wwPDB EM Validation Summary Report (i)

Nov 20, 2022 – 10:36 am GMT

PDB ID	:	4V8T
EMDB ID	:	EMD-2169
Title	:	Cryo-EM Structure of the 60S Ribosomal Subunit in Complex with Arx1 and Rei1
Authors	:	Greber, B.J.; Boehringer, D.; Montellese, C.; Ban, N.
Deposited on	:	2012-08-07
Resolution	:	8.10 Å(reported)
Based on initial models	:	3U5I, 3U5H

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 (i) 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 (i)) were used in the production of this report:

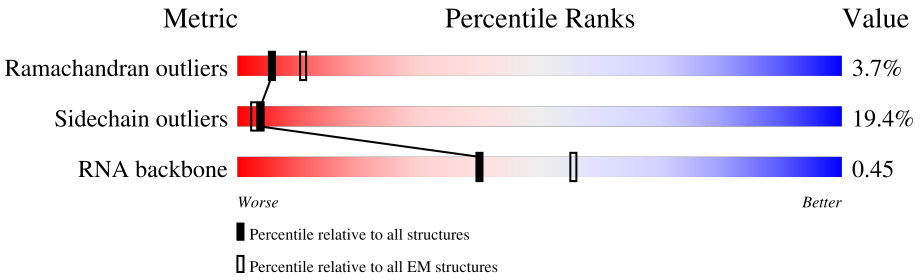
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 8.10 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Ramachandran outliers	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 <=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	A	254	37% 81% 17% • •
2	B	387	17% 79% 18% •
3	C	362	17% 75% 21% •
4	D	297	8% 80% 18% ••
5	E	176	5% 73% 15% • 11%
6	F	244	10% 76% 14% • 9%
7	G	256	5% 68% 21% • 10%
8	H	191	7% 78% 20% •

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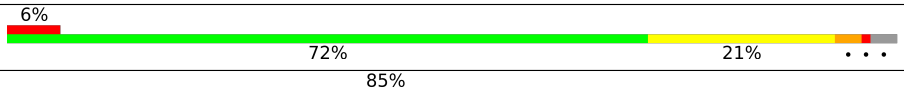
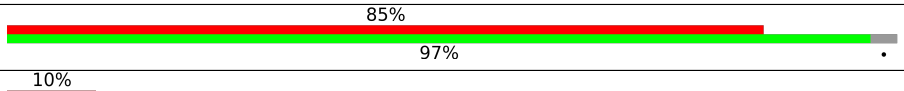
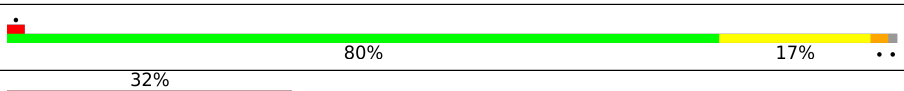
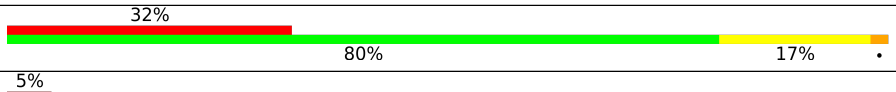
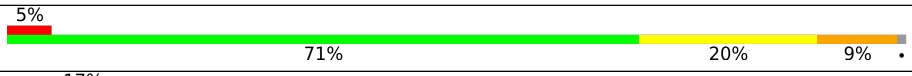
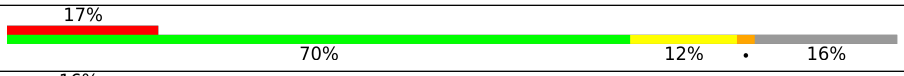
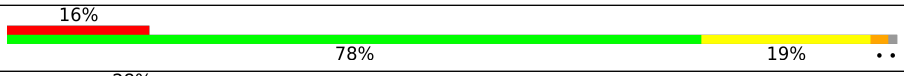
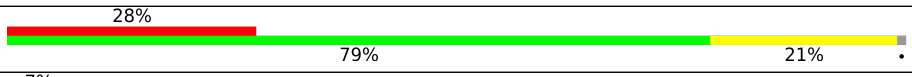
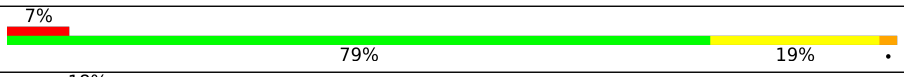
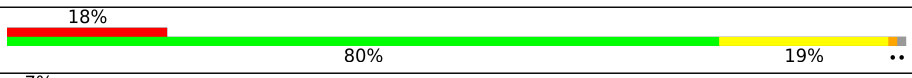
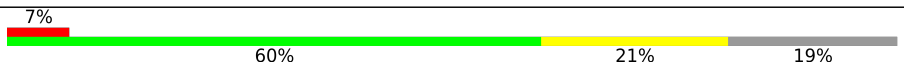
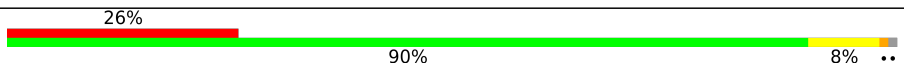
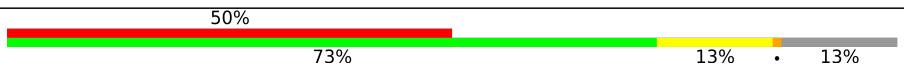
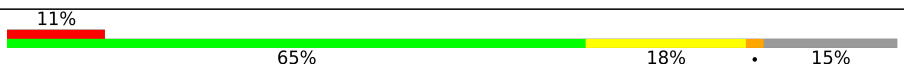
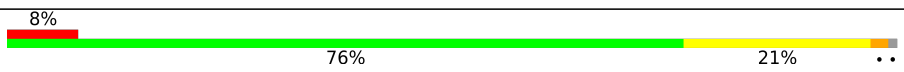
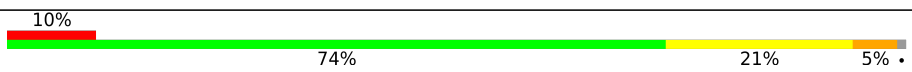
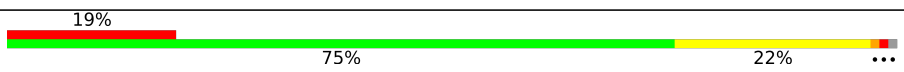
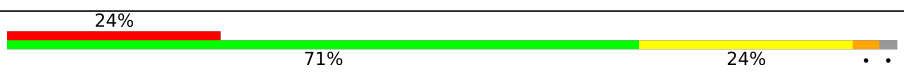
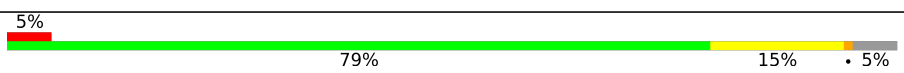
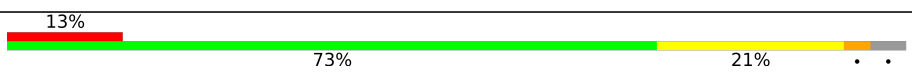
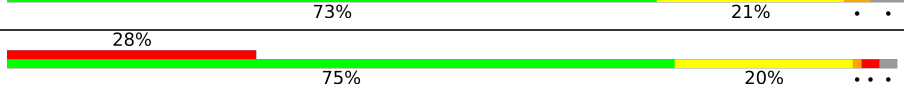
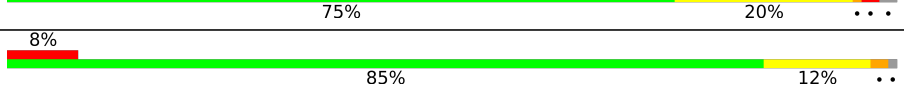
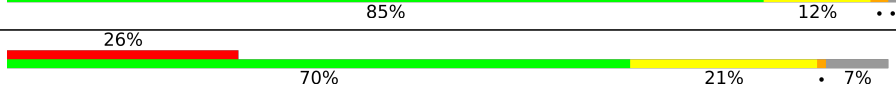
Mol	Chain	Length	Quality of chain
9	I	221	
10	J	174	
11	K	155	
12	L	199	
13	M	138	
14	N	204	
15	O	219	
16	P	184	
17	Q	186	
18	R	189	
19	S	172	
20	T	160	
21	U	121	
22	V	137	
23	W	155	
24	X	142	
25	Y	127	
26	Z	136	
27	a	149	
28	b	59	
29	c	105	
30	d	113	
31	e	130	
32	f	107	
33	g	121	

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Mol	Chain	Length	Quality of chain
34	h	120	5% 76% 22%
35	i	100	9% 67% 28%
36	j	88	22% 74% 25%
37	k	78	76% 23%
38	l	51	35% 75% 22%
39	m	128	7% 30% 9% 59%
40	n	25	100% 72% 20% 8%
41	o	106	27% 82% 16%
42	p	92	14% 87% 12%
43	q	312	36% 35% 10% 54%
44	r	47	100% 100%
45	s	46	100% 100%
46	t	614	7% 47% 13% 38%
47	1	114	8% 100%
48	5	3396	35% 48% 10% 7%
49	7	121	45% 46% 9%
50	8	158	49% 40% 11%

2 Entry composition (i)

There are 51 unique types of molecules in this entry. The entry contains 130050 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called 60S RIBOSOMAL PROTEIN L2-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	252	1912	1190	388	333	1	0	0

- Molecule 2 is a protein called 60S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	386	3075	1950	584	533	8	0	0

- Molecule 3 is a protein called 60S RIBOSOMAL PROTEIN L4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	361	2748	1729	522	494	3	0	0

- Molecule 4 is a protein called 60S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	D	294	2359	1489	412	456	2	0	0

- Molecule 5 is a protein called 60S RIBOSOMAL PROTEIN L6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	E	157	1248	806	224	217	1	0	0

- Molecule 6 is a protein called 60S RIBOSOMAL PROTEIN L7-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	F	223	1791	1155	325	310	1	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	231	Total	C	N	O	S	0	0
			1763	1130	316	314	3		

- Molecule 8 is a protein called 60S RIBOSOMAL PROTEIN L9-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	191	Total	C	N	O	S	0	0
			1518	963	274	277	4		

- Molecule 9 is a protein called 60S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	213	Total	C	N	O	S	0	0
			1722	1094	325	297	6		

- Molecule 10 is a protein called 60S RIBOSOMAL PROTEIN L11-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	169	Total	C	N	O	S	0	0
			1353	847	253	249	4		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
J	3	ALA	THR	conflict	UNP Q3E757

- Molecule 11 is a protein called 60S RIBOSOMAL PROTEIN L12.

Mol	Chain	Residues	Atoms				AltConf	Trace
11	K	150	Total	C	N	O	0	0
			750	450	150	150		

- Molecule 12 is a protein called 60S RIBOSOMAL PROTEIN L13-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	L	194	Total	C	N	O	0	0
			1548	965	316	267		

- Molecule 13 is a protein called 60S RIBOSOMAL PROTEIN L14-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	M	137	Total	C	N	O	S	0	0
			1059	678	200	179	2		

- Molecule 14 is a protein called 60S RIBOSOMAL PROTEIN L15-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	N	203	Total	C	N	O	S	0	0
			1720	1077	361	281	1		

- Molecule 15 is a protein called 60S RIBOSOMAL PROTEIN L16-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	197	Total	C	N	O	S	197	0
			3119	2008	581	528	2		

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
O	3	SER	VAL	microheterogeneity	UNP P26784
O	4	GLN	GLU	microheterogeneity	UNP P26784
O	11	ALA	GLY	microheterogeneity	UNP P26784
O	13	ASP	GLY	microheterogeneity	UNP P26784
O	16	LEU	VAL	microheterogeneity	UNP P26784
O	22	THR	VAL	microheterogeneity	UNP P26784
O	23	ILE	VAL	microheterogeneity	UNP P26784
O	27	VAL	LEU	microheterogeneity	UNP P26784
O	40	ALA	GLU	microheterogeneity	UNP P26784
O	80	LEU	PHE	microheterogeneity	UNP P26784
O	84	ILE	LEU	microheterogeneity	UNP P26784
O	104	ILE	VAL	microheterogeneity	UNP P26784
O	158	ASP	ALA	microheterogeneity	UNP P26784
O	163	ARG	SER	microheterogeneity	UNP P26784
O	179	SER	ALA	microheterogeneity	UNP P26784
O	182	SER	ASN	microheterogeneity	UNP P26784
O	184	ALA	THR	microheterogeneity	UNP P26784
O	186	ALA	SER	microheterogeneity	UNP P26784
O	196	ALA	SER	microheterogeneity	UNP P26784
O	197	LEU	PHE	microheterogeneity	UNP P26784

- Molecule 16 is a protein called 60S RIBOSOMAL PROTEIN L17-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
16	P	155	Total	C	N	O	0	0
			1227	764	238	225		

- Molecule 17 is a protein called 60S RIBOSOMAL PROTEIN L18-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	185	Total	C	N	O	S	0	0
			1441	908	290	241	2		

- Molecule 18 is a protein called 60S RIBOSOMAL PROTEIN L19-B.

Mol	Chain	Residues	Atoms				AltConf	Trace
18	R	188	Total	C	N	O	0	0
			1521	935	326	260		

- Molecule 19 is a protein called 60S RIBOSOMAL PROTEIN L20-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	S	172	Total	C	N	O	S	0	0
			1445	930	267	244	4		

- Molecule 20 is a protein called 60S RIBOSOMAL PROTEIN L21-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	T	159	Total	C	N	O	S	0	0
			1276	805	246	221	4		

- Molecule 21 is a protein called 60S RIBOSOMAL PROTEIN L22-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	U	98	Total	C	N	O	0	0
			778	505	127	146		

- Molecule 22 is a protein called 60S RIBOSOMAL PROTEIN L23-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	V	136	Total	C	N	O	S	0	0
			1003	628	189	179	7		

- Molecule 23 is a protein called 60S RIBOSOMAL PROTEIN L24-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	W	135	Total	C	N	O	S	0	0
			1038	651	206	180	1		

- Molecule 24 is a protein called 60S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	X	120	Total	C	N	O	S	0	0
			959	617	168	172	2		

- Molecule 25 is a protein called 60S RIBOSOMAL PROTEIN L26-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	Y	126	Total	C	N	O	0	0
			993	625	192	176		

- Molecule 26 is a protein called 60S RIBOSOMAL PROTEIN L27-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	Z	135	Total	C	N	O	0	0
			1092	710	202	180		

- Molecule 27 is a protein called 60S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	a	148	Total	C	N	O	S	0	0
			1173	749	231	190	3		

- Molecule 28 is a protein called 60S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	b	58	Total	C	N	O	0	0
			462	289	100	73		

- Molecule 29 is a protein called 60S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	c	100	Total	C	N	O	S	0	0
			767	492	128	146	1		

- Molecule 30 is a protein called 60S RIBOSOMAL PROTEIN L31-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	d	109	Total	C	N	O	S	0	0
			883	559	167	156	1		

- Molecule 31 is a protein called 60S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	e	127	Total	C	N	O	S	0	0
			1020	647	205	167	1		

- Molecule 32 is a protein called 60S RIBOSOMAL PROTEIN L33-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	f	106	Total	C	N	O	S	0	0
			850	540	165	144	1		

- Molecule 33 is a protein called 60S RIBOSOMAL PROTEIN L34-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	g	112	Total	C	N	O	S	0	0
			880	545	179	152	4		

- Molecule 34 is a protein called 60S RIBOSOMAL PROTEIN L35-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	h	119	Total	C	N	O	S	0	0
			965	612	185	167	1		

- Molecule 35 is a protein called 60S RIBOSOMAL PROTEIN L36-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	i	99	Total	C	N	O	S	0	0
			770	481	156	131	2		

- Molecule 36 is a protein called 60S RIBOSOMAL PROTEIN L37-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	j	87	Total	C	N	O	S	0	0
			681	414	148	114	5		

- Molecule 37 is a protein called 60S RIBOSOMAL PROTEIN L38.

