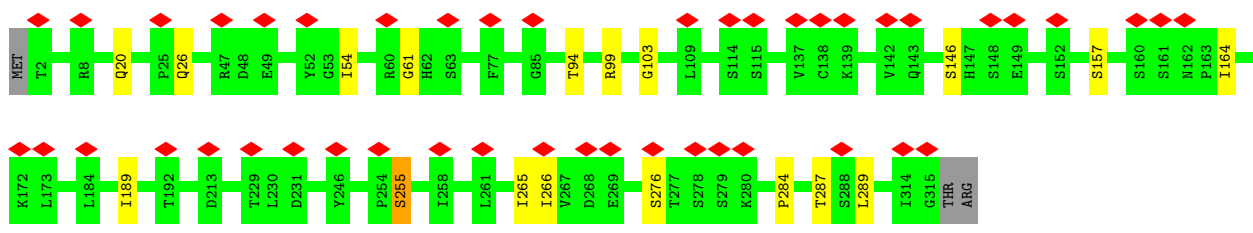
- Molecule 81: 40S RIBOSOMAL PROTEIN ES30



• Molecule 82: 40S RIBOSOMAL PROTEIN ES31



• Molecule 83: 40S RIBOSOMAL PROTEIN RACK1



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	541570	Depositor
Resolution determination method	Not provided	
CTF correction method	CTFFIND3	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	194805	Depositor
Image detector	TVIPS TEMCAM-F416 (4k x 4k)	Depositor
Maximum map value	12450.331	Depositor
Minimum map value	-4370.861	Depositor
Average map value	-6.032	Depositor
Map value standard deviation	1022.400	Depositor
Recommended contour level	2700.0	Depositor
Map size (\AA)	453.6, 453.6, 453.6	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.26, 1.26, 1.26	Depositor

5 Model quality i

5.1 Standard geometry i

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

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	AA	0.53	0/1809	1.02	17/2819 (0.6%)
2	AB	0.65	1/4926 (0.0%)	1.15	29/6641 (0.4%)
3	AC	1.52	10/6230 (0.2%)	2.37	535/9712 (5.5%)
4	A2	0.41	23/86672 (0.0%)	0.81	40/135198 (0.0%)
5	A3	0.36	0/3723	0.79	1/5800 (0.0%)
6	A4	0.38	0/2836	0.81	3/4421 (0.1%)
7	BA	0.44	0/1926	0.67	0/2583
8	BB	0.45	0/3258	0.73	2/4361 (0.0%)
9	BC	0.47	0/2943	0.73	0/3953
10	BD	0.49	2/2407 (0.1%)	0.70	1/3221 (0.0%)
11	BE	0.52	0/1312	0.73	0/1763
12	BF	0.45	0/1986	0.68	0/2644
13	BG	0.46	0/1914	0.72	0/2578
14	BH	0.43	0/1555	0.69	0/2089
15	BI	0.42	0/1643	0.67	0/2194
16	BJ	0.49	0/1386	0.71	0/1852
17	BL	0.53	2/1647 (0.1%)	0.73	3/2205 (0.1%)
18	BM	0.49	0/1162	0.70	0/1556
19	BN	0.43	0/1754	0.65	0/2348
20	BO	0.44	0/1639	0.69	0/2193
21	BP	0.44	0/1260	0.70	0/1691
22	BQ	0.45	0/1518	0.74	0/2026
23	BR	0.41	0/1542	0.64	0/2037
24	BS	0.44	0/1479	0.73	0/1985
25	BT	0.46	0/1326	0.71	0/1770
26	BU	0.47	0/841	0.71	0/1128
27	BV	0.43	0/978	0.63	0/1312
28	BW	0.43	0/542	0.59	0/722
29	BX	0.41	0/993	0.67	0/1334
30	BY	0.47	0/1082	0.72	1/1441 (0.1%)
31	BZ	0.47	0/1138	0.79	0/1517
32	Ba	0.45	0/1191	0.71	0/1591

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
33	Bb	0.45	0/570	0.72	0/752
34	Bc	0.46	0/813	0.70	0/1091
35	Bd	0.45	0/920	0.67	0/1238
36	Be	0.45	0/1071	0.68	0/1428
37	Bf	0.50	0/885	0.81	0/1185
38	Bg	0.48	0/917	0.74	0/1222
39	Bh	0.38	0/1023	0.64	0/1351
40	Bi	0.43	0/793	0.75	0/1048
41	Bj	0.49	0/704	0.76	0/931
42	Bk	0.43	0/575	0.73	0/761
43	Bl	0.41	0/454	0.61	0/599
44	Bm	0.42	0/435	0.70	0/575
45	Bn	0.40	0/241	0.51	0/305
46	Bo	0.45	0/885	0.74	0/1166
47	Bp	0.40	0/718	0.61	0/953
48	Bt	0.48	0/1058	0.75	0/1416
49	Bu	0.45	0/1639	0.69	1/2222 (0.0%)
50	C1	0.37	2/41550 (0.0%)	0.80	6/64763 (0.0%)
51	CA	0.51	0/1756	0.68	0/2386
52	CB	0.51	0/1756	0.75	1/2350 (0.0%)
53	CC	0.42	0/1761	0.65	0/2379
54	CD	0.40	0/1672	0.66	0/2250
55	CE	0.47	0/2072	0.70	0/2793
56	CF	0.43	0/1507	0.74	0/2026
57	CG	0.48	0/1907	0.74	0/2538
58	CH	0.46	0/1558	0.74	1/2087 (0.0%)
59	CI	0.47	0/1724	0.72	0/2298
60	CJ	0.46	0/1520	0.77	0/2030
61	CK	0.48	0/815	0.68	0/1101
62	CL	0.45	0/1220	0.72	0/1633
63	CM	0.48	0/941	0.72	0/1264
64	CN	0.43	0/1231	0.73	1/1656 (0.1%)
65	CO	0.46	0/1036	0.71	0/1391
66	CP	0.43	0/1000	0.67	0/1335
67	CQ	0.43	0/1125	0.66	0/1506
68	CR	0.42	0/904	0.67	0/1208
69	CS	0.42	0/1190	0.68	0/1594
70	CT	0.44	0/1131	0.69	0/1515
71	CU	0.50	0/813	0.70	0/1092
72	CV	0.47	0/643	0.71	0/860
73	CW	0.44	0/1050	0.69	0/1406
74	CX	0.46	0/1063	0.70	0/1421
75	CY	0.45	0/1019	0.70	0/1354

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
76	CZ	0.46	0/611	0.71	0/820
77	Ca	0.48	0/778	0.75	1/1041 (0.1%)
78	Cb	0.48	0/637	0.68	0/854
79	Cc	0.46	0/492	0.74	0/657
80	Cd	0.51	0/454	0.76	0/603
81	Ce	0.45	0/417	0.69	0/548
82	Cf	0.53	0/507	0.84	1/673 (0.1%)
83	Cg	0.45	0/2497	0.67	0/3399
All	All	0.49	40/240676 (0.0%)	0.86	644/353759 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	AB	0	14
3	AC	0	105
4	A2	0	35
5	A3	0	2
50	C1	0	24
All	All	0	180

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A2	1701	C	C5'-C4'	18.44	1.73	1.51
4	A2	1673	C	C3'-O3'	15.36	1.63	1.42
4	A2	1701	C	O5'-C5'	14.46	1.67	1.44
4	A2	1673	C	O3'-P	14.13	1.78	1.61
4	A2	1701	C	P-O5'	13.49	1.73	1.59

The worst 5 of 644 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A2	1701	C	O4'-C4'-C3'	-15.17	88.83	104.00
2	AB	1133	TYR	CB-CG-CD2	-14.76	112.14	121.00
8	BB	258	HIS	C-N-CD	-13.97	89.87	120.60
1	AA	8	U	C5'-C4'-C3'	13.49	137.58	116.00
4	A2	1701	C	O4'-C1'-N1	12.28	118.02	108.20

There are no chirality outliers.

