



## wwPDB EM Validation Summary Report ⓘ

Dec 17, 2022 – 03:34 pm GMT

PDB ID : 6ZCE  
EMDB ID : EMD-11160  
Title : Structure of a yeast ABCE1-bound 43S pre-initiation complex  
Authors : Kratzat, H.; Mackens-Kiani, T.; Cheng, J.; Berninghausen, O.; Becker, T.; Beckmann, R.  
Deposited on : 2020-06-10  
Resolution : 5.30 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](mailto: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>.

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

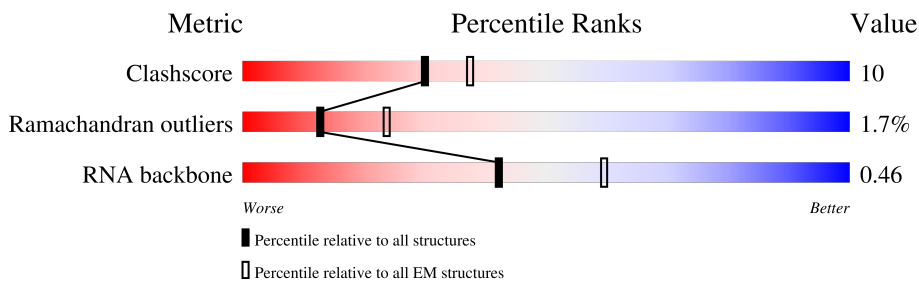
EMDB validation analysis : 0.0.1.dev43  
Mogul : 1.8.4, CSD as541be (2020)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.3

# 1 Overall quality at a glance i

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

The reported resolution of this entry is 5.30 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	l	347	
2	r	274	
3	A	1800	
4	B	252	
5	C	255	
6	D	254	
7	E	240	
8	F	261	

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Mol	Chain	Length	Quality of chain
9	G	225	18% 84% 8% 8%
10	H	236	13% 87% 8%
11	I	190	11% 87% 7% ...
12	J	200	8% 86% 8% 6%
13	K	197	11% 89% 5% 7%
14	L	105	8% 80% 7% 12%
15	M	155	19% 86% 5% 8%
16	N	143	55% 73% 10% 16%
17	O	151	12% 93% 7%
18	P	136	13% 81% 12% 7%
19	Q	141	29% 80% 6% 13%
20	R	143	15% 84% 13% ...
21	S	136	24% 83% 14%
22	T	146	12% 88% 10% ..
23	U	144	13% 93% 6% .
24	V	121	18% 82% 5% 13%
25	W	87	14% 95% 5%
26	X	130	18% 95% . ..
27	Y	145	10% 84% 14% ..
28	Z	135	10% 90% 8% ..
29	a	108	13% 61% 35%
30	b	119	20% 69% 13% 18%
31	c	82	28% 96% ..
32	d	67	36% 93% 7%
33	e	56	. 95% 5%

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Mol	Chain	Length	Quality of chain
34	f	63	
35	g	152	
36	h	319	
37	o	964	
38	p	763	
39	q	812	
40	i	153	
41	m	108	
42	s	265	
42	t	265	
43	j	77	
44	k	608	

## 2 Entry composition

There are 49 unique types of molecules in this entry. The entry contains 76380 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 Eukaryotic translation initiation factor 3 subunit I.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
1	l	330	1624	964	330	330	0	0

- Molecule 2 is a protein called Eukaryotic translation initiation factor 3 subunit G.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	r	53	261	155	53	53	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
r	139	SER	ASN	conflict	UNP Q04067

- Molecule 3 is a RNA chain called 18S ribosomal RNA (1719-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	A	1719	36643	16382	6499	12043	1719	0	0

- Molecule 4 is a protein called 40S ribosomal protein S0-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
4	B	206	1020	608	206	206	0	0

- Molecule 5 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
5	C	214	1061	633	214	214	0	0

- Molecule 6 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms			AltConf	Trace	
6	D	217	Total	C	N	O	0	0
			1063	629	217	217		

- Molecule 7 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms			AltConf	Trace	
7	E	223	Total	C	N	O	0	0
			1098	652	223	223		

- Molecule 8 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
8	F	260	Total	C	N	O	0	0
			1276	756	260	260		

- Molecule 9 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms			AltConf	Trace	
9	G	206	Total	C	N	O	0	0
			1020	608	206	206		

- Molecule 10 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
10	H	226	Total	C	N	O	0	0
			1113	661	226	226		

- Molecule 11 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
11	I	184	Total	C	N	O	0	0
			913	545	184	184		

- Molecule 12 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
12	J	188	Total	C	N	O	0	0
			924	548	188	188		

- Molecule 13 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
13	K	184	910	542	184	184	0	0

- Molecule 14 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
14	L	92	456	272	92	92	0	0

- Molecule 15 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
15	M	142	702	418	142	142	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
M	147	ALA	GLY	conflict	UNP P0CX47

- Molecule 16 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
16	N	120	590	350	120	120	0	0

- Molecule 17 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
17	O	150	742	442	150	150	0	0

- Molecule 18 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
18	P	127	620	366	127	127	0	0

- Molecule 19 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms			AltConf	Trace	
			Total	C	N			O
19	Q	122	601	357	122	122	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Q	137	SER	ARG	conflict	UNP Q01855

- Molecule 20 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
			Total	C	N			O
20	R	141	693	411	141	141	0	0

- Molecule 21 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
			Total	C	N			O
21	S	117	579	345	117	117	0	0

- Molecule 22 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
			Total	C	N			O
22	T	145	715	425	145	145	0	0

- Molecule 23 is a protein called 40S ribosomal protein S19-A.

Mol	Chain	Residues	Atoms			AltConf	Trace	
			Total	C	N			O
23	U	143	700	414	143	143	0	0

- Molecule 24 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms			AltConf	Trace	
			Total	C	N			O
24	V	105	521	311	105	105	0	0

- Molecule 25 is a protein called 40S ribosomal protein S21-A.



Mol	Chain	Residues	Atoms				AltConf	Trace
25	W	87	Total	C	N	O	0	0
			429	255	87	87		

- Molecule 26 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	X	129	Total	C	N	O	0	0
			634	376	129	129		

- Molecule 27 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	Y	144	Total	C	N	O	0	0
			704	416	144	144		

- Molecule 28 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	Z	134	Total	C	N	O	0	0
			661	393	134	134		

- Molecule 29 is a protein called 40S ribosomal protein S25-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
29	a	70	Total	C	N	O	0	0
			347	207	70	70		

- Molecule 30 is a protein called 40S ribosomal protein S26-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
30	b	97	Total	C	N	O	0	0
			482	288	97	97		

- Molecule 31 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
31	c	81	Total	C	N	O	0	0
			400	238	81	81		

- Molecule 32 is a protein called 40S ribosomal protein S28-B.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	d	62	Total	C	N	O	0	0
			305	181	62	62		

- Molecule 33 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	e	53	Total	C	N	O	0	0
			260	154	53	53		

- Molecule 34 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
34	f	53	Total	C	N	O	0	0
			261	155	53	53		

- Molecule 35 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms				AltConf	Trace
35	g	71	Total	C	N	O	0	0
			351	209	71	71		

- Molecule 36 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
36	h	318	Total	C	N	O	0	0
			1568	932	318	318		

- Molecule 37 is a protein called Eukaryotic translation initiation factor 3 subunit A.

Mol	Chain	Residues	Atoms				AltConf	Trace
37	o	529	Total	C	N	O	0	0
			2631	1573	529	529		

- Molecule 38 is a protein called Eukaryotic translation initiation factor 3 subunit B.

Mol	Chain	Residues	Atoms				AltConf	Trace
38	p	646	Total	C	N	O	0	0
			3201	1909	646	646		

- Molecule 39 is a protein called Eukaryotic translation initiation factor 3 subunit C.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
39	q	636	3169	1897	636	636	0	0

- Molecule 40 is a protein called Eukaryotic translation initiation factor 1A.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
40	i	97	476	282	97	97	0	0

- Molecule 41 is a protein called Eukaryotic translation initiation factor eIF-1.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
41	m	90	443	263	90	90	0	0

- Molecule 42 is a protein called Eukaryotic translation initiation factor 3 subunit J.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
42	t	84	418	251	84	83	0	0
42	s	95	470	280	95	95	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
t	254	ALA	PRO	conflict	UNP Q05775
s	254	ALA	PRO	conflict	UNP Q05775

- Molecule 43 is a protein called RNA recognition motif (unknown).

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
43	j	77	385	231	77	77	0	0

- Molecule 44 is a protein called Translation initiation factor RLI1.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
44	k	579	2860	1702	579	579	0	0

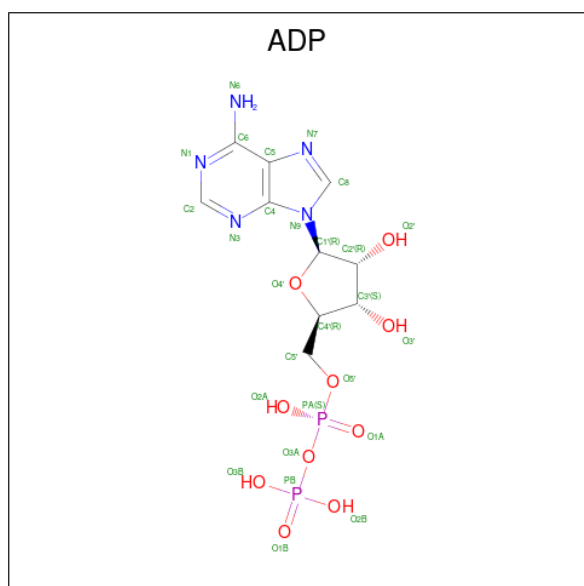
There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
k	350	VAL	ALA	conflict	UNP Q03195

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

Mol	Chain	Residues	Atoms		AltConf
45	A	1	Total	Zn	0
			1	1	
45	b	1	Total	Zn	0
			1	1	
45	c	1	Total	Zn	0
			1	1	
45	g	1	Total	Zn	0
			1	1	

- Molecule 46 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula: C<sub>10</sub>H<sub>15</sub>N<sub>5</sub>O<sub>10</sub>P<sub>2</sub>).



Mol	Chain	Residues	Atoms					AltConf
46	k	1	Total	C	N	O	P	0
			27	10	5	10	2	

- Molecule 47 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
47	k	2	Total	Mg	0
			2	2	



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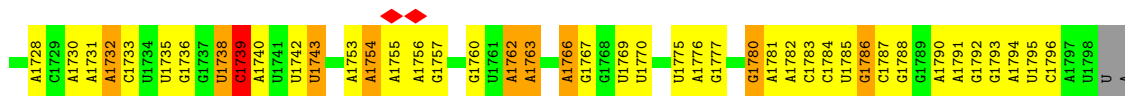
Mol	Chain	Residues	Atoms			AltConf
			Total	Fe	S	
49	k	1	16	8	8	0



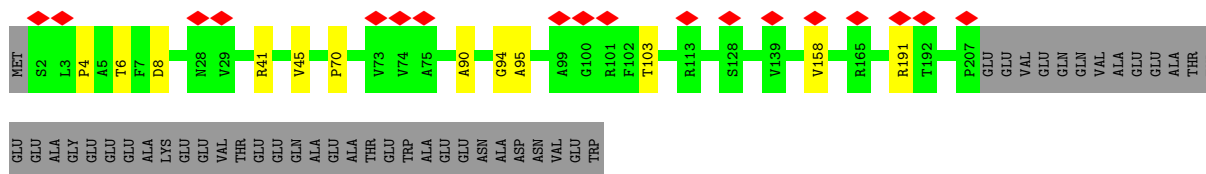
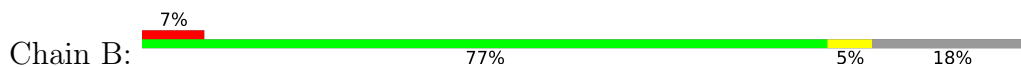