Mol	Chain	Residues	Atoms				AltConf	Trace
37	k	77	Total	C	N	O	0	0
			608	388	114	106		

- Molecule 38 is a protein called 60S RIBOSOMAL PROTEIN L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	l	50	Total	C	N	O	S	0	0
			436	272	97	65	2		

- Molecule 39 is a protein called 60S RIBOSOMAL PROTEIN L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	m	52	Total	C	N	O	S	0	0
			417	259	86	67	5		

- Molecule 40 is a protein called 60S RIBOSOMAL PROTEIN L41-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	n	25	Total	C	N	O	S	0	0
			233	142	63	27	1		

- Molecule 41 is a protein called 60S RIBOSOMAL PROTEIN L42-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	o	105	Total	C	N	O	S	0	0
			847	534	170	138	5		

- Molecule 42 is a protein called 60S RIBOSOMAL PROTEIN L43-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	p	91	Total	C	N	O	S	0	0
			694	429	138	121	6		

- Molecule 43 is a protein called 60S ACIDIC RIBOSOMAL PROTEIN P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	q	143	Total	C	N	O	S	0	0
			1077	687	192	195	3		

There are 23 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
q	199	UNK	SER	SEE REMARK 999	UNP P05317
q	200	UNK	SER	SEE REMARK 999	UNP P05317
q	201	UNK	ILE	SEE REMARK 999	UNP P05317
q	202	UNK	LEU	SEE REMARK 999	UNP P05317
q	203	UNK	ASP	SEE REMARK 999	UNP P05317
q	204	UNK	ILE	SEE REMARK 999	UNP P05317
q	205	UNK	THR	SEE REMARK 999	UNP P05317
q	206	UNK	ASP	SEE REMARK 999	UNP P05317
q	207	UNK	GLU	SEE REMARK 999	UNP P05317
q	208	UNK	GLU	SEE REMARK 999	UNP P05317
q	209	UNK	LEU	SEE REMARK 999	UNP P05317
q	210	UNK	VAL	SEE REMARK 999	UNP P05317
q	211	UNK	SER	SEE REMARK 999	UNP P05317
q	212	UNK	HIS	SEE REMARK 999	UNP P05317
q	213	UNK	PHE	SEE REMARK 999	UNP P05317
q	214	UNK	VAL	SEE REMARK 999	UNP P05317
q	215	UNK	SER	SEE REMARK 999	UNP P05317
q	216	UNK	ALA	SEE REMARK 999	UNP P05317
q	217	UNK	VAL	SEE REMARK 999	UNP P05317
q	218	UNK	SER	SEE REMARK 999	UNP P05317
q	219	UNK	THR	SEE REMARK 999	UNP P05317
q	220	UNK	ILE	SEE REMARK 999	UNP P05317
q	221	UNK	ALA	SEE REMARK 999	UNP P05317

- Molecule 44 is a protein called RIBOSOMAL PROTEIN P1 ALPHA.

Mol	Chain	Residues	Atoms				AltConf	Trace
44	r	47	Total	C	N	O	0	0
			235	141	47	47		

- Molecule 45 is a protein called RIBOSOMAL PROTEIN P2 BETA.

Mol	Chain	Residues	Atoms				AltConf	Trace
45	s	46	Total	C	N	O	0	0
			230	138	46	46		

- Molecule 46 is a protein called PROBABLE METALLOPROTEASE ARX1.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	t	380	Total	C	N	O	S	0	0
			2938	1853	511	563	11		

- Molecule 47 is a RNA chain called ES27 OF THE 25S RRNA.

Mol	Chain	Residues	Atoms		AltConf	Trace
47	1	114	Total 114	P 114	0	114

- Molecule 48 is a RNA chain called 25S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	5	3150	Total 67376	C 30095	N 12145	O 21987	P 3149	0	0

- Molecule 49 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	7	121	Total 2579	C 1152	N 461	O 845	P 121	0	0

- Molecule 50 is a RNA chain called 5.8S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	8	158	Total 3353	C 1500	N 586	O 1109	P 158	0	0

- Molecule 51 is ZINC ION (three-letter code: ZN) (formula: Zn).

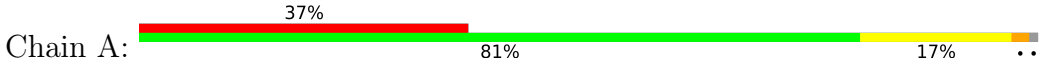
Mol	Chain	Residues	Atoms		AltConf
51	j	1	Total 1	Zn 1	0
51	m	1	Total 1	Zn 1	0
51	o	1	Total 1	Zn 1	0
51	p	1	Total 1	Zn 1	0

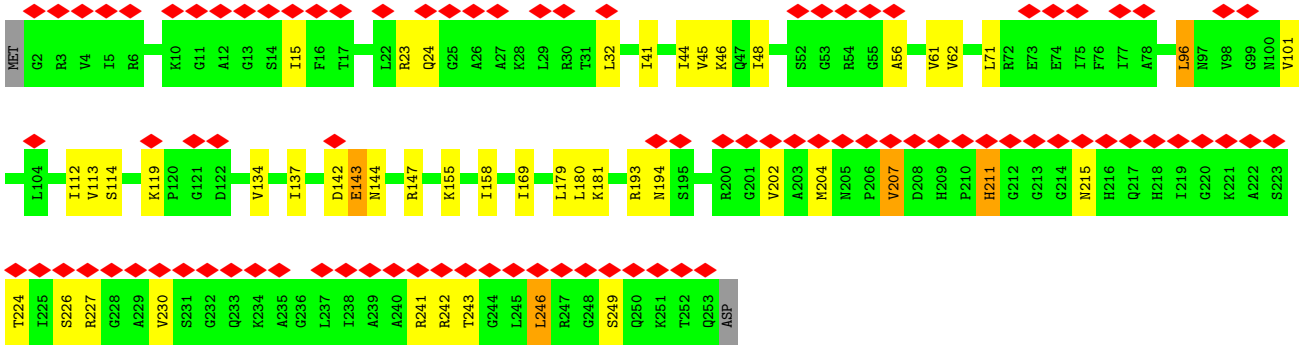
3 Residue-property plots (i)

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: 60S RIBOSOMAL PROTEIN L2-B

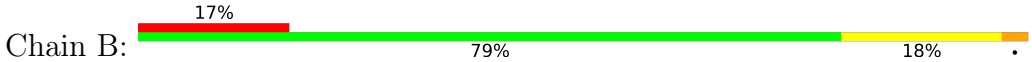
Chain A:

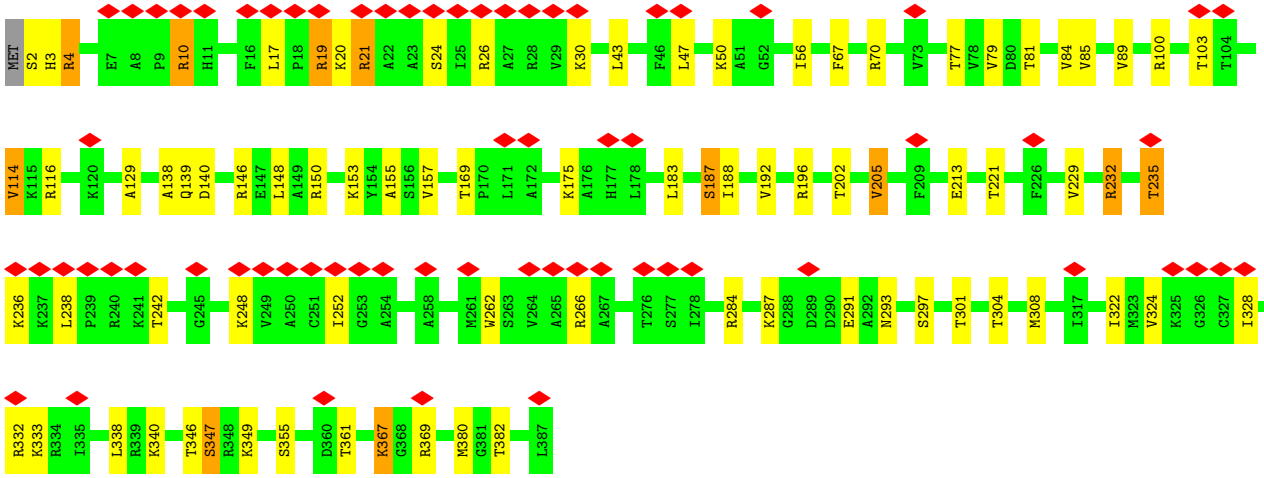




• Molecule 2: 60S RIBOSOMAL PROTEIN L3

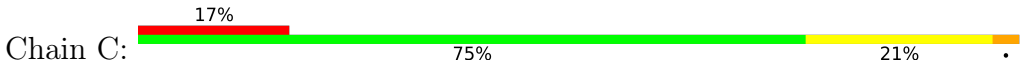
Chain B:

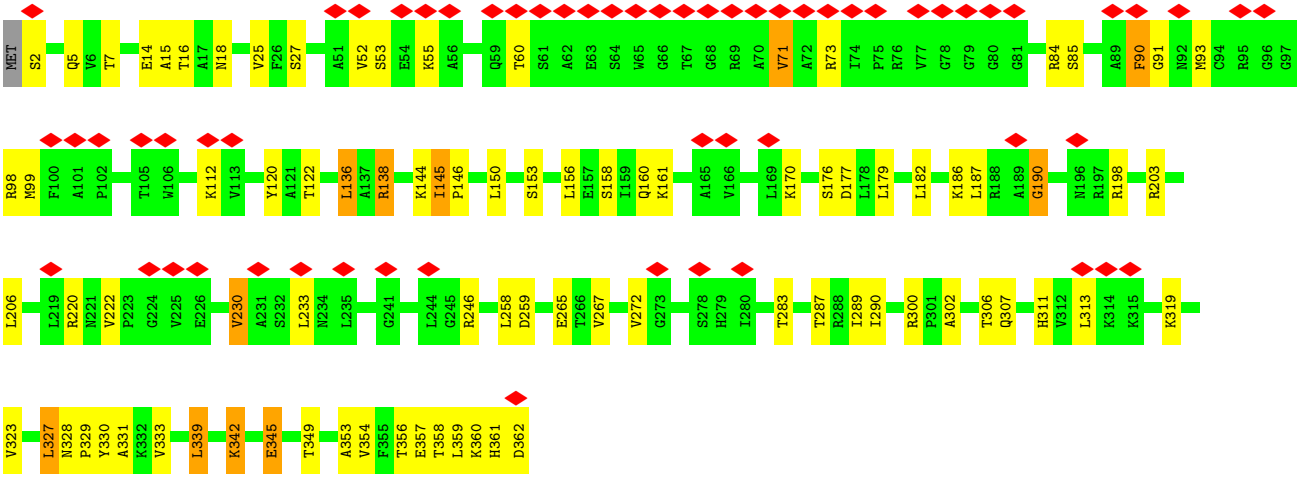




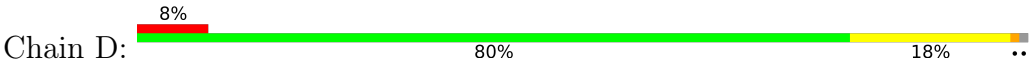
• Molecule 3: 60S RIBOSOMAL PROTEIN L4-A

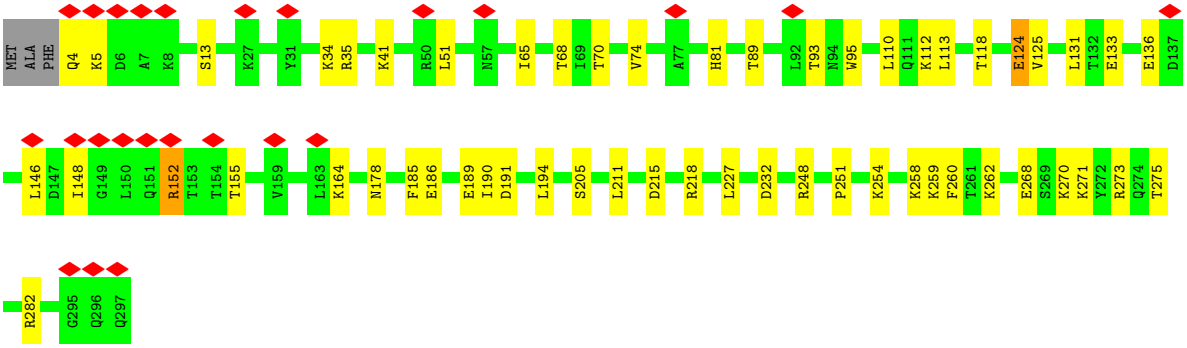
Chain C:



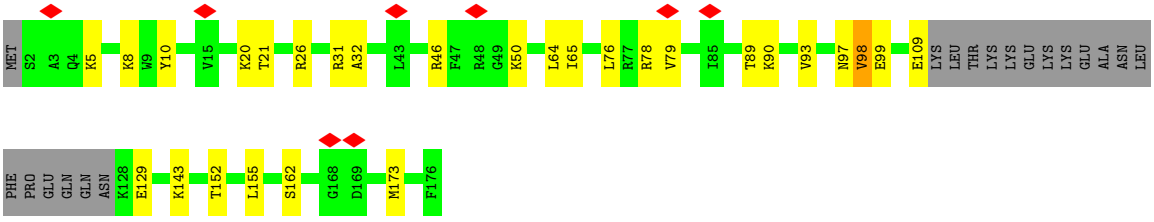


• Molecule 4: 60S RIBOSOMAL PROTEIN L5

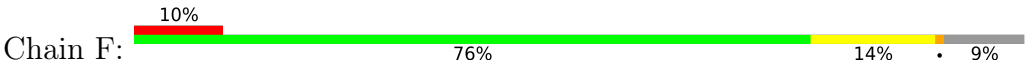


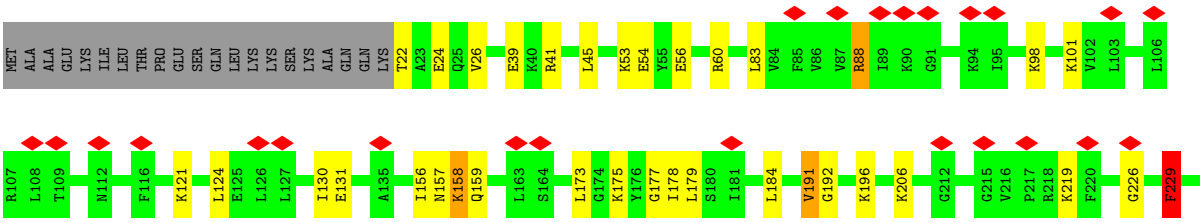


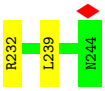
• Molecule 5: 60S RIBOSOMAL PROTEIN L6-A



• Molecule 6: 60S RIBOSOMAL PROTEIN L7-A

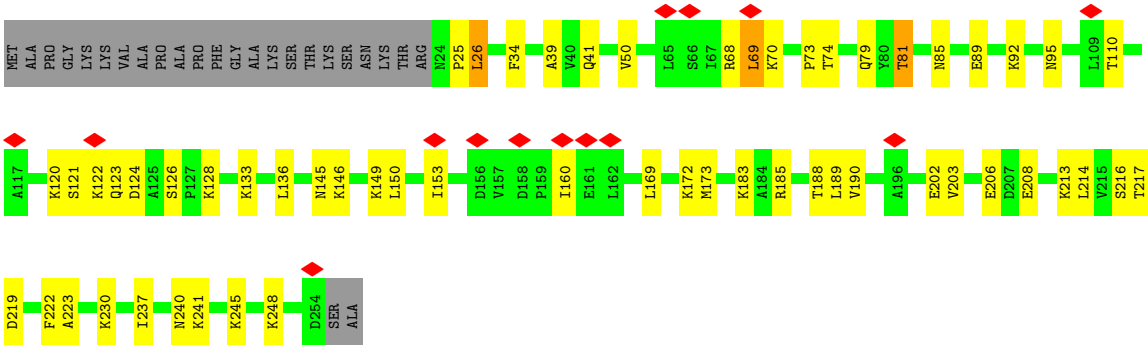






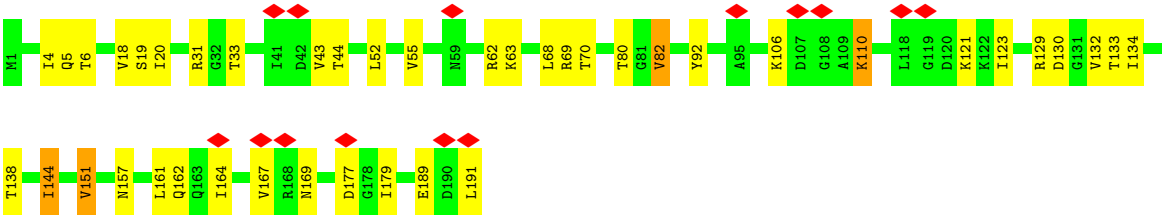
• Molecule 7: 60S RIBOSOMAL PROTEIN L8-A

