wwPDB EM Validation Summary Report ⓘ

Jul 7, 2024 – 02:23 pm BST

PDB ID	:	7OW7
EMDB ID	:	EMD-13094
Title	:	EIF6-bound large subunit of the human ribosome
Authors	:	Faille, A.; Warren, A.J.
Deposited on	:	2021-06-16
Resolution	:	2.40 Å(reported)

This is a wwPDB EM Validation Summary Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references ⓘ) were used in the production of this report:

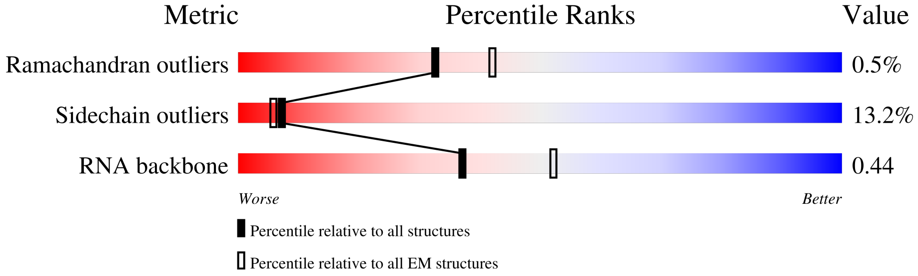
EMDB validation analysis	:	0.0.1.dev92
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

1 Overall quality at a glance ⓘ

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

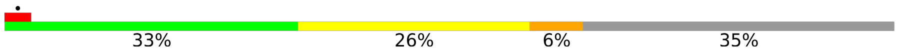
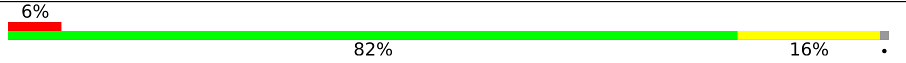
The reported resolution of this entry is 2.40 Å.

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	5070	
2	B	121	
3	C	157	
4	D	257	
5	E	430	
6	F	427	
7	G	297	
8	H	288	

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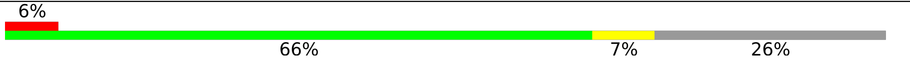
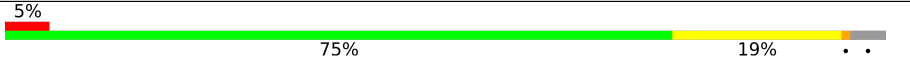
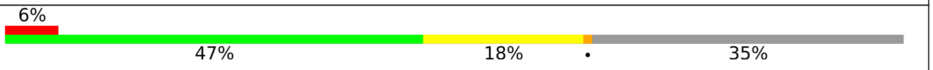
Mol	Chain	Length	Quality of chain
9	m	248	 75% 15% 9%
10	n	266	 • 68% 14% • 16%
11	o	190	 76% 23% •
12	p	214	 6% 66% 7% 26%
13	q	178	 5% 75% 19% • •
14	r	211	 • 80% 17% • •
15	s	220	 • 52% 10% • 37%
16	t	204	 82% 17% •
17	I	203	 81% 16% • •
18	J	184	 70% 12% 17%
19	K	188	 82% 15% • •
20	L	196	 • 57% 13% • 30%
21	M	176	 85% 13% •
22	N	160	 • 75% 22% • •
23	R	156	 63% 12% • 24%
24	S	145	 • 72% 20% • 8%
25	T	136	 81% 18% •
26	U	148	 84% 14% • •
27	V	159	 6% 47% 18% • 35%
28	W	115	 68% 18% • 13%
29	X	125	 74% 10% • 15%
30	Y	135	 81% 12% • 5%
31	Z	110	 86% 13% •
32	a	117	 • 76% 20% •
33	b	123	 • 80% 16% • •

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Mol	Chain	Length	Quality of chain
34	c	105	
35	d	97	
36	e	70	
37	f	157	
38	i	106	
39	j	92	
40	k	137	
41	P	245	
42	Q	140	
43	u	157	

2 Entry composition ⓘ

There are 49 unique types of molecules in this entry. The entry contains 137413 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 28S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	A	3303	70929	31625	12982	23019	3303	1	0

- Molecule 2 is a RNA chain called 5S rRNA.

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

- Molecule 3 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	C	148	3153	1408	564	1034	147	0	0

- Molecule 4 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	D	246	1887	1183	387	311	6	0	0

- Molecule 5 is a protein called 60S ribosomal protein L3 isoform a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	E	395	3194	2034	600	545	15	1	0

- Molecule 6 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	F	359	2855	1797	571	474	13	0	0

- Molecule 7 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	293	Total	C	N	O	S	0	0
			2376	1505	432	425	14		

- Molecule 8 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	221	Total	C	N	O	S	0	0
			1767	1138	335	290	4		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
H	40	ARG	GLY	conflict	UNP Q02878
H	41	ASN	LYS	conflict	UNP Q02878

- Molecule 9 is a protein called 60S ribosomal protein L7.

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

- Molecule 10 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	n	223	Total	C	N	O	S	0	0
			1809	1153	349	303	4		

- Molecule 11 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	o	190	Total	C	N	O	S	0	0
			1518	956	284	272	6		

- Molecule 12 is a protein called 60S ribosomal protein L10-like.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	p	158	Total	C	N	O	S	0	0
			1283	819	238	216	10		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
p	49	CYS	GLY	conflict	UNP Q96L21

- Molecule 13 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	q	170	1358	858	253	241	6	0	0

- Molecule 14 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	r	206	1664	1041	345	274	4	0	0

- Molecule 15 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	s	139	1138	730	218	183	7	0	0

- Molecule 16 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	t	203	1720	1086	361	269	4	2	0

- Molecule 17 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	I	199	1634	1053	319	257	5	0	0

- Molecule 18 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
18	J	152	1233	771	240	213	9	0	0

- Molecule 19 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	K	187	Total 1513	C 944	N 314	O 250	S 5	0	0

- Molecule 20 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	L	137	Total 1137	C 716	N 235	O 178	S 8	0	0

- Molecule 21 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	M	176	Total 1461	C 930	N 284	O 236	S 11	0	0

- Molecule 22 is a protein called 60S ribosomal protein L21.

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

- Molecule 23 is a protein called 60S ribosomal protein L23a.

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

- Molecule 24 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	S	134	Total 1115	C 700	N 226	O 186	S 3	0	0

- Molecule 25 is a protein called 60S ribosomal protein L27.

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

- Molecule 26 is a protein called 60S ribosomal protein L27a.

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

- Molecule 27 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	V	104	Total	C	N	O	S	0	0
			837	518	185	130	4		

- Molecule 28 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	W	100	Total	C	N	O	S	0	0
			772	490	136	139	7		

- Molecule 29 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	X	106	Total	C	N	O	S	0	0
			868	551	170	145	2		

- Molecule 30 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	Y	128	Total	C	N	O	S	0	0
			1053	667	216	165	5		

- Molecule 31 is a protein called 60S ribosomal protein L35a.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	Z	109	Total	C	N	O	S	1	0
			879	557	174	144	4		

- Molecule 32 is a protein called 60S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	a	112	Total	C	N	O	S	0	0
			888	555	183	144	6		

- Molecule 33 is a protein called 60S ribosomal protein L35.

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

- Molecule 34 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	c	102	Total 832	C 521	N 177	O 129	S 5	0	0

- Molecule 35 is a protein called 60S ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	d	86	Total 713	C 442	N 155	O 111	S 5	1	0

- Molecule 36 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	e	29	Total 249	C 163	N 47	O 38	S 1	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
e	16	PRO	ARG	conflict	UNP P63173
e	23	ILE	VAL	conflict	UNP P63173

- Molecule 37 is a protein called 60S ribosomal protein L39.

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

- Molecule 38 is a protein called 60S ribosomal protein L36a.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	i	97	Total 794	C 498	N 161	O 129	S 6	0	0

- Molecule 39 is a protein called 60S ribosomal protein L37a.

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

- Molecule 40 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
40	k	124	992	615	206	167	4	0	0

- Molecule 41 is a protein called Eukaryotic translation initiation factor 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
41	P	225	1712	1065	295	340	12	0	0

- Molecule 42 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
42	Q	134	993	625	187	176	5	0	0

- Molecule 43 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
43	u	62	519	332	101	83	3	0	0

- Molecule 44 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
44	A	209	209	209	0
44	B	3	3	3	0
44	C	6	6	6	0
44	J	1	1	1	0
44	L	2	2	2	0
44	Q	2	2	2	0

- Molecule 45 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	AltConf
45	A	1	Total Zn 1 1	0
45	a	1	Total Zn 1 1	0
45	d	1	Total Zn 1 1	0
45	i	1	Total Zn 1 1	0
45	j	1	Total Zn 1 1	0

- Molecule 46 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	AltConf
46	A	139	Total K 139 139	0
46	B	1	Total K 1 1	0
46	D	3	Total K 3 3	0
46	o	1	Total K 1 1	0
46	p	1	Total K 1 1	0
46	t	1	Total K 1 1	0
46	J	1	Total K 1 1	0
46	N	1	Total K 1 1	0
46	V	1	Total K 1 1	0
46	Y	1	Total K 1 1	0
46	Z	1	Total K 1 1	0
46	f	1	Total K 1 1	0
46	i	1	Total K 1 1	0

- Molecule 47 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	AltConf
47	A	3	Total Na 3 3	0
47	t	1	Total Na 1 1	0

- Molecule 48 is BROMIDE ION (three-letter code: BR) (formula: Br).

Mol	Chain	Residues	Atoms	AltConf
48	G	1	Total Br 1 1	0

- Molecule 49 is water.

Mol	Chain	Residues	Atoms	AltConf
49	A	6577	Total O 6577 6577	0
49	B	132	Total O 132 132	0
49	C	280	Total O 280 280	0
49	D	109	Total O 109 109	0
49	E	139	Total O 139 139	0
49	F	182	Total O 182 182	0
49	G	34	Total O 34 34	0
49	H	36	Total O 36 36	0
49	m	101	Total O 101 101	0
49	n	35	Total O 35 35	0
49	o	11	Total O 11 11	0
49	p	12	Total O 12 12	0
49	q	5	Total O 5 5	0
49	r	84	Total O 84 84	0
49	s	14	Total O 14 14	0

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Mol	Chain	Residues	Atoms	AltConf
49	t	153	Total O 153 153	0
49	I	87	Total O 87 87	0
49	J	66	Total O 66 66	0
49	K	130	Total O 130 130	0
49	L	37	Total O 37 37	0
49	M	53	Total O 53 53	0
49	N	71	Total O 71 71	0
49	R	29	Total O 29 29	0
49	S	40	Total O 40 40	0
49	T	6	Total O 6 6	0
49	U	80	Total O 80 80	0
49	V	27	Total O 27 27	0
49	W	6	Total O 6 6	0
49	X	24	Total O 24 24	0
49	Y	96	Total O 96 96	0
49	Z	58	Total O 58 58	0
49	a	52	Total O 52 52	0
49	b	38	Total O 38 38	0
49	c	15	Total O 15 15	0
49	d	56	Total O 56 56	0
49	e	1	Total O 1 1	0

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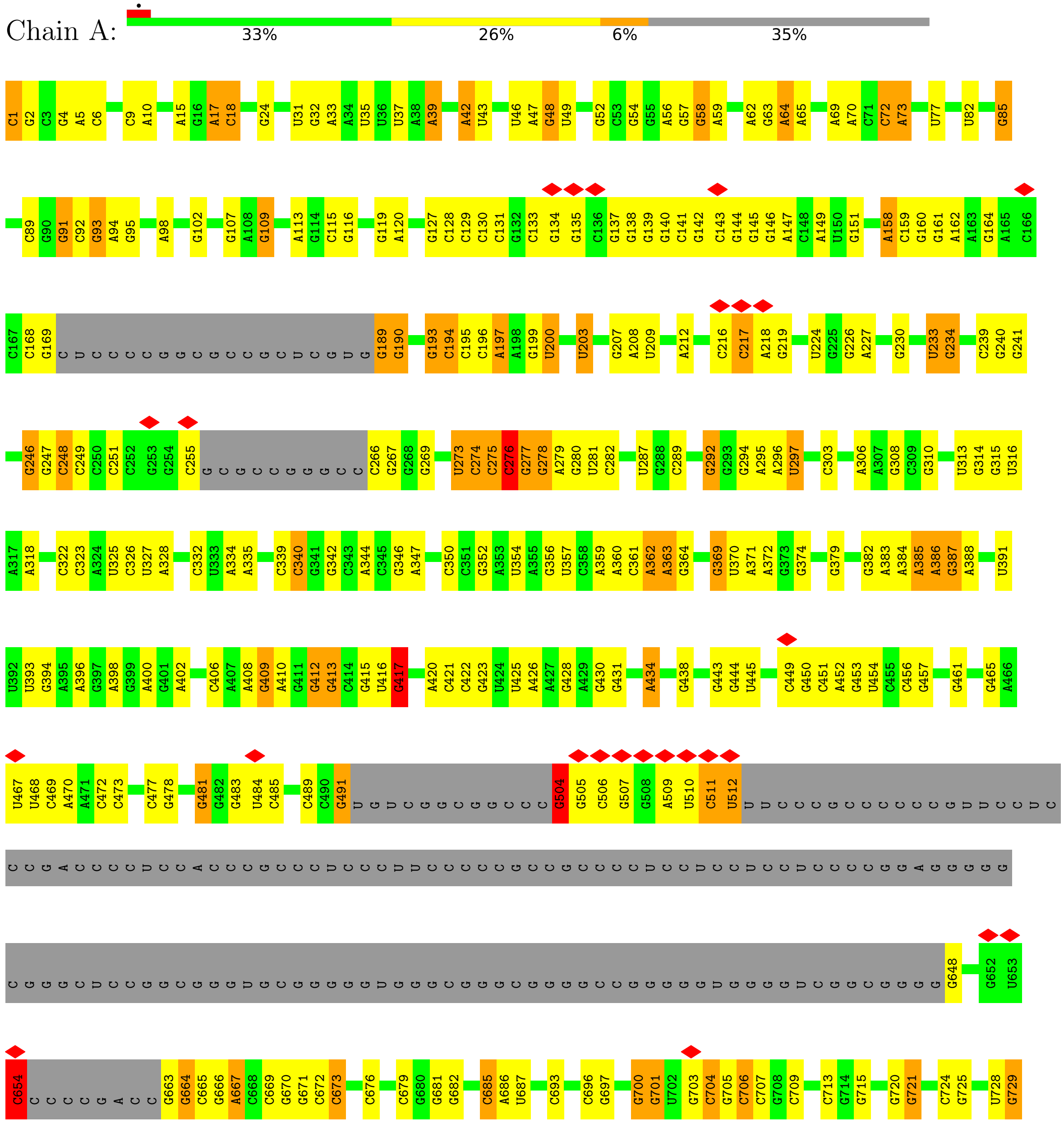
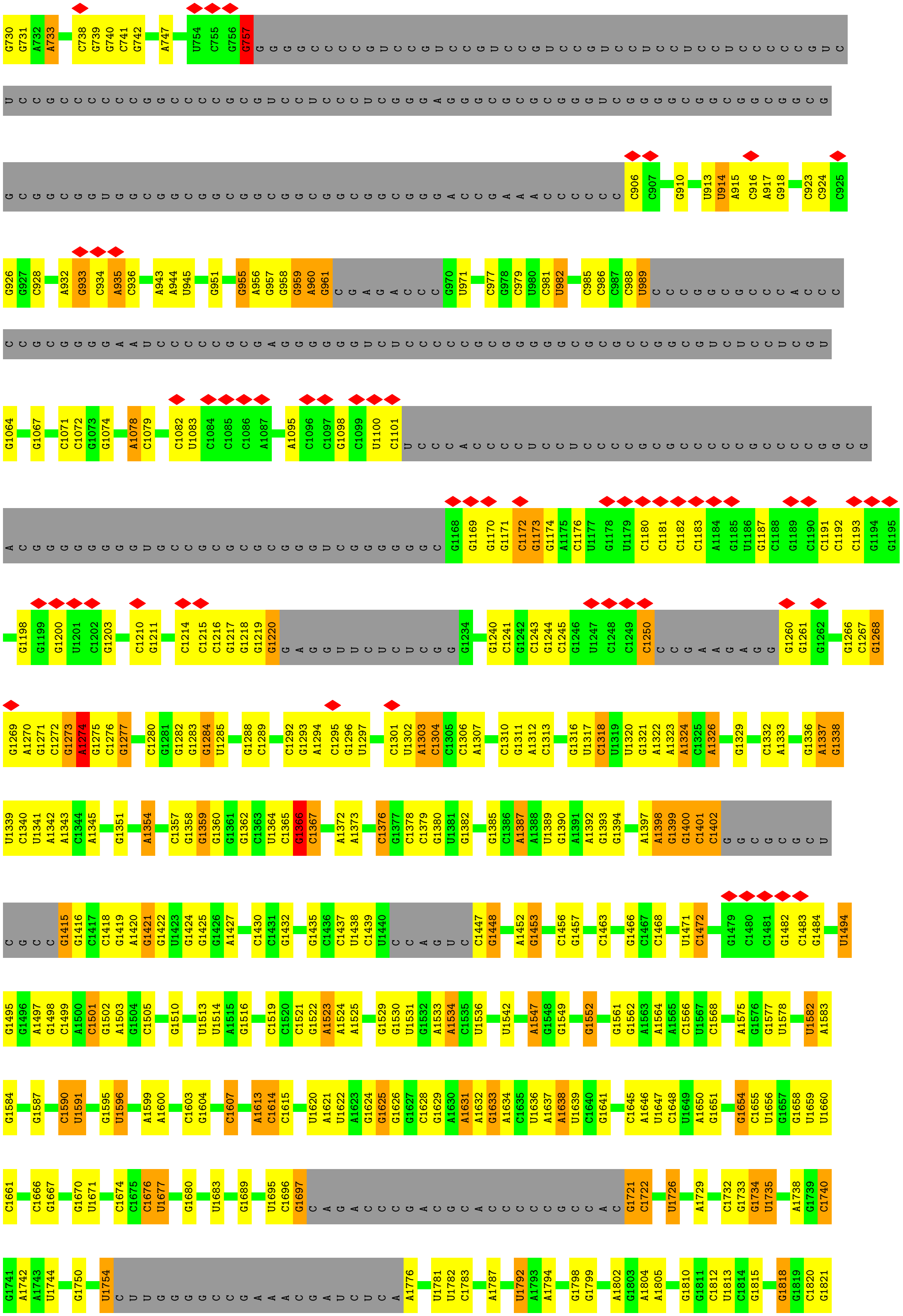
Mol	Chain	Residues	Atoms	AltConf
49	f	12	Total O 12 12	0
49	i	35	Total O 35 35	0
49	j	24	Total O 24 24	0
49	k	59	Total O 59 59	0
49	P	1	Total O 1 1	0
49	Q	31	Total O 31 31	0
49	u	6	Total O 6 6	0