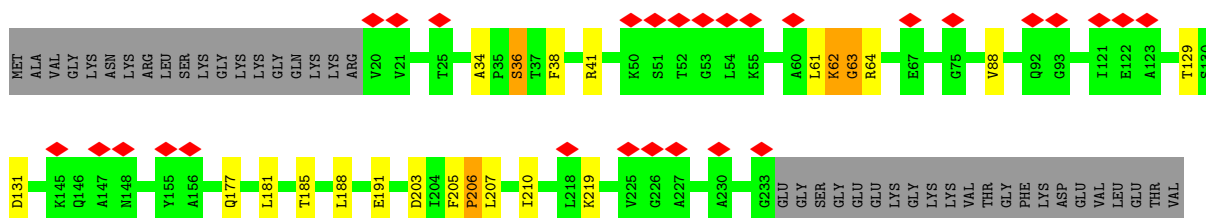
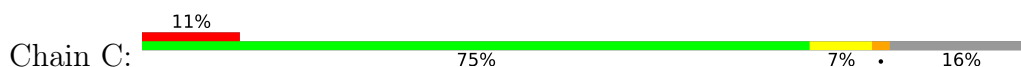
A1648	G1668	A1589	G1498	U1414	C1338	U1288	A1196	A1124	G1083	G980	G902	U833	G765
G1649	G1669	A1573	G1499	U1415	C1339	U1289	C1197	A1125	U1057	G984	A906	U836	U766
U1650	G1670	A1574	C1500	A1425	U1340	G1263	G1198	G1126	U1058	G985	A906	U837	C767
C1652	G1671	A1575	A1503	A1427	A1341	U1266	G1200	G1127	U1059	G986	U911	G838	A769
C1653	G1672	A1583	G1504	A1428	A1344	G1267	G1201	G1130	U1060	G987	U912	G839	A770
U1657	G1673	U1584	A1505	G1429	A1345	U1268	A1202	A1131	A988	U843	G913	U843	C773
G1658	G1674	U1585	A1506	G1430	A1346	G1269	A1203	A1132	U989	C842	G914	C842	A774
A1659	G1675	A1586	G1507	U1431	U1347	G1270	C1205	A1133	G990	U843	G915	U843	A775
A1660	G1676	A1587	U1508	U1432	A1348	G1271	U1206	A1136	G991	U844	U916	U844	C776
U1661	G1677	G1588	U1510	U1433	G1349	G1272	C1207	U1137	A992	U845	U917	U845	C777
G1662	G1678	U1511	A1436	A1436	C1355	U1273	A1208	C1068	A993	G846	U921	U846	G778
G1663	G1679	U1512	U1437	U1437	U1356	G1274	C1209	C1069	U996	G847	G922	U847	U779
C1664	G1680	G1513	G1438	G1438	A1357	C1274	C1210	A1069	U997	A848	G923	U848	A780
G1668	G1681	U1514	A1444	A1444	C1358	G1277	C1211	U1071	G998	C849	A924	U849	U781
G1669	G1682	A1515	G1445	G1445	C1359	G1280	C1212	C1072	A998	C849	A924	U849	U782
U1670	G1683	A1516	A1446	A1446	U1360	G1281	G1213	A1073	U999	C850	A925	U850	G783
G1671	G1684	G1521	G1447	G1447	U1361	U1285	C1215	A1076	U999	C851	A926	U851	G784
G1672	G1685	U1522	G1448	G1448	U1362	U1286	C1216	C1077	U999	C852	A927	U852	C785
G1673	G1686	G1523	U1449	U1449	G1364	U1287	A1217	C1078	U999	C853	A928	U853	U786
G1680	G1687	A1524	U1450	U1450	U1365	U1288	G1218	C1079	U999	C854	A929	U854	C787
A1681	G1688	U1525	C1451	C1451	U1366	U1289	A1219	U1080	U999	C855	A930	U855	U788
U1682	G1689	G1526	G1452	G1452	U1367	U1290	C1220	A1081	U999	C856	A931	U856	U789
C1683	G1690	C1527	G1453	G1453	U1370	G1291	A1221	C1082	U999	C857	A932	U857	U790
G1685	G1691	U1532	G1454	G1454	U1371	U1292	C1222	G1085	U999	C858	A933	U858	U791
G1686	G1692	G1533	G1455	G1455	U1372	U1293	A1223	A1086	U999	C859	A934	U859	U792
G1687	G1693	G1534	C1456	C1456	U1373	G1294	U1224	A1087	U999	C860	A935	U860	U793
U1688	G1694	U1535	C1457	C1457	U1374	G1295	U1225	A1088	U999	C861	A936	U861	U794
G1693	G1695	G1536	C1458	C1458	C1374	U1297	U1226	A1089	U999	C862	A937	U862	U795
A1693	G1696	U1537	C1459	C1459	U1378	U1298	U1227	A1090	U999	C863	A938	U863	U796
C	G1697	U1538	C1472	C1472	U1381	U1299	G1228	A1091	U999	C864	A939	U864	U797
C	G1698	G1540	U1473	U1473	A1382	G1299	U1229	A1092	U999	C865	A940	U865	U798
C	G1699	G1541	G1474	G1474	G1383	U1300	A1230	A1093	U999	C866	A941	U866	U799
C	G1700	G1542	A1475	A1475	G1384	U1301	U1231	G1094	U999	C867	A942	U867	U800
C	G1701	G1543	C1476	C1476	G1385	U1302	U1232	U1095	U999	C868	A943	U868	U801
C	G1702	G1544	G1477	G1477	G1385	U1303	U1233	U1096	U999	C869	A944	U869	U802
C	G1703	G1545	G1478	G1478	G1385	U1307	G1237	U1097	U999	C870	A945	U870	U803
C	G1704	G1546	A1479	A1479	G1389	A1312	A1238	G1100	U999	C871	A946	U871	U804
C	G1705	G1547	G1480	G1480	U1390	U1313	U1239	G1101	U999	C872	A947	U872	U805
C	G1706	G1548	C1481	C1481	A1391	U1314	U1240	G1102	U999	C873	A948	U873	U806
C	G1707	G1549	C1482	C1482	U1392	U1315	G1241	U1103	U999	C874	A949	U874	U807
C	G1708	G1553	A1483	A1483	G1393	U1316	G1242	U1104	U999	C875	A950	U875	U808
C	G1709	G1556	G1484	G1484	G1394	C1317	G1243	U1105	U999	C876	A951	U876	U809
C	G1710	G1557	C1485	C1485	U1397	G1318	G1244	U1106	U999	C877	A952	U877	U810
C	G1711	U1558	G1486	G1486	U1398	G1319	G1245	U1107	U999	C878	A953	U878	U811
C	G1712	U1559	C1487	C1487	U1399	U1320	C1246	G1108	U999	C879	A954	U879	U812
C	G1713	U1560	G1488	G1488	C1399	U1321	U1247	G1109	U999	C880	A955	U880	U813
C	G1714	U1561	U1489	U1489	A1400	A1324	C1248	G1110	U999	C881	A956	U881	U814
C	G1715	U1562	U1490	U1490	G1405	A1325	U1249	G1111	U999	C882	A957	U882	U815
C	G1716	G1563	U1491	U1491	A1406	U1326	U1250	G1114	U999	C883	A958	U883	U816
C	G1717	G1564	A1492	A1492	U1407	G1327	C1252	U1118	U999	C884	A959	U884	U817
C	G1718	G1565	A1493	A1493	U1410	G1328	U1253	G1119	U999	C885	A960	U885	U818
C	G1719	G1566	U1494	U1494	A1411	C1332	U1254	G1118	U999	C886	A961	U886	U819
C	G1720	G1567	U1495	U1495	G1412	A1337	U1255	G1119	U999	C887	A962	U887	U820
C	G1721	G1568	U1496	U1496	U1413	A1337	U1256	G1119	U999	C888	A963	U888	U821
C	G1722	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C889	A964	U889	U822
C	G1723	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C890	A965	U890	U823
C	G1724	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C891	A966	U891	U824
C	G1725	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C892	A967	U892	U825
C	G1726	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C893	A968	U893	U826
C	G1727	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C894	A969	U894	U827
C	G1728	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C895	A970	U895	U828
C	G1729	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C896	A971	U896	U829
C	G1730	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C897	A972	U897	U830
C	G1731	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C898	A973	U898	U831
C	G1732	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C899	A974	U899	U832
C	G1733	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C900	A975	U900	U833
C	G1734	G1568	U1497	U1497	U1413	A1337	U1257	G1119	U999	C901	A976	U901	U834



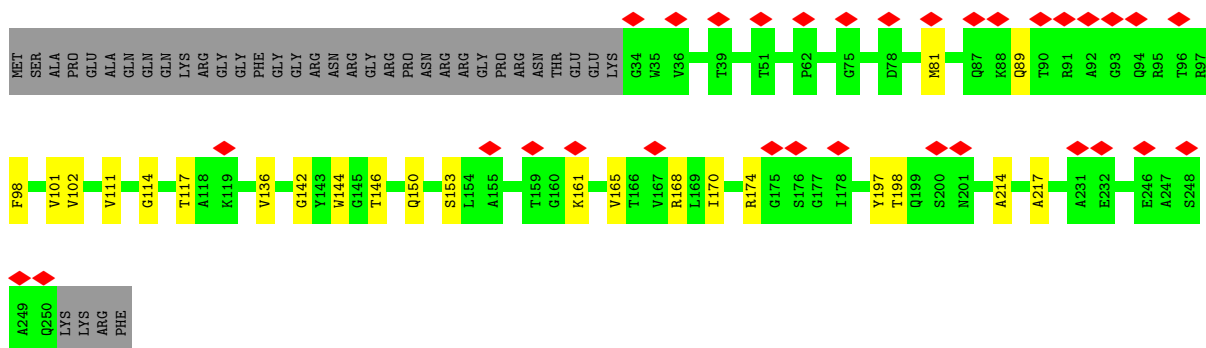
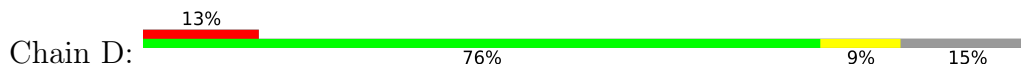
• Molecule 4: 40S ribosomal protein S0-A



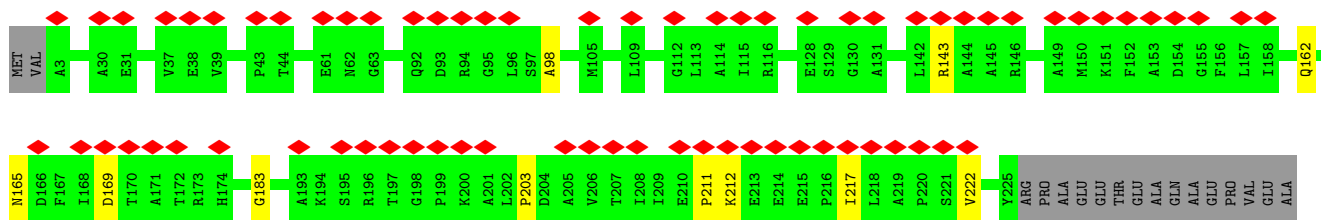
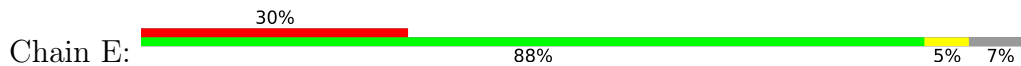
• Molecule 5: 40S ribosomal protein S1-A