5 of 180 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	1105	PRO	Mainchain
2	AB	834	HIS	Peptide
2	AB	836	LYS	Peptide
2	AB	880	GLN	Mainchain
2	AB	899	ILE	Mainchain

5.2 Too-close contacts [i](#)

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

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	605/627 (96%)	523 (86%)	50 (8%)	32 (5%)	2	19
7	BA	245/257 (95%)	236 (96%)	6 (2%)	3 (1%)	13	50
8	BB	394/403 (98%)	369 (94%)	11 (3%)	14 (4%)	3	25
9	BC	362/427 (85%)	338 (93%)	9 (2%)	15 (4%)	3	23
10	BD	288/297 (97%)	279 (97%)	4 (1%)	5 (2%)	9	42
11	BE	156/158 (99%)	141 (90%)	8 (5%)	7 (4%)	2	22
12	BF	232/248 (94%)	225 (97%)	3 (1%)	4 (2%)	9	42
13	BG	233/266 (88%)	217 (93%)	7 (3%)	9 (4%)	3	23
14	BH	190/192 (99%)	184 (97%)	3 (2%)	3 (2%)	9	44
15	BI	192/214 (90%)	187 (97%)	2 (1%)	3 (2%)	9	44
16	BJ	168/178 (94%)	153 (91%)	3 (2%)	12 (7%)	1	14
17	BL	198/211 (94%)	178 (90%)	9 (4%)	11 (6%)	2	19
18	BM	138/215 (64%)	132 (96%)	4 (3%)	2 (1%)	11	46
19	BN	202/204 (99%)	193 (96%)	6 (3%)	3 (2%)	10	46

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	BO	194/203 (96%)	187 (96%)	4 (2%)	3 (2%)	10	46
21	BP	151/184 (82%)	141 (93%)	7 (5%)	3 (2%)	7	38
22	BQ	182/188 (97%)	169 (93%)	7 (4%)	6 (3%)	4	26
23	BR	181/196 (92%)	175 (97%)	3 (2%)	3 (2%)	9	42
24	BS	171/176 (97%)	158 (92%)	7 (4%)	6 (4%)	3	25
25	BT	157/160 (98%)	150 (96%)	4 (2%)	3 (2%)	8	38
26	BU	100/128 (78%)	97 (97%)	3 (3%)	0	100	100
27	BV	126/140 (90%)	119 (94%)	5 (4%)	2 (2%)	9	44
28	BW	62/157 (40%)	61 (98%)	1 (2%)	0	100	100
29	BX	117/156 (75%)	113 (97%)	4 (3%)	0	100	100
30	BY	126/145 (87%)	119 (94%)	4 (3%)	3 (2%)	6	33
31	BZ	134/136 (98%)	125 (93%)	5 (4%)	4 (3%)	4	28
32	Ba	145/148 (98%)	134 (92%)	6 (4%)	5 (3%)	3	26
33	Bb	67/159 (42%)	60 (90%)	3 (4%)	4 (6%)	1	17
34	Bc	102/115 (89%)	99 (97%)	1 (1%)	2 (2%)	7	38
35	Bd	107/125 (86%)	103 (96%)	3 (3%)	1 (1%)	17	57
36	Be	126/135 (93%)	117 (93%)	6 (5%)	3 (2%)	6	33
37	Bf	105/110 (96%)	96 (91%)	4 (4%)	5 (5%)	2	21
38	Bg	113/117 (97%)	103 (91%)	6 (5%)	4 (4%)	3	25
39	Bh	120/123 (98%)	112 (93%)	5 (4%)	3 (2%)	5	32
40	Bi	95/105 (90%)	85 (90%)	4 (4%)	6 (6%)	1	17
41	Bj	83/97 (86%)	75 (90%)	6 (7%)	2 (2%)	6	33
42	Bk	67/70 (96%)	64 (96%)	2 (3%)	1 (2%)	10	46
43	Bl	48/51 (94%)	46 (96%)	1 (2%)	1 (2%)	7	36
44	Bm	50/128 (39%)	48 (96%)	1 (2%)	1 (2%)	7	38
45	Bn	23/25 (92%)	23 (100%)	0	0	100	100
46	Bo	104/106 (98%)	98 (94%)	4 (4%)	2 (2%)	8	38
47	Bp	89/92 (97%)	83 (93%)	3 (3%)	3 (3%)	3	26
48	Bt	128/137 (93%)	112 (88%)	9 (7%)	7 (6%)	2	19
49	Bu	208/210 (99%)	199 (96%)	6 (3%)	3 (1%)	11	46
51	CA	216/263 (82%)	209 (97%)	5 (2%)	2 (1%)	17	57

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	CB	211/264 (80%)	176 (83%)	18 (8%)	17 (8%)	1	12
53	CC	220/293 (75%)	213 (97%)	2 (1%)	5 (2%)	6	34
54	CD	210/243 (86%)	201 (96%)	4 (2%)	5 (2%)	6	33
55	CE	255/263 (97%)	237 (93%)	13 (5%)	5 (2%)	7	38
56	CF	186/204 (91%)	163 (88%)	12 (6%)	11 (6%)	1	17
57	CG	230/249 (92%)	216 (94%)	5 (2%)	9 (4%)	3	23
58	CH	189/194 (97%)	178 (94%)	7 (4%)	4 (2%)	7	36
59	CI	205/208 (99%)	184 (90%)	14 (7%)	7 (3%)	3	26
60	CJ	177/194 (91%)	169 (96%)	5 (3%)	3 (2%)	9	42
61	CK	92/165 (56%)	84 (91%)	1 (1%)	7 (8%)	1	13
62	CL	144/158 (91%)	133 (92%)	5 (4%)	6 (4%)	3	22
63	CM	118/132 (89%)	111 (94%)	1 (1%)	6 (5%)	2	19
64	CN	148/151 (98%)	138 (93%)	5 (3%)	5 (3%)	3	26
65	CO	135/151 (89%)	129 (96%)	3 (2%)	3 (2%)	6	35
66	CP	116/145 (80%)	106 (91%)	5 (4%)	5 (4%)	2	22
67	CQ	137/146 (94%)	129 (94%)	6 (4%)	2 (2%)	10	46
68	CR	105/135 (78%)	99 (94%)	4 (4%)	2 (2%)	8	38
69	CS	140/152 (92%)	125 (89%)	7 (5%)	8 (6%)	1	18
70	CT	141/145 (97%)	135 (96%)	4 (3%)	2 (1%)	11	46
71	CU	99/119 (83%)	95 (96%)	3 (3%)	1 (1%)	15	55
72	CV	81/83 (98%)	78 (96%)	1 (1%)	2 (2%)	5	32
73	CW	127/130 (98%)	118 (93%)	7 (6%)	2 (2%)	9	44
74	CX	132/143 (92%)	120 (91%)	5 (4%)	7 (5%)	2	19
75	CY	120/133 (90%)	114 (95%)	2 (2%)	4 (3%)	4	26
76	CZ	74/125 (59%)	71 (96%)	0	3 (4%)	3	23
77	Ca	94/115 (82%)	85 (90%)	5 (5%)	4 (4%)	2	22
78	Cb	78/84 (93%)	70 (90%)	8 (10%)	0	100	100
79	Cc	60/69 (87%)	57 (95%)	1 (2%)	2 (3%)	4	26
80	Cd	51/56 (91%)	44 (86%)	7 (14%)	0	100	100
81	Ce	49/59 (83%)	43 (88%)	5 (10%)	1 (2%)	7	38
82	Cf	59/156 (38%)	53 (90%)	6 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
83	Cg	312/317 (98%)	291 (93%)	14 (4%)	7 (2%)	6	35
All	All	11795/13363 (88%)	11000 (93%)	439 (4%)	356 (3%)	7	28