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: 28S rRNA




G730 G731 A732 A733 C738 G739 G740 C741 G742 A747 U754 C755 G756 G757 G G G G C C C C G U C C G U C C G U C C G U C C U C C U C C U C C C C C G U C
U C C G C C C C C C G G C C C C G C G U C C U C C C U C G G G A G G G C G C G C G G G U C G G G G C C G G C G G C G G C G
G C G G C C G G U G G C G G C G G C G C G G C G C G G C G G C G G G A C C G A A A C C C C C C C906 C907 G910 U913 U914 A915 C916 A917 G918 C923 C924 C925
G926 G927 C928 A932 G933 C934 A935 C936 A943 A944 U945 G951 G955 A956 G957 G958 G959 A960 G961 C G A G A C C C G970 U971 C977 G978 C979 U980 C981 U982 C985 C986 C987 C988 U989 C C C G G C G C C C A C C C
C C G C G G G G A A U C C C C C G C G A G G G G G G U C U C C C C C G C G G G G C G C G C C G G C G G U C U C C U C G U
G1064 G1067 C1071 C1072 G1073 G1074 A1078 C1079 C1082 U1083 C1084 C1085 C1086 A1087 A1095 C1096 C1097 G1098 C1099 U1100 C1101 U C C C A C C C C U C C U C C C C G C G C C C C G C C C C G G C G
A C G G G G G G G U G C C C G C G C G C G G U C G G G G G C G1168 G1169 G1170 G1171 C1172 G1173 G1174 A1175 C1176 U1177 G1178 U1179 C1180 C1181 C1182 C1183 A1184 G1185 U1186 G1187 G1188 G1189 C1190 C1191 C1192 C1193 G1194 G1195
G1198 G1199 G1200 U1201 C1202 G1203 C1210 G1211 C1214 C1215 C1216 G1217 G1218 G1219 C1220 G A G G U U C U C U C G G G1234 G1240 C1241 G1242 C1243 G1244 C1245 G1246 U1247 C1248 C1249 C1250 C C G A A G A G G G1260 G1261 G1262 G1266 C1267 G1268
G1269 A1270 G1271 C1272 G1273 A1274 G1275 C1276 G1277 C1280 G1281 G1282 C1283 G1284 U1285 G1288 C1289 C1292 G1293 A1294 C1295 G1296 U1297 C1301 U1302 A1303 C1304 C1305 C1306 A1307 C1310 G1311 A1312 C1313 G1316 U1317 C1318 U1319 U1320 G1321 A1322 A1323 A1324 C1325 A1326 G1329 C1332 A1333 G1336 A1337 G1338
U1339 C1340 U1341 A1342 A1343 C1344 A1345 G1351 A1354 C1357 G1358 G1359 G1360 G1361 G1362 C1363 U1364 C1365 G1366 C1367 A1372 A1373 C1376 G1377 C1378 C1379 G1380 U1381 G1382 G1385 C1386 A1387 A1388 U1389 G1390 A1391 A1392 G1393 G1394 A1397 A1398 G1399 G1400 C1401 C1402 G G C G C G C U
C G C C G1415 G1416 C1417 C1418 G1419 A1420 G1421 G1422 U1423 G1424 G1425 G1426 A1427 C1430 C1431 G1432 G1435 C1436 C1437 U1438 C1439 U1440 C C A G U C C1447 G1448 A1452 G1453 C1456 G1457 C1463 G1466 C1467 C1468 U1471 C1472 G1479 C1480 C1481 G1482 C1483 G1484 U1494
G1495 G1496 A1497 G1498 C1499 A1500 C1501 G1502 A1503 G1504 C1505 G1510 U1513 U1514 A1515 G1516 C1519 C1520 C1521 G1522 A1523 A1524 A1525 G1529 G1530 U1531 G1532 A1533 A1534 C1535 U1536 U1542 A1547 G1548 G1549 G1552 G1561 G1562 A1563 A1564 A1565 C1566 U1567 C1568 A1575 G1576 G1577 U1578 U1582 A1583
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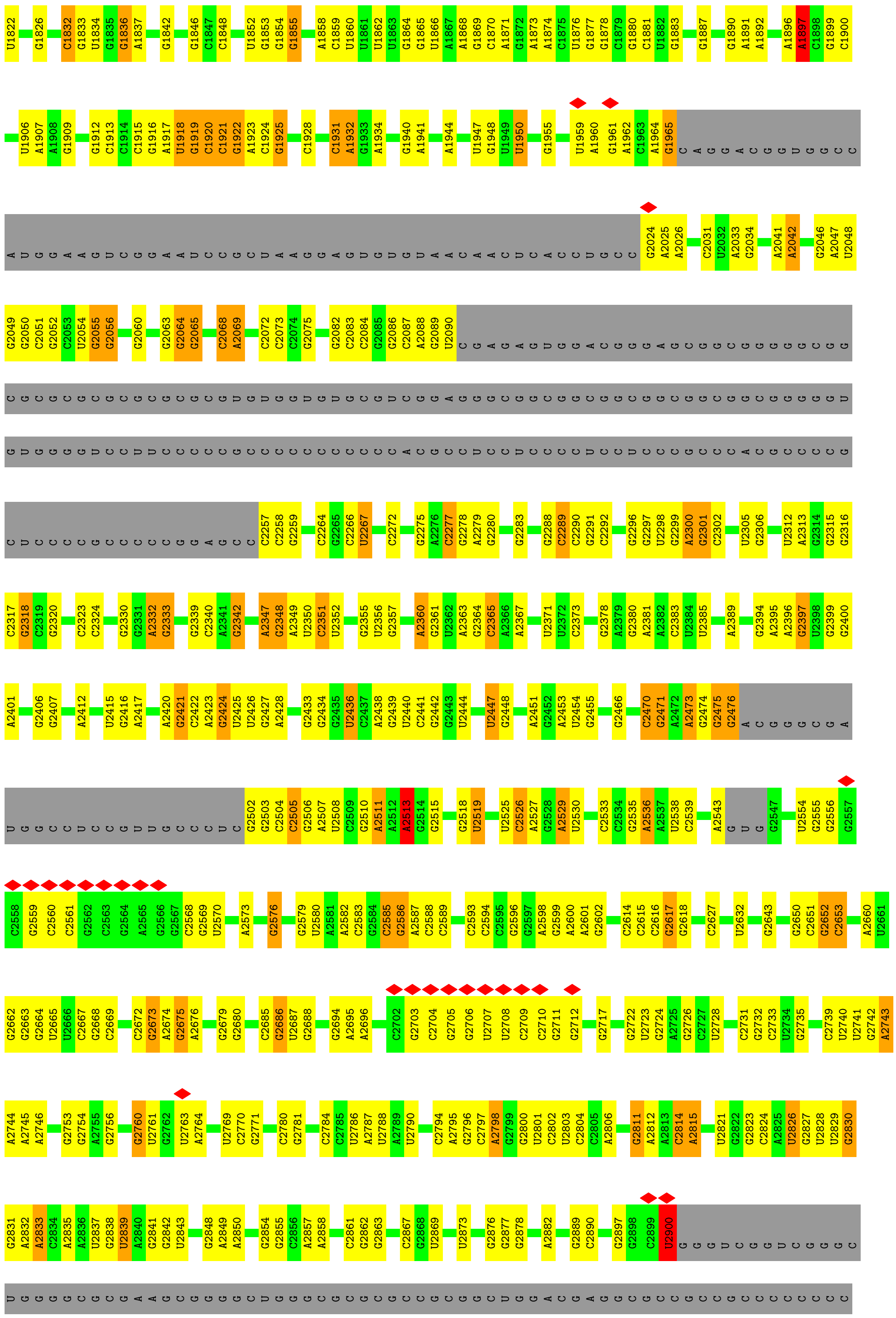
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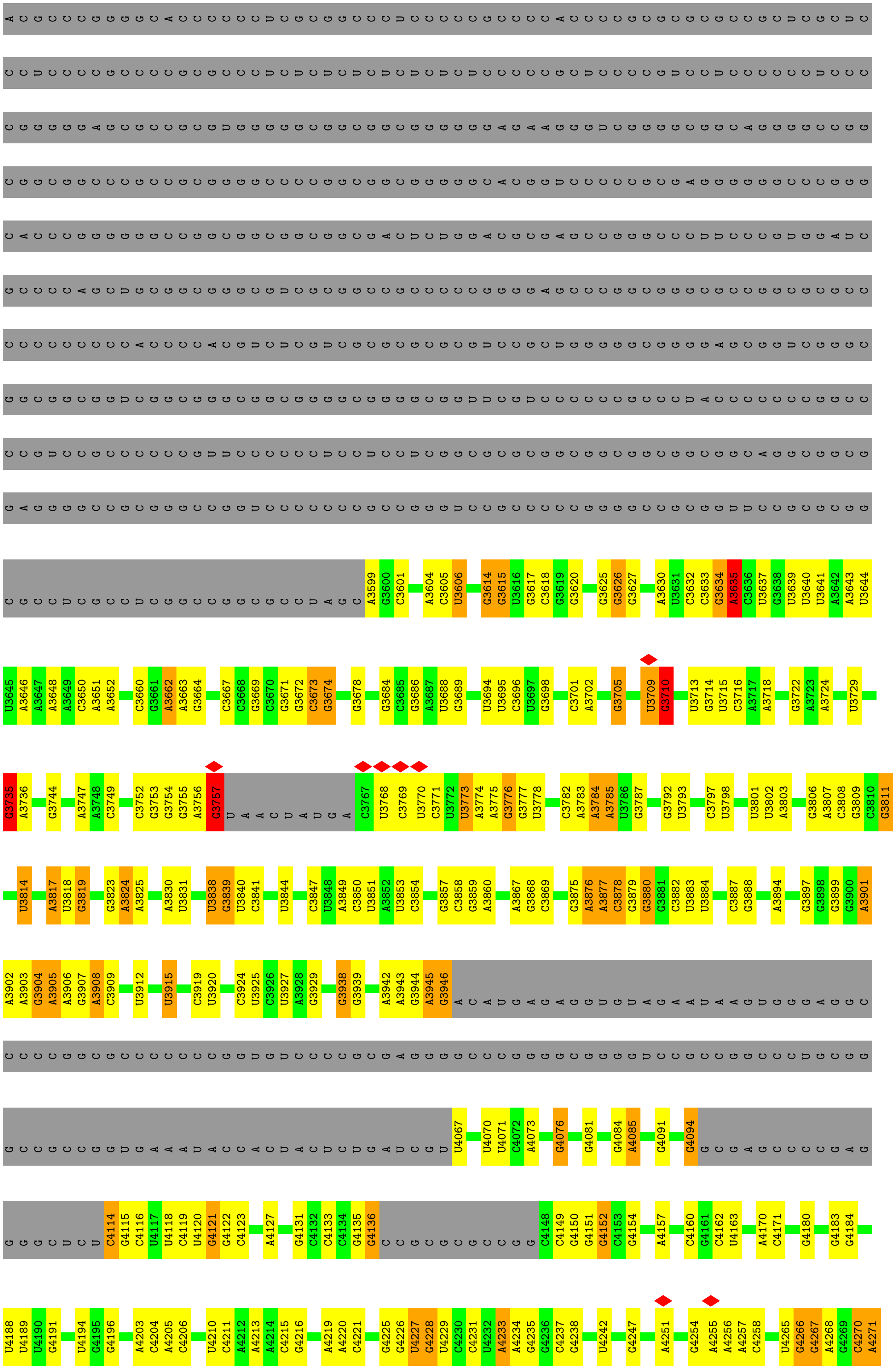
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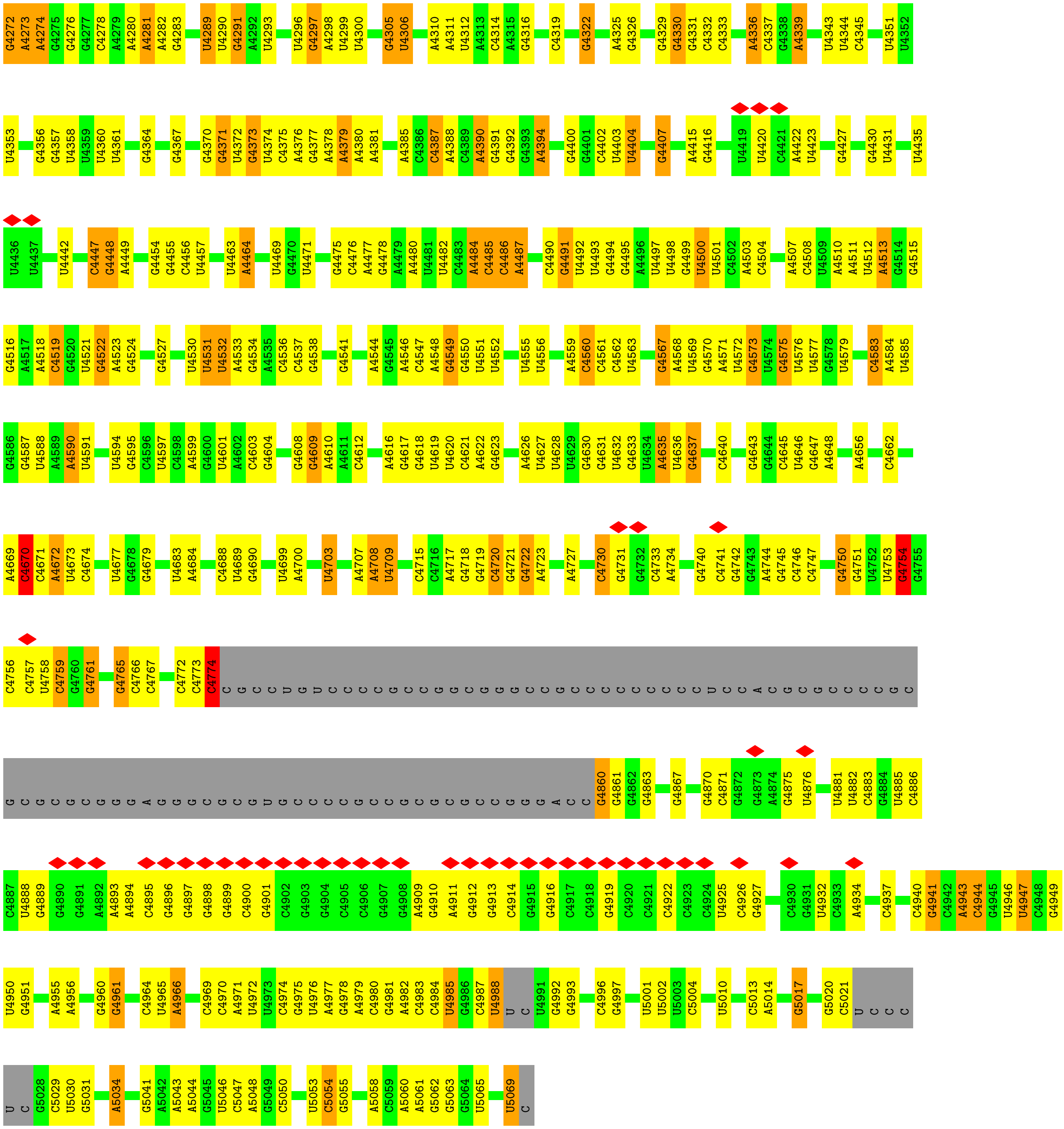