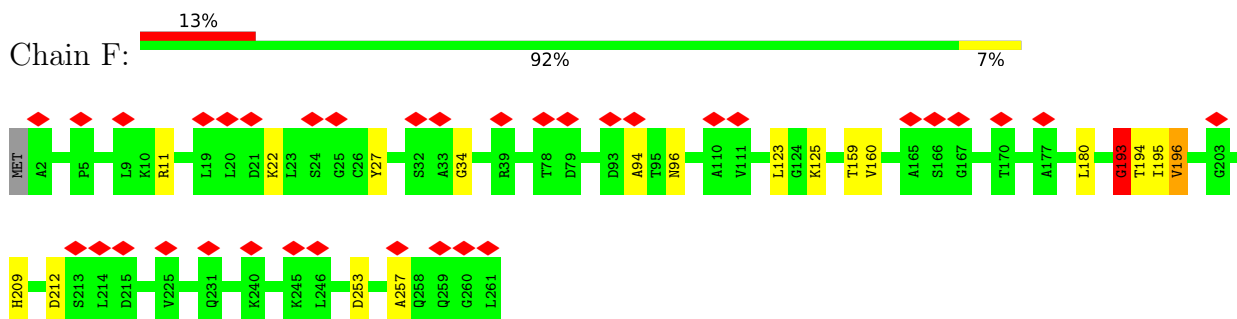
• Molecule 6: 40S ribosomal protein S2



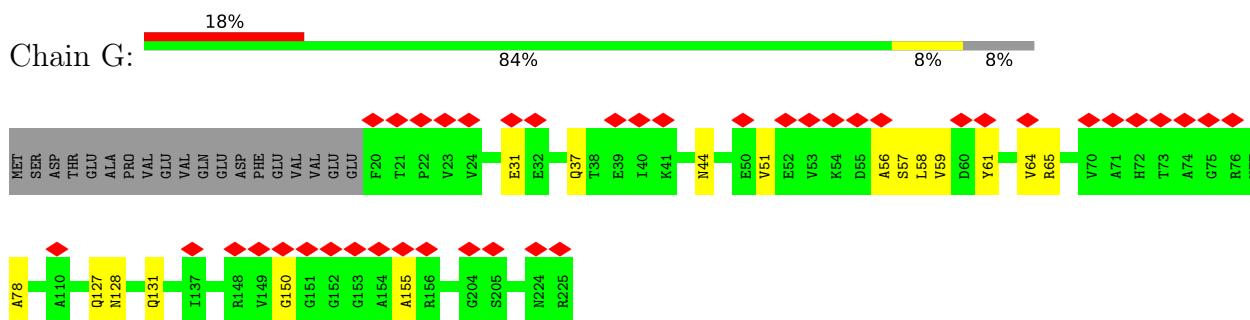
• Molecule 7: 40S ribosomal protein S3



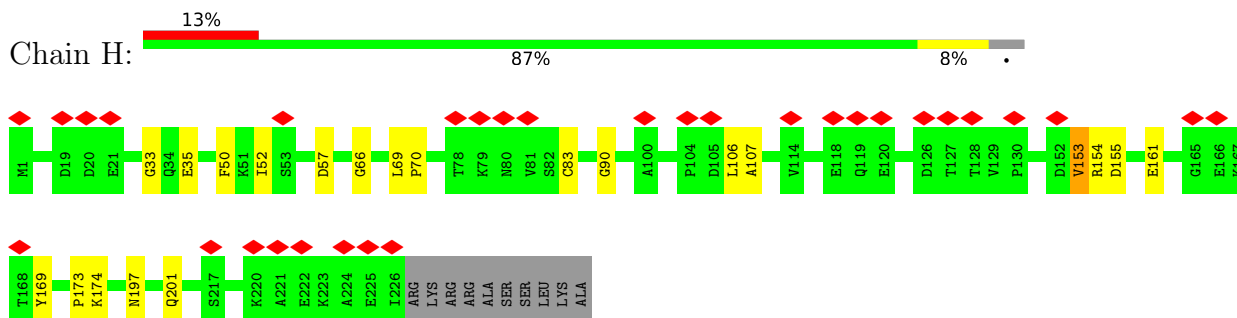
- Molecule 8: 40S ribosomal protein S4-A



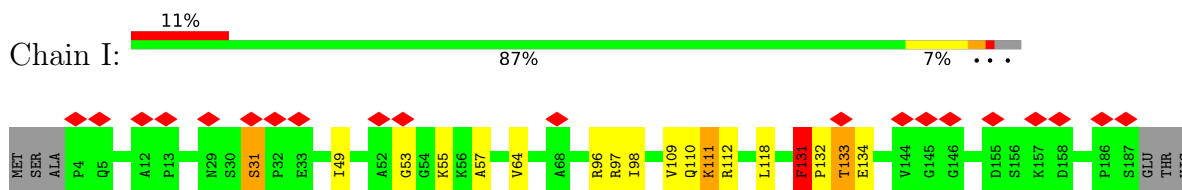
- Molecule 9: 40S ribosomal protein S5



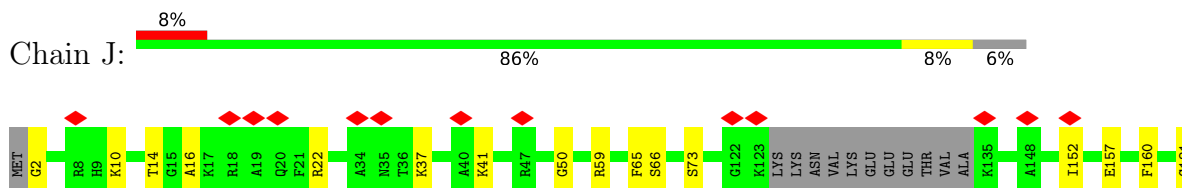
- Molecule 10: 40S ribosomal protein S6-A

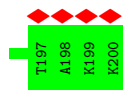


- Molecule 11: 40S ribosomal protein S7-A

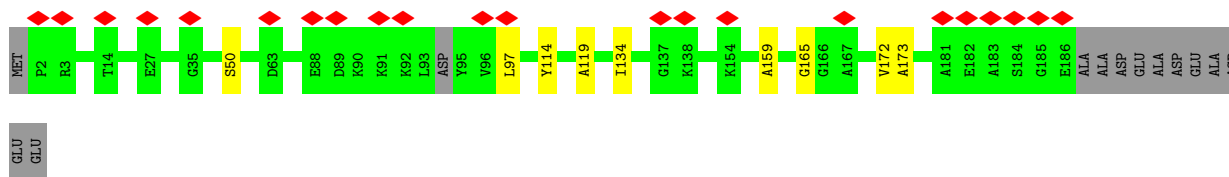
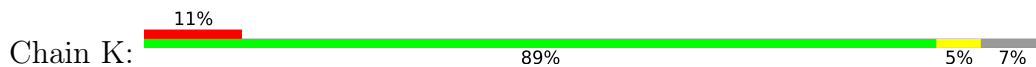


- Molecule 12: 40S ribosomal protein S8-A

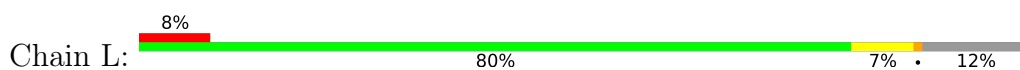




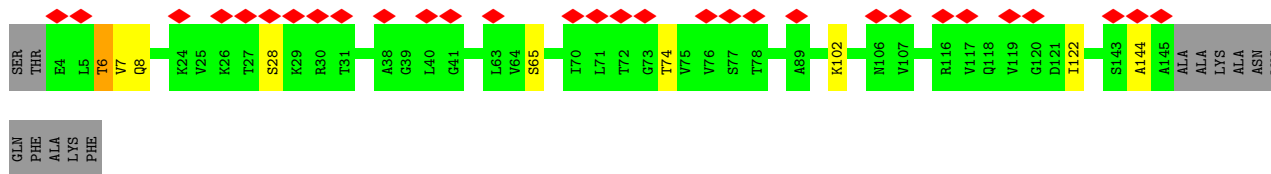
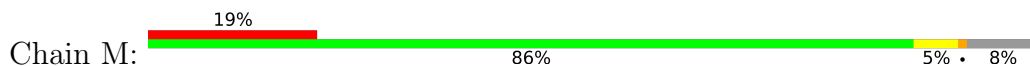
- Molecule 13: 40S ribosomal protein S9-A



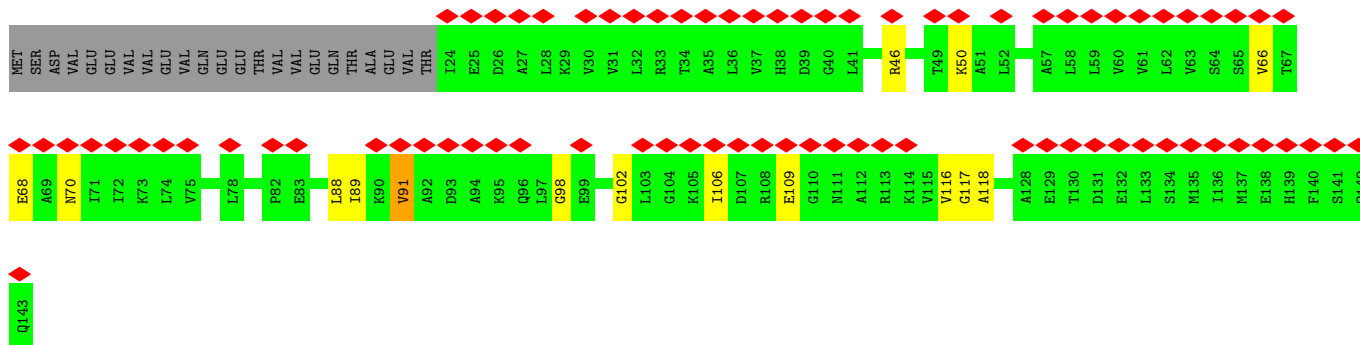
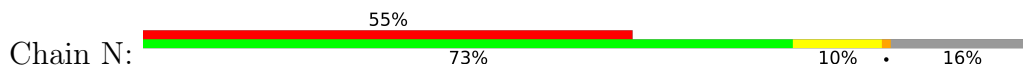
- Molecule 14: 40S ribosomal protein S10-A



- Molecule 15: 40S ribosomal protein S11-A



- Molecule 16: 40S ribosomal protein S12

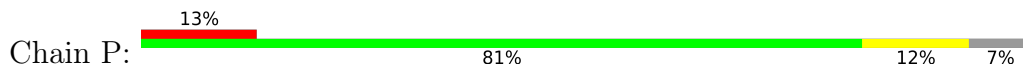


- Molecule 17: 40S ribosomal protein S13

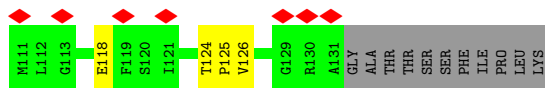
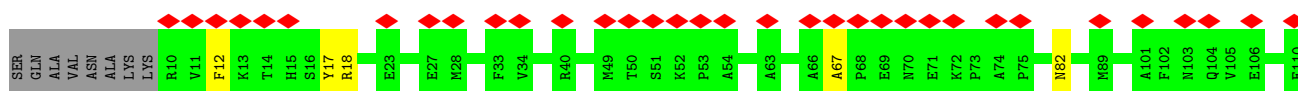
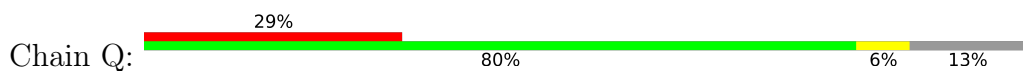




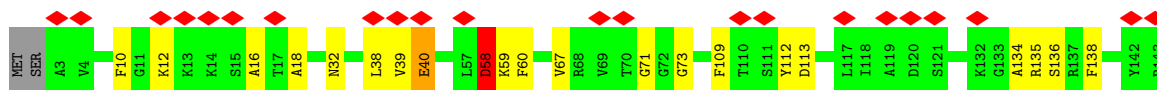
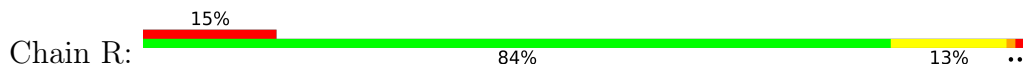
- Molecule 18: 40S ribosomal protein S14-A