5 of 356 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	835	SER
2	AB	838	VAL
2	AB	843	LEU
2	AB	897	LYS
2	AB	931	SER

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	
2	AB	540/552 (98%)	517 (96%)	23 (4%)	29	53
7	BA	189/199 (95%)	184 (97%)	5 (3%)	46	66
8	BB	344/349 (99%)	326 (95%)	18 (5%)	23	48
9	BC	302/348 (87%)	284 (94%)	18 (6%)	19	44
10	BD	244/250 (98%)	237 (97%)	7 (3%)	42	64
11	BE	143/143 (100%)	135 (94%)	8 (6%)	21	46
12	BF	203/215 (94%)	196 (97%)	7 (3%)	37	60
13	BG	199/223 (89%)	192 (96%)	7 (4%)	36	59
14	BH	171/171 (100%)	164 (96%)	7 (4%)	30	55
15	BI	170/181 (94%)	161 (95%)	9 (5%)	22	47
16	BJ	143/149 (96%)	137 (96%)	6 (4%)	30	54
17	BL	167/177 (94%)	156 (93%)	11 (7%)	16	41
18	BM	118/161 (73%)	114 (97%)	4 (3%)	37	60
19	BN	172/172 (100%)	170 (99%)	2 (1%)	71	83
20	BO	168/174 (97%)	166 (99%)	2 (1%)	71	83

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	BP	133/163 (82%)	126 (95%)	7 (5%)	22	47
22	BQ	162/165 (98%)	157 (97%)	5 (3%)	40	62
23	BR	161/175 (92%)	150 (93%)	11 (7%)	16	41
24	BS	155/157 (99%)	148 (96%)	7 (4%)	27	52
25	BT	139/140 (99%)	134 (96%)	5 (4%)	35	59
26	BU	91/115 (79%)	88 (97%)	3 (3%)	38	61
27	BV	100/107 (94%)	99 (99%)	1 (1%)	76	86
28	BW	55/126 (44%)	52 (94%)	3 (6%)	21	47
29	BX	107/133 (80%)	105 (98%)	2 (2%)	57	75
30	BY	119/135 (88%)	115 (97%)	4 (3%)	37	60
31	BZ	118/118 (100%)	112 (95%)	6 (5%)	24	48
32	Ba	120/121 (99%)	116 (97%)	4 (3%)	38	61
33	Bb	58/126 (46%)	57 (98%)	1 (2%)	60	78
34	Bc	88/97 (91%)	87 (99%)	1 (1%)	73	84
35	Bd	100/110 (91%)	96 (96%)	4 (4%)	31	55
36	Be	115/121 (95%)	112 (97%)	3 (3%)	46	66
37	Bf	87/89 (98%)	79 (91%)	8 (9%)	9	29
38	Bg	98/100 (98%)	88 (90%)	10 (10%)	7	25
39	Bh	109/110 (99%)	106 (97%)	3 (3%)	43	65
40	Bi	82/89 (92%)	76 (93%)	6 (7%)	14	39
41	Bj	71/80 (89%)	69 (97%)	2 (3%)	43	65
42	Bk	64/65 (98%)	64 (100%)	0	100	100
43	Bl	47/48 (98%)	46 (98%)	1 (2%)	53	72
44	Bm	48/116 (41%)	45 (94%)	3 (6%)	18	43
45	Bn	24/24 (100%)	24 (100%)	0	100	100
46	Bo	94/94 (100%)	89 (95%)	5 (5%)	22	47
47	Bp	74/75 (99%)	72 (97%)	2 (3%)	44	65
48	Bt	113/121 (93%)	106 (94%)	7 (6%)	18	43
49	Bu	177/177 (100%)	163 (92%)	14 (8%)	12	35
51	CA	181/219 (83%)	176 (97%)	5 (3%)	43	65
52	CB	194/231 (84%)	183 (94%)	11 (6%)	20	45

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
53	CC	188/225 (84%)	181 (96%)	7 (4%)	34	58
54	CD	175/202 (87%)	166 (95%)	9 (5%)	24	48
55	CE	220/225 (98%)	208 (94%)	12 (6%)	21	47
56	CF	158/170 (93%)	151 (96%)	7 (4%)	28	53
57	CG	202/218 (93%)	195 (96%)	7 (4%)	36	59
58	CH	171/174 (98%)	167 (98%)	4 (2%)	50	70
59	CI	179/180 (99%)	167 (93%)	12 (7%)	16	41
60	CJ	160/168 (95%)	150 (94%)	10 (6%)	18	43
61	CK	85/136 (62%)	82 (96%)	3 (4%)	36	59
62	CL	133/142 (94%)	131 (98%)	2 (2%)	65	80
63	CM	102/108 (94%)	96 (94%)	6 (6%)	19	45
64	CN	130/131 (99%)	128 (98%)	2 (2%)	65	80
65	CO	107/119 (90%)	100 (94%)	7 (6%)	17	42
66	CP	107/130 (82%)	102 (95%)	5 (5%)	26	51
67	CQ	115/121 (95%)	111 (96%)	4 (4%)	36	59
68	CR	99/122 (81%)	94 (95%)	5 (5%)	24	48
69	CS	123/132 (93%)	114 (93%)	9 (7%)	14	39
70	CT	113/115 (98%)	106 (94%)	7 (6%)	18	43
71	CU	93/107 (87%)	89 (96%)	4 (4%)	29	53
72	CV	67/67 (100%)	66 (98%)	1 (2%)	65	80
73	CW	112/113 (99%)	107 (96%)	5 (4%)	27	52
74	CX	108/115 (94%)	103 (95%)	5 (5%)	27	52
75	CY	107/115 (93%)	101 (94%)	6 (6%)	21	46
76	CZ	67/103 (65%)	63 (94%)	4 (6%)	19	44
77	Ca	83/98 (85%)	76 (92%)	7 (8%)	11	33
78	Cb	72/76 (95%)	68 (94%)	4 (6%)	21	46
79	Cc	55/62 (89%)	52 (94%)	3 (6%)	21	47
80	Cd	47/49 (96%)	43 (92%)	4 (8%)	10	33
81	Ce	42/48 (88%)	40 (95%)	2 (5%)	25	51
82	Cf	54/140 (39%)	51 (94%)	3 (6%)	21	46
83	Cg	272/275 (99%)	260 (96%)	12 (4%)	28	53

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	10303/11397 (90%)	9847 (96%)	456 (4%)	32 53