- Molecule 2: 5S rRNA

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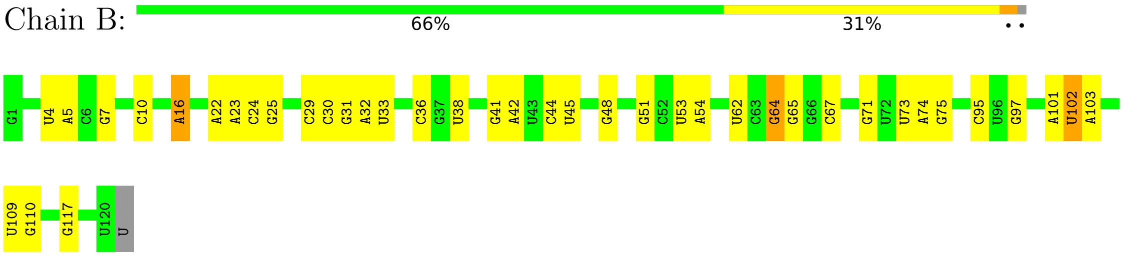
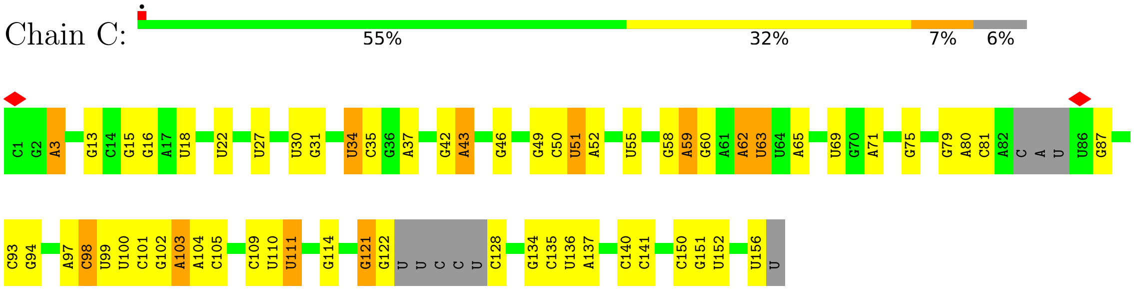
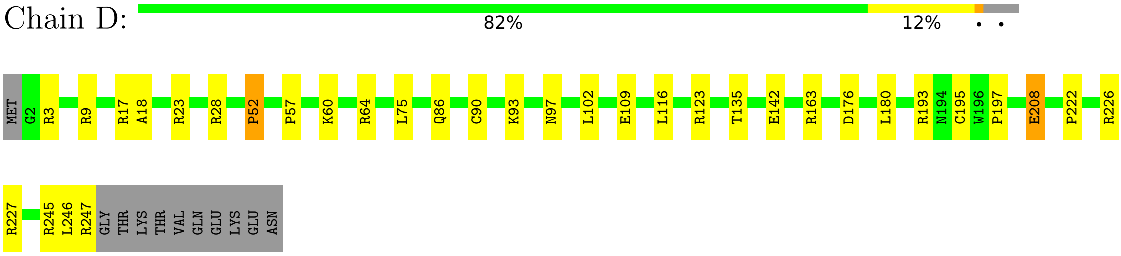


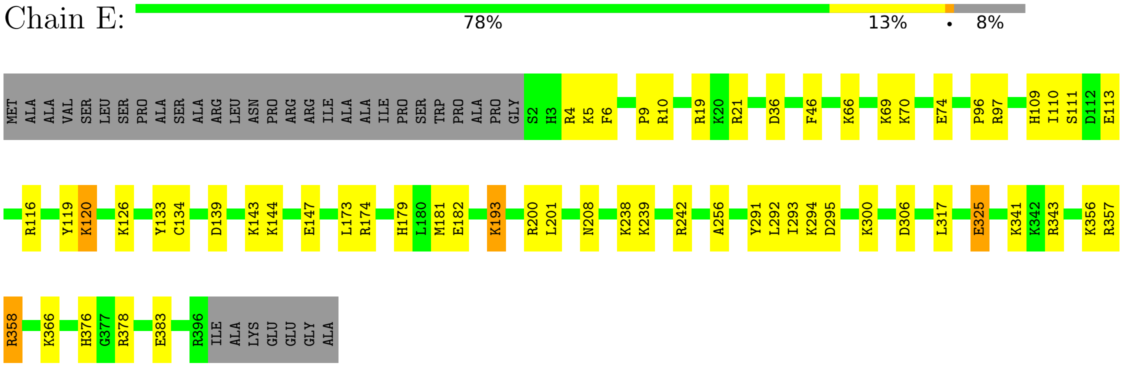
- Molecule 3: 5.8S ribosomal RNA



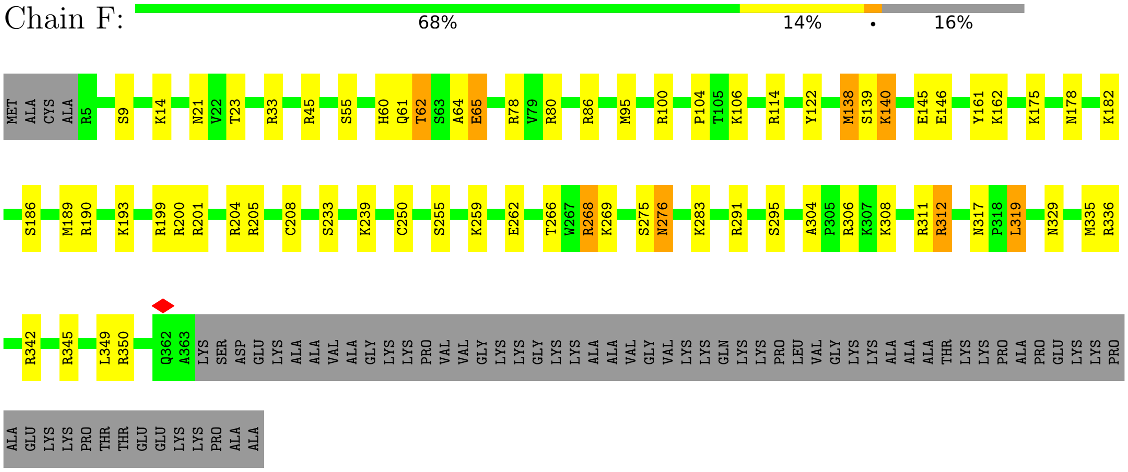
- Molecule 4: 60S ribosomal protein L8



- Molecule 5: 60S ribosomal protein L3 isoform a



- Molecule 6: 60S ribosomal protein L4



- Molecule 7: 60S ribosomal protein L5

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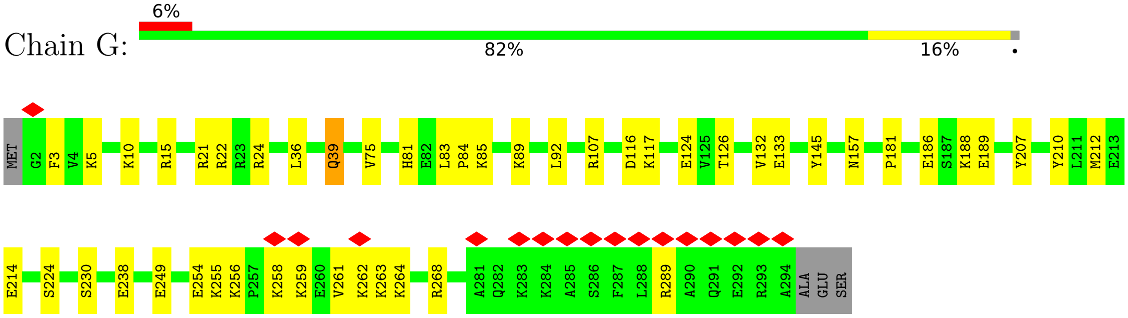

- Molecule 8: 60S ribosomal protein L6

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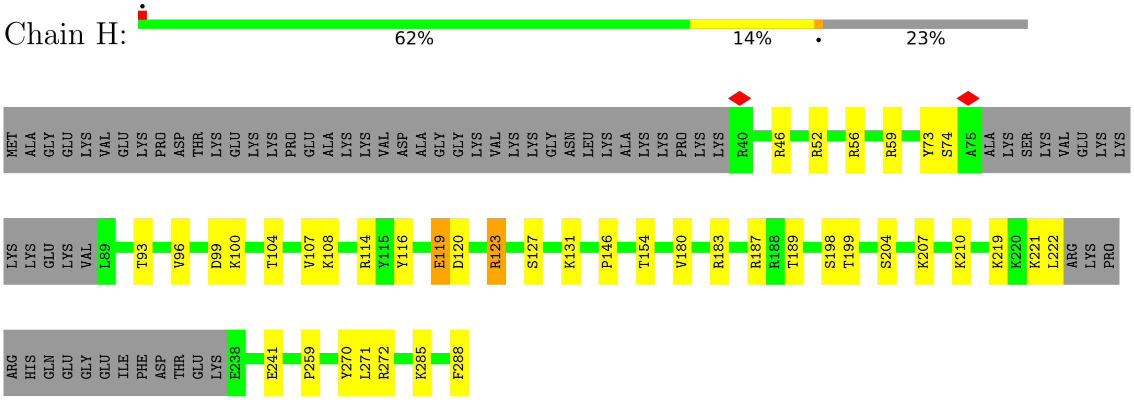

- Molecule 9: 60S ribosomal protein L7

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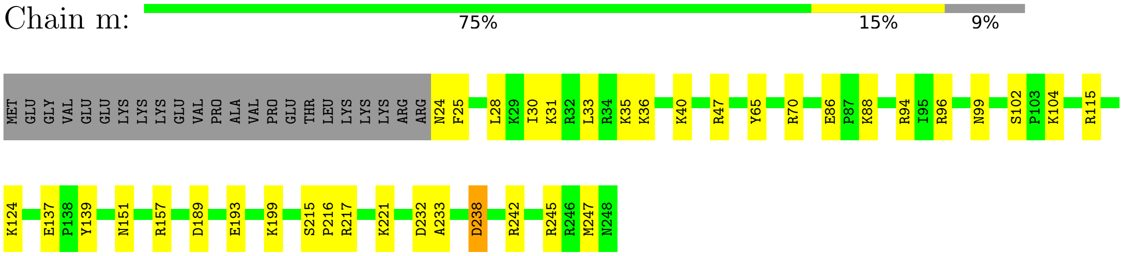

- Molecule 10: 60S ribosomal protein L7a

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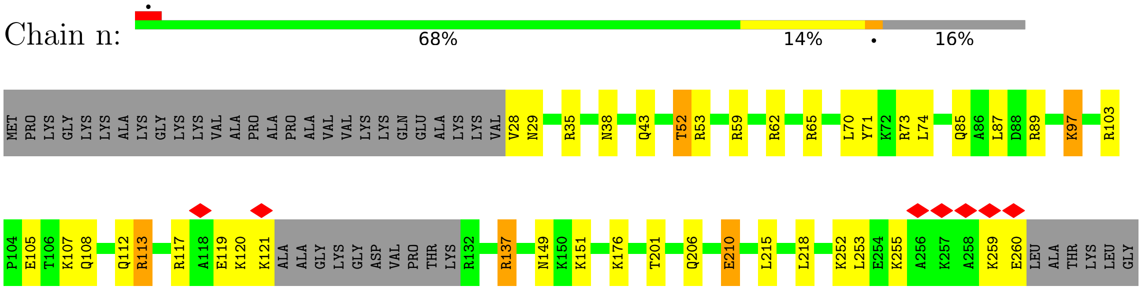

- Molecule 11: 60S ribosomal protein L9

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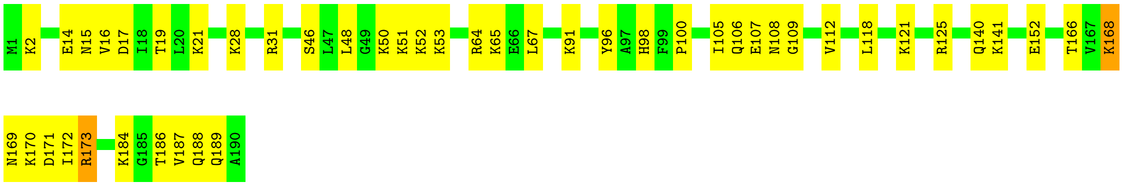
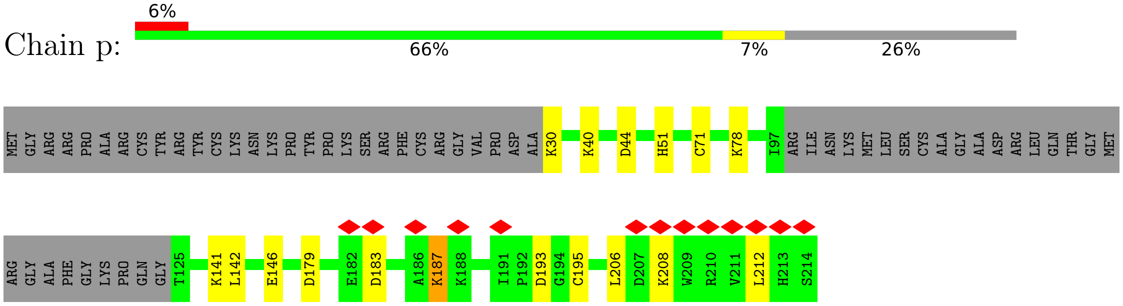
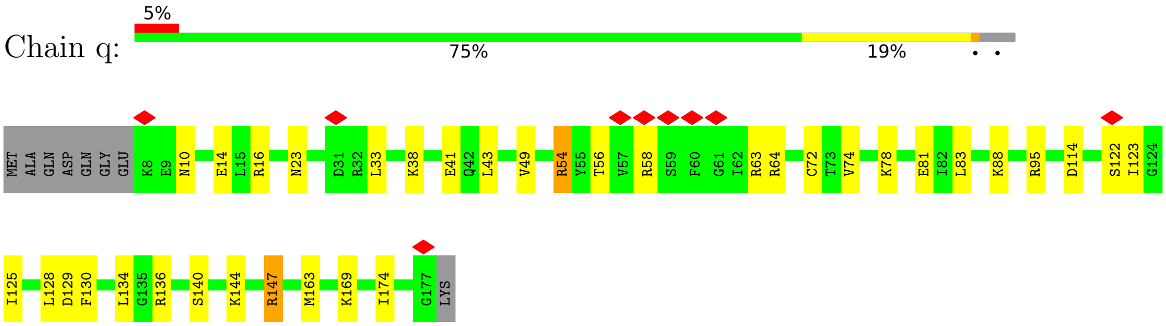


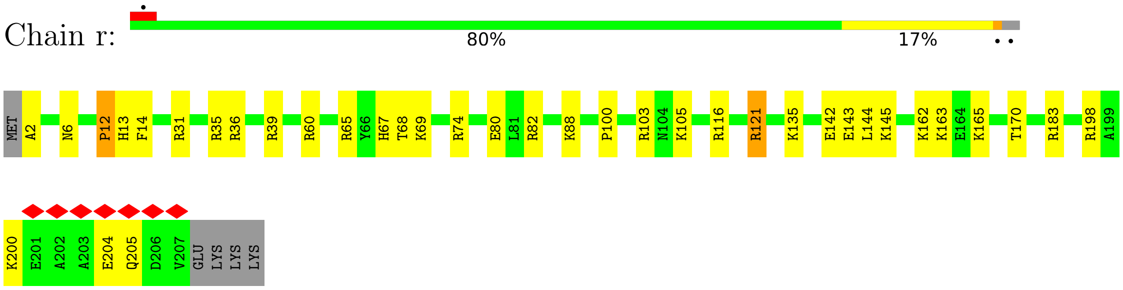
- Molecule 12: 60S ribosomal protein L10-like



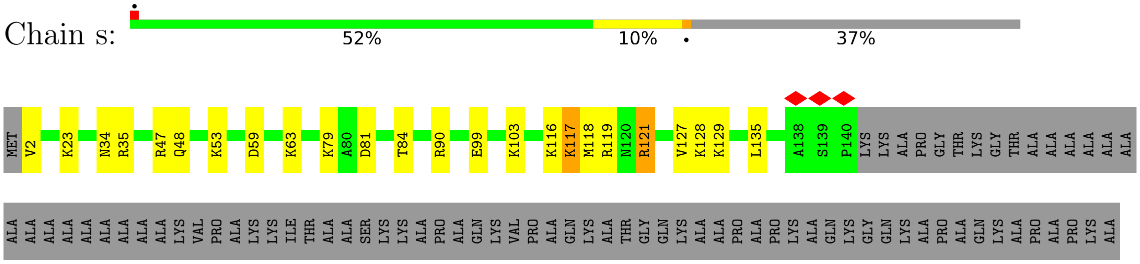
- Molecule 13: 60S ribosomal protein L11



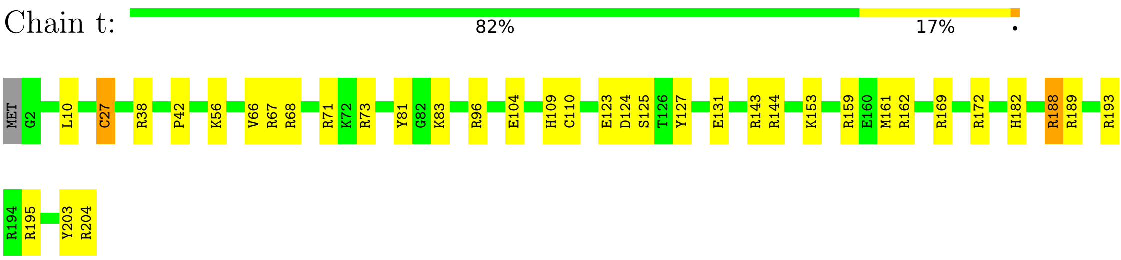
- Molecule 14: 60S ribosomal protein L13



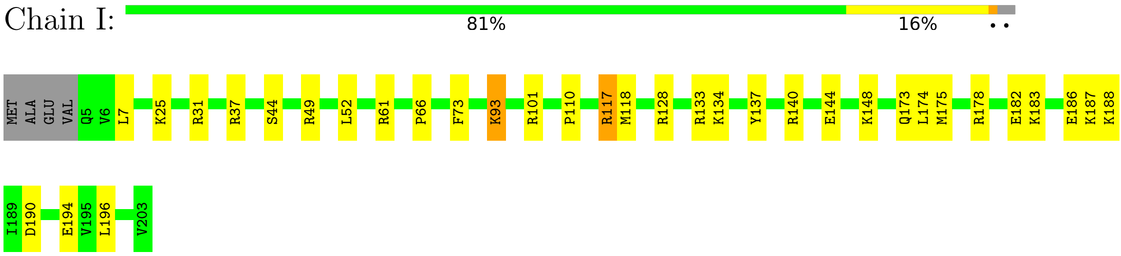
- Molecule 15: 60S ribosomal protein L14