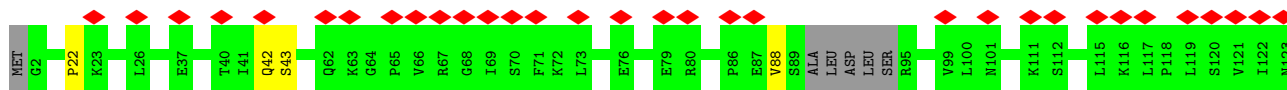
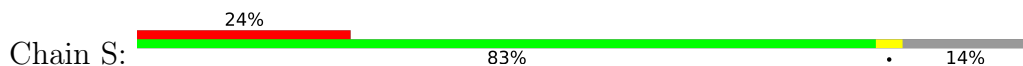
- Molecule 19: 40S ribosomal protein S15



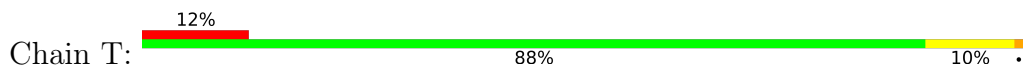
- Molecule 20: 40S ribosomal protein S16-A



- Molecule 21: 40S ribosomal protein S17-A

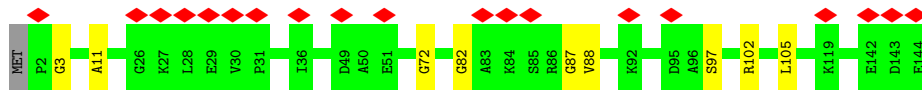
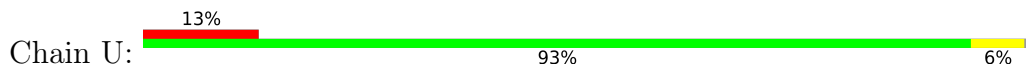


- Molecule 22: 40S ribosomal protein S18-A

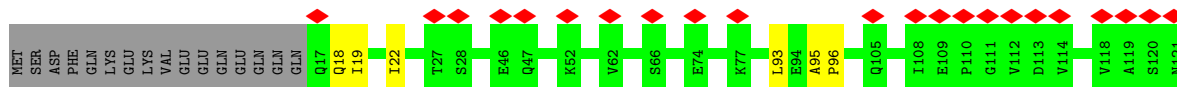
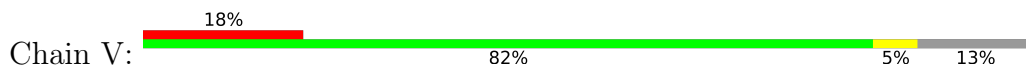




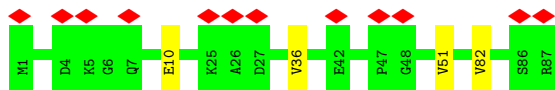
- Molecule 23: 40S ribosomal protein S19-A



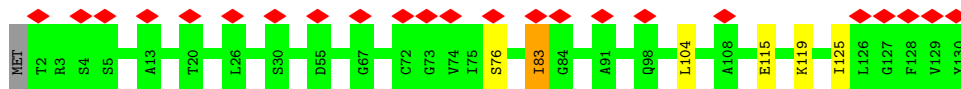
- Molecule 24: 40S ribosomal protein S20



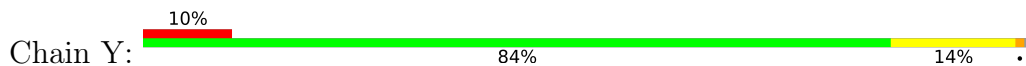
- Molecule 25: 40S ribosomal protein S21-A



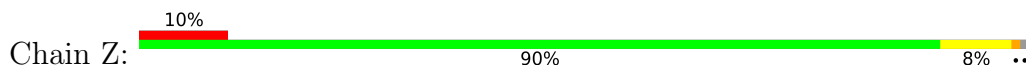
- Molecule 26: 40S ribosomal protein S22-A



- Molecule 27: 40S ribosomal protein S23-A

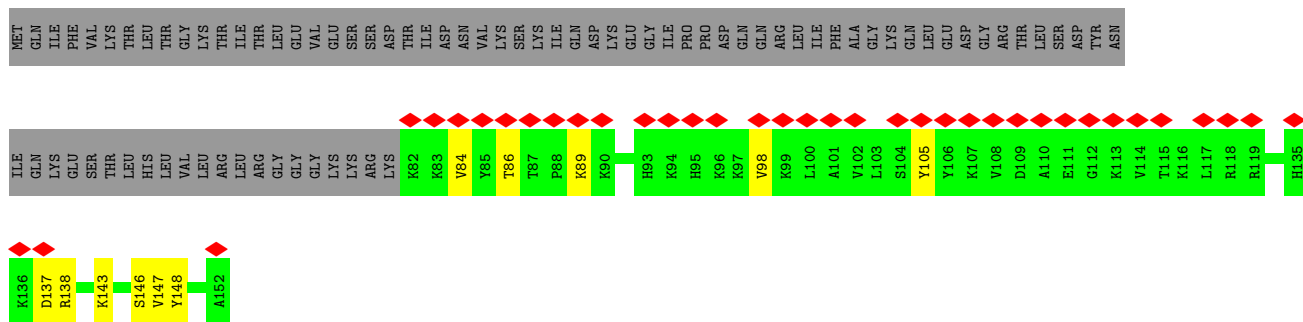
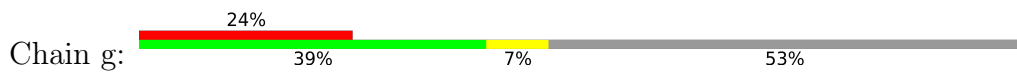


- Molecule 28: 40S ribosomal protein S24-A

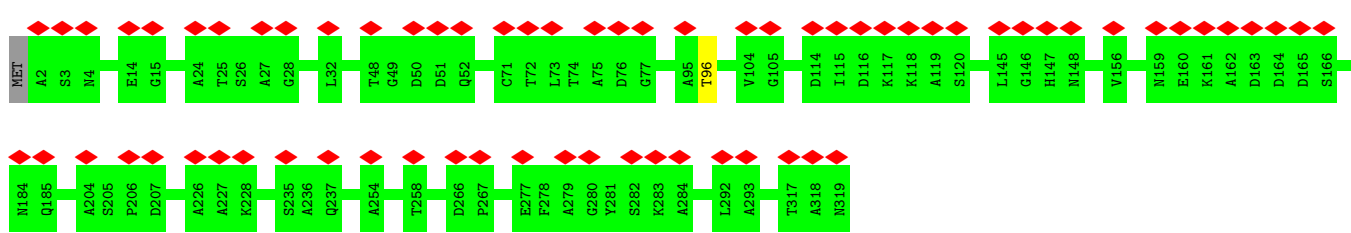


- Molecule 29: 40S ribosomal protein S25-A

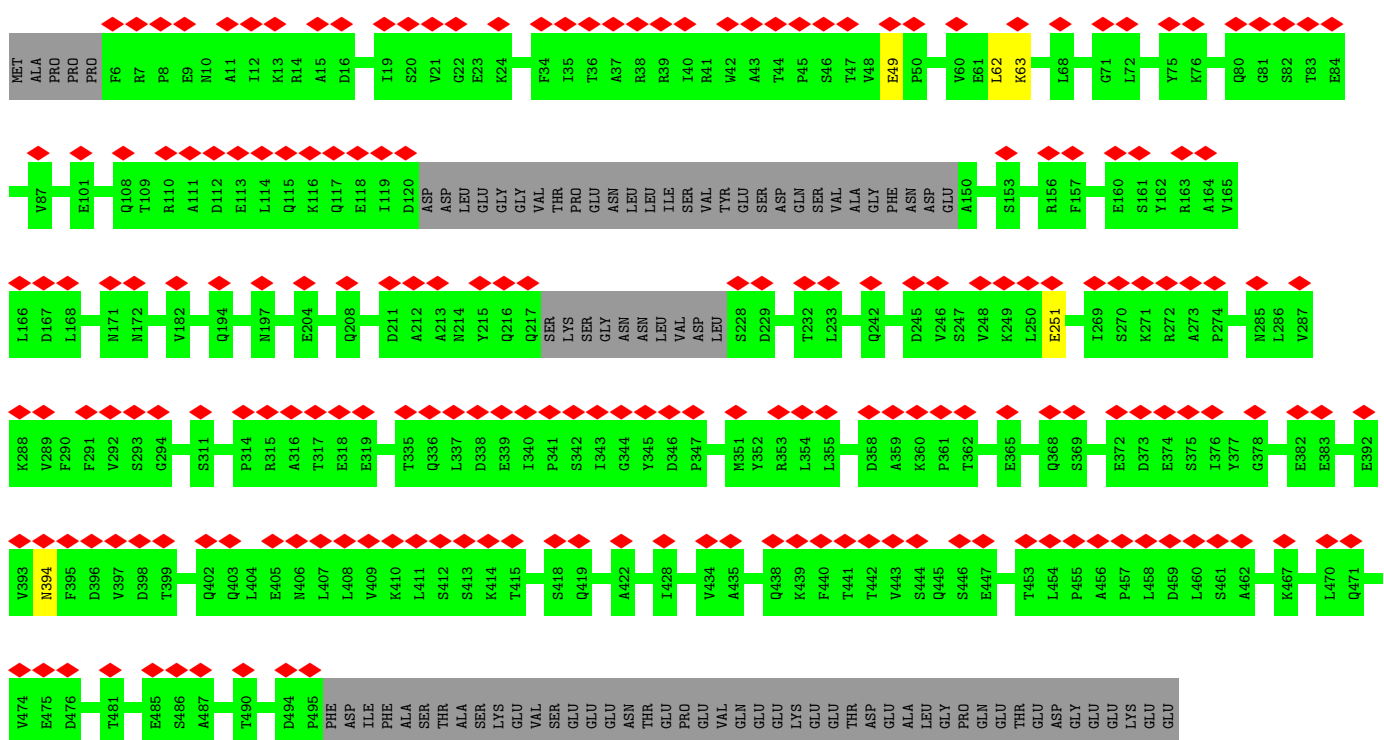




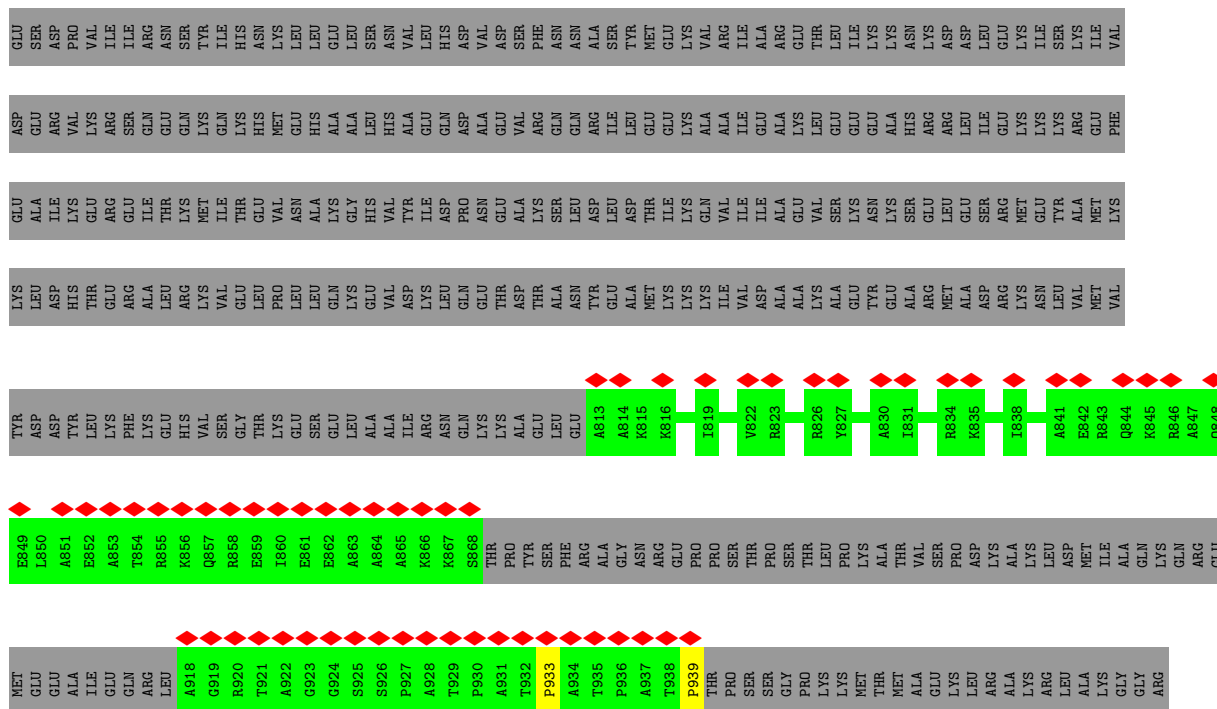
• Molecule 36: Guanine nucleotide-binding protein subunit beta-like protein