Chain G:



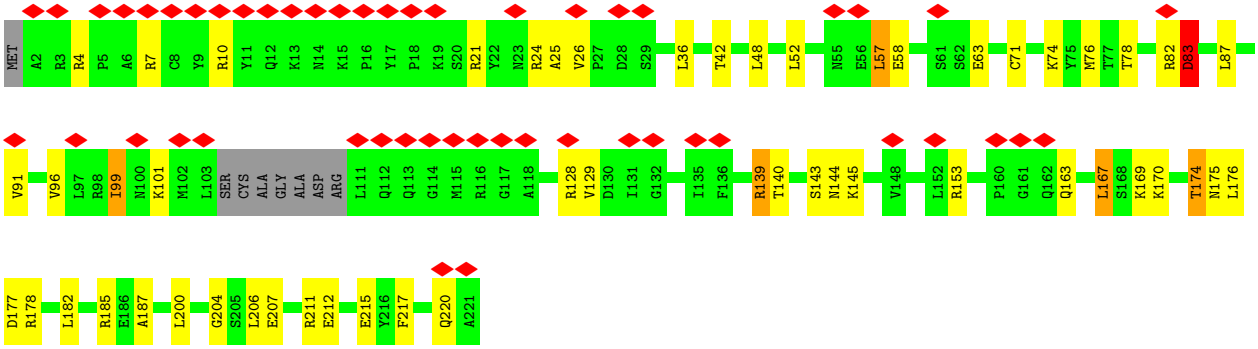
• Molecule 8: 60S RIBOSOMAL PROTEIN L9-A

Chain H:



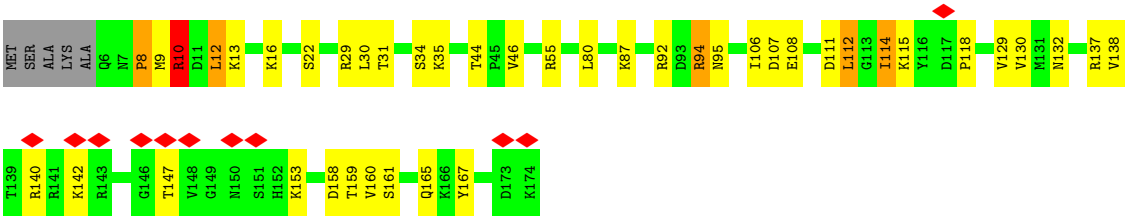
• Molecule 9: 60S RIBOSOMAL PROTEIN L10

Chain I:

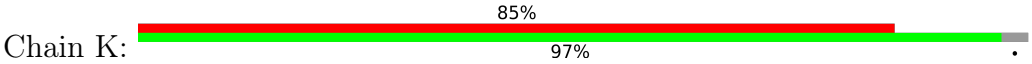


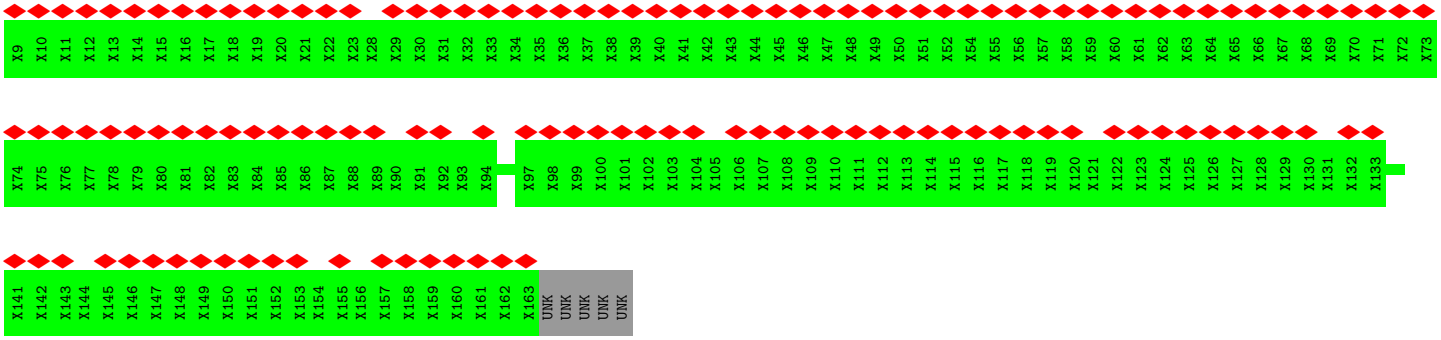
• Molecule 10: 60S RIBOSOMAL PROTEIN L11-B

Chain J:

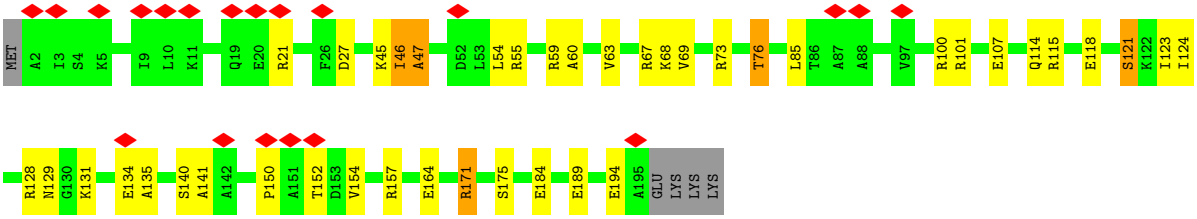


• Molecule 11: 60S RIBOSOMAL PROTEIN L12

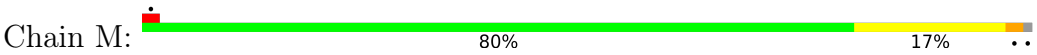


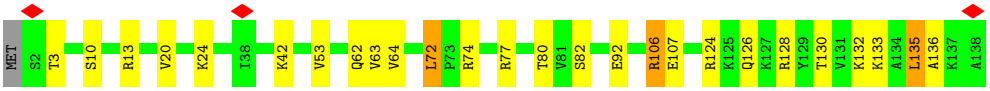


• Molecule 12: 60S RIBOSOMAL PROTEIN L13-A

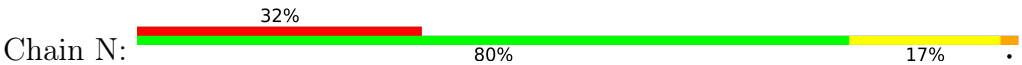


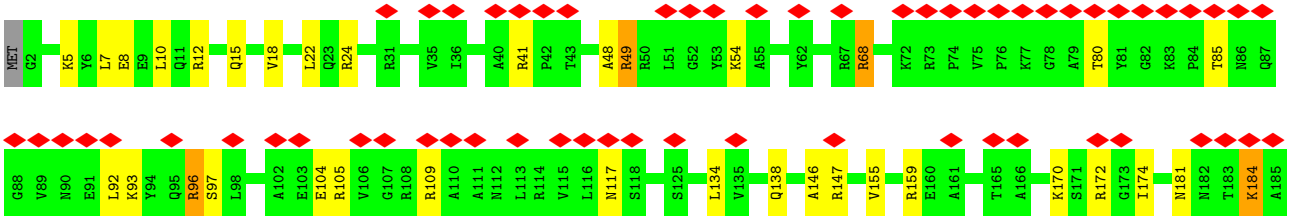
• Molecule 13: 60S RIBOSOMAL PROTEIN L14-A

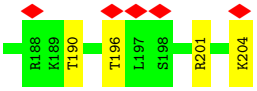




• Molecule 14: 60S RIBOSOMAL PROTEIN L15-A

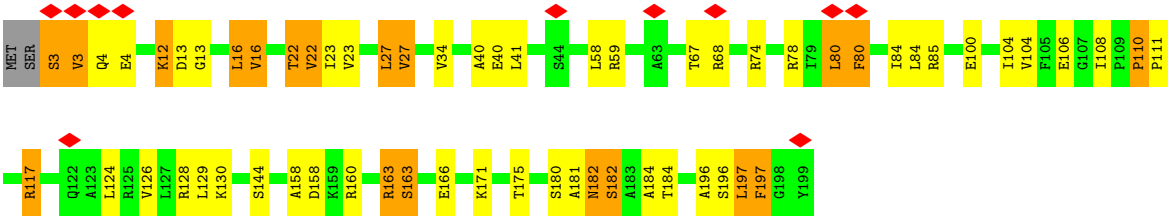






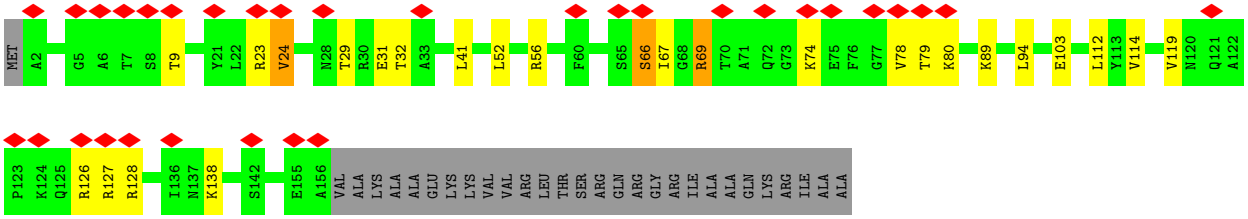
• Molecule 15: 60S RIBOSOMAL PROTEIN L16-A

Chain O:



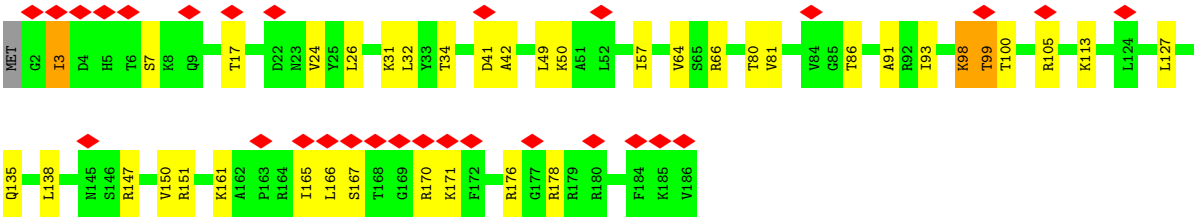
• Molecule 16: 60S RIBOSOMAL PROTEIN L17-A

Chain P:



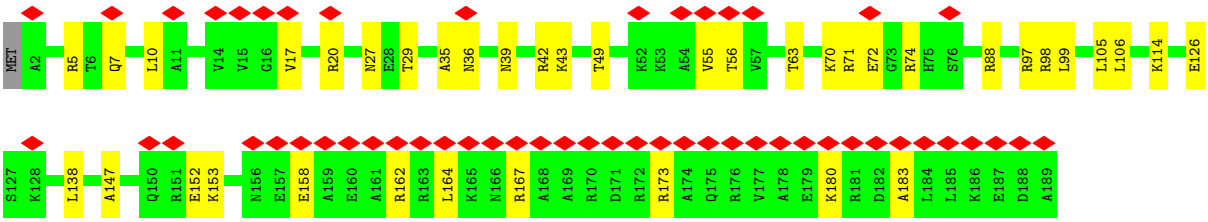
• Molecule 17: 60S RIBOSOMAL PROTEIN L18-B

Chain Q:



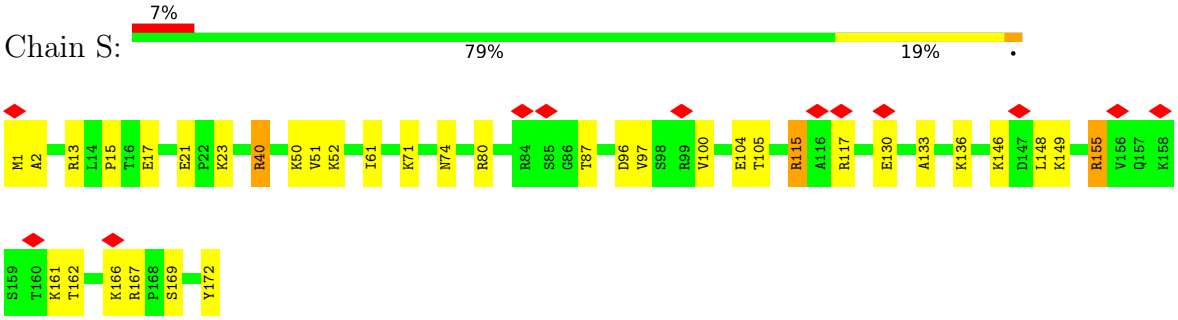
• Molecule 18: 60S RIBOSOMAL PROTEIN L19-B

Chain R:



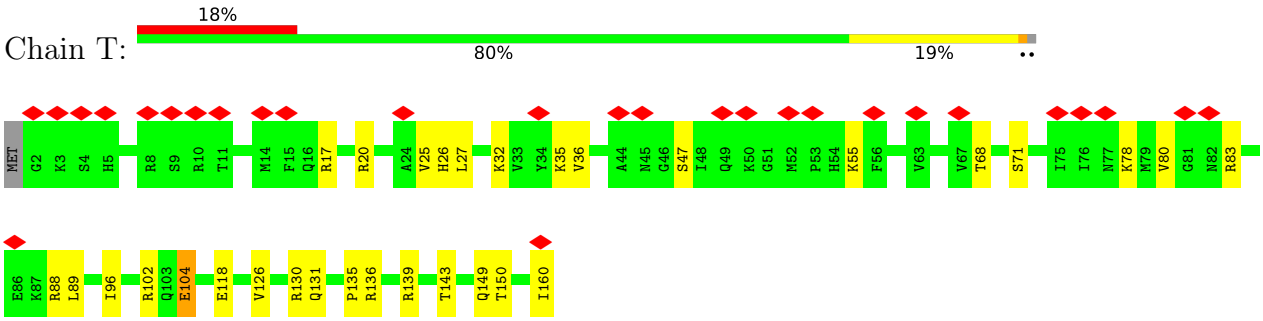
• Molecule 19: 60S RIBOSOMAL PROTEIN L20-A

Chain S:



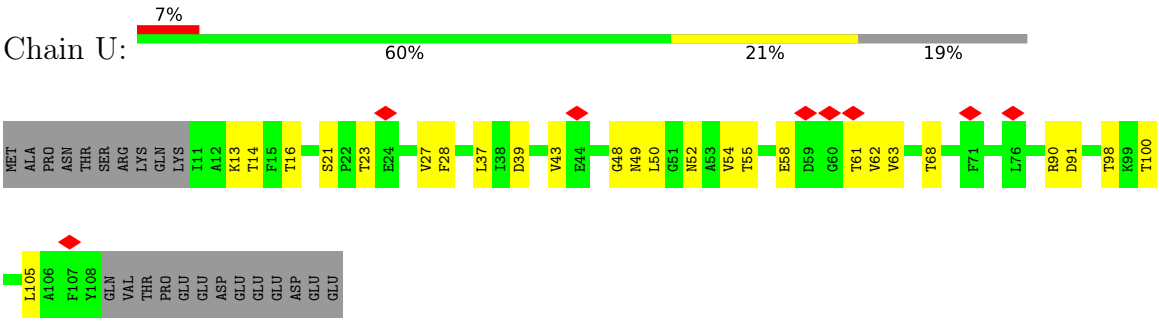
• Molecule 20: 60S RIBOSOMAL PROTEIN L21-A

Chain T:



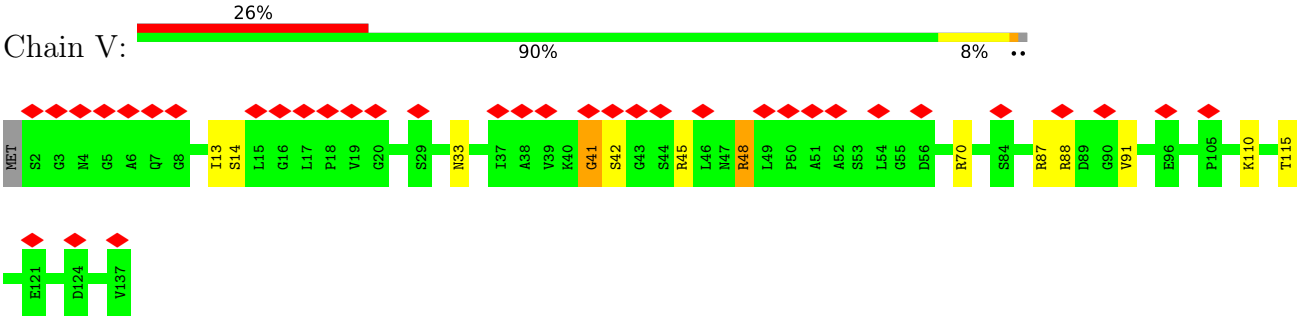
• Molecule 21: 60S RIBOSOMAL PROTEIN L22-A

Chain U:



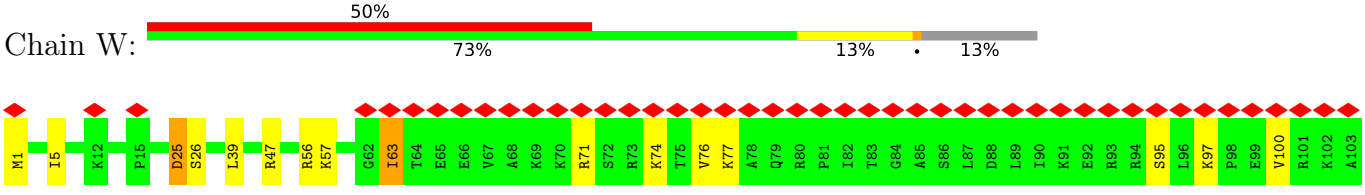
• Molecule 22: 60S RIBOSOMAL PROTEIN L23-A

Chain V:



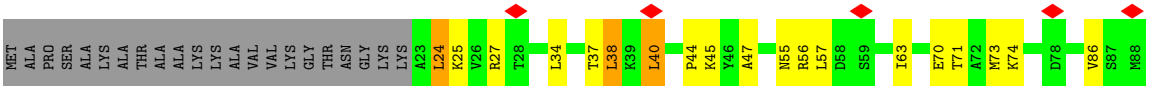
• Molecule 23: 60S RIBOSOMAL PROTEIN L24-A

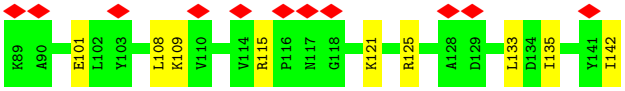
Chain W:



• Molecule 24: 60S RIBOSOMAL PROTEIN L25

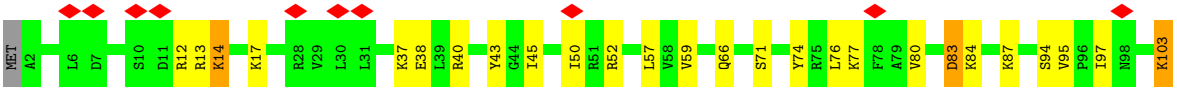
Chain X:





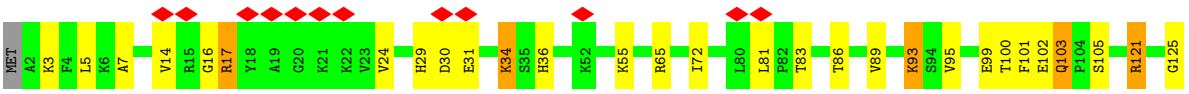
• Molecule 25: 60S RIBOSOMAL PROTEIN L26-A

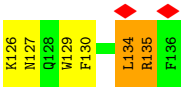
Chain Y:



• Molecule 26: 60S RIBOSOMAL PROTEIN L27-A

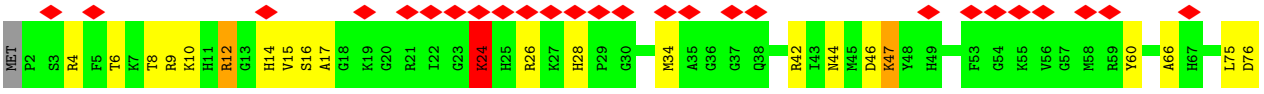
Chain Z:

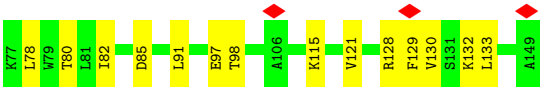




• Molecule 27: 60S RIBOSOMAL PROTEIN L28

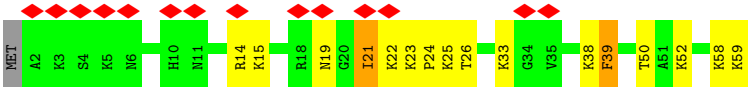
Chain a:





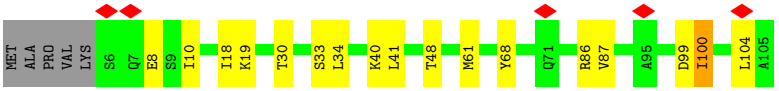
• Molecule 28: 60S RIBOSOMAL PROTEIN L29

Chain b:



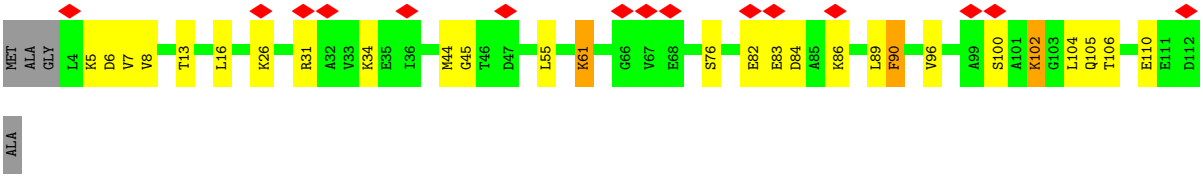
• Molecule 29: 60S RIBOSOMAL PROTEIN L32

Chain c:



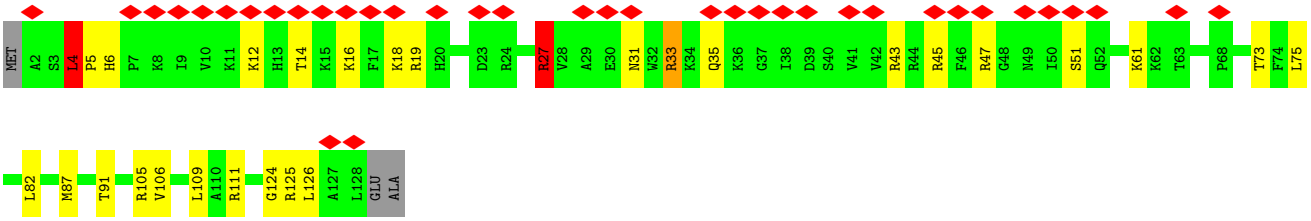
• Molecule 30: 60S RIBOSOMAL PROTEIN L31-A

Chain d:



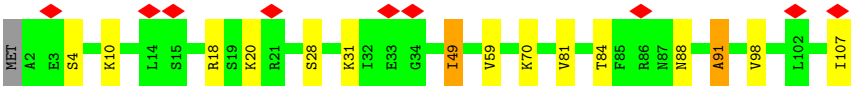
• Molecule 31: 60S RIBOSOMAL PROTEIN L30

Chain e:



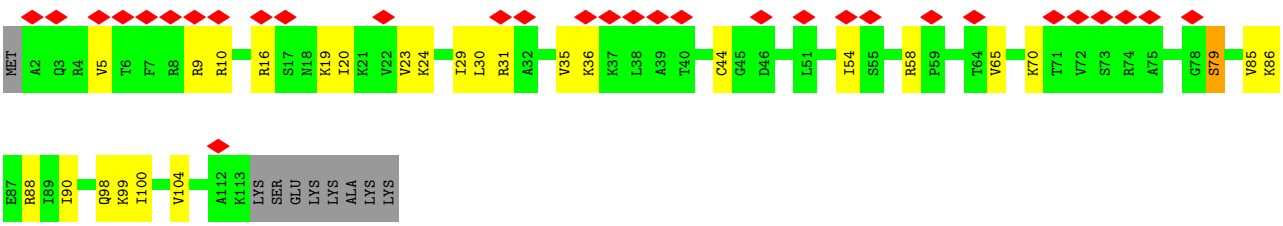
• Molecule 32: 60S RIBOSOMAL PROTEIN L33-A

Chain f:



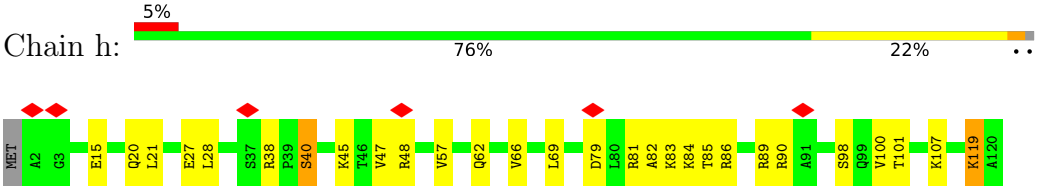
• Molecule 33: 60S RIBOSOMAL PROTEIN L34-A

Chain g:



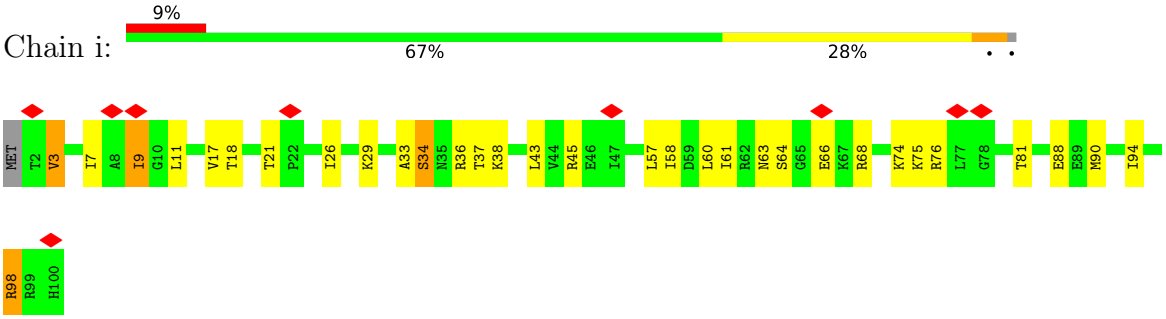
• Molecule 34: 60S RIBOSOMAL PROTEIN L35-A

Chain h:



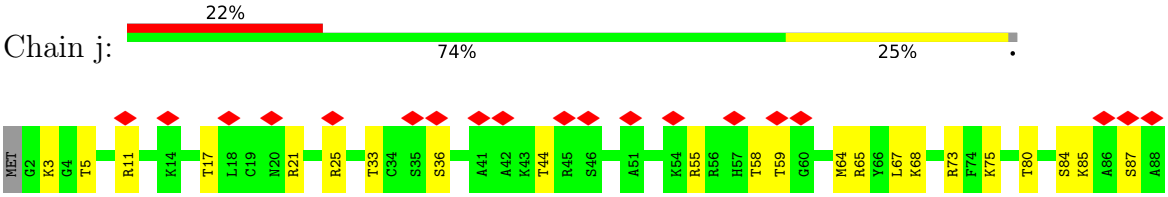
• Molecule 35: 60S RIBOSOMAL PROTEIN L36-A

Chain i:



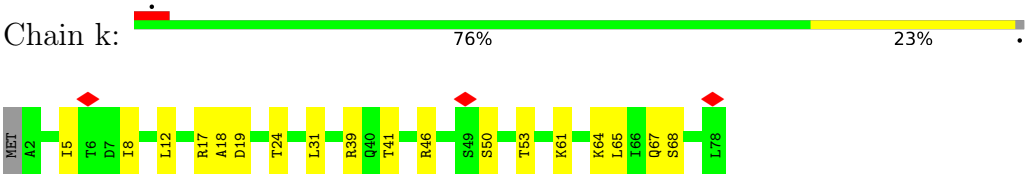
• Molecule 36: 60S RIBOSOMAL PROTEIN L37-A

Chain j:



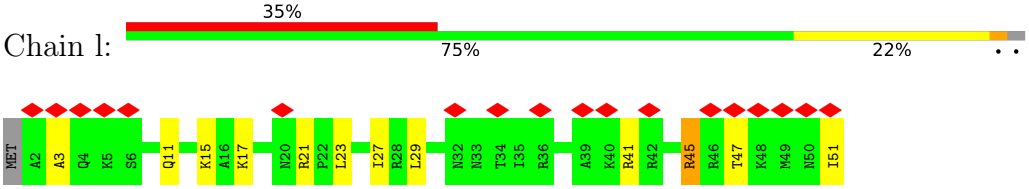
• Molecule 37: 60S RIBOSOMAL PROTEIN L38

Chain k:



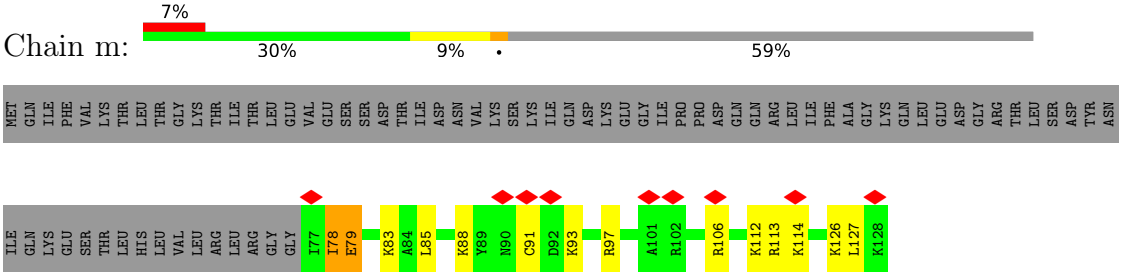
• Molecule 38: 60S RIBOSOMAL PROTEIN L39

Chain l:



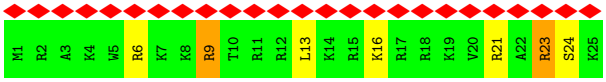
• Molecule 39: 60S RIBOSOMAL PROTEIN L40

Chain m:



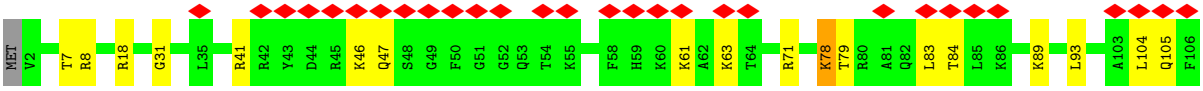
• Molecule 40: 60S RIBOSOMAL PROTEIN L41-A

Chain n:



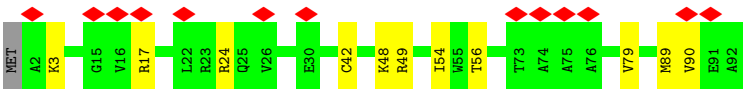
• Molecule 41: 60S RIBOSOMAL PROTEIN L42-A

Chain o:



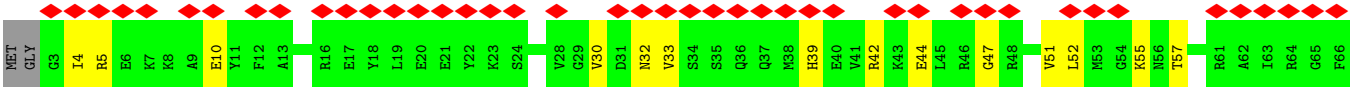
• Molecule 42: 60S RIBOSOMAL PROTEIN L43-A