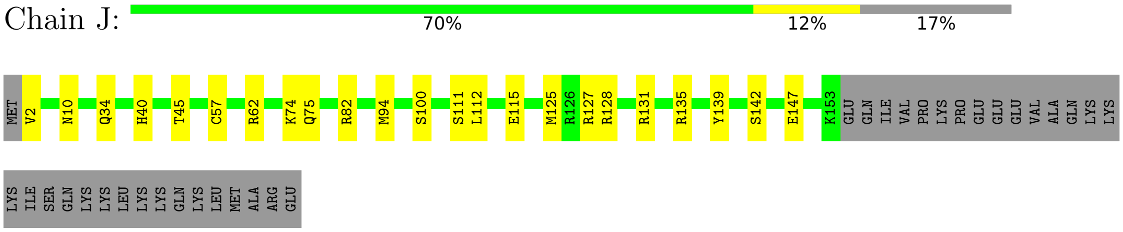
- Molecule 16: 60S ribosomal protein L15



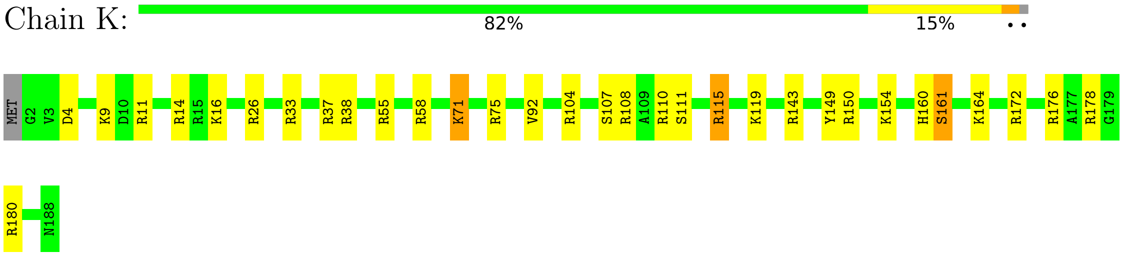
- Molecule 17: 60S ribosomal protein L13a



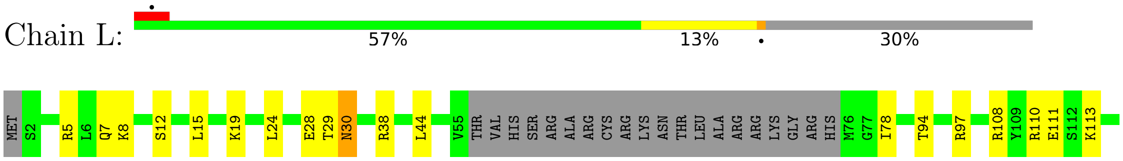
- Molecule 18: 60S ribosomal protein L17

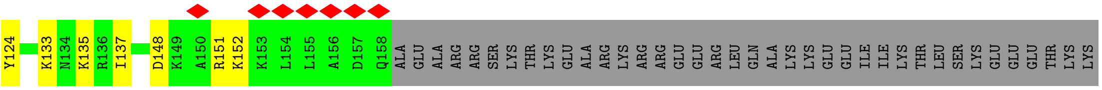


- Molecule 19: 60S ribosomal protein L18



- Molecule 20: 60S ribosomal protein L19





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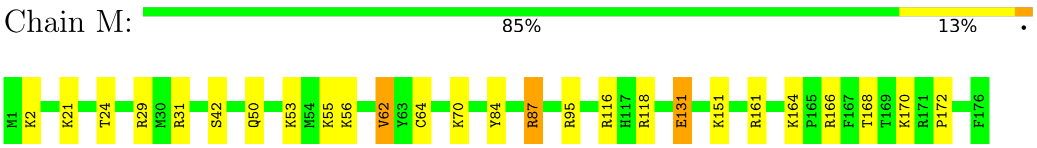
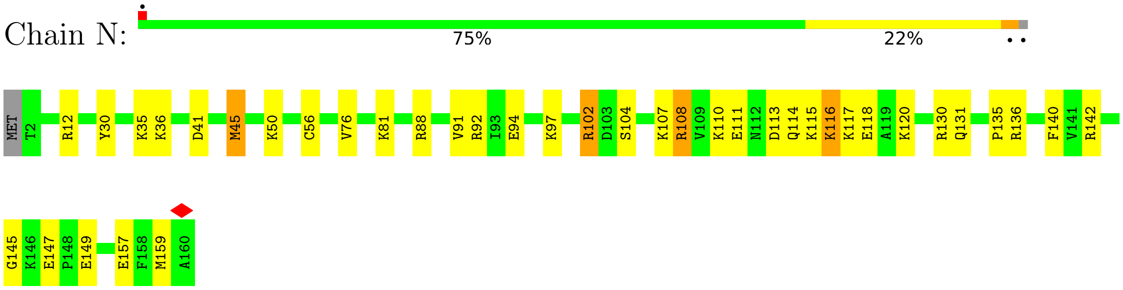


- Molecule 22: 60S ribosomal protein L21



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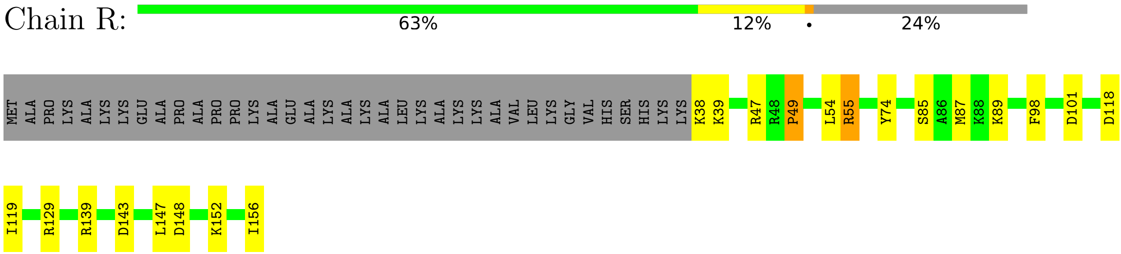

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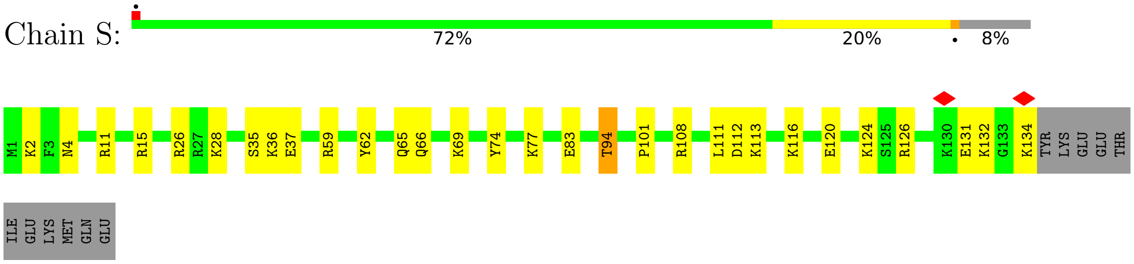

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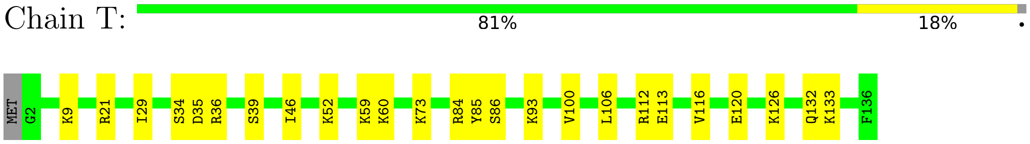

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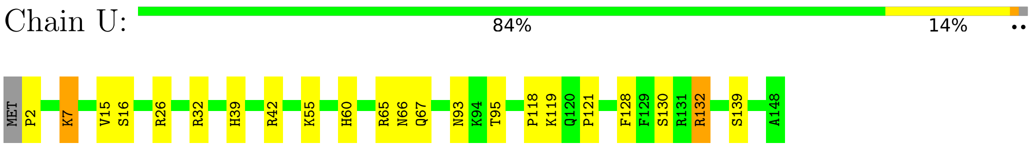
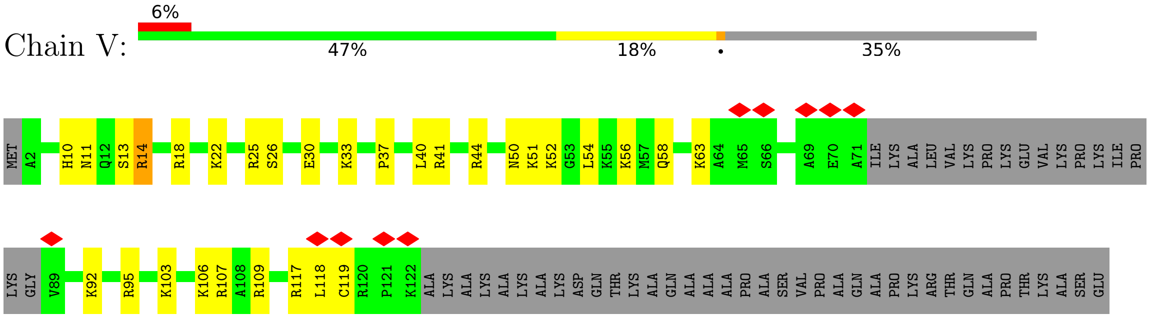


- Molecule 27: 60S ribosomal protein L29



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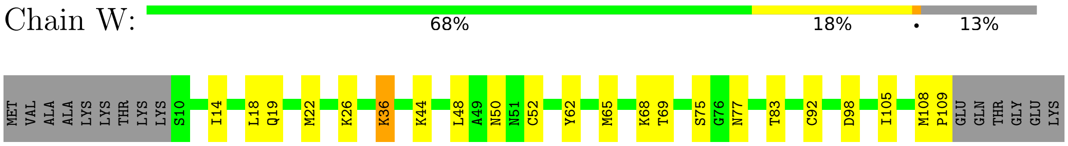
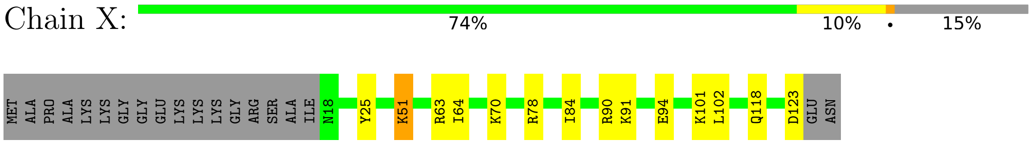


- Molecule 29: 60S ribosomal protein L31



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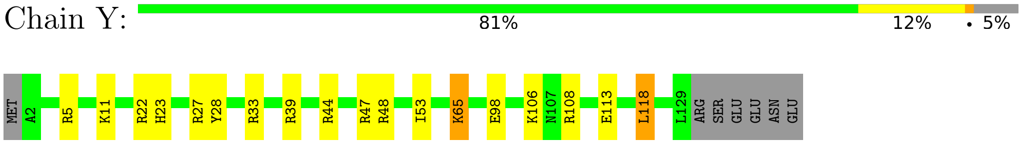
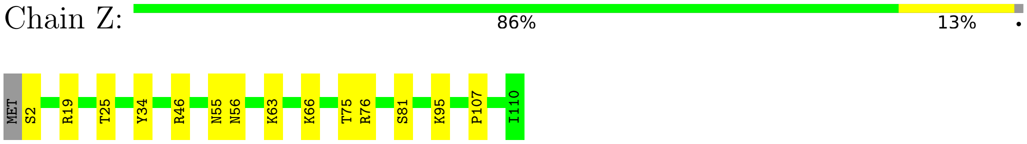
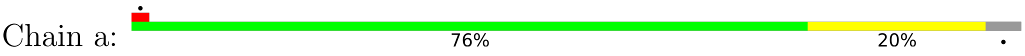
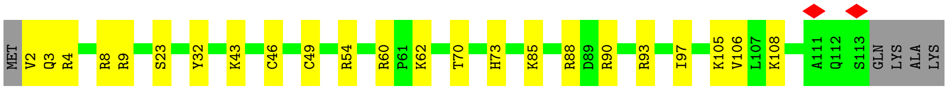


- Molecule 31: 60S ribosomal protein L35a



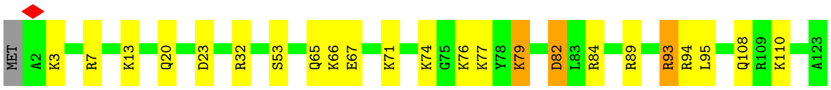
- Molecule 32: 60S ribosomal protein L34





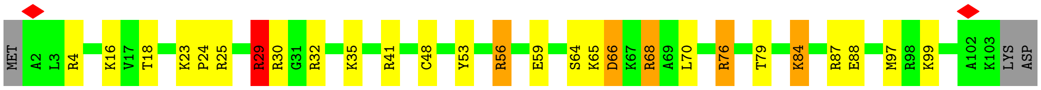
- Molecule 33: 60S ribosomal protein L35

Chain b:



- Molecule 34: 60S ribosomal protein L36

Chain c:

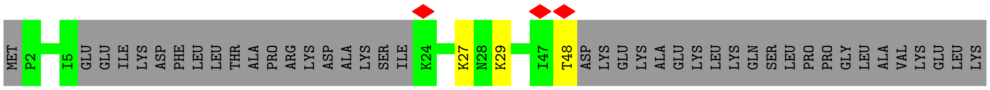


- Molecule 35: 60S ribosomal protein L37

Chain d:

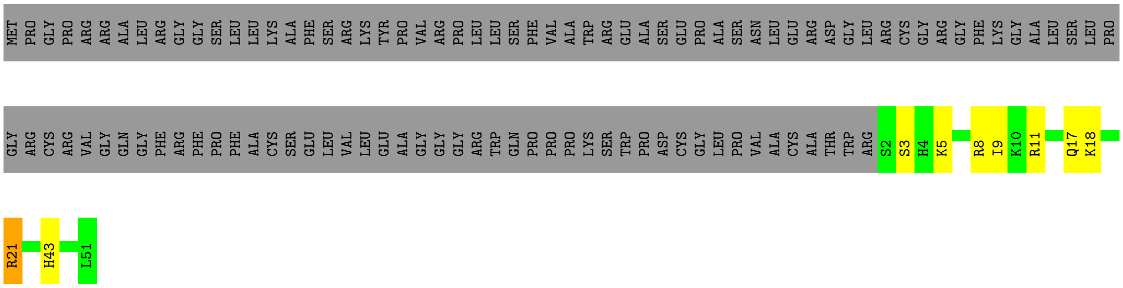
- Molecule 36: 60S ribosomal protein L38

Chain e:



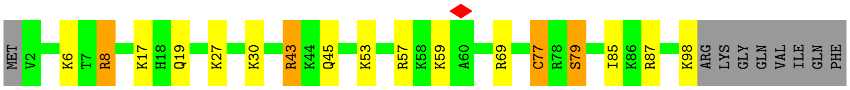
- Molecule 37: 60S ribosomal protein L39

Chain f:



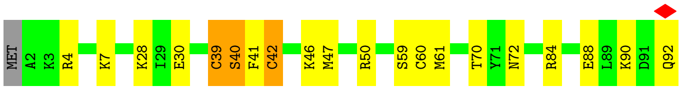
- Molecule 38: 60S ribosomal protein L36a

Chain i:



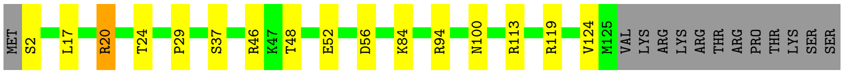
- Molecule 39: 60S ribosomal protein L37a

Chain j:



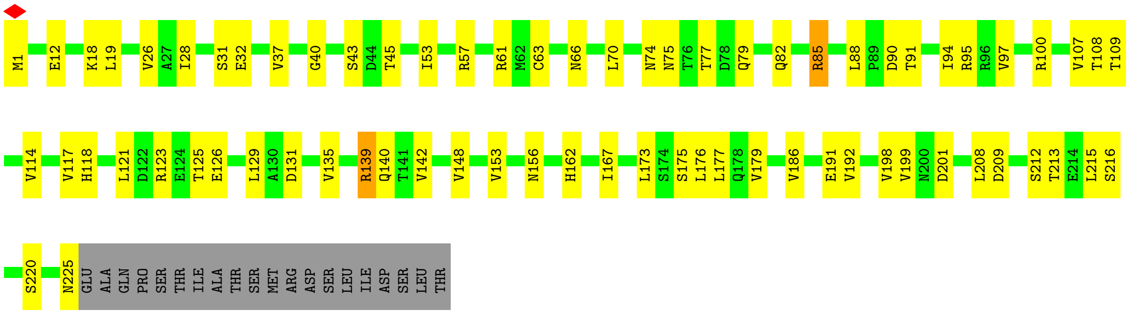
- Molecule 40: 60S ribosomal protein L28

Chain k:



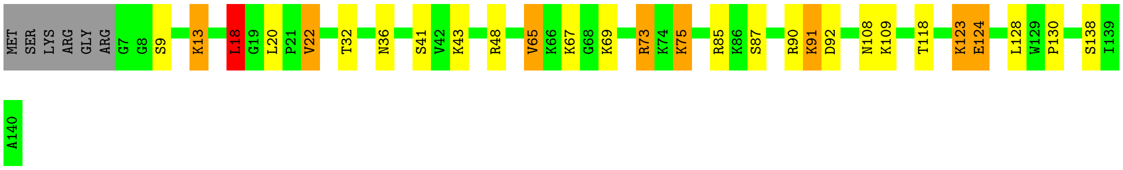
- Molecule 41: Eukaryotic translation initiation factor 6

Chain P:



- Molecule 42: 60S ribosomal protein L23

Chain Q:



- Molecule 43: 60S ribosomal protein L24

Chain u:


ALA
GLN
ARG
GLU
GLN
ALA
ILE
ARG
ALA
ALA
LYS
GLU
ALA
LYS
LYS
ALA
LYS
GLN
ALA
SER
LYS
LYS
THR
ALA
MET
ALA
ALA
ALA
LYS
ALA
PRO
THR
LYS
ALA
ALA
PRO
LYS
GLN
LYS
ILE
VAL
LYS
PRO
VAL
LYS
VAL
SER
ALA
PRO
ARG
VAL
GLY
GLY
LYS
ARG