5 of 456 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
44	Bm	112	LYS
82	Cf	148	TYR
54	CD	16	ILE
80	Cd	48	LYS
71	CU	115	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 227 such sidechains are listed below:

Mol	Chain	Res	Type
33	Bb	50	ASN
81	Ce	44	ASN
52	CB	40	ASN
80	Cd	41	GLN
70	CT	126	GLN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	75/76 (98%)	14 (18%)	1 (1%)
3	AC	259/504 (51%)	135 (52%)	40 (15%)
4	A2	3605/5025 (71%)	2041 (56%)	325 (9%)
5	A3	156/194 (80%)	82 (52%)	6 (3%)
50	C1	1738/1869 (92%)	1038 (59%)	151 (8%)
6	A4	118/121 (97%)	68 (57%)	9 (7%)
All	All	5951/7789 (76%)	3378 (56%)	532 (8%)

5 of 3378 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	2	C
1	AA	17	C
1	AA	18	G
1	AA	19	G
1	AA	20	U

5 of 532 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
50	C1	1115	U
50	C1	1264	C
50	C1	1114	U
50	C1	1721	U
4	A2	2003	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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2 ligands modelled in this entry, 1 is 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
84	GNP	AB	2434	85	29,34,34	2.16	8 (27%)	33,54,54	2.26	8 (24%)

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
84	GNP	AB	2434	85	-	2/14/38/38	0/3/3/3

The worst 5 of 8 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	AB	2434	GNP	C2'-C1'	-6.47	1.43	1.53
84	AB	2434	GNP	C6-N1	5.33	1.42	1.33
84	AB	2434	GNP	C4-N3	2.90	1.40	1.35
84	AB	2434	GNP	PB-O3A	-2.62	1.55	1.59
84	AB	2434	GNP	PB-N3B	-2.48	1.56	1.63

The worst 5 of 8 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	AB	2434	GNP	C5-C6-N1	-7.04	113.81	123.43
84	AB	2434	GNP	C2-N1-C6	5.18	124.16	115.93
84	AB	2434	GNP	N3-C2-N1	-3.57	122.46	127.22
84	AB	2434	GNP	O1B-PB-N3B	3.40	116.78	111.77
84	AB	2434	GNP	C4-C5-C6	-2.99	117.94	120.80

There are no chirality outliers.

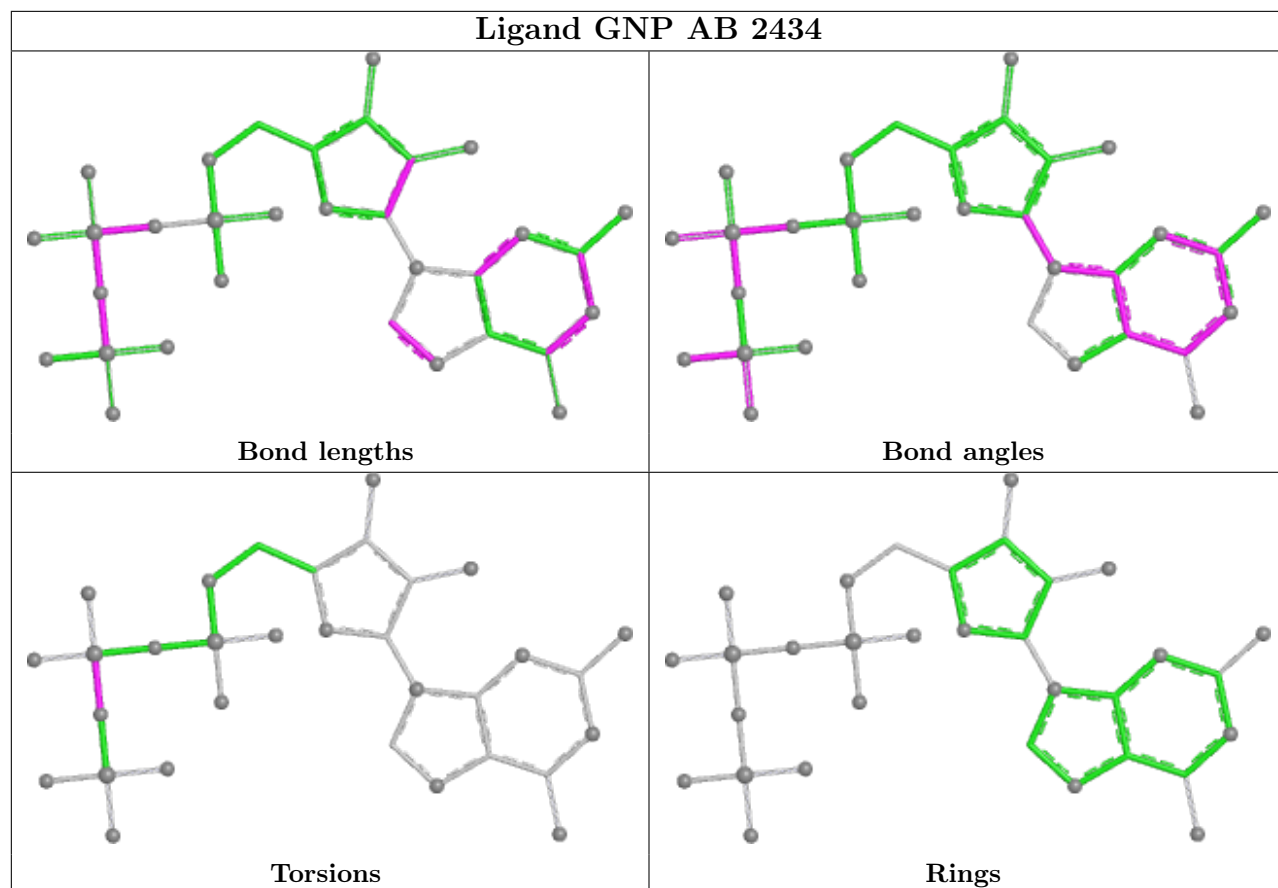
All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
84	AB	2434	GNP	PG-N3B-PB-O1B
84	AB	2434	GNP	PG-N3B-PB-O3A

There are no ring outliers.

No monomer is involved in short contacts.

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.

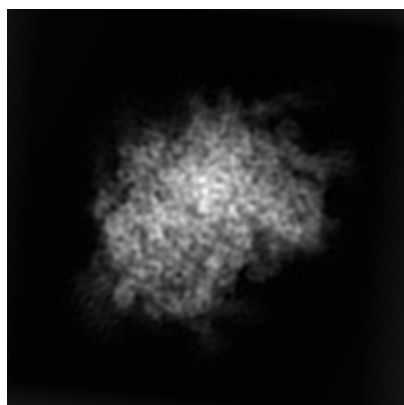
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2683. These allow visual inspection of the internal detail of the map and identification of artifacts.