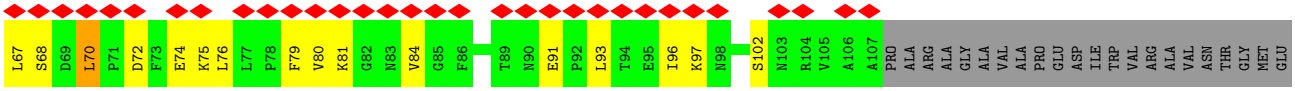
Chain p:

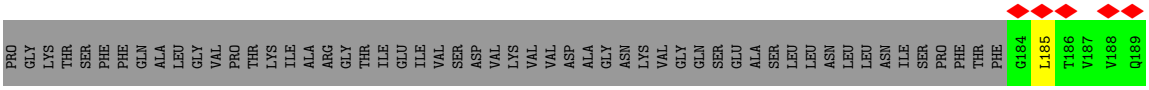


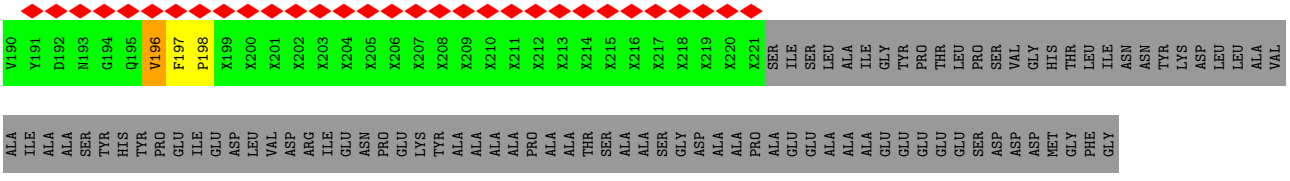
• Molecule 43: 60S ACIDIC RIBOSOMAL PROTEIN P0

Chain q:



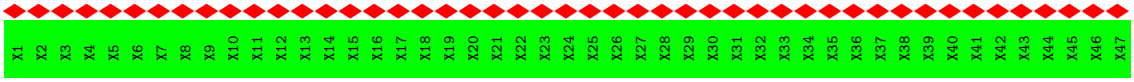






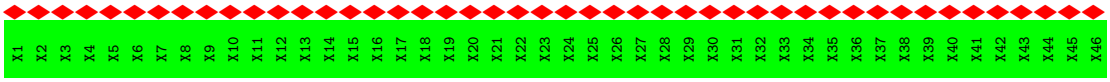
• Molecule 44: RIBOSOMAL PROTEIN P1 ALPHA

Chain r:



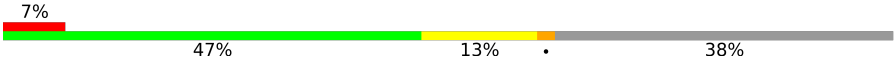
• Molecule 45: RIBOSOMAL PROTEIN P2 BETA

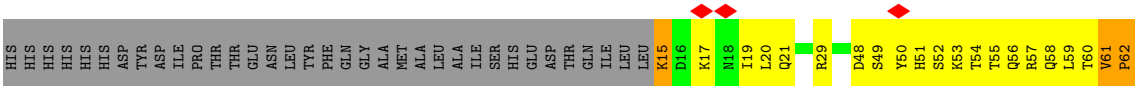
Chain s:

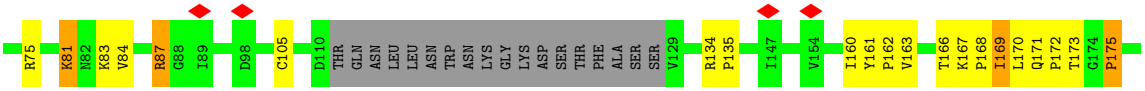


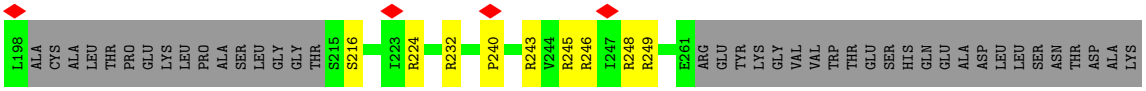
• Molecule 46: PROBABLE METALLOPROTEASE ARX1

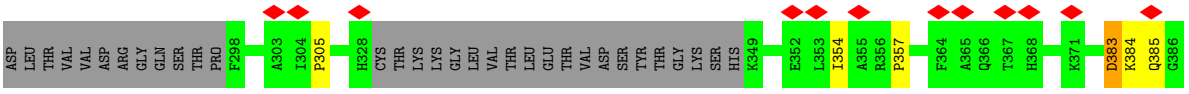
Chain t:

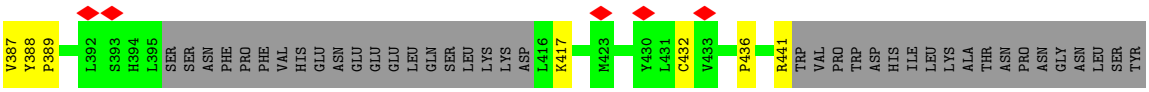


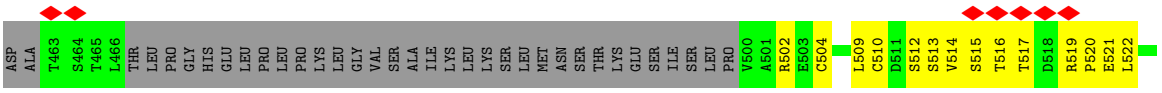


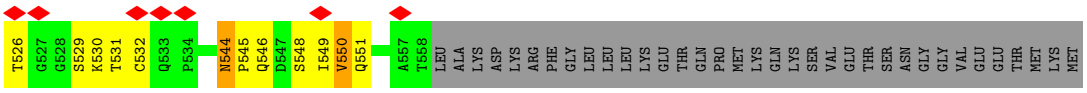






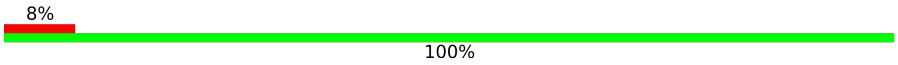






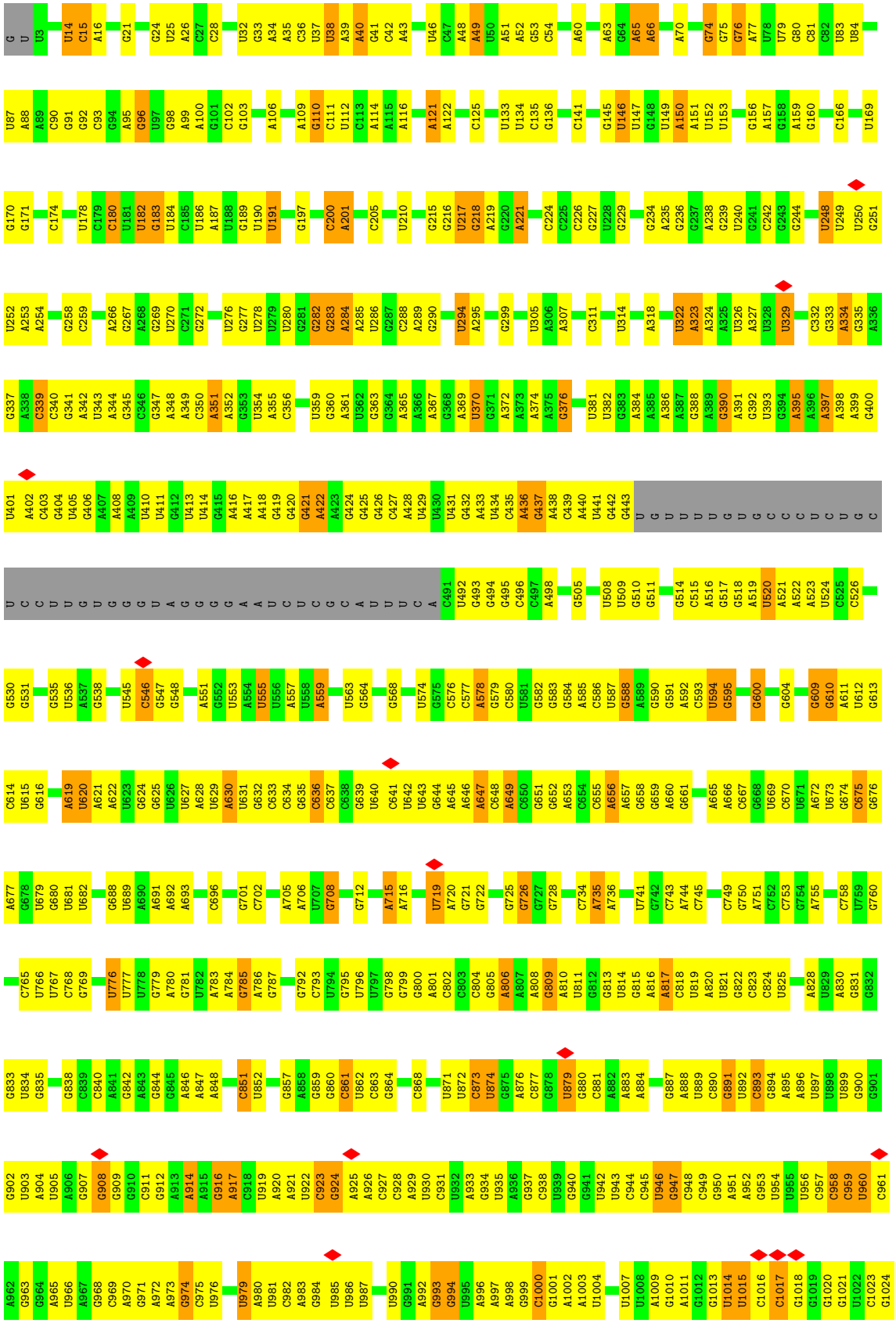
• Molecule 47: ES27 OF THE 25S RRNA

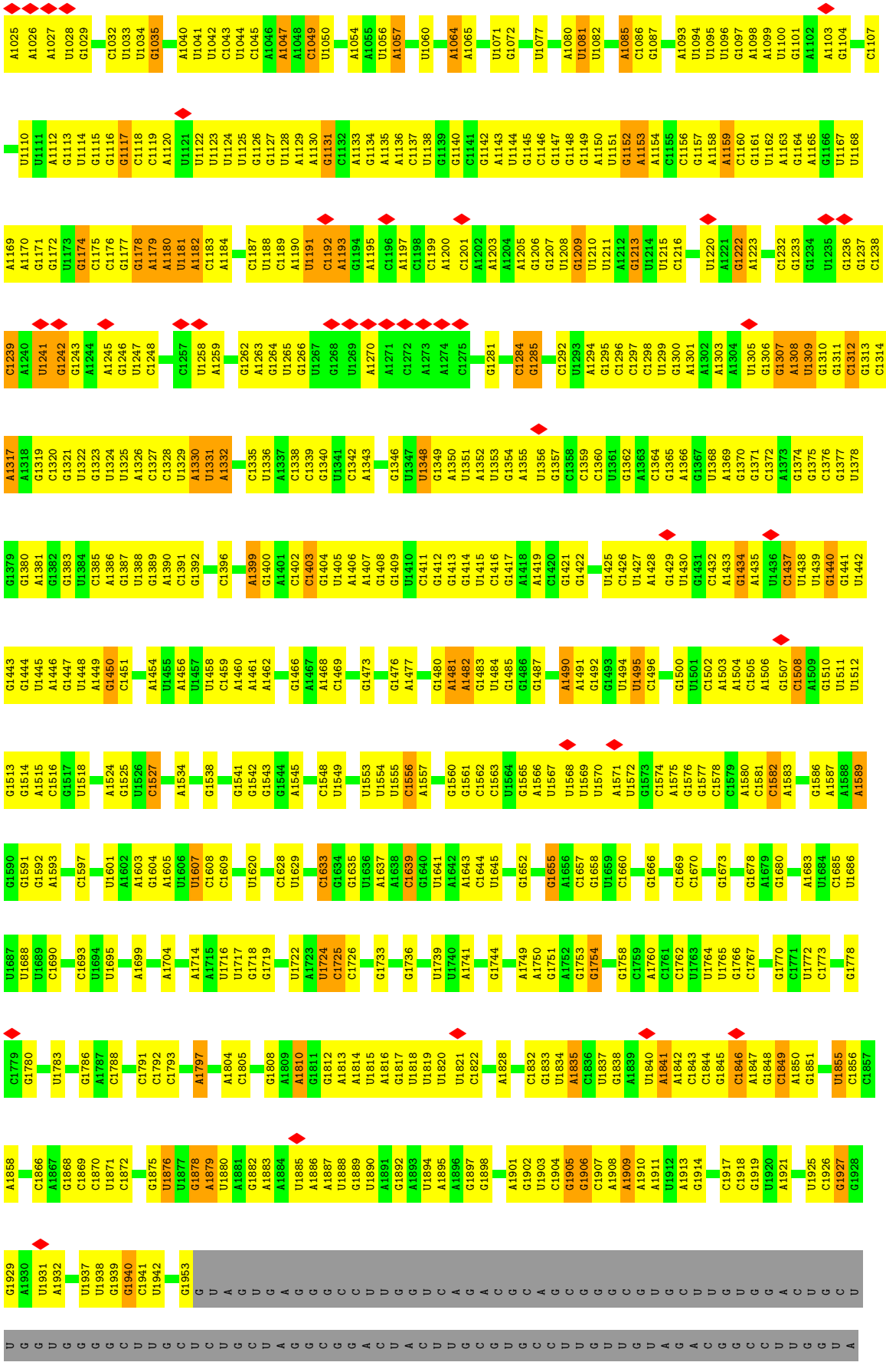
Chain 1:

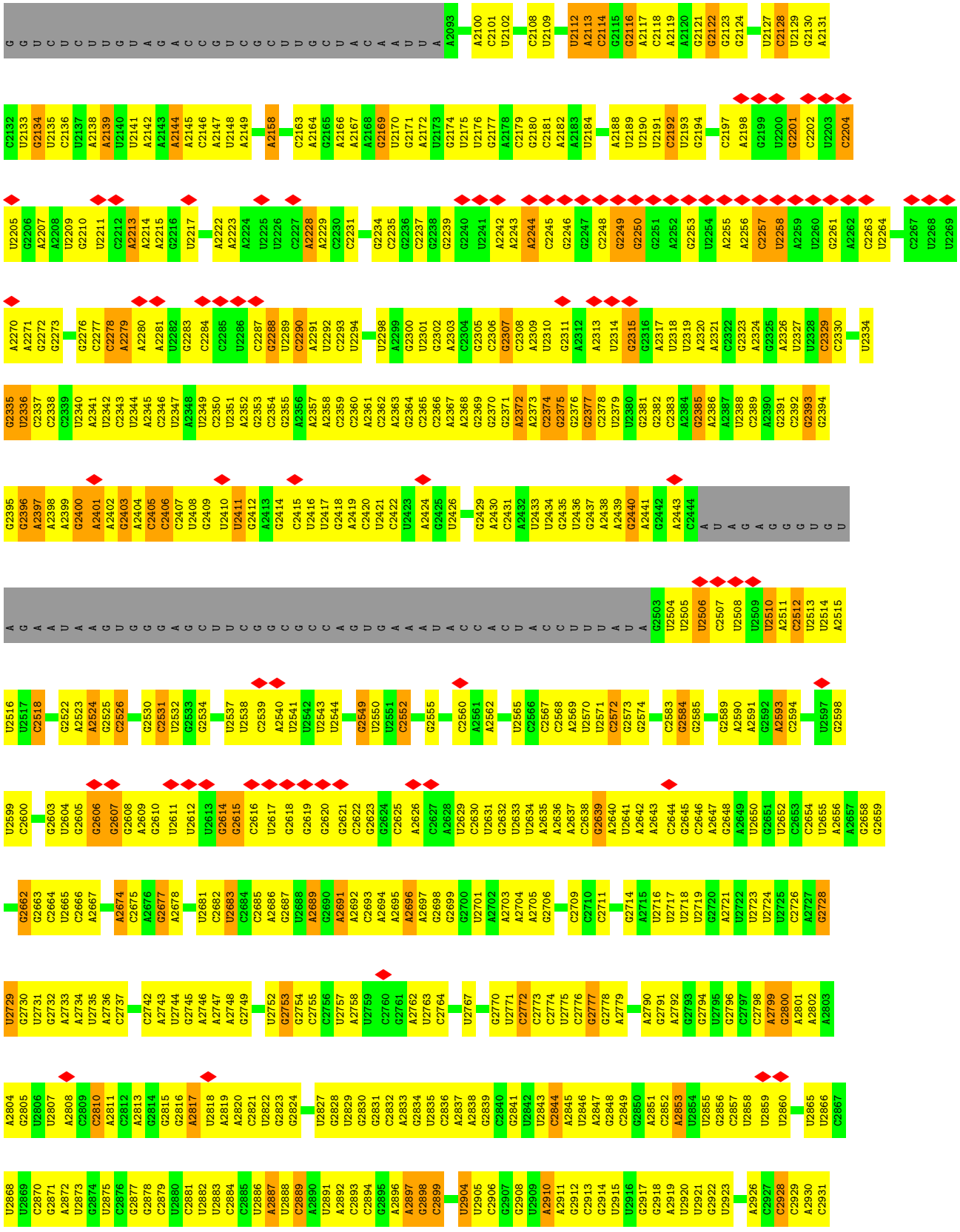


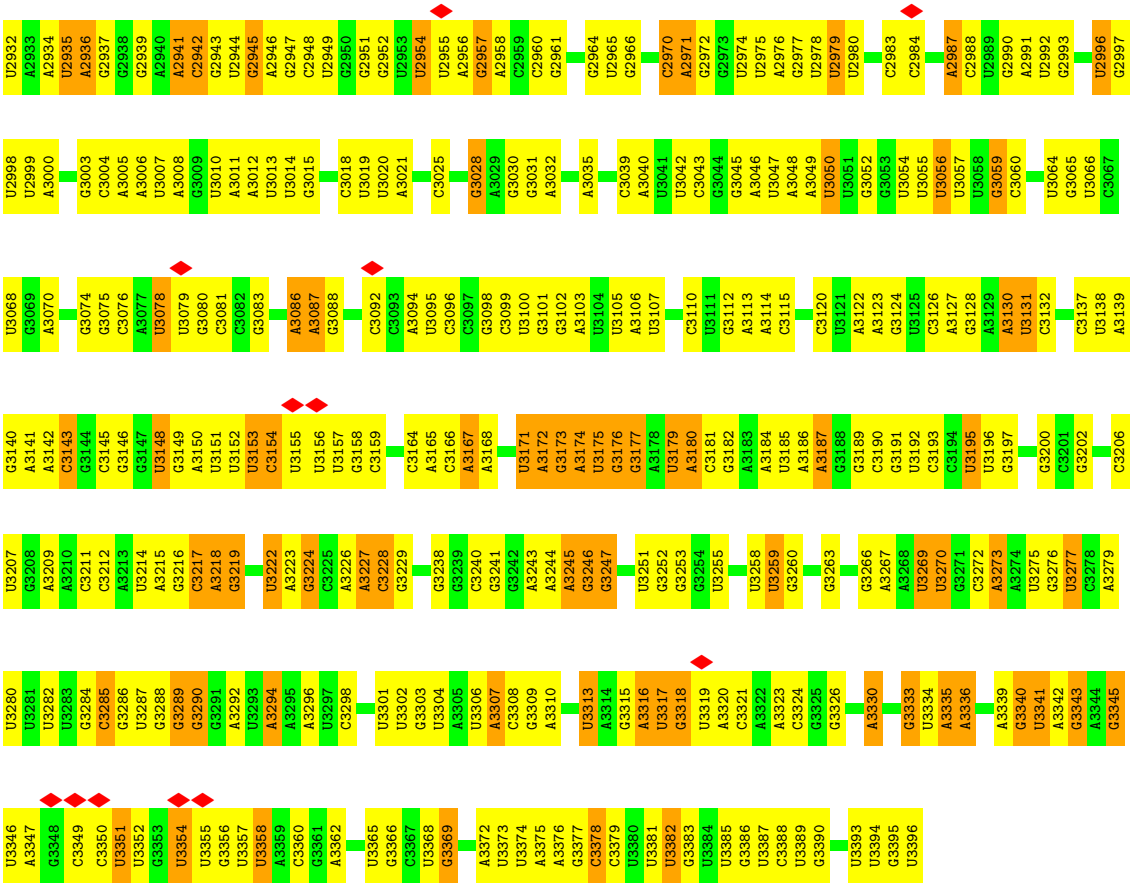
• Molecule 48: 25S RIBOSOMAL RNA

Chain 5:



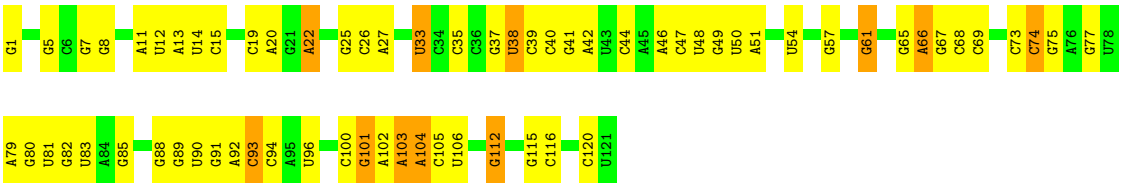






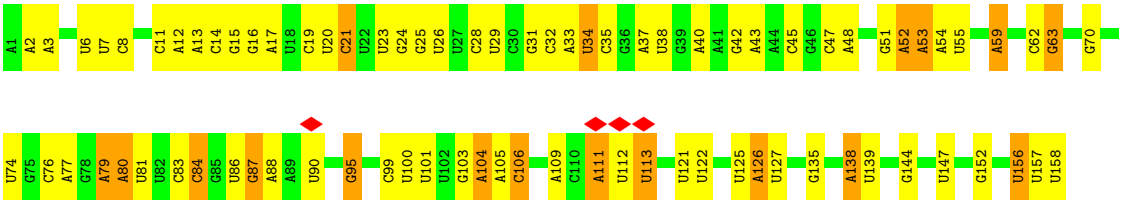
• Molecule 49: 5S RIBOSOMAL RNA

Chain 7:



• Molecule 50: 5.8S RIBOSOMAL RNA

Chain 8:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	84113	Depositor
Resolution determination method	Not provided	
CTF correction method	PER FRAME	Depositor
Microscope	FEI TECNAI 20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	20	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	83000	Depositor
Image detector	GATAN ULTRASCAN 4000 (4k x 4k)	Depositor
Maximum map value	425.313	Depositor
Minimum map value	-221.732	Depositor
Average map value	-13.190	Depositor
Map value standard deviation	29.801	Depositor
Recommended contour level	35.0	Depositor
Map size (Å)	405.44, 405.44, 405.44	wwPDB
Map dimensions	224, 224, 224	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.81, 1.81, 1.81	Depositor

5 Model quality

5.1 Standard geometry

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

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	A	0.87	1/1946 (0.1%)	1.05	4/2614 (0.2%)
2	B	1.02	4/3146 (0.1%)	1.11	14/4228 (0.3%)
3	C	0.87	0/2800	1.07	11/3790 (0.3%)
4	D	0.89	1/2408 (0.0%)	0.96	3/3248 (0.1%)
5	E	0.90	1/1269 (0.1%)	1.00	3/1705 (0.2%)
6	F	0.99	1/1828 (0.1%)	1.04	6/2461 (0.2%)
7	G	0.64	0/1795	0.81	1/2429 (0.0%)
8	H	0.97	2/1539 (0.1%)	1.01	1/2073 (0.0%)
9	I	0.92	1/1758 (0.1%)	1.08	11/2358 (0.5%)
10	J	0.81	1/1374 (0.1%)	0.99	3/1842 (0.2%)
12	L	0.82	0/1573	1.04	6/2113 (0.3%)
13	M	0.95	0/1074	1.01	4/1446 (0.3%)
14	N	0.83	0/1757	1.00	6/2354 (0.3%)
15	O	0.98	11/3159 (0.3%)	1.02	25/4205 (0.6%)
16	P	1.05	1/1250 (0.1%)	1.09	5/1683 (0.3%)
17	Q	0.89	1/1465 (0.1%)	1.12	8/1965 (0.4%)
18	R	0.78	1/1538 (0.1%)	0.87	3/2050 (0.1%)
19	S	1.02	0/1481	1.09	7/1990 (0.4%)
20	T	1.01	2/1300 (0.2%)	1.01	1/1743 (0.1%)
21	U	0.56	0/794	0.77	0/1076
22	V	0.98	0/1018	1.09	4/1369 (0.3%)
23	W	0.80	0/1052	0.90	1/1398 (0.1%)
24	X	0.72	0/974	0.86	0/1314
25	Y	0.79	1/1004 (0.1%)	0.98	2/1341 (0.1%)
26	Z	0.55	0/1118	0.83	2/1497 (0.1%)
27	a	0.95	2/1204 (0.2%)	1.14	9/1612 (0.6%)
28	b	0.91	0/473	1.14	1/629 (0.2%)
29	c	0.61	0/775	0.77	0/1040
30	d	0.94	2/897 (0.2%)	0.95	1/1205 (0.1%)
31	e	1.04	0/1041	1.27	12/1394 (0.9%)
32	f	1.12	1/868 (0.1%)	1.09	3/1168 (0.3%)
33	g	0.72	0/890	0.92	0/1189

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
34	h	0.67	0/974	0.79	0/1297
35	i	0.67	0/777	0.85	0/1033
36	j	0.87	0/696	1.04	3/923 (0.3%)
37	k	0.50	0/614	0.70	0/822
38	l	0.90	0/443	1.02	1/588 (0.2%)
39	m	1.08	2/423 (0.5%)	1.13	1/562 (0.2%)
40	n	0.90	0/234	1.15	1/300 (0.3%)
41	o	0.83	0/860	0.88	1/1136 (0.1%)
42	p	0.86	0/701	0.98	1/934 (0.1%)
43	q	0.54	0/977	0.75	1/1313 (0.1%)
46	t	5.64	18/2985 (0.6%)	4.15	194/4053 (4.8%)
48	5	1.46	609/75414 (0.8%)	1.88	3517/117575 (3.0%)
49	7	1.38	13/2883 (0.5%)	1.80	118/4491 (2.6%)
50	8	1.16	5/3746 (0.1%)	1.70	132/5832 (2.3%)
All	All	1.49	681/138295 (0.5%)	1.70	4127/203388 (2.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	2
3	C	0	1
4	D	0	1
5	E	0	1
6	F	0	2
15	O	0	2
19	S	0	1
22	V	0	1
25	Y	0	1
26	Z	0	1
27	a	0	3
28	b	0	1
46	t	0	6
48	5	0	1
All	All	0	24

The worst 5 of 681 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	t	168	PRO	N-CD	120.75	3.16	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	t	545	PRO	N-CD	120.48	3.16	1.47
46	t	162	PRO	N-CD	120.12	3.16	1.47
46	t	172	PRO	N-CD	118.10	3.13	1.47
46	t	520	PRO	N-CD	117.23	3.12	1.47

The worst 5 of 4127 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	t	81	LYS	O-C-N	-73.85	4.54	122.70
46	t	15	LYS	O-C-N	-50.53	41.85	122.70
46	t	544	ASN	O-C-N	-46.67	32.42	121.10
46	t	162	PRO	N-CA-CB	37.84	148.71	103.30
46	t	168	PRO	N-CA-CB	37.79	148.65	103.30

There are no chirality outliers.

5 of 24 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	143	GLU	Peptide
1	A	211	HIS	Peptide
3	C	91	GLY	Peptide
4	D	271	LYS	Peptide
5	E	129	GLU	Peptide

5.2 Too-close contacts (i)

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

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	250/254 (98%)	213 (85%)	30 (12%)	7 (3%)	5 30
2	B	384/387 (99%)	341 (89%)	34 (9%)	9 (2%)	6 34
3	C	359/362 (99%)	306 (85%)	32 (9%)	21 (6%)	1 18
4	D	292/297 (98%)	267 (91%)	19 (6%)	6 (2%)	7 36
5	E	153/176 (87%)	134 (88%)	15 (10%)	4 (3%)	5 31
6	F	221/244 (91%)	201 (91%)	15 (7%)	5 (2%)	6 34
7	G	229/256 (90%)	181 (79%)	27 (12%)	21 (9%)	1 11
8	H	189/191 (99%)	172 (91%)	13 (7%)	4 (2%)	7 36
9	I	209/221 (95%)	175 (84%)	22 (10%)	12 (6%)	1 18
10	J	167/174 (96%)	135 (81%)	19 (11%)	13 (8%)	1 13
12	L	192/199 (96%)	161 (84%)	20 (10%)	11 (6%)	1 18
13	M	135/138 (98%)	124 (92%)	10 (7%)	1 (1%)	22 63
14	N	201/204 (98%)	182 (90%)	13 (6%)	6 (3%)	4 28
15	O	352/219 (161%)	324 (92%)	18 (5%)	10 (3%)	5 30
16	P	153/184 (83%)	142 (93%)	9 (6%)	2 (1%)	12 48
17	Q	183/186 (98%)	168 (92%)	9 (5%)	6 (3%)	4 26
18	R	186/189 (98%)	167 (90%)	16 (9%)	3 (2%)	9 44
19	S	170/172 (99%)	163 (96%)	6 (4%)	1 (1%)	25 66
20	T	157/160 (98%)	146 (93%)	9 (6%)	2 (1%)	12 48
21	U	96/121 (79%)	80 (83%)	13 (14%)	3 (3%)	4 27
22	V	134/137 (98%)	124 (92%)	8 (6%)	2 (2%)	10 46
23	W	133/155 (86%)	106 (80%)	19 (14%)	8 (6%)	1 17
24	X	118/142 (83%)	103 (87%)	7 (6%)	8 (7%)	1 15
25	Y	124/127 (98%)	107 (86%)	12 (10%)	5 (4%)	3 23
26	Z	133/136 (98%)	107 (80%)	13 (10%)	13 (10%)	0 10
27	a	146/149 (98%)	123 (84%)	18 (12%)	5 (3%)	3 26
28	b	56/59 (95%)	44 (79%)	7 (12%)	5 (9%)	1 11
29	c	98/105 (93%)	87 (89%)	8 (8%)	3 (3%)	4 27
30	d	107/113 (95%)	88 (82%)	13 (12%)	6 (6%)	2 19
31	e	125/130 (96%)	109 (87%)	10 (8%)	6 (5%)	2 21
32	f	104/107 (97%)	96 (92%)	5 (5%)	3 (3%)	4 29
33	g	110/121 (91%)	93 (84%)	13 (12%)	4 (4%)	3 25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
34	h	117/120 (98%)	99 (85%)	14 (12%)	4 (3%)	3 26
35	i	97/100 (97%)	77 (79%)	13 (13%)	7 (7%)	1 14
36	j	85/88 (97%)	75 (88%)	8 (9%)	2 (2%)	6 33
37	k	75/78 (96%)	61 (81%)	10 (13%)	4 (5%)	2 19
38	l	48/51 (94%)	41 (85%)	6 (12%)	1 (2%)	7 36
39	m	50/128 (39%)	48 (96%)	1 (2%)	1 (2%)	7 38
40	n	23/25 (92%)	22 (96%)	0	1 (4%)	2 22
41	o	103/106 (97%)	90 (87%)	11 (11%)	2 (2%)	8 38
42	p	89/92 (97%)	81 (91%)	8 (9%)	0	100 100
43	q	117/312 (38%)	93 (80%)	18 (15%)	6 (5%)	2 19
46	t	376/614 (61%)	354 (94%)	14 (4%)	8 (2%)	7 36
All	All	6846/7529 (91%)	6010 (88%)	585 (8%)	251 (4%)	6 24

5 of 251 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	96	LEU
2	B	129	ALA
2	B	140	ASP
2	B	347	SER
3	C	14	GLU