4 Experimental information

Property	**Value**	**Source**
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	30000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{Å}^2$)	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.235	Depositor
Minimum map value	-0.004	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.01	Depositor
Map size (Å)	424.96, 424.96, 424.96	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83, 0.83, 0.83	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: OMG, NA, BR, OMC, K, 5MC, OMU, ZN, PSU, MG, 6MZ, A2M, UR3, 1MA

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	1.23	255/76620 (0.3%)	1.48	1340/119500 (1.1%)
2	B	0.95	8/2858 (0.3%)	1.27	28/4455 (0.6%)
3	C	1.26	13/3450 (0.4%)	1.51	58/5372 (1.1%)
4	D	0.82	3/1925 (0.2%)	1.63	28/2581 (1.1%)
5	E	0.72	1/3265 (0.0%)	1.46	35/4369 (0.8%)
6	F	0.80	4/2909 (0.1%)	1.66	68/3908 (1.7%)
7	G	0.52	0/2422	1.25	9/3244 (0.3%)
8	H	0.58	1/1801 (0.1%)	1.30	16/2418 (0.7%)
9	m	0.80	2/1905 (0.1%)	1.48	28/2539 (1.1%)
10	n	0.53	0/1840	1.29	14/2476 (0.6%)
11	o	0.45	0/1537	1.10	4/2066 (0.2%)
12	p	0.39	0/1312	0.94	2/1754 (0.1%)
13	q	0.42	0/1381	0.99	5/1848 (0.3%)
14	r	0.68	0/1695	1.41	21/2270 (0.9%)
15	s	0.54	0/1161	1.27	10/1554 (0.6%)
16	t	0.91	2/1766 (0.1%)	1.68	41/2366 (1.7%)
17	I	0.73	1/1666 (0.1%)	1.53	19/2228 (0.9%)
18	J	0.84	1/1259 (0.1%)	1.49	13/1689 (0.8%)
19	K	0.82	1/1537 (0.1%)	1.69	31/2052 (1.5%)
20	L	0.59	0/1150	1.30	6/1523 (0.4%)
21	M	0.67	0/1501	1.44	14/2013 (0.7%)
22	N	0.69	0/1326	1.52	20/1770 (1.1%)
23	R	0.62	0/993	1.43	10/1334 (0.7%)
24	S	0.79	1/1132 (0.1%)	1.52	10/1504 (0.7%)
25	T	0.49	0/1130	1.16	4/1507 (0.3%)
26	U	0.86	2/1191 (0.2%)	1.60	18/1591 (1.1%)
27	V	0.61	1/850 (0.1%)	1.46	13/1123 (1.2%)
28	W	0.52	0/783	1.19	3/1052 (0.3%)
29	X	0.65	0/883	1.35	5/1190 (0.4%)
30	Y	0.89	1/1071 (0.1%)	1.60	16/1429 (1.1%)
31	Z	0.82	0/901	1.54	10/1206 (0.8%)
32	a	0.79	1/898 (0.1%)	1.53	14/1197 (1.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
33	b	0.64	1/1023 (0.1%)	1.44	11/1351 (0.8%)
34	c	0.58	0/843	1.48	18/1115 (1.6%)
35	d	0.92	2/732 (0.3%)	1.76	22/968 (2.3%)
36	e	0.41	0/251	1.00	0/330
37	f	0.64	0/454	1.43	6/599 (1.0%)
38	i	0.56	0/807	1.42	10/1065 (0.9%)
39	j	0.84	1/718 (0.1%)	1.73	19/953 (2.0%)
40	k	0.80	1/1007 (0.1%)	1.49	11/1351 (0.8%)
41	P	0.41	0/1736	0.96	1/2362 (0.0%)
42	Q	0.83	0/1007	1.59	15/1350 (1.1%)
43	u	0.73	1/532 (0.2%)	1.30	3/708 (0.4%)
All	All	1.05	304/135228 (0.2%)	1.46	2029/199280 (1.0%)

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	59
3	C	0	2
8	H	0	1
21	M	0	1
33	b	0	1
34	c	0	2
43	u	0	1
All	All	0	67

The worst 5 of 304 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4273	A	O3'-P	18.99	1.83	1.61
32	a	2	VAL	N-CA	14.24	1.74	1.46
1	A	3823	G	O3'-P	13.95	1.77	1.61
1	A	3663	A	O3'-P	-10.66	1.48	1.61
3	C	150	C	O3'-P	-10.39	1.48	1.61

The worst 5 of 2029 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	109	G	O5'-P-OP1	-31.06	73.42	110.70
1	A	277	G	O5'-P-OP1	-29.77	74.98	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	109	G	O5'-P-OP2	-29.56	75.23	110.70
4	D	193	ARG	NE-CZ-NH2	-27.76	106.42	120.30
1	A	2333	G	O5'-P-OP2	-22.64	83.54	110.70

There are no chirality outliers.

5 of 67 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	275	C	Sidechain
1	A	276	C	Sidechain
1	A	292	G	Sidechain
1	A	91	G	Sidechain
1	A	93	G	Sidechain

5.2 Too-close contacts ⓘ

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

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	D	244/257 (95%)	234 (96%)	9 (4%)	1 (0%)	34	48
5	E	394/430 (92%)	373 (95%)	20 (5%)	1 (0%)	41	55
6	F	357/427 (84%)	341 (96%)	16 (4%)	0	100	100
7	G	291/297 (98%)	280 (96%)	10 (3%)	1 (0%)	41	55
8	H	215/288 (75%)	202 (94%)	13 (6%)	0	100	100
9	m	223/248 (90%)	214 (96%)	9 (4%)	0	100	100
10	n	219/266 (82%)	202 (92%)	15 (7%)	2 (1%)	17	25
11	o	188/190 (99%)	169 (90%)	12 (6%)	7 (4%)	3	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	p	154/214 (72%)	146 (95%)	8 (5%)	0	100	100
13	q	168/178 (94%)	157 (94%)	10 (6%)	1 (1%)	25	36
14	r	204/211 (97%)	195 (96%)	9 (4%)	0	100	100
15	s	137/220 (62%)	128 (93%)	9 (7%)	0	100	100
16	t	203/204 (100%)	196 (97%)	7 (3%)	0	100	100
17	I	197/203 (97%)	192 (98%)	5 (2%)	0	100	100
18	J	150/184 (82%)	148 (99%)	2 (1%)	0	100	100
19	K	185/188 (98%)	176 (95%)	9 (5%)	0	100	100
20	L	133/196 (68%)	130 (98%)	1 (1%)	2 (2%)	10	14
21	M	174/176 (99%)	170 (98%)	4 (2%)	0	100	100
22	N	157/160 (98%)	146 (93%)	10 (6%)	1 (1%)	25	36
23	R	117/156 (75%)	116 (99%)	1 (1%)	0	100	100
24	S	132/145 (91%)	124 (94%)	7 (5%)	1 (1%)	19	29
25	T	133/136 (98%)	122 (92%)	11 (8%)	0	100	100
26	U	145/148 (98%)	140 (97%)	4 (3%)	1 (1%)	22	32
27	V	100/159 (63%)	91 (91%)	9 (9%)	0	100	100
28	W	98/115 (85%)	91 (93%)	7 (7%)	0	100	100
29	X	104/125 (83%)	100 (96%)	4 (4%)	0	100	100
30	Y	126/135 (93%)	125 (99%)	1 (1%)	0	100	100
31	Z	108/110 (98%)	108 (100%)	0	0	100	100
32	a	110/117 (94%)	105 (96%)	5 (4%)	0	100	100
33	b	120/123 (98%)	118 (98%)	2 (2%)	0	100	100
34	c	100/105 (95%)	93 (93%)	4 (4%)	3 (3%)	4	3
35	d	85/97 (88%)	82 (96%)	3 (4%)	0	100	100
36	e	25/70 (36%)	24 (96%)	1 (4%)	0	100	100
37	f	48/157 (31%)	45 (94%)	3 (6%)	0	100	100
38	i	95/106 (90%)	87 (92%)	6 (6%)	2 (2%)	7	8
39	j	89/92 (97%)	81 (91%)	7 (8%)	1 (1%)	14	20
40	k	122/137 (89%)	121 (99%)	1 (1%)	0	100	100
41	P	223/245 (91%)	173 (78%)	44 (20%)	6 (3%)	5	5
42	Q	132/140 (94%)	122 (92%)	7 (5%)	3 (2%)	6	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	u	60/157 (38%)	56 (93%)	3 (5%)	1 (2%)	9	11
All	All	6265/7312 (86%)	5923 (94%)	308 (5%)	34 (0%)	32	41

5 of 34 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
11	o	98	HIS
11	o	187	VAL
11	o	188	GLN
38	i	79	SER
39	j	39	CYS

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	D	189/199 (95%)	178 (94%)	11 (6%)	20	32
5	E	345/368 (94%)	312 (90%)	33 (10%)	8	12
6	F	297/348 (85%)	270 (91%)	27 (9%)	9	14
7	G	245/250 (98%)	206 (84%)	39 (16%)	2	3
8	H	193/253 (76%)	165 (86%)	28 (14%)	3	3
9	m	194/215 (90%)	179 (92%)	15 (8%)	13	20
10	n	193/223 (86%)	162 (84%)	31 (16%)	2	3
11	o	169/169 (100%)	132 (78%)	37 (22%)	1	1
12	p	138/182 (76%)	122 (88%)	16 (12%)	5	7
13	q	142/149 (95%)	109 (77%)	33 (23%)	1	1
14	r	172/177 (97%)	151 (88%)	21 (12%)	5	6
15	s	118/161 (73%)	101 (86%)	17 (14%)	3	3
16	t	173/172 (101%)	166 (96%)	7 (4%)	31	49
17	I	171/174 (98%)	153 (90%)	18 (10%)	7	9
18	J	133/163 (82%)	122 (92%)	11 (8%)	11	17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
19	K	164/165 (99%)	152 (93%)	12 (7%)	14	22
20	L	121/175 (69%)	102 (84%)	19 (16%)	2	3
21	M	157/157 (100%)	138 (88%)	19 (12%)	5	6
22	N	139/140 (99%)	115 (83%)	24 (17%)	2	2
23	R	107/133 (80%)	94 (88%)	13 (12%)	5	6
24	S	124/135 (92%)	105 (85%)	19 (15%)	2	3
25	T	117/118 (99%)	96 (82%)	21 (18%)	2	2
26	U	120/121 (99%)	113 (94%)	7 (6%)	20	32
27	V	83/126 (66%)	62 (75%)	21 (25%)	0	0
28	W	84/97 (87%)	64 (76%)	20 (24%)	0	0
29	X	93/110 (84%)	83 (89%)	10 (11%)	6	9
30	Y	114/121 (94%)	107 (94%)	7 (6%)	18	30
31	Z	89/89 (100%)	85 (96%)	4 (4%)	27	44
32	a	96/100 (96%)	85 (88%)	11 (12%)	5	7
33	b	109/110 (99%)	95 (87%)	14 (13%)	4	5
34	c	86/89 (97%)	69 (80%)	17 (20%)	1	1
35	d	74/80 (92%)	69 (93%)	5 (7%)	16	25
36	e	29/65 (45%)	26 (90%)	3 (10%)	7	10
37	f	47/130 (36%)	41 (87%)	6 (13%)	4	5
38	i	86/94 (92%)	77 (90%)	9 (10%)	7	9
39	j	74/75 (99%)	64 (86%)	10 (14%)	4	4
40	k	107/121 (88%)	101 (94%)	6 (6%)	21	34
41	P	195/213 (92%)	129 (66%)	66 (34%)	0	0
42	Q	102/107 (95%)	79 (78%)	23 (22%)	1	1
43	u	54/126 (43%)	46 (85%)	8 (15%)	3	3
All	All	5443/6200 (88%)	4725 (87%)	718 (13%)	7	4

5 of 718 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
25	T	100	VAL
34	c	66	ASP
26	U	130	SER

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Mol	Chain	Res	Type
25	T	93	LYS
29	X	63	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 144 such sidechains are listed below:

Mol	Chain	Res	Type
30	Y	107	ASN
43	u	48	GLN
32	a	100	GLN
39	j	56	HIS
12	p	92	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	3280/5070 (64%)	711 (21%)	151 (4%)
2	B	119/121 (98%)	16 (13%)	6 (5%)
3	C	145/157 (92%)	21 (14%)	4 (2%)
All	All	3544/5348 (66%)	748 (21%)	161 (4%)

5 of 748 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	2	G
1	A	4	G
1	A	15	A
1	A	17	A
1	A	18	C

5 of 161 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	4228	OMG
1	A	4910	G
1	A	4265	U
1	A	4449	A
1	A	5061	A

5.4 Non-standard residues in protein, DNA, RNA chains

117 non-standard protein/DNA/RNA residues are modelled in this entry.