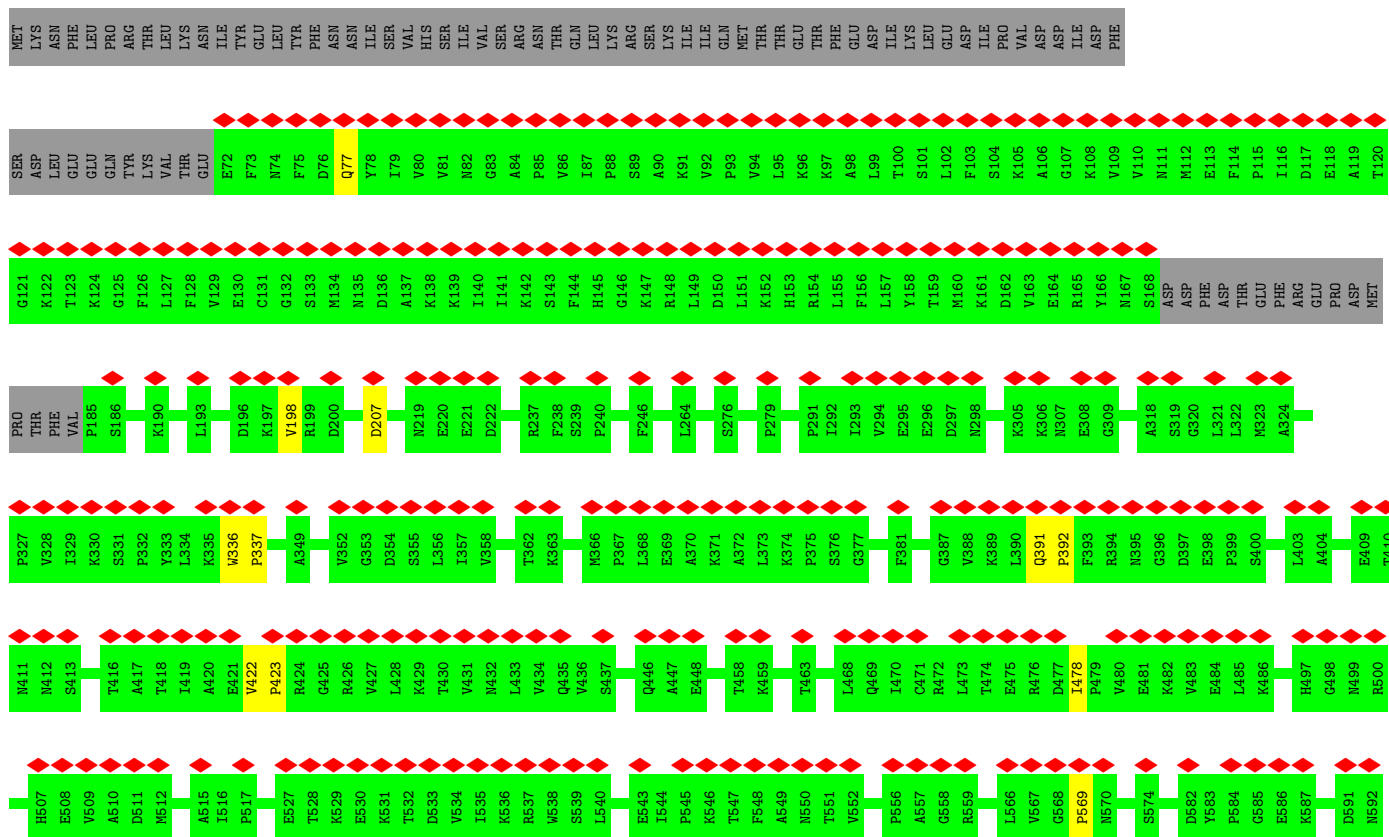
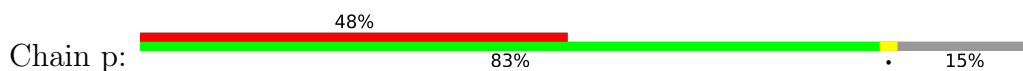
• Molecule 37: Eukaryotic translation initiation factor 3 subunit A

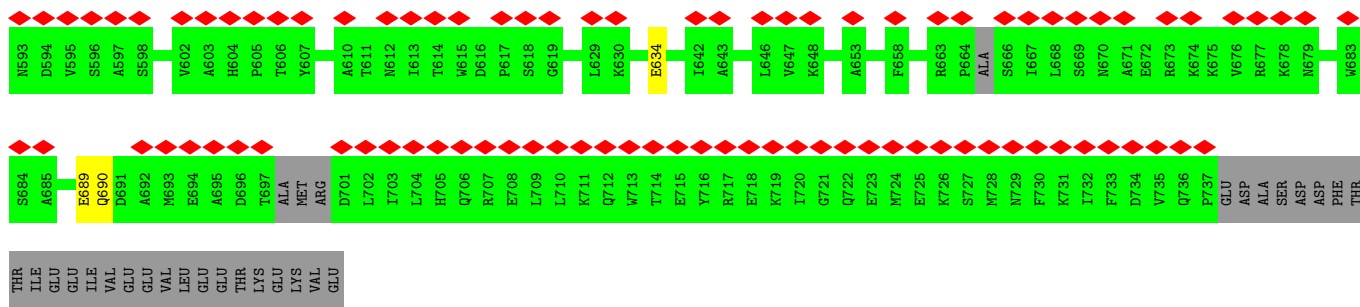




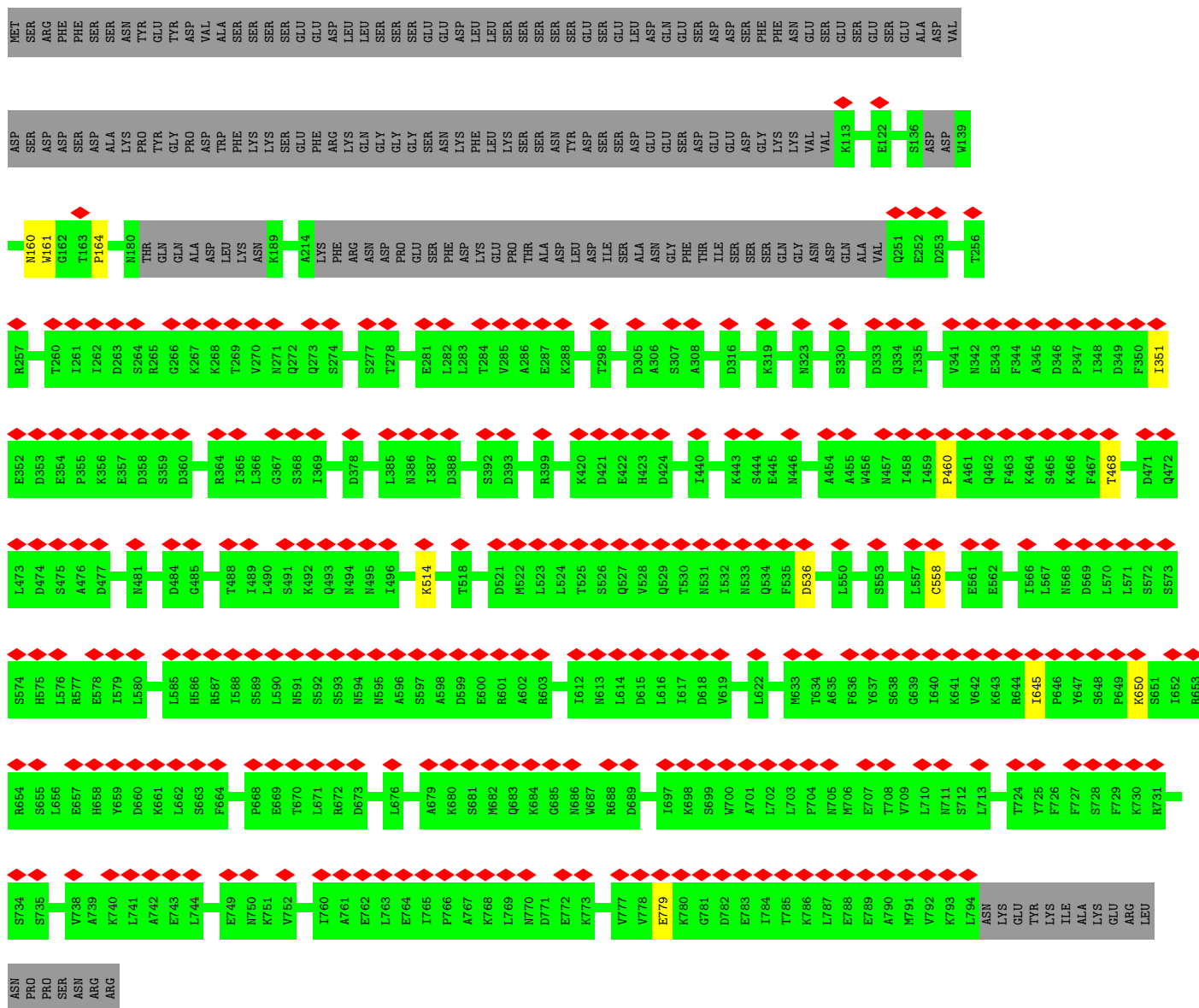
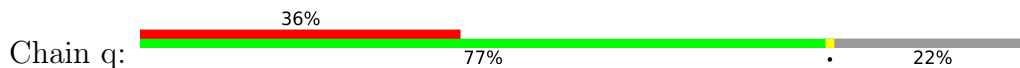