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	192/196 (98%)	154 (80%)	38 (20%)	1 8
2	B	321/323 (99%)	251 (78%)	70 (22%)	1 6
3	C	288/289 (100%)	222 (77%)	66 (23%)	1 4
4	D	243/245 (99%)	196 (81%)	47 (19%)	1 8
5	E	135/153 (88%)	115 (85%)	20 (15%)	3 15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
6	F	187/205 (91%)	158 (84%)	29 (16%)	2 14
7	G	177/208 (85%)	138 (78%)	39 (22%)	1 5
8	H	171/171 (100%)	132 (77%)	39 (23%)	1 5
9	I	179/187 (96%)	142 (79%)	37 (21%)	1 6
10	J	147/150 (98%)	114 (78%)	33 (22%)	1 5
12	L	154/159 (97%)	124 (80%)	30 (20%)	1 8
13	M	108/109 (99%)	84 (78%)	24 (22%)	1 6
14	N	175/176 (99%)	143 (82%)	32 (18%)	1 10
15	O	323/179 (180%)	267 (83%)	56 (17%)	2 11
16	P	125/146 (86%)	103 (82%)	22 (18%)	2 11
17	Q	150/151 (99%)	123 (82%)	27 (18%)	1 10
18	R	153/154 (99%)	121 (79%)	32 (21%)	1 6
19	S	156/156 (100%)	123 (79%)	33 (21%)	1 6
20	T	136/137 (99%)	109 (80%)	27 (20%)	1 7
21	U	85/107 (79%)	62 (73%)	23 (27%)	0 3
22	V	104/105 (99%)	96 (92%)	8 (8%)	13 37
23	W	100/129 (78%)	85 (85%)	15 (15%)	3 15
24	X	104/118 (88%)	81 (78%)	23 (22%)	1 5
25	Y	109/110 (99%)	85 (78%)	24 (22%)	1 5
26	Z	115/116 (99%)	89 (77%)	26 (23%)	1 5
27	a	118/119 (99%)	95 (80%)	23 (20%)	1 8
28	b	46/47 (98%)	35 (76%)	11 (24%)	0 4
29	c	84/88 (96%)	69 (82%)	15 (18%)	2 10
30	d	94/97 (97%)	73 (78%)	21 (22%)	1 5
31	e	109/111 (98%)	89 (82%)	20 (18%)	1 10
32	f	90/91 (99%)	79 (88%)	11 (12%)	5 20
33	g	95/103 (92%)	71 (75%)	24 (25%)	0 3
34	h	103/105 (98%)	77 (75%)	26 (25%)	0 3
35	i	80/82 (98%)	51 (64%)	29 (36%)	0 1
36	j	70/71 (99%)	53 (76%)	17 (24%)	0 4
37	k	67/69 (97%)	53 (79%)	14 (21%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
38	l	45/46 (98%)	34 (76%)	11 (24%)	0 4
39	m	47/116 (40%)	34 (72%)	13 (28%)	0 3
40	n	23/23 (100%)	16 (70%)	7 (30%)	0 2
41	o	90/91 (99%)	74 (82%)	16 (18%)	2 10
42	p	71/72 (99%)	61 (86%)	10 (14%)	3 16
43	q	105/233 (45%)	76 (72%)	29 (28%)	0 3
46	t	332/539 (62%)	330 (99%)	2 (1%)	86 92
All	All	5806/6282 (92%)	4687 (81%)	1119 (19%)	4 8

5 of 1119 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
33	g	23	VAL
34	h	47	VAL
33	g	20	ILE
38	l	47	THR
10	J	16	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 31 such sidechains are listed below:

Mol	Chain	Res	Type
16	P	55	GLN
46	t	82	ASN
20	T	49	GLN
46	t	394	HIS
34	h	20	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
47	1	0/114	-	-
48	5	3145/3396 (92%)	731 (23%)	129 (4%)
49	7	120/121 (99%)	18 (15%)	0
50	8	157/158 (99%)	32 (20%)	3 (1%)
All	All	3422/3789 (90%)	781 (22%)	132 (3%)

5 of 781 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
48	5	14	U
48	5	15	C
48	5	16	A
48	5	26	A
48	5	38	U

5 of 132 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
48	5	3155	U
48	5	3228	C
50	8	126	A
48	5	1284	C
48	5	1241	U

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 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
11	K	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	K	52:UNK	C	54:UNK	N	3.86
1	K	23:UNK	C	28:UNK	N	3.48

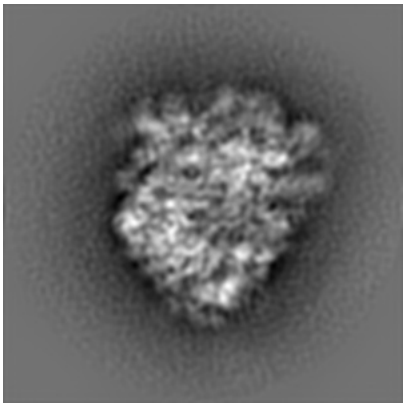
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-2169. These allow visual inspection of the internal detail of the map and identification of artifacts.

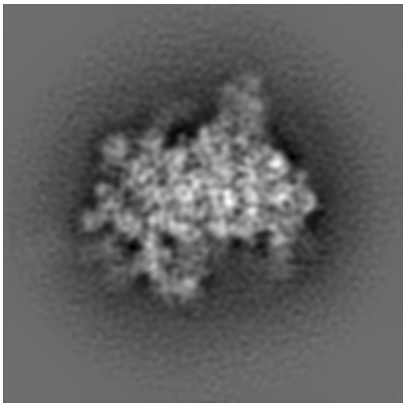
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

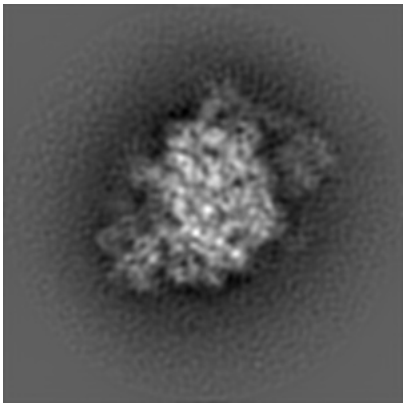
6.1.1 Primary map



X



Y

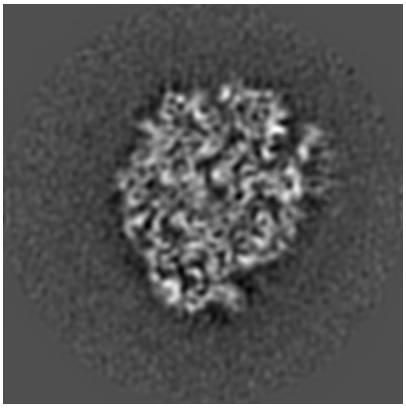


Z

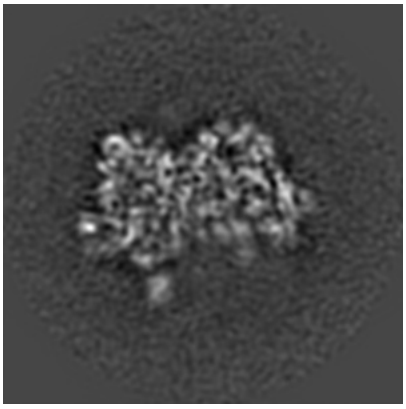
The images above show the map projected in three orthogonal directions.

6.2 Central slices

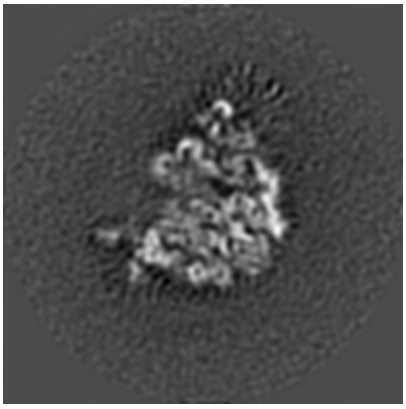
6.2.1 Primary map



X Index: 112



Y Index: 112

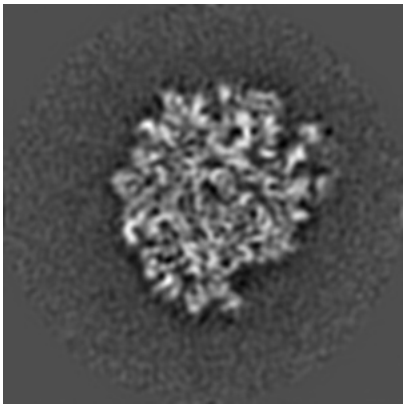


Z Index: 112

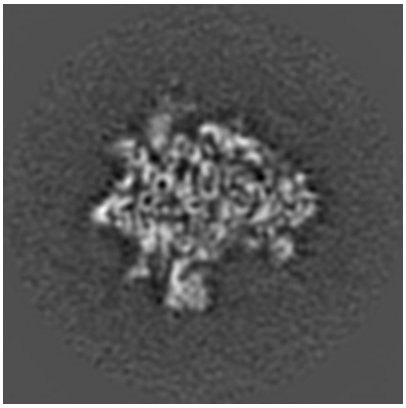
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

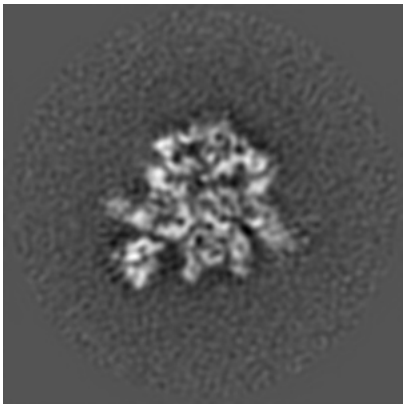
6.3.1 Primary map



X Index: 115



Y Index: 95



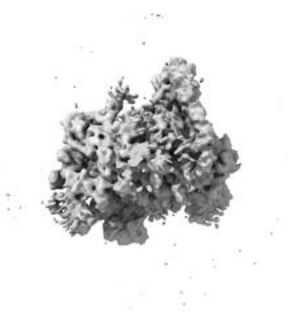
Z Index: 84

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

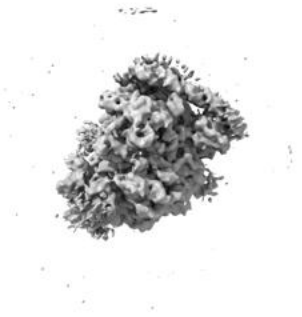
6.4 Orthogonal surface views (i)

6.4.1 Primary map

X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 35.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

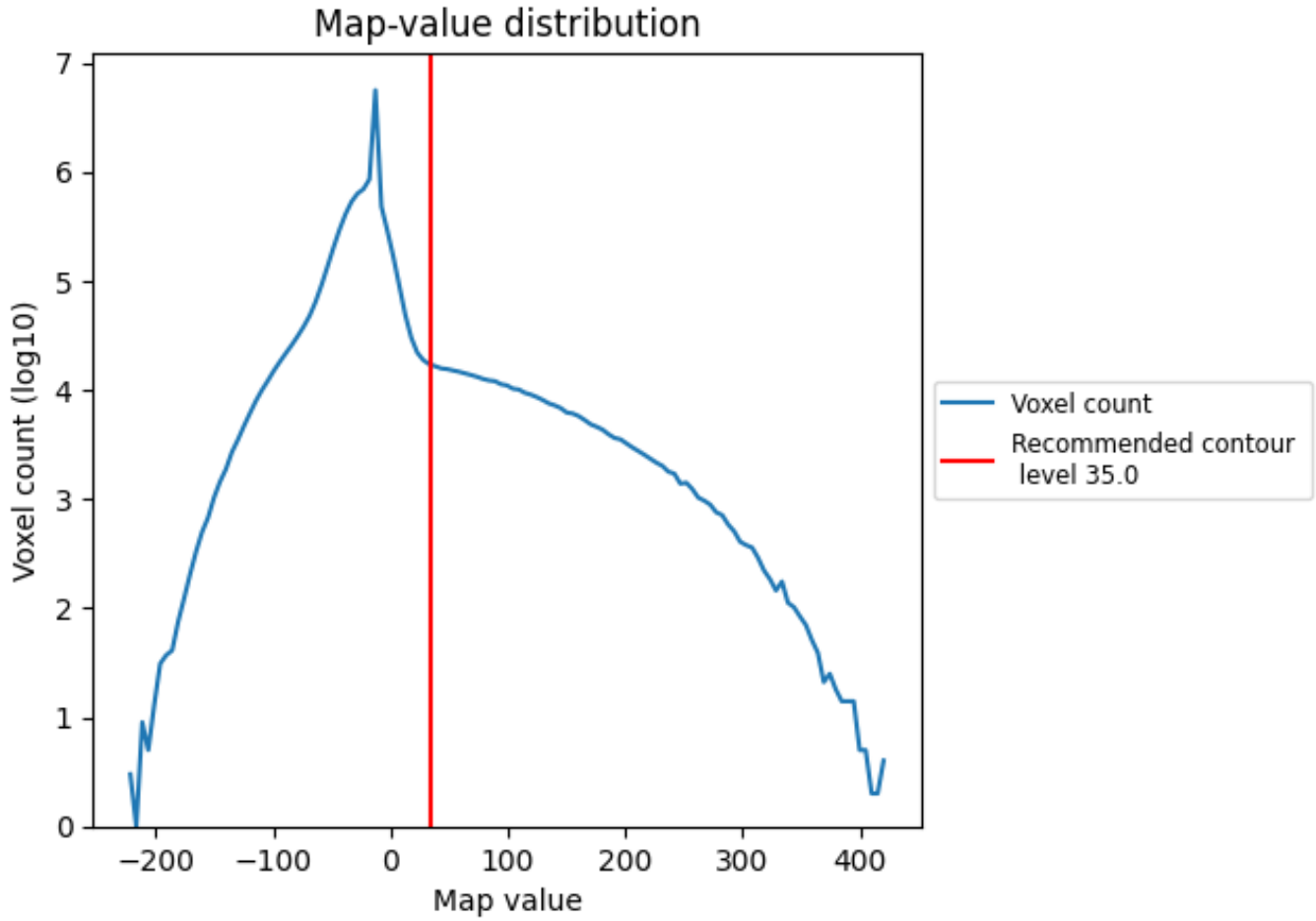
6.5 Mask visualisation (i)