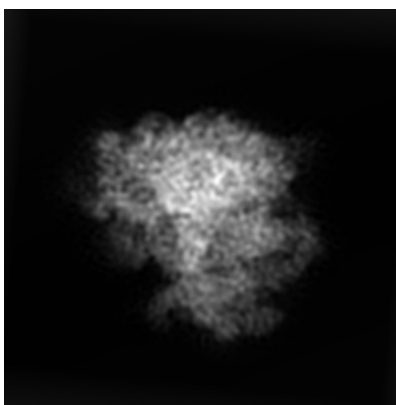
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

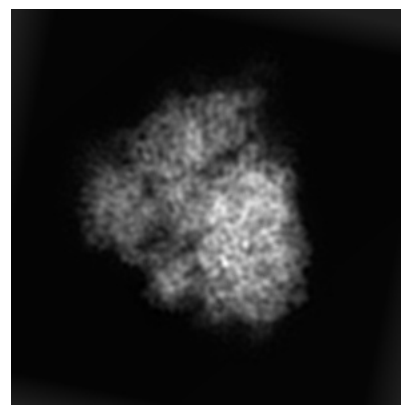
6.1.1 Primary map



X



Y

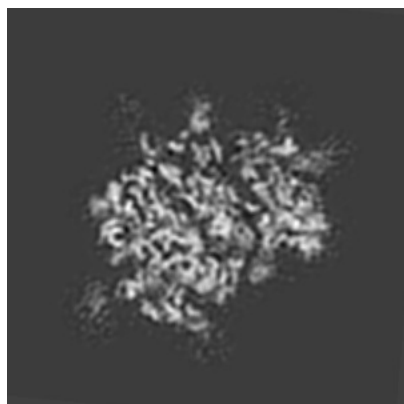


Z

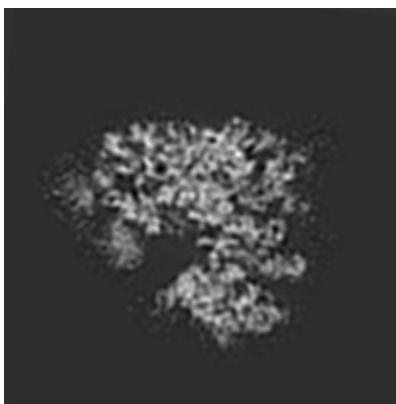
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

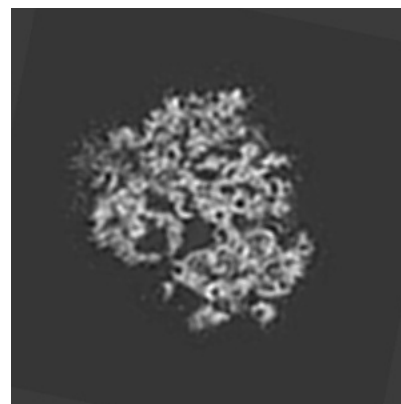
6.2.1 Primary map



X Index: 180



Y Index: 180

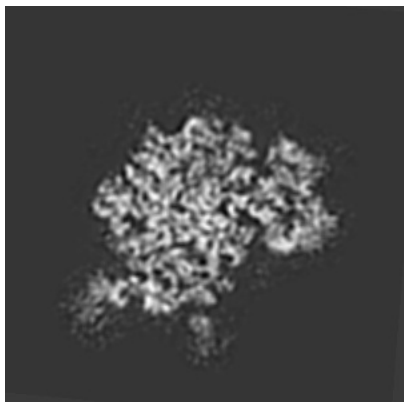


Z Index: 180

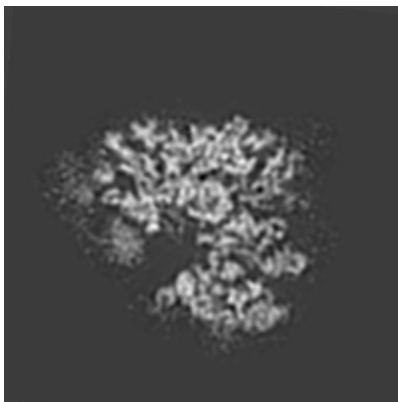
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

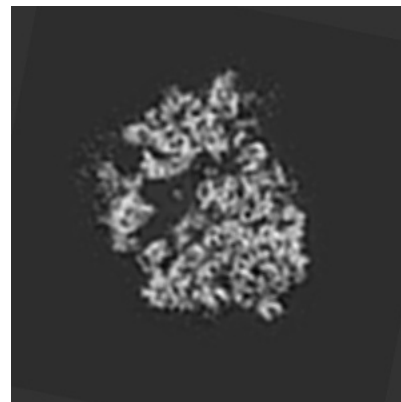
6.3.1 Primary map



X Index: 192



Y Index: 182

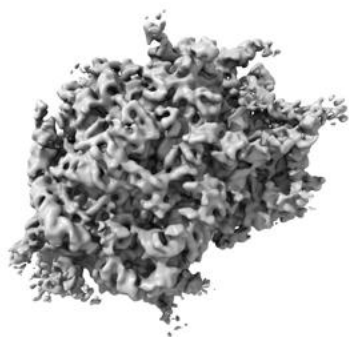


Z Index: 167

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

6.4 Orthogonal surface views [i](#)

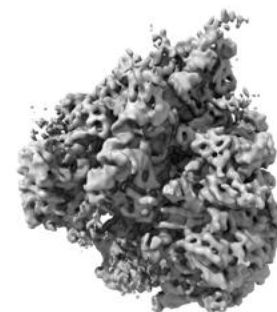
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 2700.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