• Molecule 38: Eukaryotic translation initiation factor 3 subunit B



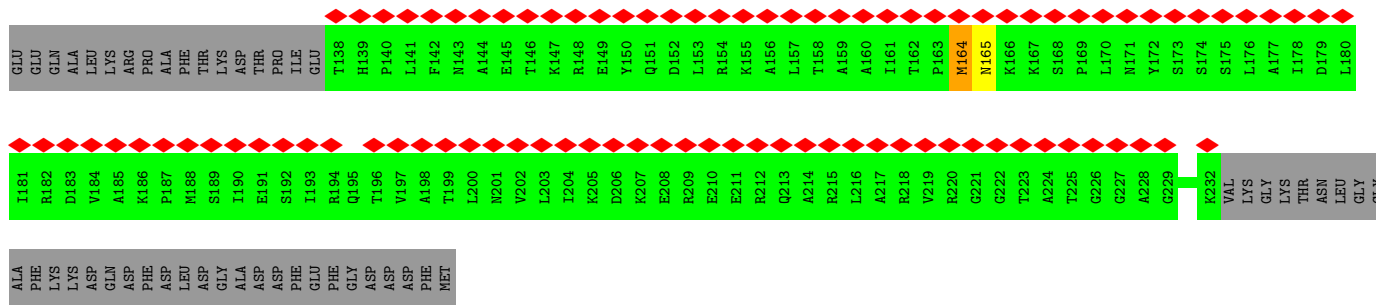


● Molecule 39: Eukaryotic translation initiation factor 3 subunit C



● Molecule 40: Eukaryotic translation initiation factor 1A

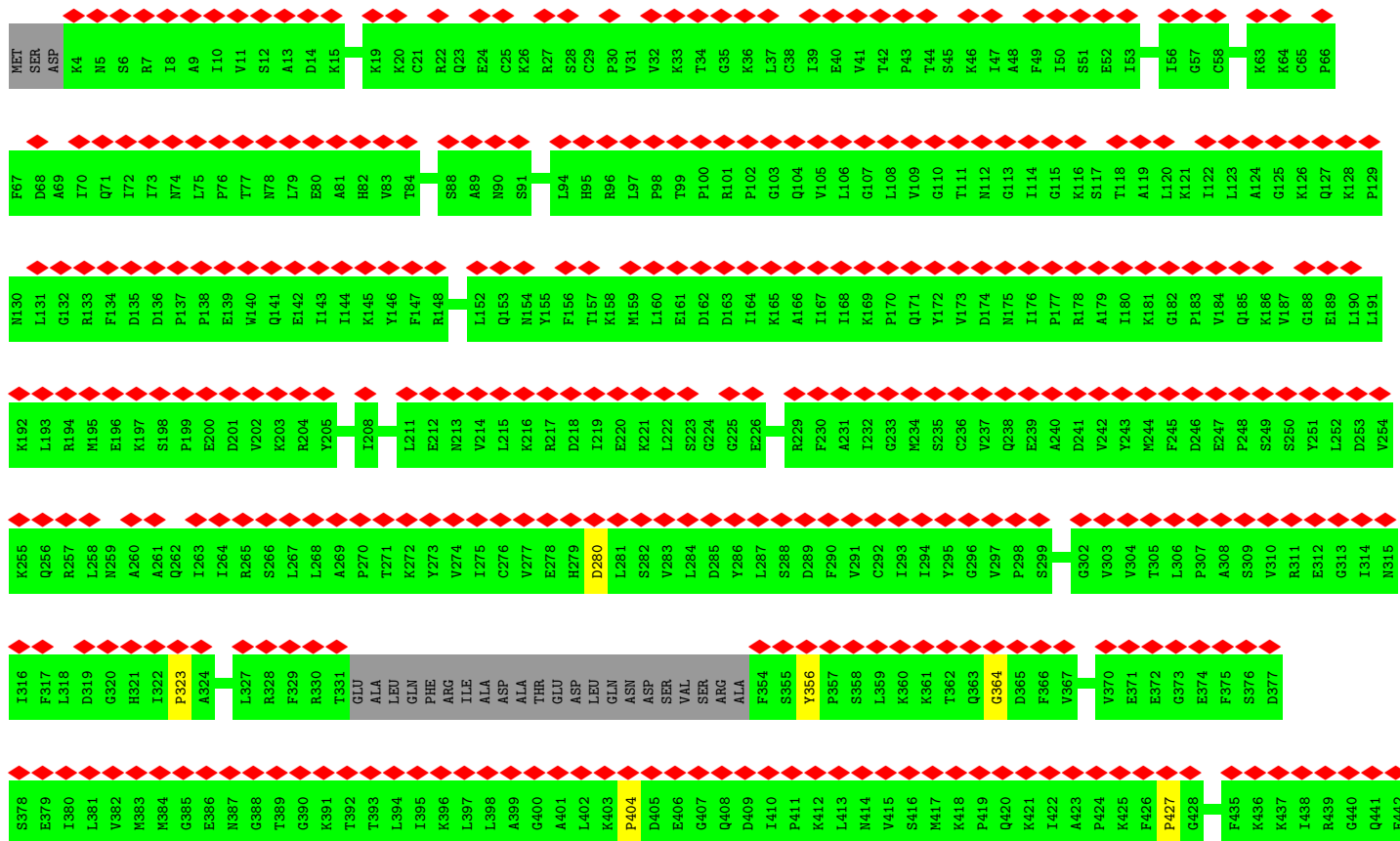
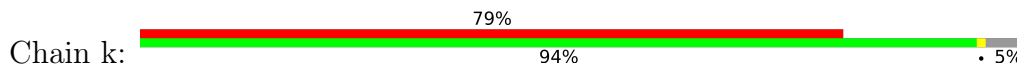


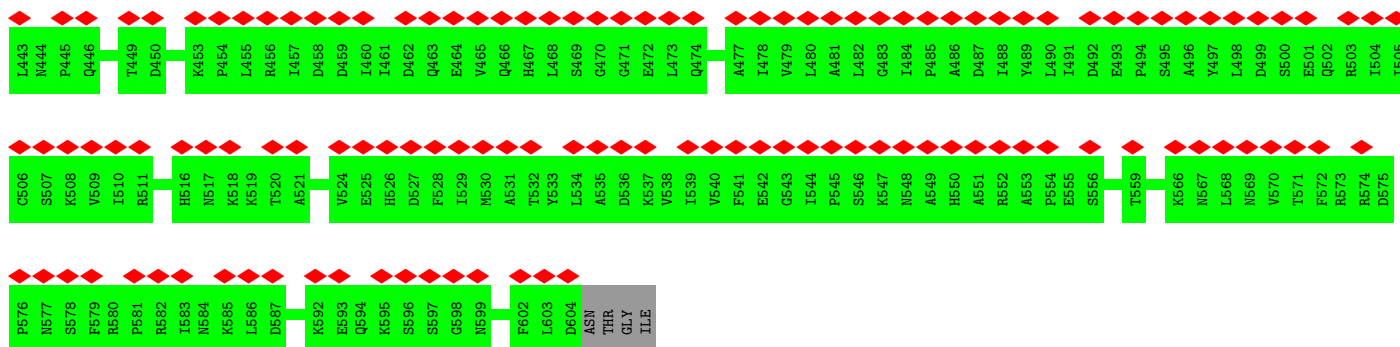


• Molecule 43: RNA recognition motif (unknown)



• Molecule 44: Translation initiation factor RLI1





## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	20618	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	2.5	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.054	Depositor
Minimum map value	-0.016	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.02	Depositor
Map size (Å)	390.24, 390.24, 390.24	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.084, 1.084, 1.084	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: ADP, MG, SF4, ZN, ATP

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	l	0.31	0/1622	0.52	0/2252
2	r	0.26	0/260	0.47	0/360
3	A	0.78	8/40986 (0.0%)	1.17	307/63859 (0.5%)
4	B	0.30	0/1019	0.62	0/1419
5	C	0.28	0/1060	0.64	1/1477 (0.1%)
6	D	0.30	0/1062	0.63	0/1472
7	E	0.30	0/1097	0.58	0/1524
8	F	0.30	0/1275	0.67	1/1769 (0.1%)
9	G	0.27	0/1019	0.58	0/1419
10	H	0.28	0/1112	0.55	0/1545
11	I	0.31	0/912	0.63	0/1271
12	J	0.30	0/922	0.60	0/1278
13	K	0.28	0/908	0.59	0/1262
14	L	0.28	0/455	0.69	0/633
15	M	0.33	0/701	0.70	0/975
16	N	0.29	0/589	0.66	0/817
17	O	0.31	0/741	0.58	0/1031
18	P	0.33	0/619	0.61	0/856
19	Q	0.52	1/600 (0.2%)	0.63	0/833
20	R	0.34	0/692	0.65	0/960
21	S	0.29	0/577	0.56	0/801
22	T	0.31	0/714	0.62	0/992
23	U	0.31	0/699	0.58	0/968
24	V	0.32	0/520	0.62	0/724
25	W	0.29	0/428	0.61	0/594
26	X	0.31	0/633	0.65	0/878
27	Y	0.32	0/703	0.70	0/973
28	Z	0.26	0/660	0.62	1/917 (0.1%)
29	a	0.30	0/346	0.65	0/481
30	b	0.81	1/481 (0.2%)	0.72	1/670 (0.1%)
31	c	0.28	0/399	0.64	0/554
32	d	0.29	0/304	0.60	0/421

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
33	e	0.34	0/259	0.76	0/358
34	f	0.28	0/260	0.55	0/360
35	g	0.38	0/350	0.90	0/486
36	h	0.27	0/1567	0.57	0/2179
37	o	0.41	0/2626	0.56	1/3660 (0.0%)
38	p	0.40	0/3197	0.57	0/4452
39	q	0.49	0/3165	0.58	0/4418
40	i	0.34	0/475	0.55	0/658
41	m	0.40	0/442	0.55	0/613
42	s	0.56	0/469	1.09	2/652 (0.3%)
42	t	0.58	0/417	1.12	1/581 (0.2%)
43	j	0.16	0/384	0.29	0/536
44	k	0.57	0/2858	0.98	0/3977
All	All	0.62	10/80584 (0.0%)	0.97	315/118915 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
4	B	0	1
5	C	0	4
6	D	0	1
8	F	0	1
9	G	0	3
11	I	0	3
15	M	0	1
16	N	0	3
18	P	0	1
19	Q	0	2
20	R	0	3
21	S	0	1
22	T	0	2
26	X	0	1
27	Y	0	1
28	Z	0	2
29	a	0	2
30	b	0	2
31	c	0	1
35	g	0	4
36	h	0	1

*Continued on next page...*



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Mol	Chain	#Chirality outliers	#Planarity outliers
38	p	0	2
All	All	0	42

The worst 5 of 10 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	b	59	TYR	C-N	16.37	1.65	1.34
19	Q	67	ALA	C-N	9.85	1.52	1.34
3	A	649	U	O3'-P	7.34	1.70	1.61
3	A	652	G	O3'-P	6.58	1.69	1.61
3	A	685	A	O3'-P	6.01	1.68	1.61

The worst 5 of 315 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	190	C	N3-C2-O2	-11.94	113.54	121.90
3	A	543	C	N1-C2-O2	11.31	125.68	118.90
3	A	190	C	N1-C2-O2	10.57	125.24	118.90
3	A	873	U	N3-C2-O2	-10.21	115.05	122.20
3	A	638	U	N1-C2-O2	9.97	129.78	122.80

There are no chirality outliers.

5 of 42 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	B	94	GLY	Peptide
5	C	131	ASP	Peptide
5	C	205	PHE	Peptide
5	C	206	PRO	Peptide
5	C	36	SER	Peptide

## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	1624	0	727	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	r	261	0	122	0	0
3	A	36643	0	18433	736	0
4	B	1020	0	474	5	0
5	C	1061	0	473	10	0
6	D	1063	0	499	11	0
7	E	1098	0	525	8	0
8	F	1276	0	576	11	0
9	G	1020	0	482	9	0
10	H	1113	0	510	11	0
11	I	913	0	400	14	0
12	J	924	0	452	12	0
13	K	910	0	419	6	0
14	L	456	0	196	3	0
15	M	702	0	304	6	0
16	N	590	0	286	7	0
17	O	742	0	345	7	0
18	P	620	0	311	13	0
19	Q	601	0	277	6	0
20	R	693	0	323	11	0
21	S	579	0	246	2	0
22	T	715	0	318	18	0
23	U	700	0	334	10	0
24	V	521	0	217	3	0
25	W	429	0	201	1	0
26	X	634	0	289	3	0
27	Y	704	0	324	21	0
28	Z	661	0	312	5	0
29	a	347	0	158	0	0
30	b	482	0	223	0	0
31	c	400	0	180	0	0
32	d	305	0	133	0	0
33	e	260	0	112	0	0
34	f	261	0	113	0	0
35	g	351	0	158	0	0
36	h	1568	0	754	0	0
37	o	2631	0	1207	0	0
38	p	3201	0	1397	0	0
39	q	3169	0	1372	0	0
40	i	476	0	215	0	0
41	m	443	0	193	0	0
42	s	470	0	223	0	0
42	t	418	0	191	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	j	385	0	387	0	0
44	k	2860	0	1246	0	0
45	A	1	0	0	0	0
45	b	1	0	0	0	0
45	c	1	0	0	0	0
45	g	1	0	0	0	0
46	k	27	0	12	0	0
47	k	2	0	0	0	0
48	k	31	0	12	0	0
49	k	16	0	0	0	0
All	All	76380	0	36661	844	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 10.