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

7 Map analysis

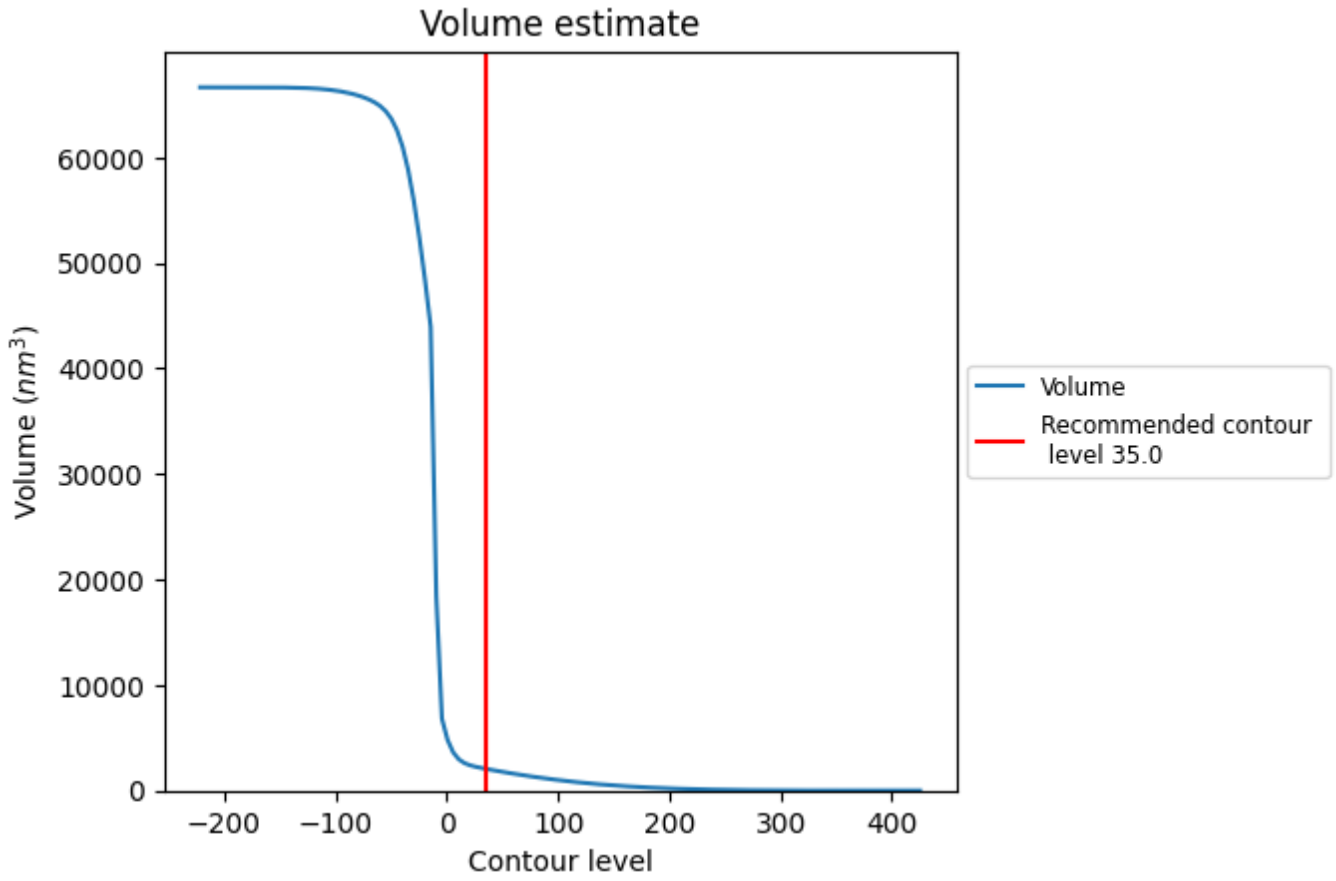
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

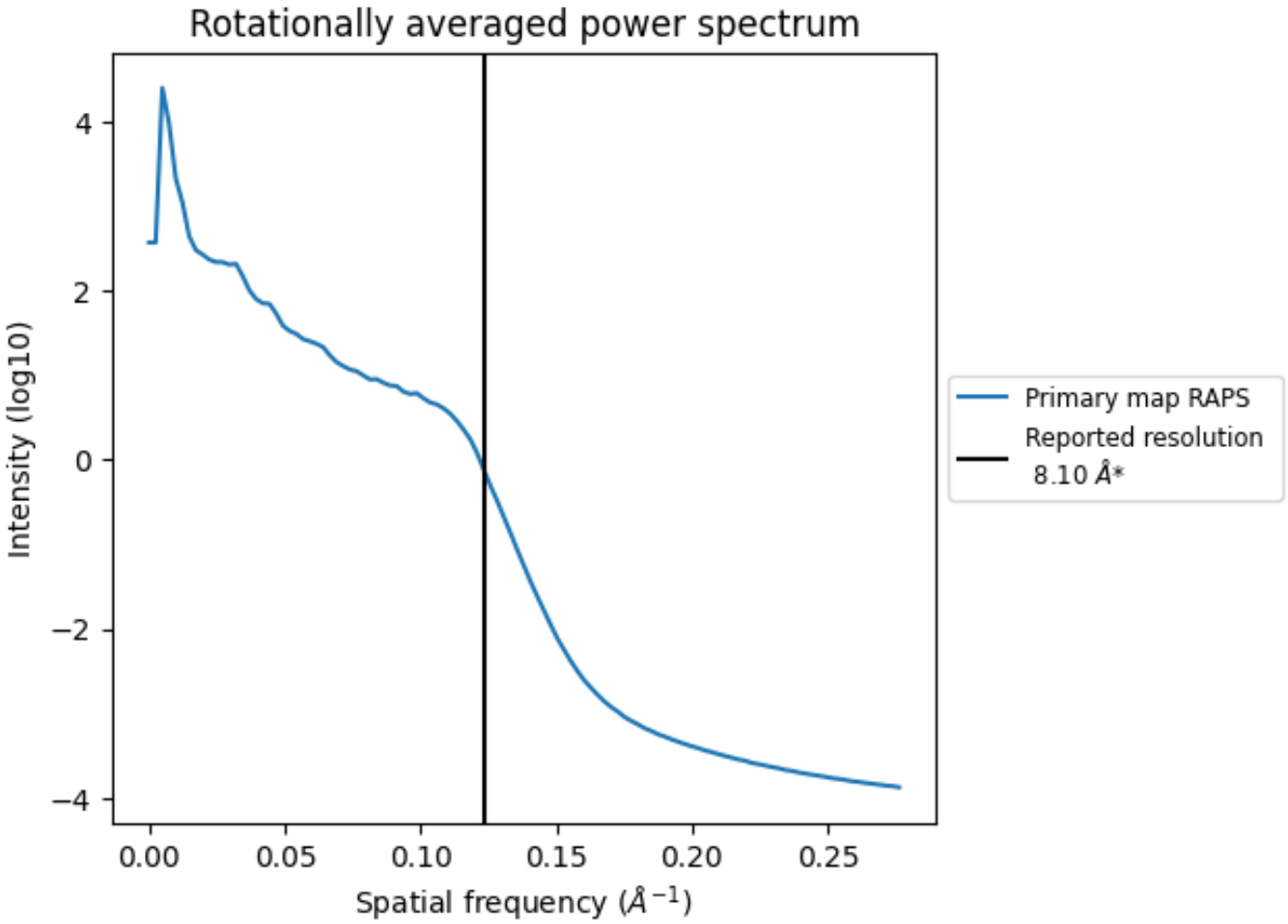
7.2 Volume estimate



The volume at the recommended contour level is 2057 nm^3; this corresponds to an approximate mass of 1858 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 0.123 Å^{-1}

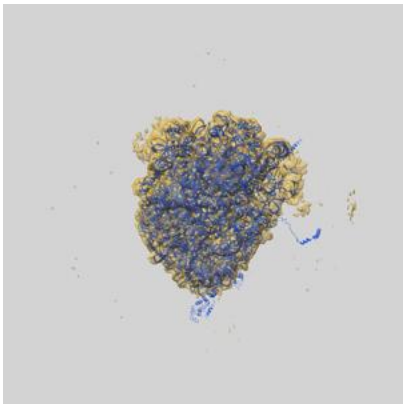
8 Fourier-Shell correlation (i)

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

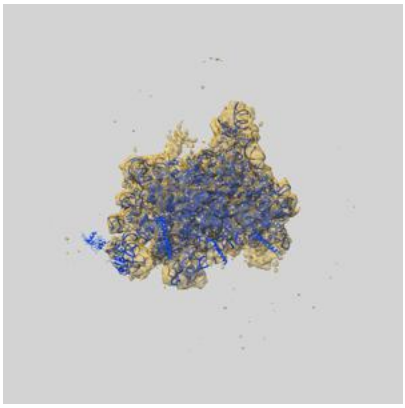
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-2169 and PDB model 4V8T. Per-residue inclusion information can be found in section 3 on page 14.

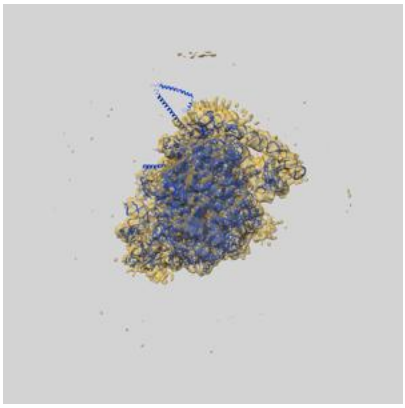
9.1 Map-model overlay



X



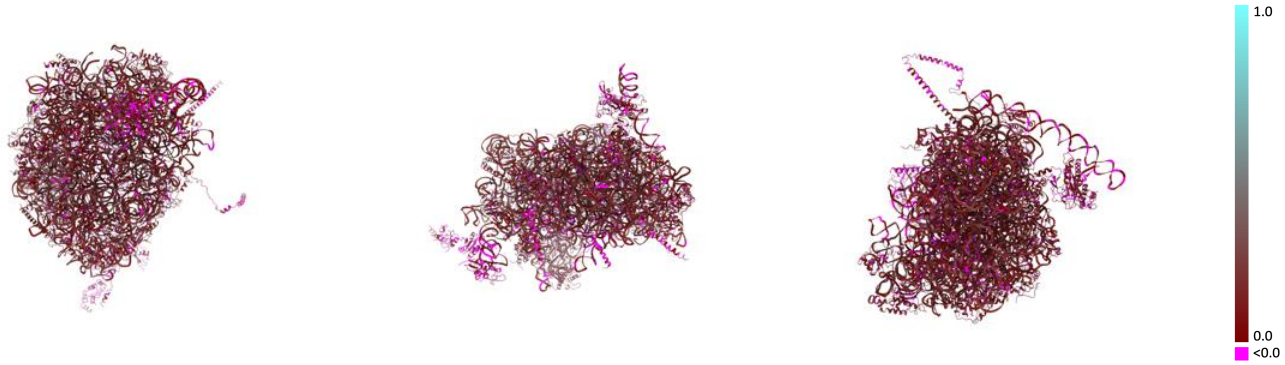
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 35.0 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.

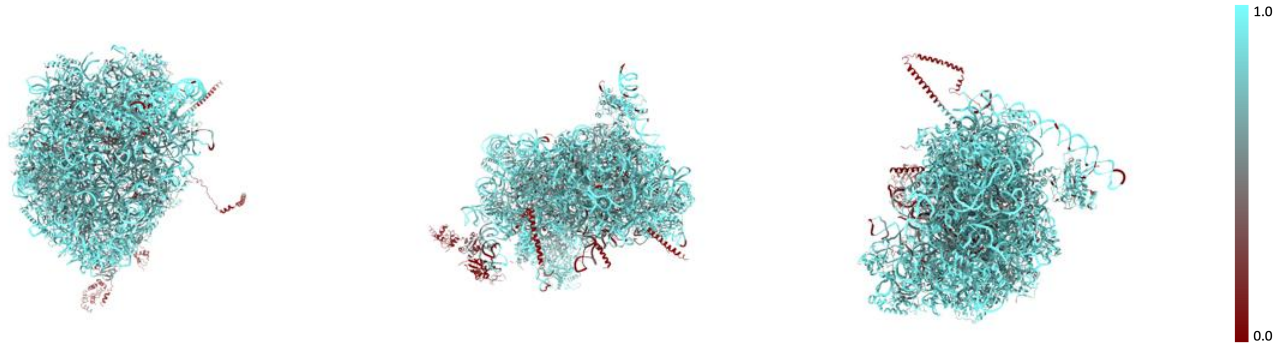
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

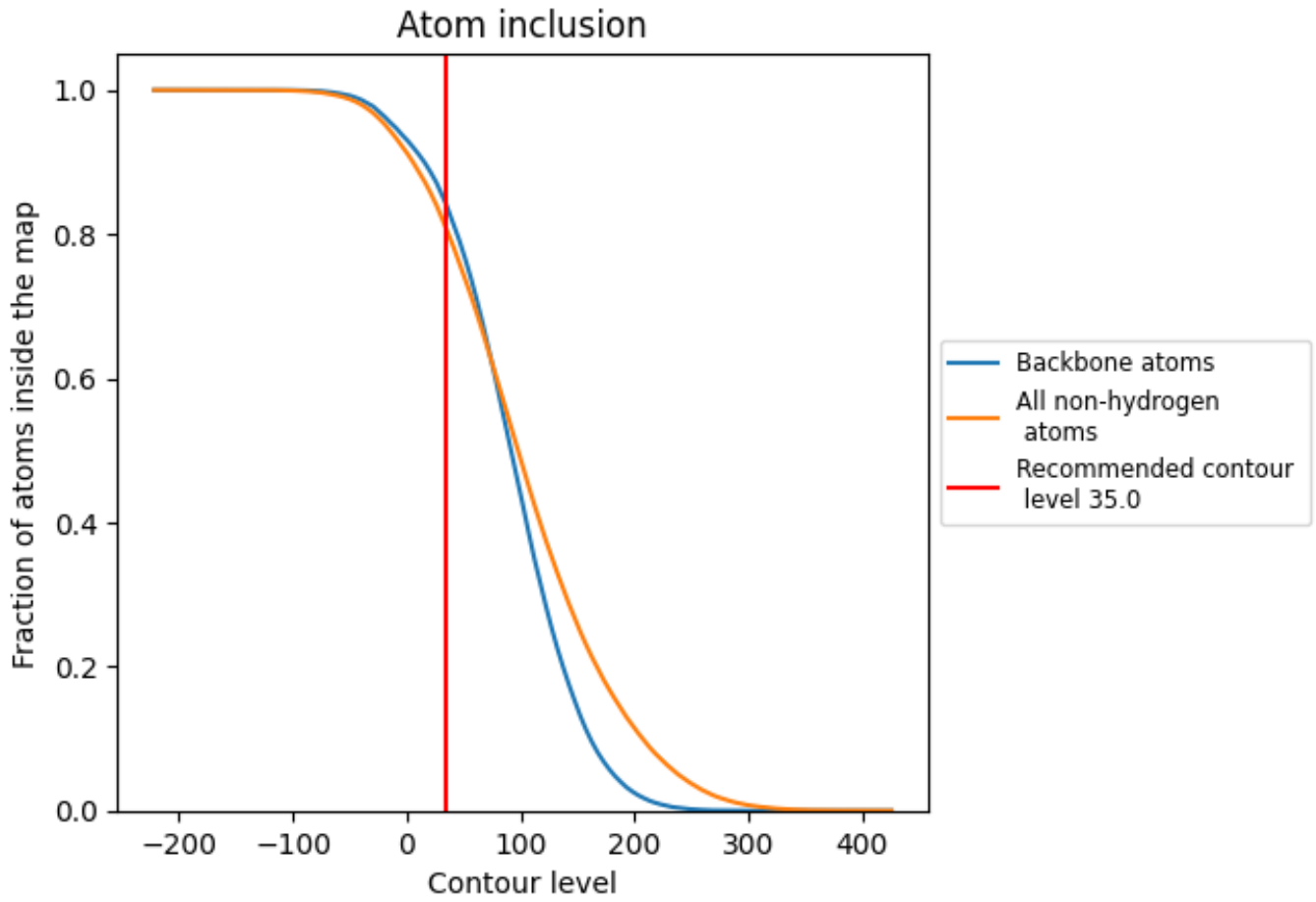
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (35.0).

9.4 Atom inclusion (i)



At the recommended contour level, 84% 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 (35.0) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8060	0.1350
1	0.9211	0.0730
5	0.8853	0.1540
7	0.9701	0.1670
8	0.9198	0.1690
A	0.5421	0.0710
B	0.7003	0.1060
C	0.7171	0.1120
D	0.8105	0.1160
E	0.8077	0.1310
F	0.7416	0.1380
G	0.8229	0.1300
H	0.8121	0.1290
I	0.6824	0.0940
J	0.8517	0.1170
K	0.1307	0.0320
L	0.7828	0.1380
M	0.8547	0.1500
N	0.5559	0.0810
O	0.7695	0.1420
P	0.6700	0.1020
Q	0.6932	0.1130
R	0.5716	0.1050
S	0.7618	0.1180
T	0.7097	0.1150
U	0.7657	0.1080
V	0.6609	0.1040
W	0.3992	0.0710
X	0.7097	0.1280
Y	0.7650	0.1130
Z	0.7740	0.1330
a	0.6725	0.1030
b	0.6128	0.1190
c	0.7960	0.1400
d	0.7211	0.1200

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Chain	Atom inclusion	Q-score
e	0.6097	0.1120
f	0.7345	0.1050
g	0.5899	0.0950
h	0.7945	0.1410
i	0.7567	0.1360
j	0.6723	0.0960
k	0.8336	0.1360
l	0.5301	0.1020
m	0.7153	0.1130
n	0.0000	-0.0490
o	0.6248	0.0810
p	0.7701	0.1110
q	0.2199	0.0110
r	0.0000	0.0090
s	0.0000	0.0180
t	0.8062	0.0840