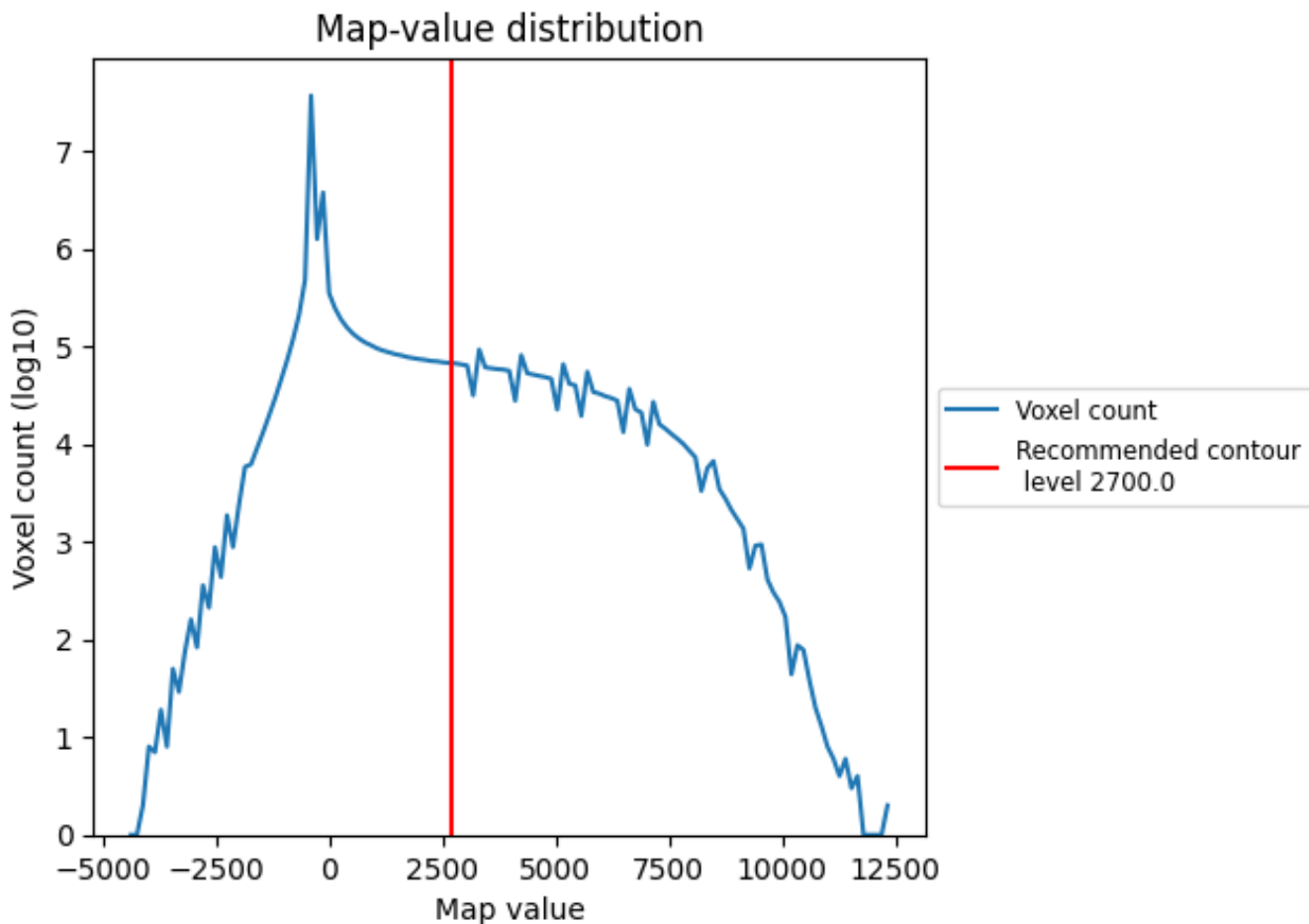
6.5 Mask visualisation

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

7 Map analysis [i](#)

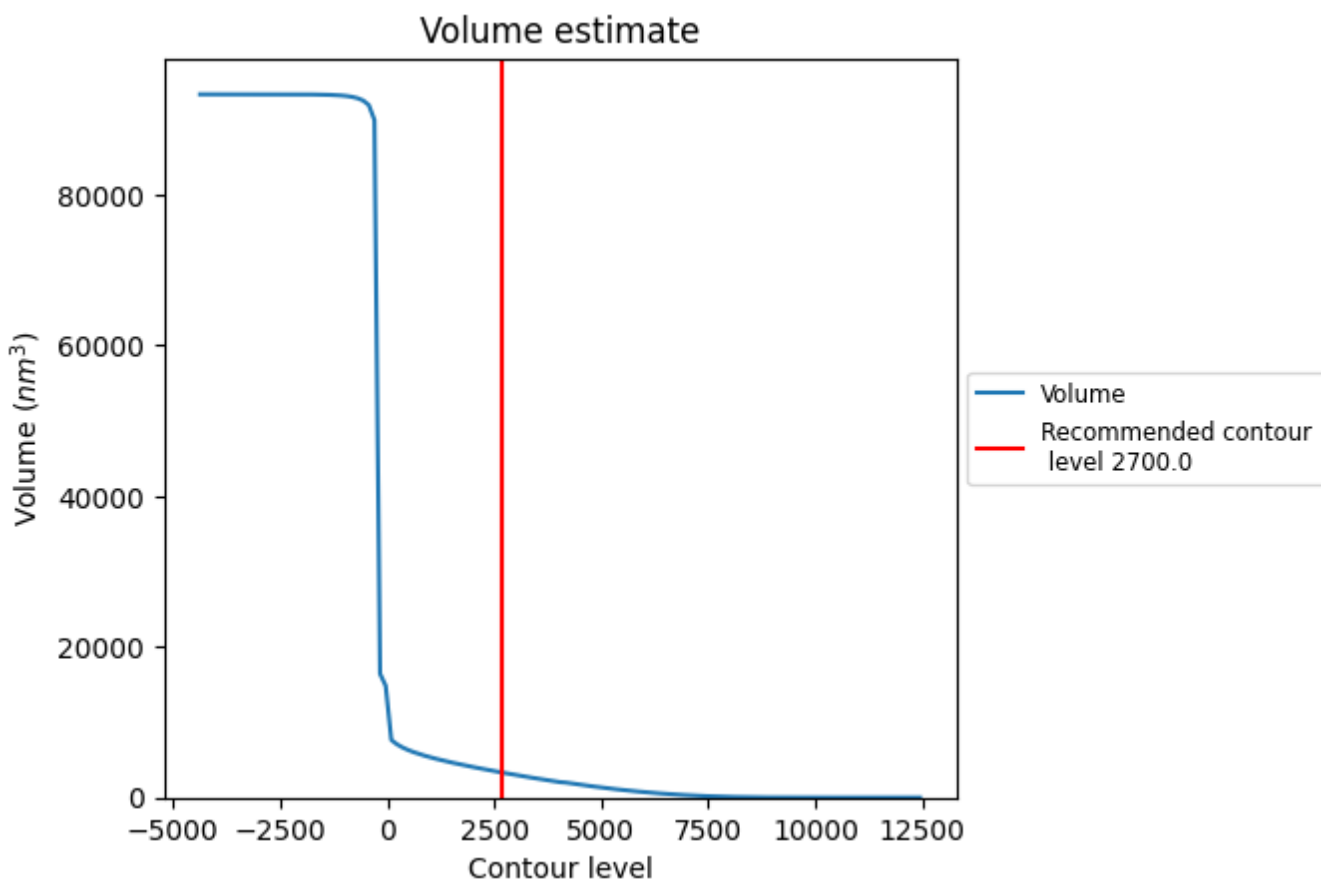
This section contains the results of statistical analysis of the map.

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.

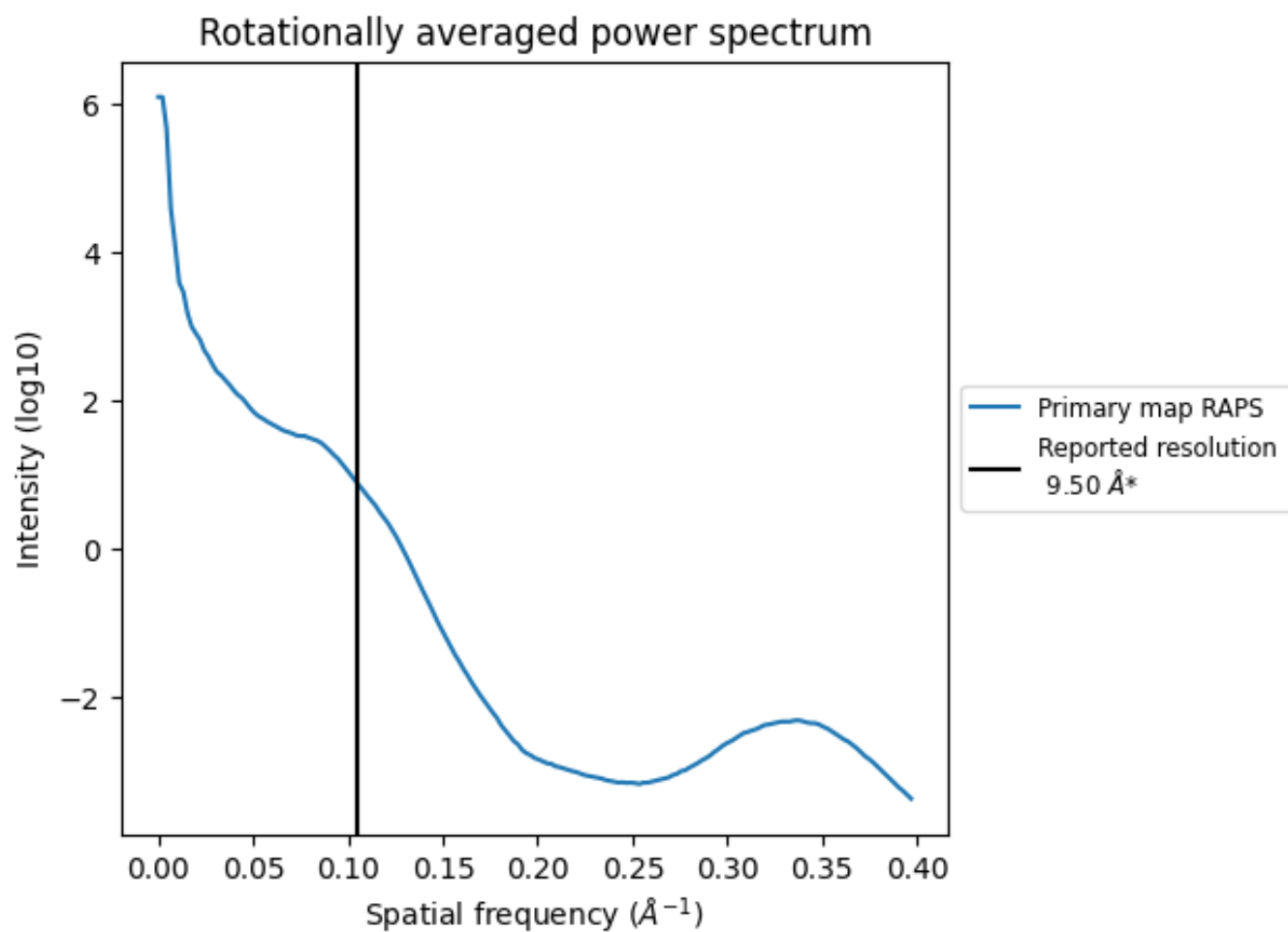
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 3306 nm³; this corresponds to an approximate mass of 2986 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 0.105 Å⁻¹