The worst 5 of 844 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1103:U:OP2	27:Y:7:ARG:N	1.84	1.10
3:A:1179:G:H21	3:A:1460:A:N6	1.49	1.09
3:A:1525:A:OP1	23:U:82:GLY:HA2	1.53	1.07
3:A:1646:C:N4	3:A:1754:A:H61	1.53	1.05
3:A:856:A:H62	11:I:97:ARG:H	1.05	1.03

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	l	326/347 (94%)	318 (98%)	8 (2%)	0	100	100
2	r	51/274 (19%)	48 (94%)	3 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	B	204/252 (81%)	174 (85%)	26 (13%)	4 (2%)	7	39
5	C	212/255 (83%)	162 (76%)	45 (21%)	5 (2%)	6	35
6	D	215/254 (85%)	194 (90%)	19 (9%)	2 (1%)	17	56
7	E	221/240 (92%)	202 (91%)	15 (7%)	4 (2%)	8	41
8	F	258/261 (99%)	226 (88%)	30 (12%)	2 (1%)	19	60
9	G	204/225 (91%)	178 (87%)	21 (10%)	5 (2%)	5	34
10	H	224/236 (95%)	209 (93%)	9 (4%)	6 (3%)	5	33
11	I	182/190 (96%)	153 (84%)	20 (11%)	9 (5%)	2	22
12	J	184/200 (92%)	160 (87%)	23 (12%)	1 (0%)	29	69
13	K	180/197 (91%)	160 (89%)	19 (11%)	1 (1%)	25	65
14	L	90/105 (86%)	77 (86%)	10 (11%)	3 (3%)	4	29
15	M	140/155 (90%)	128 (91%)	10 (7%)	2 (1%)	11	46
16	N	118/143 (82%)	85 (72%)	29 (25%)	4 (3%)	3	28
17	O	148/151 (98%)	134 (90%)	12 (8%)	2 (1%)	11	46
18	P	125/136 (92%)	112 (90%)	12 (10%)	1 (1%)	19	60
19	Q	120/141 (85%)	100 (83%)	17 (14%)	3 (2%)	5	34
20	R	139/143 (97%)	121 (87%)	14 (10%)	4 (3%)	4	31
21	S	113/136 (83%)	100 (88%)	12 (11%)	1 (1%)	17	56
22	T	143/146 (98%)	122 (85%)	18 (13%)	3 (2%)	7	38
23	U	141/144 (98%)	125 (89%)	16 (11%)	0	100	100
24	V	103/121 (85%)	98 (95%)	5 (5%)	0	100	100
25	W	85/87 (98%)	72 (85%)	11 (13%)	2 (2%)	6	35
26	X	127/130 (98%)	115 (91%)	11 (9%)	1 (1%)	19	60
27	Y	142/145 (98%)	119 (84%)	19 (13%)	4 (3%)	5	32
28	Z	132/135 (98%)	121 (92%)	8 (6%)	3 (2%)	6	36
29	a	68/108 (63%)	52 (76%)	14 (21%)	2 (3%)	4	31
30	b	95/119 (80%)	67 (70%)	17 (18%)	11 (12%)	0	6
31	c	79/82 (96%)	70 (89%)	8 (10%)	1 (1%)	12	48
32	d	60/67 (90%)	51 (85%)	9 (15%)	0	100	100
33	e	51/56 (91%)	49 (96%)	2 (4%)	0	100	100
34	f	51/63 (81%)	47 (92%)	2 (4%)	2 (4%)	3	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	g	69/152 (45%)	44 (64%)	18 (26%)	7 (10%)	0	9
36	h	316/319 (99%)	298 (94%)	18 (6%)	0	100	100
37	o	519/964 (54%)	483 (93%)	30 (6%)	6 (1%)	13	50
38	p	638/763 (84%)	583 (91%)	43 (7%)	12 (2%)	8	40
39	q	628/812 (77%)	568 (90%)	48 (8%)	12 (2%)	8	40
40	i	95/153 (62%)	82 (86%)	13 (14%)	0	100	100
41	m	88/108 (82%)	77 (88%)	8 (9%)	3 (3%)	3	28
42	s	93/265 (35%)	87 (94%)	5 (5%)	1 (1%)	14	52
42	t	82/265 (31%)	74 (90%)	7 (8%)	1 (1%)	13	50
43	j	75/77 (97%)	68 (91%)	5 (7%)	2 (3%)	5	33
44	k	575/608 (95%)	522 (91%)	47 (8%)	6 (1%)	15	54
All	All	7909/9930 (80%)	7035 (89%)	736 (9%)	138 (2%)	13	43

5 of 138 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	C	207	LEU
10	H	153	VAL
11	I	109	VAL
14	L	87	VAL
14	L	88	PRO

### 5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
3	A	1713/1800 (95%)	500 (29%)	35 (2%)

5 of 500 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
3	A	2	A
3	A	4	C

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Mol	Chain	Res	Type
3	A	17	C
3	A	25	C
3	A	26	A

5 of 35 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
3	A	1250	U
3	A	1339	C
3	A	1493	A
3	A	507	U
3	A	417	A

#### 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

#### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

#### 5.6 Ligand geometry [i](#)

Of 10 ligands modelled in this entry, 6 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
49	SF4	k	705	-	0,12,12	-	-	-		
48	ATP	k	703	44,47	26,33,33	0.93	1 (3%)	31,52,52	1.60	5 (16%)
46	ADP	k	701	47	24,29,29	0.95	1 (4%)	29,45,45	1.46	4 (13%)
49	SF4	k	706	-	0,12,12	-	-	-		

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
49	SF4	k	705	-	-	-	0/6/5/5
48	ATP	k	703	44,47	-	2/18/38/38	0/3/3/3
46	ADP	k	701	47	-	5/12/32/32	0/3/3/3
49	SF4	k	706	-	-	-	0/6/5/5

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	k	703	ATP	C5-C4	2.50	1.47	1.40
46	k	701	ADP	C5-C4	2.47	1.47	1.40

The worst 5 of 9 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	k	701	ADP	PA-O3A-PB	-3.70	120.12	132.83
48	k	703	ATP	PB-O3B-PG	-3.64	120.35	132.83
48	k	703	ATP	PA-O3A-PB	-3.49	120.84	132.83
48	k	703	ATP	C3'-C2'-C1'	3.43	106.14	100.98
48	k	703	ATP	N3-C2-N1	-3.19	123.69	128.68

There are no chirality outliers.

5 of 7 torsion outliers are listed below:

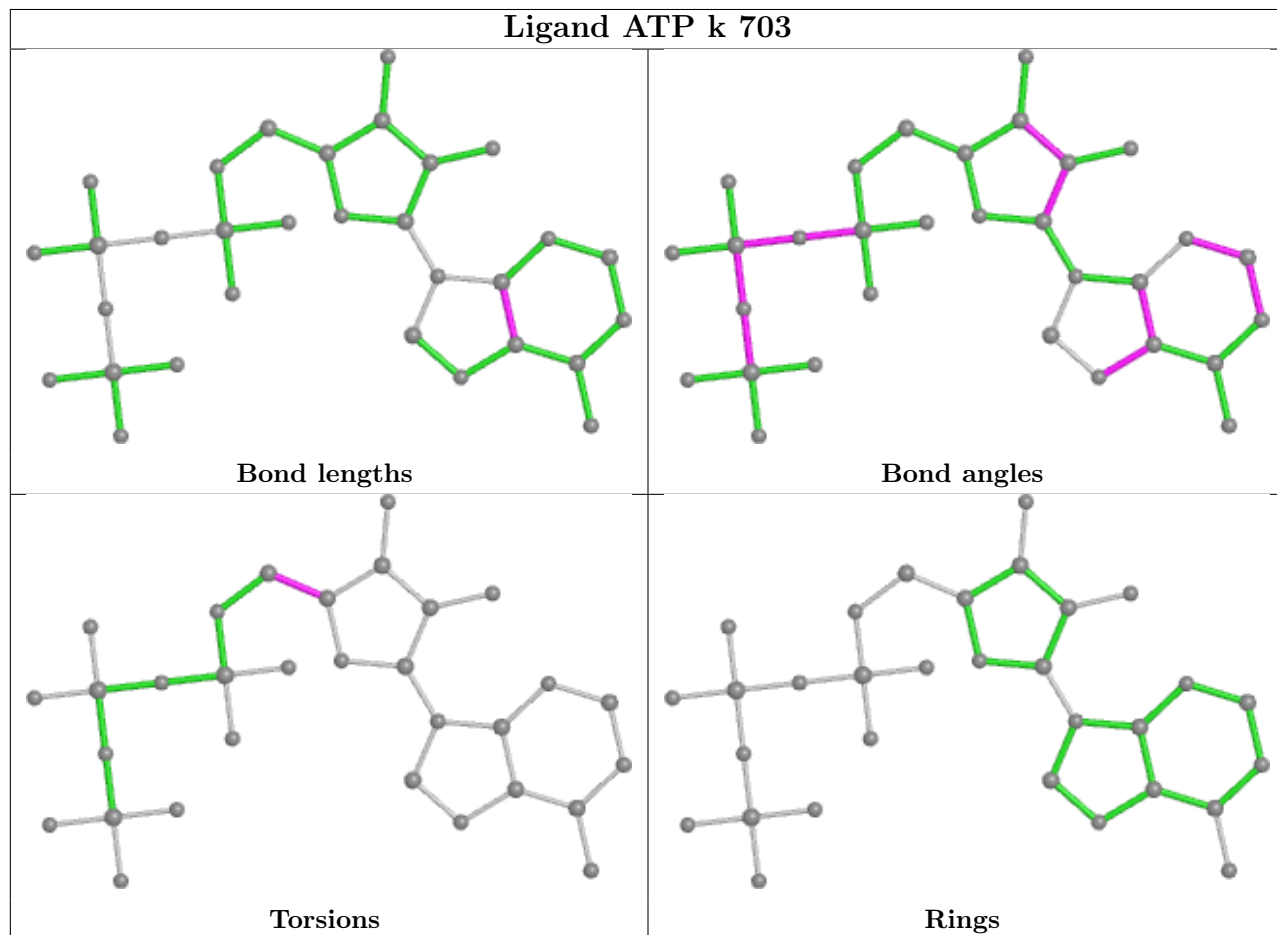
Mol	Chain	Res	Type	Atoms
46	k	701	ADP	C5'-O5'-PA-O1A
46	k	701	ADP	C5'-O5'-PA-O2A
48	k	703	ATP	O4'-C4'-C5'-O5'
46	k	701	ADP	PA-O3A-PB-O2B
46	k	701	ADP	C5'-O5'-PA-O3A

There are no ring outliers.