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	$\#\|Z\| > 2$
1	PSU	A	4521	46,1,44	18,21,22	2.44	8 (44%)	22,30,33	4.68	13 (59%)
1	OMC	A	2422	1,44	19,22,23	2.58	6 (31%)	26,31,34	9.61	12 (46%)
1	PSU	A	1860	1	18,21,22	1.88	3 (16%)	22,30,33	3.07	4 (18%)
1	PSU	A	4420	1	18,21,22	1.62	2 (11%)	22,30,33	2.13	6 (27%)
1	OMG	A	4618	46,1	18,26,27	1.94	4 (22%)	19,38,41	3.03	8 (42%)
1	PSU	A	4353	46,1	18,21,22	2.53	7 (38%)	22,30,33	4.81	14 (63%)
1	OMU	A	2415	1	19,22,23	1.63	5 (26%)	26,31,34	5.14	12 (46%)
1	OMC	A	3869	1	19,22,23	2.00	6 (31%)	26,31,34	2.63	8 (30%)
1	A2M	A	4590	1	18,25,26	2.13	5 (27%)	18,36,39	2.79	10 (55%)
1	PSU	A	5010	1	18,21,22	1.49	2 (11%)	22,30,33	2.12	5 (22%)
1	OMC	A	2351	1,44	19,22,23	2.43	9 (47%)	26,31,34	2.55	13 (50%)
1	PSU	A	1677	46,1	18,21,22	3.32	11 (61%)	22,30,33	3.93	10 (45%)
1	OMG	A	4623	1	18,26,27	2.66	6 (33%)	19,38,41	2.76	7 (36%)
1	PSU	A	4471	1	18,21,22	1.42	5 (27%)	22,30,33	3.37	9 (40%)
1	PSU	A	1683	46,1	18,21,22	2.86	10 (55%)	22,30,33	4.18	13 (59%)
1	PSU	A	1781	1	18,21,22	2.03	3 (16%)	22,30,33	2.83	6 (27%)
1	PSU	A	4442	1	18,21,22	1.85	3 (16%)	22,30,33	4.30	9 (40%)
1	A2M	A	2815	1	18,25,26	1.50	3 (16%)	18,36,39	1.80	3 (16%)
1	OMU	A	4498	46,1	19,22,23	1.35	3 (15%)	26,31,34	2.60	9 (34%)
1	OMG	A	3627	1	18,26,27	1.78	5 (27%)	19,38,41	2.78	5 (26%)
1	1MA	A	1322	1,44	16,25,26	2.29	6 (37%)	18,37,40	2.59	7 (38%)
1	OMC	A	3841	1	19,22,23	2.07	6 (31%)	26,31,34	1.96	7 (26%)
3	PSU	C	55	3	18,21,22	1.41	3 (16%)	22,30,33	3.59	10 (45%)
1	PSU	A	3637	46,1	18,21,22	2.21	7 (38%)	22,30,33	4.12	12 (54%)
1	PSU	A	4457	1	18,21,22	2.02	6 (33%)	22,30,33	3.47	9 (40%)
1	OMG	A	1316	46,1	18,26,27	1.85	6 (33%)	19,38,41	2.87	8 (42%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
1	OMC	A	2861	1	19,22,23	1.53	4 (21%)	26,31,34	1.07	3 (11%)
1	OMU	A	3925	1	19,22,23	1.74	5 (26%)	26,31,34	3.99	13 (50%)
1	OMG	A	4392	1	18,26,27	1.70	5 (27%)	19,38,41	3.30	6 (31%)
1	5MC	A	4447	46,1	18,22,23	1.88	2 (11%)	26,32,35	3.20	14 (53%)
1	A2M	A	2401	1	18,25,26	1.35	2 (11%)	18,36,39	2.51	10 (55%)
1	PSU	A	4673	46,1	18,21,22	2.18	5 (27%)	22,30,33	4.58	13 (59%)
1	OMG	A	1625	46,1	18,26,27	1.67	5 (27%)	19,38,41	3.29	12 (63%)
1	PSU	A	4972	46,1	18,21,22	2.31	6 (33%)	22,30,33	4.72	14 (63%)
1	A2M	A	4571	1	18,25,26	1.38	1 (5%)	18,36,39	2.87	9 (50%)
1	6MZ	A	4220	1	18,25,26	1.51	4 (22%)	16,36,39	4.45	6 (37%)
1	A2M	A	1524	1	18,25,26	2.03	6 (33%)	18,36,39	3.08	6 (33%)
1	PSU	A	2632	1	18,21,22	1.72	3 (16%)	22,30,33	2.03	7 (31%)
1	OMU	A	4227	1	19,22,23	1.76	5 (26%)	26,31,34	5.63	16 (61%)
1	OMU	A	4306	1	19,22,23	2.46	6 (31%)	26,31,34	3.34	13 (50%)
1	PSU	A	1862	1	18,21,22	1.70	3 (16%)	22,30,33	3.15	11 (50%)
1	OMG	A	2424	1	18,26,27	1.96	7 (38%)	19,38,41	4.36	12 (63%)
1	PSU	A	4423	1	18,21,22	1.61	2 (11%)	22,30,33	2.00	5 (22%)
1	OMC	A	3701	46,1	19,22,23	1.49	3 (15%)	26,31,34	2.25	9 (34%)
1	PSU	A	3853	1,44	18,21,22	2.65	10 (55%)	22,30,33	5.12	11 (50%)
1	PSU	A	4312	1	18,21,22	1.79	6 (33%)	22,30,33	3.63	12 (54%)
1	PSU	A	3695	46,1	18,21,22	1.88	5 (27%)	22,30,33	2.50	7 (31%)
1	PSU	A	1792	46,1	18,21,22	1.36	1 (5%)	22,30,33	2.27	7 (31%)
1	OMG	A	3744	1	18,26,27	1.57	5 (27%)	19,38,41	2.45	11 (57%)
1	PSU	A	3729	1	18,21,22	1.85	5 (27%)	22,30,33	2.96	9 (40%)
1	OMC	A	4536	1	19,22,23	2.11	9 (47%)	26,31,34	2.51	12 (46%)
1	PSU	A	4299	1	18,21,22	2.27	6 (33%)	22,30,33	4.39	10 (45%)
1	PSU	A	4293	1	18,21,22	1.53	4 (22%)	22,30,33	3.96	12 (54%)
3	PSU	C	69	3	18,21,22	2.05	4 (22%)	22,30,33	2.92	9 (40%)
1	PSU	A	3639	1	18,21,22	2.56	6 (33%)	22,30,33	4.59	12 (54%)
1	A2M	A	3785	1	18,25,26	1.31	2 (11%)	18,36,39	2.52	7 (38%)
1	A2M	A	1534	1,44	18,25,26	2.25	6 (33%)	18,36,39	2.19	6 (33%)
1	A2M	A	3830	1	18,25,26	1.72	4 (22%)	18,36,39	1.98	3 (16%)
1	PSU	A	1744	46,1	18,21,22	1.78	2 (11%)	22,30,33	2.71	8 (36%)
1	PSU	A	4403	46,1	18,21,22	2.32	6 (33%)	22,30,33	3.73	10 (45%)
1	OMU	A	4620	1	19,22,23	2.06	6 (31%)	26,31,34	4.12	14 (53%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
1	OMC	A	2365	1,44	19,22,23	1.46	4 (21%)	26,31,34	2.49	10 (38%)
1	5MC	A	3782	1,44	18,22,23	1.67	4 (22%)	26,32,35	1.79	4 (15%)
1	PSU	A	4689	1	18,21,22	1.86	5 (27%)	22,30,33	3.06	11 (50%)
1	PSU	A	4431	46,1	18,21,22	1.26	2 (11%)	22,30,33	2.49	6 (27%)
1	PSU	A	4532	46,1	18,21,22	2.86	9 (50%)	22,30,33	4.16	17 (77%)
1	A2M	A	400	1	18,25,26	1.53	3 (16%)	18,36,39	2.24	5 (27%)
1	OMG	A	2364	1	18,26,27	2.34	7 (38%)	19,38,41	3.48	13 (68%)
1	PSU	A	4361	46,1	18,21,22	1.69	5 (27%)	22,30,33	3.92	9 (40%)
1	OMG	A	4494	1	18,26,27	2.10	7 (38%)	19,38,41	3.01	8 (42%)
1	PSU	A	2508	1	18,21,22	1.97	7 (38%)	22,30,33	3.11	10 (45%)
1	PSU	A	3920	1,44	18,21,22	2.52	9 (50%)	22,30,33	4.23	13 (59%)
1	PSU	A	1536	1	18,21,22	2.70	8 (44%)	22,30,33	4.92	13 (59%)
1	A2M	A	398	1	18,25,26	2.08	4 (22%)	18,36,39	2.40	5 (27%)
1	OMG	A	1522	1	18,26,27	2.44	6 (33%)	19,38,41	2.60	9 (47%)
1	OMU	A	2837	1	19,22,23	2.33	6 (31%)	26,31,34	3.98	11 (42%)
1	PSU	A	4296	1	18,21,22	1.80	5 (27%)	22,30,33	3.04	13 (59%)
1	PSU	A	4579	1	18,21,22	1.70	4 (22%)	22,30,33	3.51	11 (50%)
3	OMG	C	75	3	18,26,27	1.27	1 (5%)	19,38,41	1.55	5 (26%)
1	A2M	A	1871	46,1,44	18,25,26	1.67	4 (22%)	18,36,39	2.38	7 (38%)
1	A2M	A	2363	1,44	18,25,26	1.73	4 (22%)	18,36,39	3.32	8 (44%)
1	OMC	A	3887	1	19,22,23	1.18	1 (5%)	26,31,34	3.82	13 (50%)
1	OMC	A	2824	1	19,22,23	1.51	5 (26%)	26,31,34	2.81	13 (50%)
1	PSU	A	2839	1	18,21,22	1.77	4 (22%)	22,30,33	3.73	15 (68%)
1	A2M	A	1326	1	18,25,26	1.74	3 (16%)	18,36,39	2.64	6 (33%)
1	PSU	A	4552	1	18,21,22	1.83	7 (38%)	22,30,33	4.53	14 (63%)
1	OMG	A	4499	1	18,26,27	1.50	4 (22%)	19,38,41	1.68	4 (21%)
1	PSU	A	3884	46,1	18,21,22	2.87	10 (55%)	22,30,33	4.09	14 (63%)
1	OMG	A	2876	1	18,26,27	2.01	1 (5%)	19,38,41	2.31	3 (15%)
1	PSU	A	1782	1	18,21,22	2.55	4 (22%)	22,30,33	3.13	9 (40%)
1	A2M	A	3867	1	18,25,26	1.81	4 (22%)	18,36,39	1.57	4 (22%)
1	PSU	A	4576	1	18,21,22	1.61	5 (27%)	22,30,33	3.23	12 (54%)
1	OMG	A	4228	1	18,26,27	3.20	9 (50%)	19,38,41	5.35	14 (73%)
1	PSU	A	3851	1	18,21,22	1.64	4 (22%)	22,30,33	4.68	16 (72%)
1	PSU	A	1582	1	18,21,22	1.92	3 (16%)	22,30,33	4.03	15 (68%)
1	PSU	A	3844	1	18,21,22	2.32	5 (27%)	22,30,33	4.20	13 (59%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\lvert Z\rvert > 2$	Counts	RMSZ	$\#\lvert Z\rvert > 2$
1	A2M	A	3825	1	18,25,26	1.36	3 (16%)	18,36,39	2.63	7 (38%)
1	PSU	A	4493	46,1	18,21,22	1.30	2 (11%)	22,30,33	7.39	13 (59%)
1	OMU	A	3818	46,1	19,22,23	1.93	6 (31%)	26,31,34	3.62	11 (42%)
1	A2M	A	3718	1	18,25,26	1.57	3 (16%)	18,36,39	1.94	6 (33%)
1	OMC	A	2804	1	19,22,23	1.54	3 (15%)	26,31,34	1.91	9 (34%)
1	OMC	A	4456	1	19,22,23	1.74	5 (26%)	26,31,34	2.64	14 (53%)
1	UR3	A	4530	1	19,22,23	2.00	5 (26%)	26,32,35	2.91	14 (53%)
1	OMG	A	3899	1	18,26,27	2.57	7 (38%)	19,38,41	1.54	3 (15%)
1	PSU	A	3715	1	18,21,22	1.94	4 (22%)	22,30,33	1.86	7 (31%)
1	PSU	A	4500	46,1	18,21,22	1.75	5 (27%)	22,30,33	4.02	9 (40%)
1	OMG	A	4196	1,44	18,26,27	1.40	1 (5%)	19,38,41	1.90	4 (21%)
1	A2M	A	3724	1	18,25,26	1.49	3 (16%)	18,36,39	1.60	4 (22%)
1	OMG	A	3792	1	18,26,27	1.73	4 (22%)	19,38,41	2.08	6 (31%)
1	OMC	A	3808	46,1	19,22,23	1.24	1 (5%)	26,31,34	1.91	7 (26%)
1	PSU	A	4628	1	18,21,22	2.41	6 (33%)	22,30,33	4.28	14 (63%)
1	A2M	A	4523	1,44	18,25,26	1.76	6 (33%)	18,36,39	2.68	7 (38%)
1	PSU	A	5001	46,1	18,21,22	1.69	5 (27%)	22,30,33	3.58	12 (54%)
1	OMG	A	4637	46,1	18,26,27	1.61	3 (16%)	19,38,41	2.55	6 (31%)
1	OMG	A	4370	1,44	18,26,27	1.45	4 (22%)	19,38,41	3.67	7 (36%)
1	A2M	A	2787	46,1,44	18,25,26	1.59	4 (22%)	18,36,39	3.24	10 (55%)
1	OMC	A	1340	1	19,22,23	1.45	5 (26%)	26,31,34	2.73	12 (46%)

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
1	PSU	A	4521	46,1,44	-	0/7/25/26	0/2/2/2
1	OMC	A	2422	1,44	-	1/9/27/28	0/2/2/2
1	PSU	A	1860	1	-	0/7/25/26	0/2/2/2
1	PSU	A	4420	1	-	0/7/25/26	0/2/2/2
1	OMG	A	4618	46,1	-	0/5/27/28	0/3/3/3
1	PSU	A	4353	46,1	-	0/7/25/26	0/2/2/2
1	OMU	A	2415	1	-	1/9/27/28	0/2/2/2
1	OMC	A	3869	1	-	1/9/27/28	0/2/2/2
1	A2M	A	4590	1	-	1/5/27/28	0/3/3/3
1	PSU	A	5010	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMC	A	2351	1,44	-	2/9/27/28	0/2/2/2
1	PSU	A	1677	46,1	-	1/7/25/26	0/2/2/2
1	OMG	A	4623	1	-	0/5/27/28	0/3/3/3
1	PSU	A	4471	1	-	0/7/25/26	0/2/2/2
1	PSU	A	1683	46,1	-	0/7/25/26	0/2/2/2
1	PSU	A	1781	1	-	0/7/25/26	0/2/2/2
1	PSU	A	4442	1	-	0/7/25/26	0/2/2/2
1	A2M	A	2815	1	-	3/5/27/28	0/3/3/3
1	OMU	A	4498	46,1	-	0/9/27/28	0/2/2/2
1	OMG	A	3627	1	-	0/5/27/28	0/3/3/3
1	1MA	A	1322	1,44	-	0/3/25/26	0/3/3/3
1	OMC	A	3841	1	-	0/9/27/28	0/2/2/2
3	PSU	C	55	3	-	0/7/25/26	0/2/2/2
1	PSU	A	3637	46,1	-	0/7/25/26	0/2/2/2
1	PSU	A	4457	1	-	0/7/25/26	0/2/2/2
1	OMG	A	1316	46,1	-	0/5/27/28	0/3/3/3
1	OMC	A	2861	1	-	0/9/27/28	0/2/2/2
1	OMU	A	3925	1	-	0/9/27/28	0/2/2/2
1	OMG	A	4392	1	-	0/5/27/28	0/3/3/3
1	5MC	A	4447	46,1	-	4/7/25/26	0/2/2/2
1	A2M	A	2401	1	-	0/5/27/28	0/3/3/3
1	PSU	A	4673	46,1	-	0/7/25/26	0/2/2/2
1	OMG	A	1625	46,1	-	1/5/27/28	0/3/3/3
1	PSU	A	4972	46,1	-	2/7/25/26	0/2/2/2
1	A2M	A	4571	1	-	0/5/27/28	0/3/3/3
1	6MZ	A	4220	1	-	0/5/27/28	0/3/3/3
1	A2M	A	1524	1	-	1/5/27/28	0/3/3/3
1	PSU	A	2632	1	-	0/7/25/26	0/2/2/2
1	OMU	A	4227	1	-	2/9/27/28	0/2/2/2
1	OMU	A	4306	1	-	0/9/27/28	0/2/2/2
1	PSU	A	1862	1	-	0/7/25/26	0/2/2/2
1	OMG	A	2424	1	-	2/5/27/28	0/3/3/3
1	PSU	A	4423	1	-	0/7/25/26	0/2/2/2
1	OMC	A	3701	46,1	-	5/9/27/28	0/2/2/2
1	PSU	A	3853	1,44	-	0/7/25/26	0/2/2/2
1	PSU	A	4312	1	-	0/7/25/26	0/2/2/2
1	PSU	A	3695	46,1	-	0/7/25/26	0/2/2/2
1	PSU	A	1792	46,1	-	2/7/25/26	0/2/2/2
1	OMG	A	3744	1	-	0/5/27/28	0/3/3/3
1	PSU	A	3729	1	-	1/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMC	A	4536	1	-	0/9/27/28	0/2/2/2
1	PSU	A	4299	1	-	0/7/25/26	0/2/2/2
1	PSU	A	4293	1	-	0/7/25/26	0/2/2/2
3	PSU	C	69	3	-	0/7/25/26	0/2/2/2
1	PSU	A	3639	1	-	0/7/25/26	0/2/2/2
1	A2M	A	3785	1	-	2/5/27/28	0/3/3/3
1	A2M	A	1534	1,44	-	2/5/27/28	0/3/3/3
1	A2M	A	3830	1	-	3/5/27/28	0/3/3/3
1	PSU	A	1744	46,1	-	0/7/25/26	0/2/2/2
1	PSU	A	4403	46,1	-	0/7/25/26	0/2/2/2
1	OMU	A	4620	1	-	0/9/27/28	0/2/2/2
1	OMC	A	2365	1,44	-	2/9/27/28	0/2/2/2
1	5MC	A	3782	1,44	-	0/7/25/26	0/2/2/2
1	PSU	A	4689	1	-	1/7/25/26	0/2/2/2
1	PSU	A	4431	46,1	-	0/7/25/26	0/2/2/2
1	PSU	A	4532	46,1	-	0/7/25/26	0/2/2/2
1	A2M	A	400	1	-	1/5/27/28	0/3/3/3
1	OMG	A	2364	1	-	2/5/27/28	0/3/3/3
1	PSU	A	4361	46,1	-	0/7/25/26	0/2/2/2
1	OMG	A	4494	1	-	0/5/27/28	0/3/3/3
1	PSU	A	2508	1	-	0/7/25/26	0/2/2/2
1	PSU	A	3920	1,44	-	0/7/25/26	0/2/2/2
1	PSU	A	1536	1	-	0/7/25/26	0/2/2/2
1	A2M	A	398	1	-	1/5/27/28	0/3/3/3
1	OMG	A	1522	1	-	0/5/27/28	0/3/3/3
1	OMU	A	2837	1	-	0/9/27/28	0/2/2/2
1	PSU	A	4296	1	-	1/7/25/26	0/2/2/2
1	PSU	A	4579	1	-	0/7/25/26	0/2/2/2
3	OMG	C	75	3	-	1/5/27/28	0/3/3/3
1	A2M	A	1871	46,1,44	-	0/5/27/28	0/3/3/3
1	A2M	A	2363	1,44	-	0/5/27/28	0/3/3/3
1	OMC	A	3887	1	-	0/9/27/28	0/2/2/2
1	OMC	A	2824	1	-	0/9/27/28	0/2/2/2
1	PSU	A	2839	1	-	2/7/25/26	0/2/2/2
1	A2M	A	1326	1	-	0/5/27/28	0/3/3/3
1	PSU	A	4552	1	-	0/7/25/26	0/2/2/2
1	OMG	A	4499	1	-	0/5/27/28	0/3/3/3
1	PSU	A	3884	46,1	-	0/7/25/26	0/2/2/2
1	OMG	A	2876	1	-	0/5/27/28	0/3/3/3
1	PSU	A	1782	1	-	0/7/25/26	0/2/2/2
1	A2M	A	3867	1	-	0/5/27/28	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	PSU	A	4576	1	-	0/7/25/26	0/2/2/2
1	OMG	A	4228	1	-	1/5/27/28	0/3/3/3
1	PSU	A	3851	1	-	1/7/25/26	0/2/2/2
1	PSU	A	1582	1	-	1/7/25/26	0/2/2/2
1	PSU	A	3844	1	-	1/7/25/26	0/2/2/2
1	A2M	A	3825	1	-	1/5/27/28	0/3/3/3
1	PSU	A	4493	46,1	-	0/7/25/26	0/2/2/2
1	OMU	A	3818	46,1	-	1/9/27/28	0/2/2/2
1	A2M	A	3718	1	-	1/5/27/28	0/3/3/3
1	OMC	A	2804	1	-	0/9/27/28	0/2/2/2
1	OMC	A	4456	1	-	0/9/27/28	0/2/2/2
1	UR3	A	4530	1	-	1/7/25/26	0/2/2/2
1	OMG	A	3899	1	-	0/5/27/28	0/3/3/3
1	PSU	A	3715	1	-	0/7/25/26	0/2/2/2
1	PSU	A	4500	46,1	-	3/7/25/26	0/2/2/2
1	OMG	A	4196	1,44	-	1/5/27/28	0/3/3/3
1	A2M	A	3724	1	-	0/5/27/28	0/3/3/3
1	OMG	A	3792	1	-	0/5/27/28	0/3/3/3
1	OMC	A	3808	46,1	-	1/9/27/28	0/2/2/2
1	PSU	A	4628	1	-	0/7/25/26	0/2/2/2
1	A2M	A	4523	1,44	-	0/5/27/28	0/3/3/3
1	PSU	A	5001	46,1	-	1/7/25/26	0/2/2/2
1	OMG	A	4637	46,1	-	0/5/27/28	0/3/3/3
1	OMG	A	4370	1,44	-	2/5/27/28	0/3/3/3
1	A2M	A	2787	46,1,44	-	0/5/27/28	0/3/3/3
1	OMC	A	1340	1	-	0/9/27/28	0/2/2/2

The worst 5 of 559 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4228	OMG	O4'-C1'	-9.74	1.27	1.41
1	A	4623	OMG	C6-N1	-8.25	1.25	1.37
1	A	1782	PSU	C6-C5	8.00	1.44	1.35
1	A	1677	PSU	C2'-C1'	-7.78	1.43	1.53
1	A	2422	OMC	C5-C4	7.46	1.60	1.42

The worst 5 of 1103 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2422	OMC	N4-C4-N3	-27.53	69.65	117.97
1	A	2422	OMC	C4-N3-C2	-23.05	83.03	120.25
1	A	4493	PSU	C4-N3-C2	-19.76	97.87	126.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2422	OMC	C5-C4-N4	18.62	149.88	120.57
1	A	4493	PSU	N1-C2-N3	16.91	134.29	115.13

There are no chirality outliers.