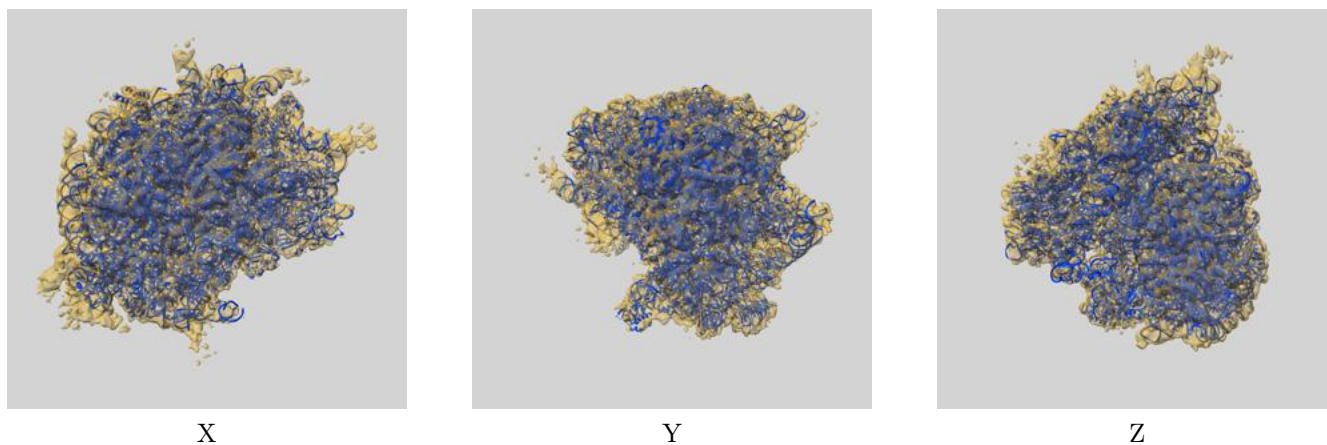
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

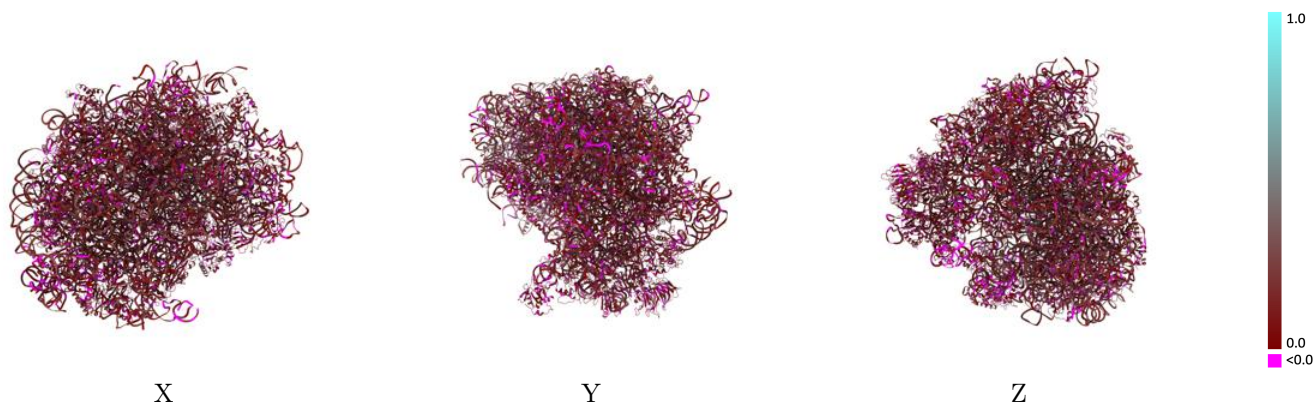
This section contains information regarding the fit between EMDB map EMD-2683 and PDB model 4UJC. Per-residue inclusion information can be found in section 3 on page 19.

9.1 Map-model overlay [i](#)



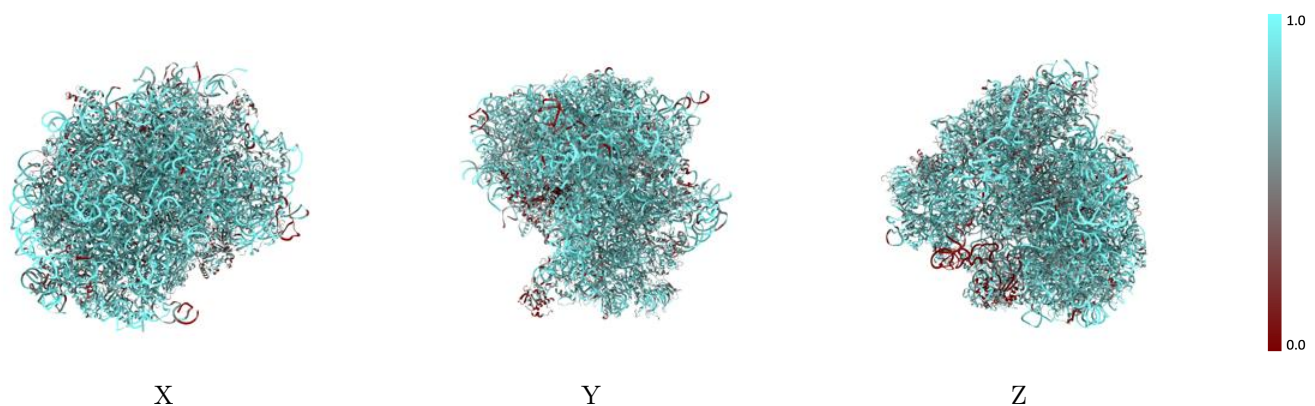
The images above show the 3D surface view of the map at the recommended contour level 2700.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



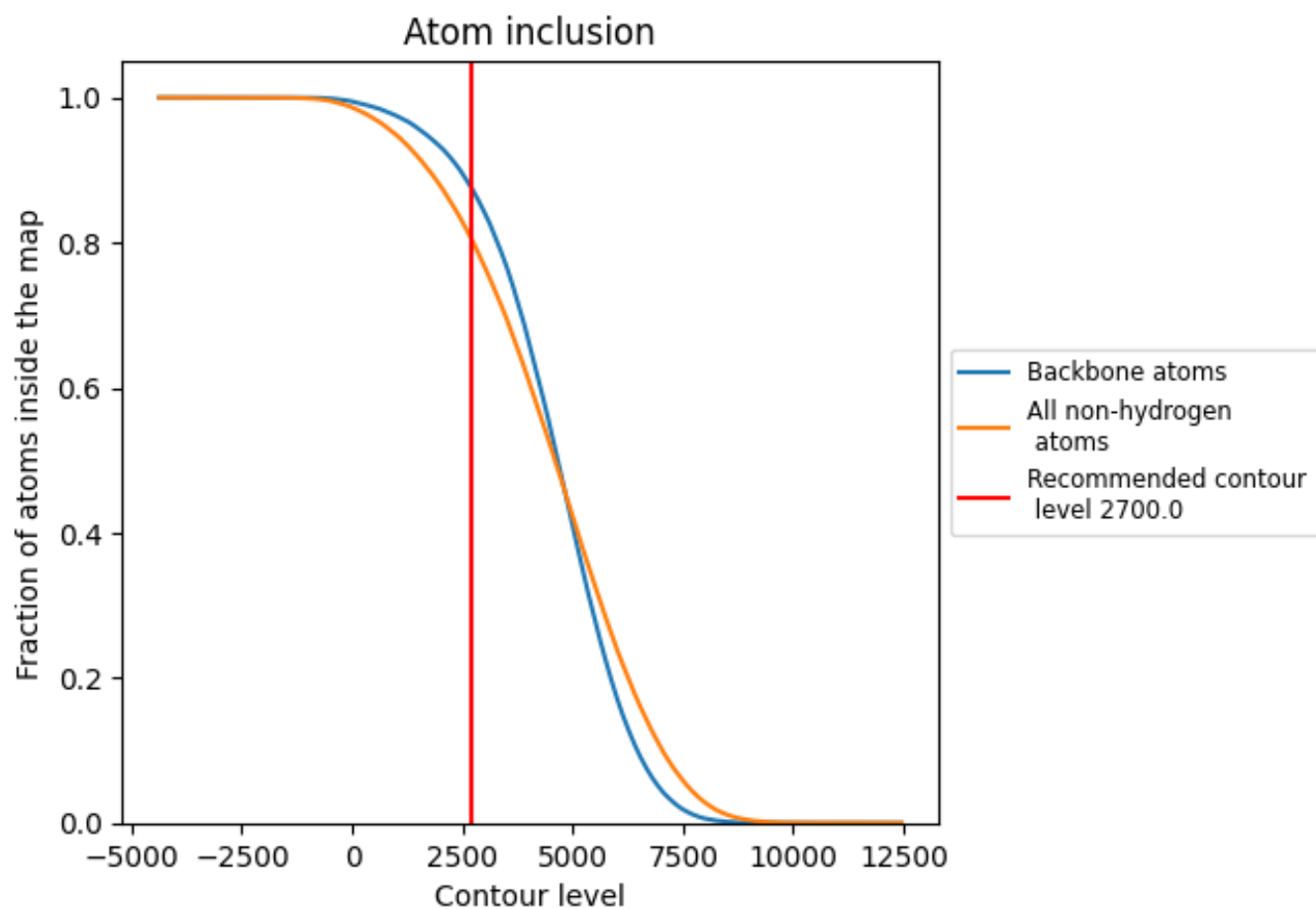
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (2700.0).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 88% of all backbone atoms, 81% 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 (2700.0) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8057	 0.1400
A2	 0.9065	 0.1710
A3	 0.9316	 0.1780
A4	 0.9681	 0.1840
AA	 0.7431	 0.1320
AB	 0.3161	 0.0780
AC	 0.5427	 0.0940
BA	 0.6921	 0.1010
BB	 0.7540	 0.1020
BC	 0.7239	 0.0950
BD	 0.8019	 0.1160
BE	 0.6886	 0.1040
BF	 0.7249	 0.1010
BG	 0.6738	 0.1210
BH	 0.7570	 0.1210
BI	 0.7444	 0.1220
BJ	 0.7557	 0.0980
BL	 0.6862	 0.1040
BM	 0.8051	 0.1400
BN	 0.7752	 0.0860
BO	 0.7244	 0.1160
BP	 0.7988	 0.0960
BQ	 0.7082	 0.1120
BR	 0.7491	 0.1200
BS	 0.7282	 0.1100
BT	 0.7078	 0.1100
BU	 0.6069	 0.1230
BV	 0.6879	 0.1100
BW	 0.7882	 0.1160
BX	 0.7165	 0.1160
BY	 0.7957	 0.1030
BZ	 0.7169	 0.1140
Ba	 0.7363	 0.0960
Bb	 0.7132	 0.1000
Bc	 0.7185	 0.1300

















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Chain	Atom inclusion	Q-score
Bd	 0.7666	 0.1100
Be	 0.7448	 0.1190
Bf	 0.7440	 0.0770
Bg	 0.7092	 0.0940
Bh	 0.7431	 0.1200
Bi	 0.7420	 0.1290
Bj	 0.8143	 0.0930
Bk	 0.6930	 0.1150
Bl	 0.7589	 0.1200
Bm	 0.8241	 0.1110
Bn	 0.7306	 0.1120
Bo	 0.6935	 0.1080
Bp	 0.6933	 0.1200
Bt	 0.7010	 0.0830
Bu	 0.0874	 0.0300
C1	 0.9070	 0.1630
CA	 0.7259	 0.1290
CB	 0.7163	 0.1370
CC	 0.7204	 0.1190
CD	 0.6706	 0.1230
CE	 0.7525	 0.1130
CF	 0.7564	 0.1170
CG	 0.7607	 0.0990
CH	 0.5943	 0.1170
CI	 0.7237	 0.0950
CJ	 0.7498	 0.1110
CK	 0.7219	 0.0950
CL	 0.6916	 0.1140
CM	 0.3021	 0.0620
CN	 0.6652	 0.1120
CO	 0.7082	 0.1080
CP	 0.7371	 0.1200
CQ	 0.7575	 0.0990
CR	 0.6405	 0.1030
CS	 0.7325	 0.1030
CT	 0.8031	 0.1020
CU	 0.6777	 0.1020
CV	 0.7122	 0.1300
CW	 0.7354	 0.1170
CX	 0.7331	 0.1230
CY	 0.7881	 0.1010
CZ	 0.7153	 0.1280

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Chain	Atom inclusion	Q-score
Ca	 0.5989	 0.0860
Cb	 0.6721	 0.1070
Cc	 0.6681	 0.1080
Cd	 0.8146	 0.0830
Ce	 0.7053	 0.1180
Cf	 0.3499	 0.0560
Cg	 0.7474	 0.1030