5 of 64 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	400	A2M	C1'-C2'-O2'-CM'
1	A	1582	PSU	C3'-C4'-C5'-O5'
1	A	1625	OMG	C3'-C2'-O2'-CM2
1	A	2415	OMU	C1'-C2'-O2'-CM2
1	A	2424	OMG	O4'-C4'-C5'-O5'

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 386 ligands modelled in this entry, 386 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 ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	4273:A	O3’	4274:A	P	1.83
1	A	3823:G	O3’	3824:A	P	1.77

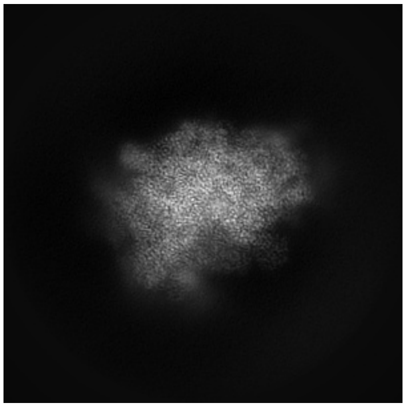
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-13094. These allow visual inspection of the internal detail of the map and identification of artifacts.

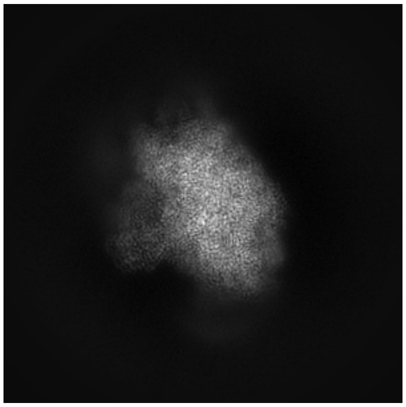
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

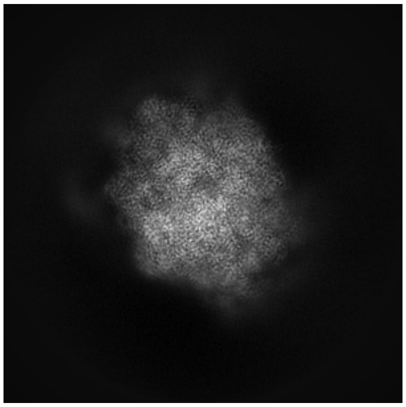
6.1.1 Primary map



X



Y

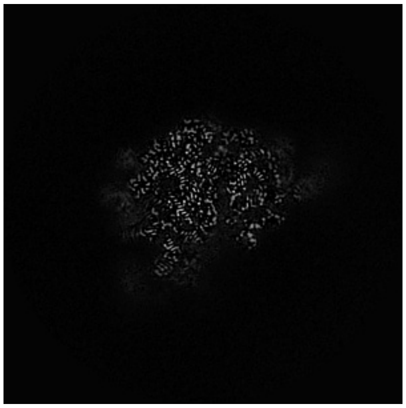


Z

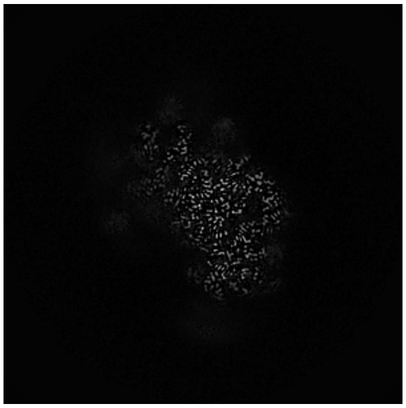
The images above show the map projected in three orthogonal directions.

6.2 Central slices

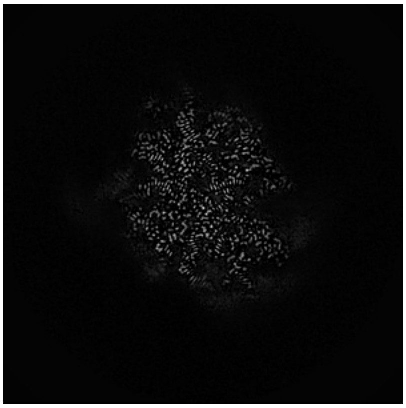
6.2.1 Primary map



X Index: 256



Y Index: 256

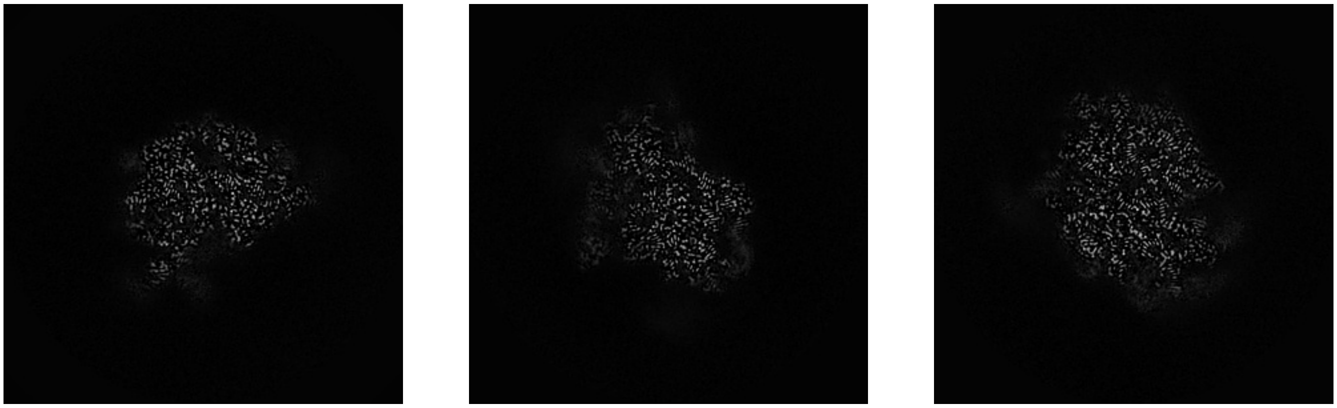


Z Index: 256

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

6.3 Largest variance slices ⓘ

6.3.1 Primary map

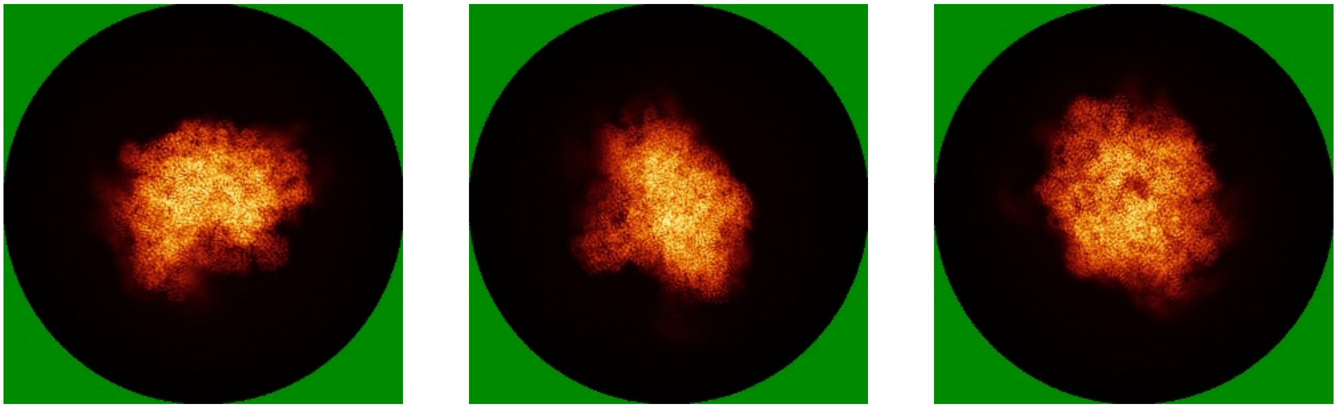


X Index: 239 Y Index: 238 Z Index: 261

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

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

6.4.1 Primary map

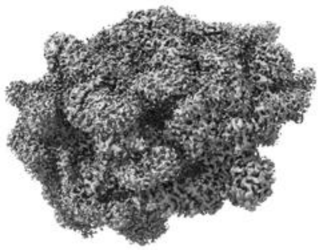


X Y Z

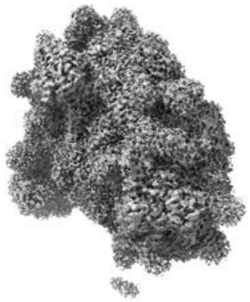
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views ⓘ

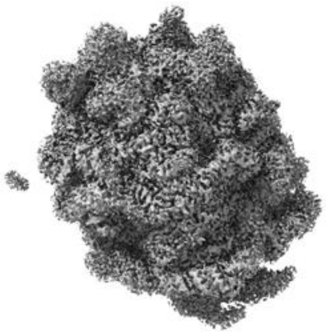
6.5.1 Primary map



X



Y



Z

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

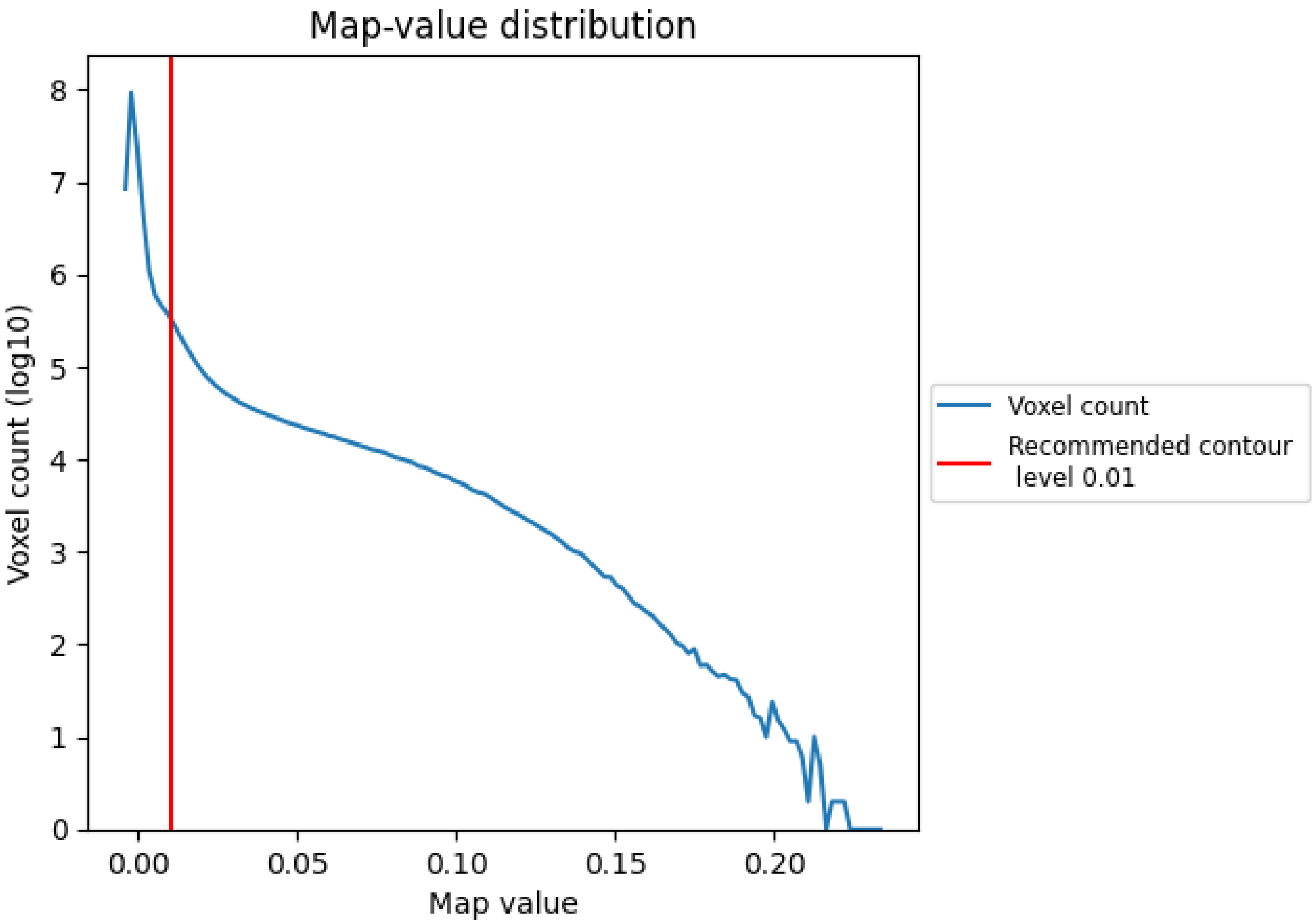
6.6 Mask visualisation ⓘ

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

7 Map analysis (i)

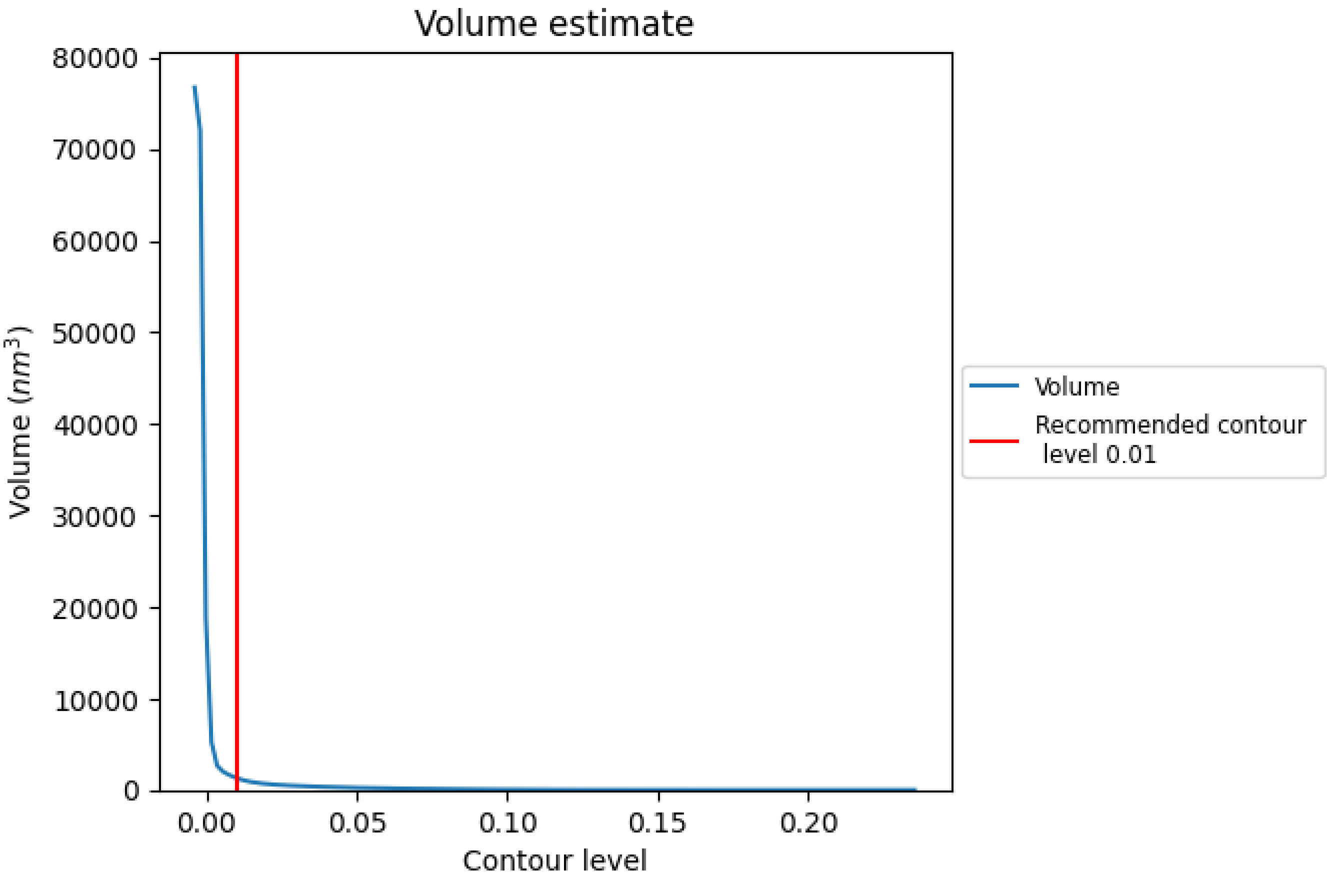
This section contains the results of statistical analysis of the map.

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.

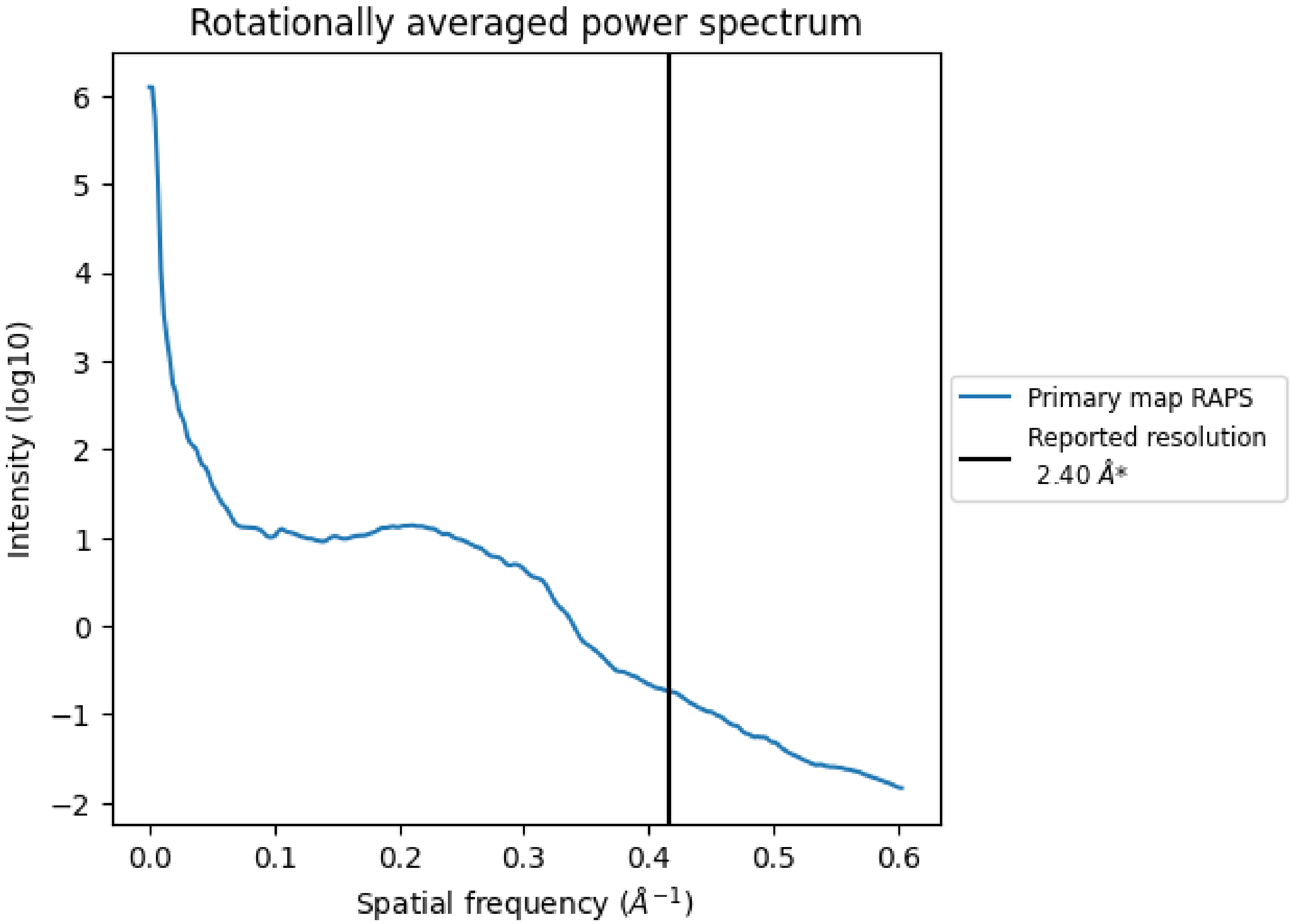
7.2 Volume estimate ⓘ



The volume at the recommended contour level is 1295 nm^3; this corresponds to an approximate mass of 1170 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

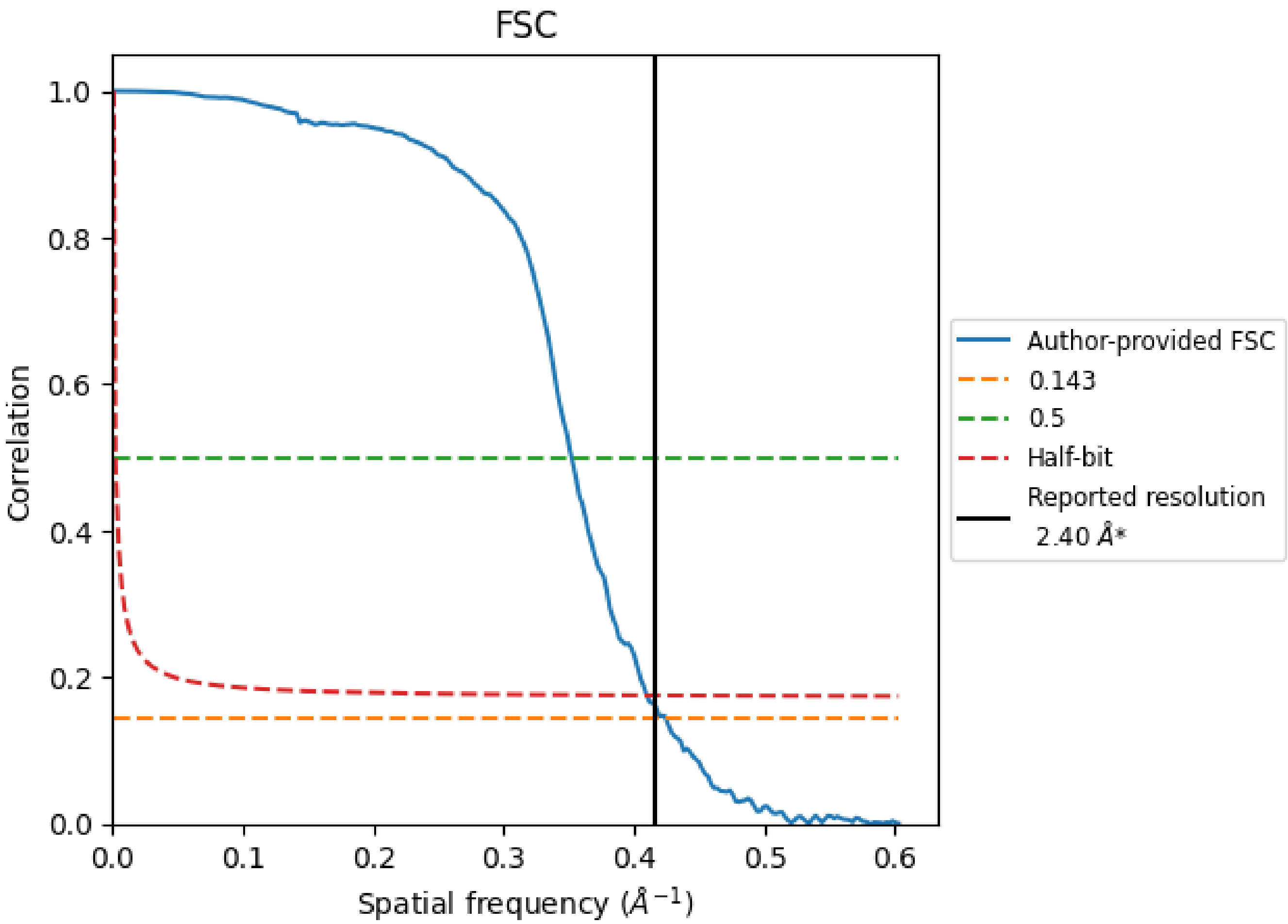


*Reported resolution corresponds to spatial frequency of 0.417 Å^{-1}

8 Fourier-Shell correlation ⓘ

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC ⓘ



*Reported resolution corresponds to spatial frequency of 0.417 Å^{-1}

8.2 Resolution estimates ⓘ

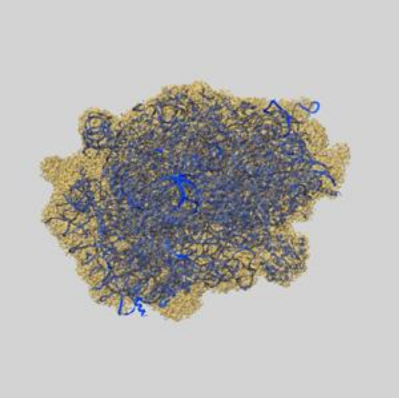
Resolution estimate (Å)	**Estimation criterion (FSC cut-off)**		
	0.143	0.5	Half-bit
Reported by author	2.40	-	-
Author-provided FSC curve	2.36	2.84	2.44
Unmasked-calculated*	-	-	-

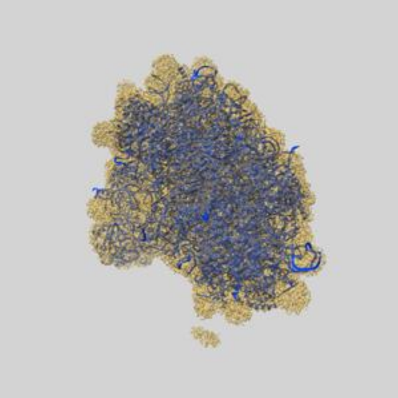
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

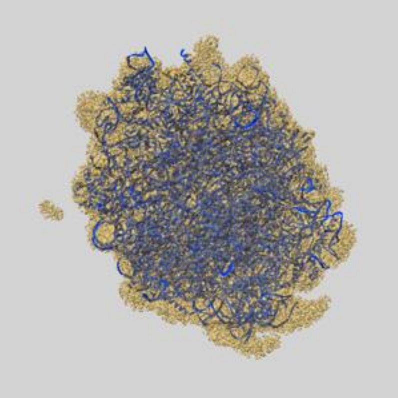
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-13094 and PDB model 7OW7. Per-residue inclusion information can be found in section 3 on page 16.

9.1 Map-model overlay

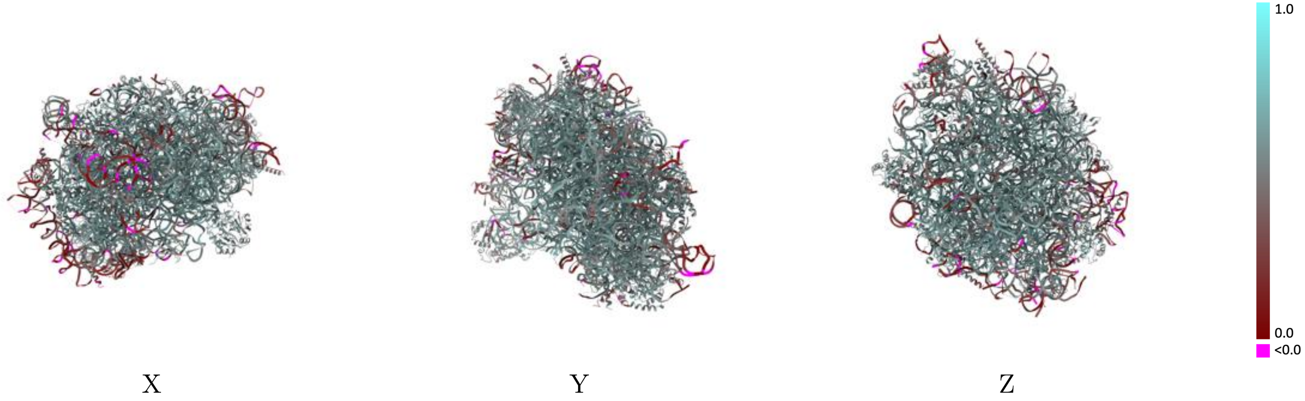

X


Y


Z

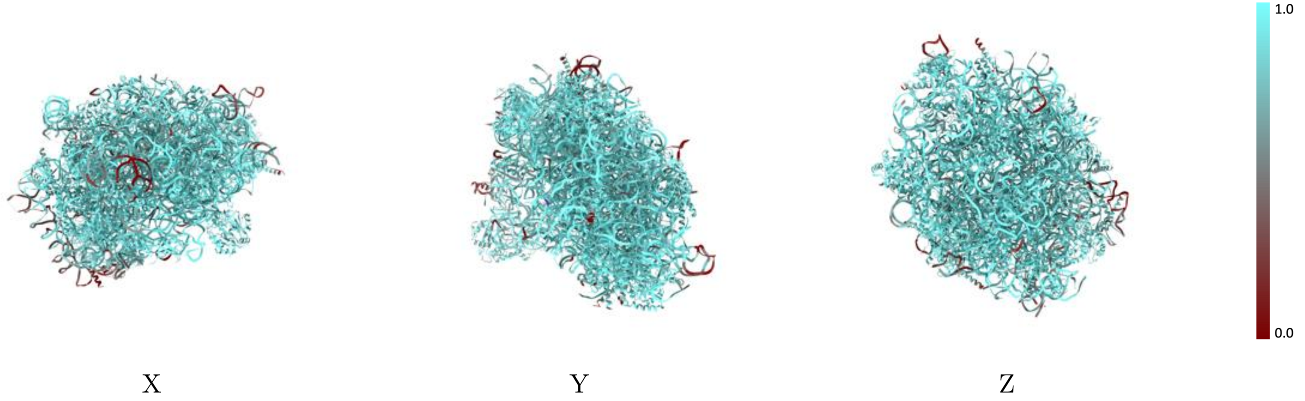
The images above show the 3D surface view of the map at the recommended contour level 0.01 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model ⓘ



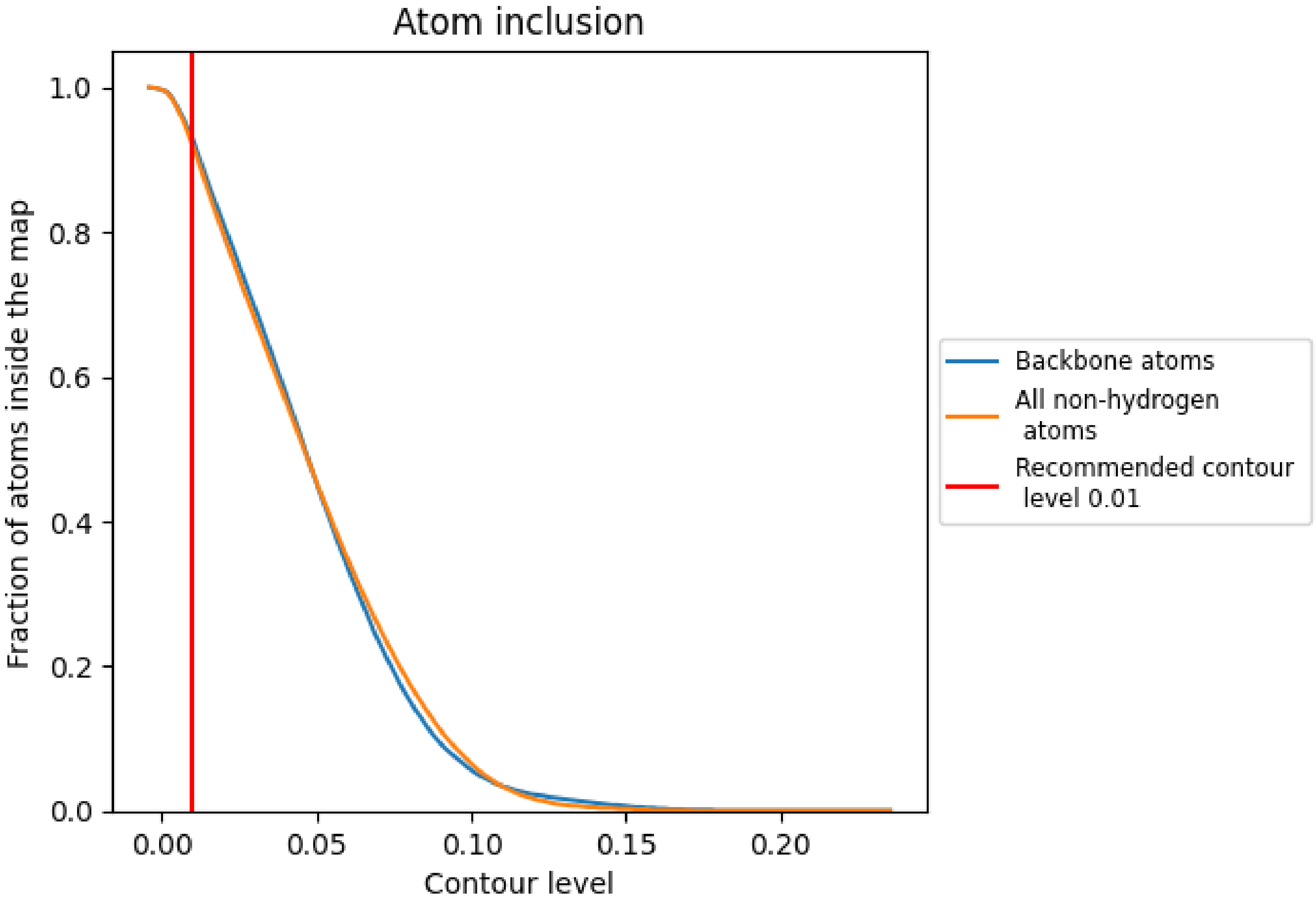
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.01).

9.4 Atom inclusion ⓘ



At the recommended contour level, 93% of all backbone atoms, 92% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9200	0.5390
A	0.9100	0.5170
B	0.9820	0.5800
C	0.9720	0.5680
D	0.9800	0.6120
E	0.9510	0.5750
F	0.9700	0.6060
G	0.8790	0.5420
H	0.9240	0.5500
I	0.9510	0.5810
J	0.9710	0.5870
K	0.9790	0.6260
L	0.8900	0.5270
M	0.9660	0.5890
N	0.9530	0.5920
P	0.8820	0.5290
Q	0.9610	0.5910
R	0.9480	0.5570
S	0.9240	0.5500
T	0.8980	0.5210
U	0.9720	0.6220
V	0.8640	0.5150
W	0.9100	0.5350
X	0.9350	0.5560
Y	0.9750	0.6060
Z	0.9820	0.6150
a	0.9150	0.5470
b	0.9180	0.5540
c	0.8900	0.5400
d	0.9750	0.6080
e	0.7390	0.4490
f	0.9460	0.5630
i	0.9300	0.5710
j	0.9330	0.5590
k	0.9710	0.6020

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Chain	Atom inclusion	Q-score
m	0.9660	0.6060
n	0.9040	0.5520
o	0.9030	0.5300
p	0.7930	0.4490
q	0.8100	0.4810
r	0.9200	0.5760
s	0.9150	0.5410
t	0.9880	0.6240
u	0.9220	0.5420