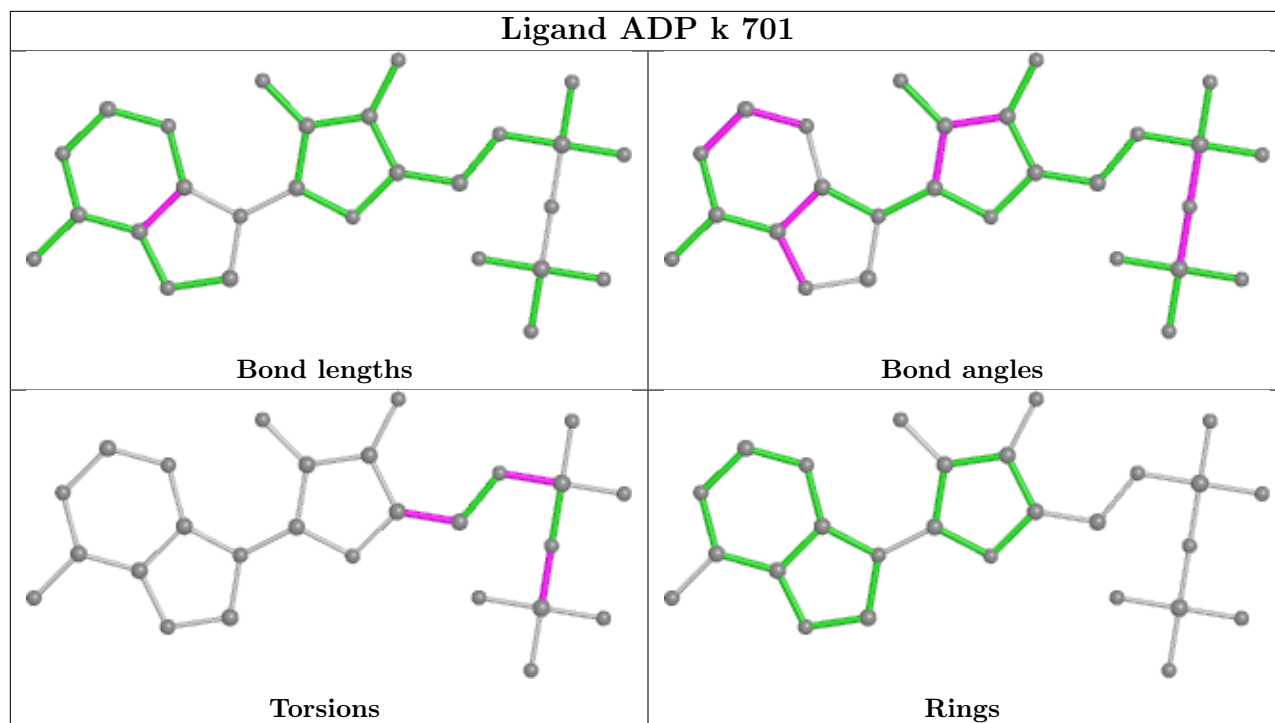
No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier.

Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.







## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
30	b	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	b	59:TYR	C	60:PRO	N	1.65

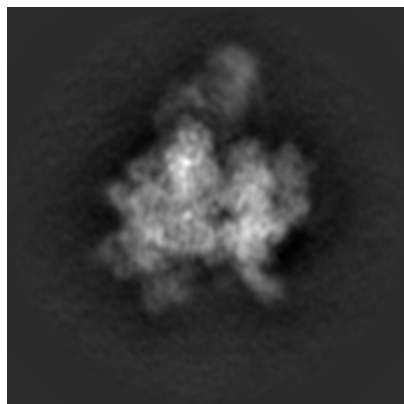
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-11160. These allow visual inspection of the internal detail of the map and identification of artifacts.

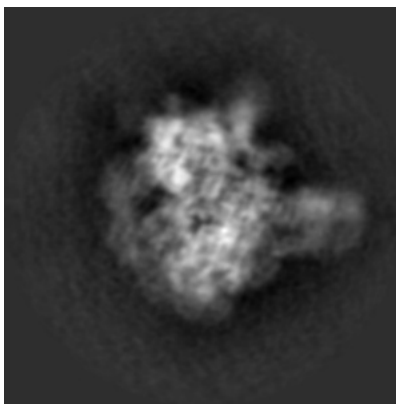
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

### 6.1 Orthogonal projections [i](#)

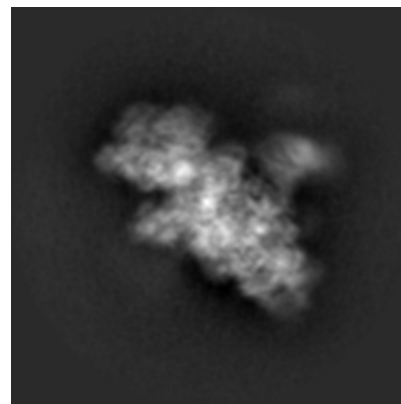
#### 6.1.1 Primary map



X

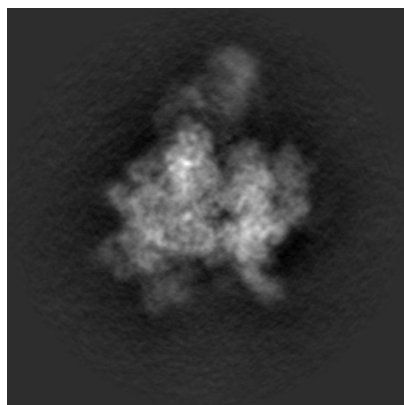


Y

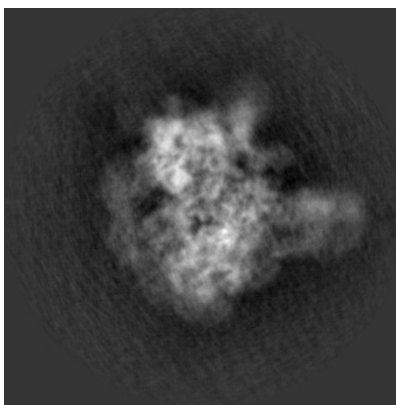


Z

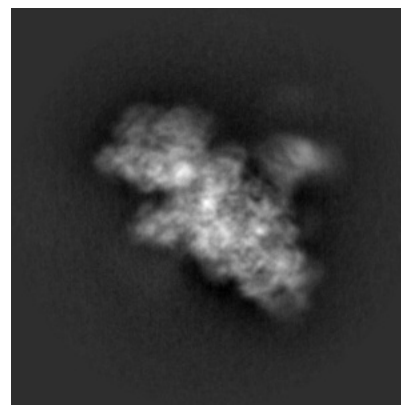
#### 6.1.2 Raw map



X



Y

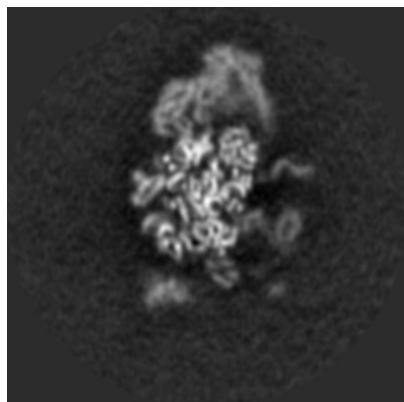


Z

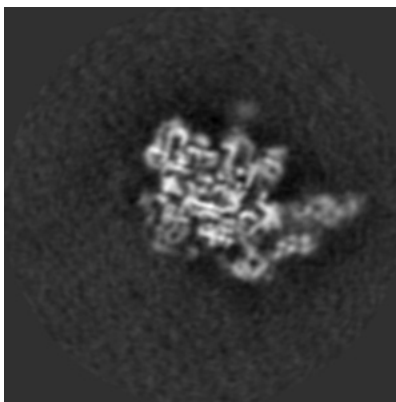
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

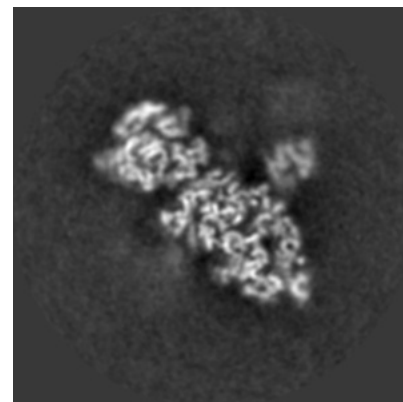
### 6.2.1 Primary map



X Index: 180

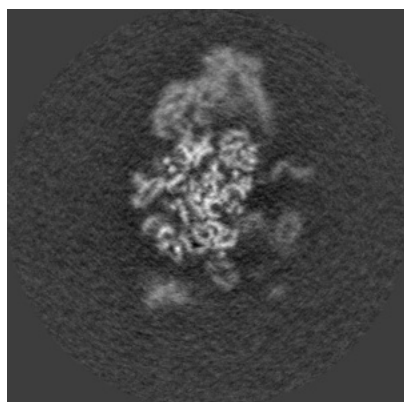


Y Index: 180

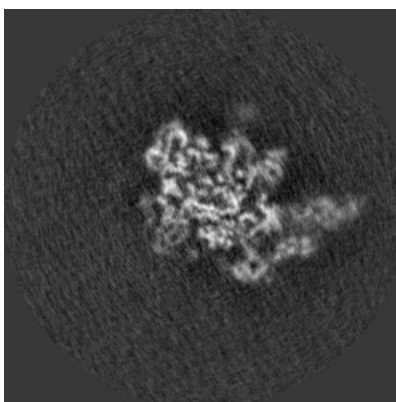


Z Index: 180

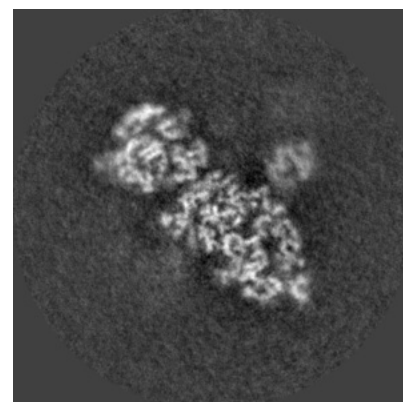
### 6.2.2 Raw map



X Index: 180



Y Index: 180

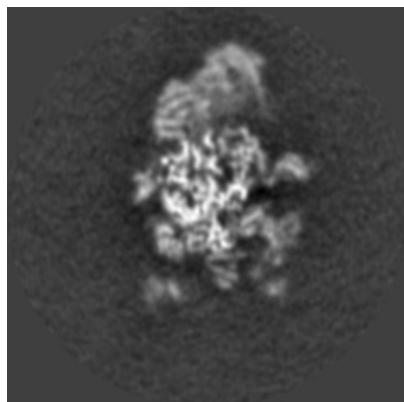


Z Index: 180

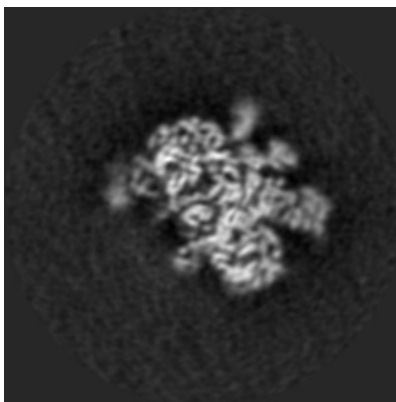
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

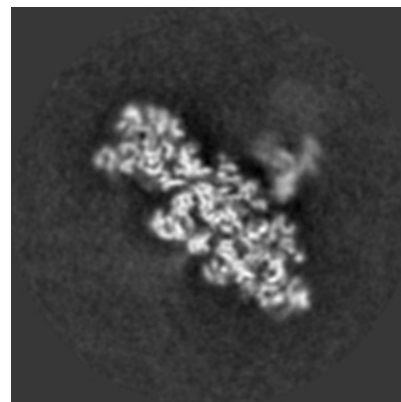
### 6.3.1 Primary map



X Index: 175

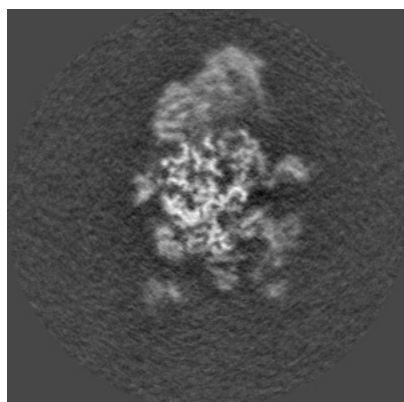


Y Index: 159

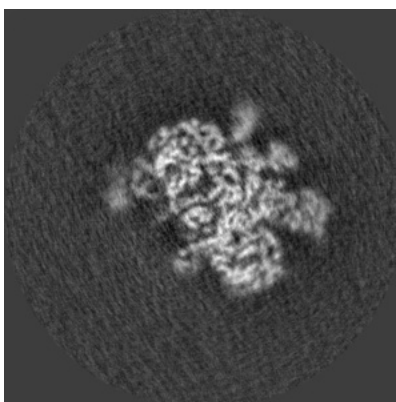


Z Index: 189

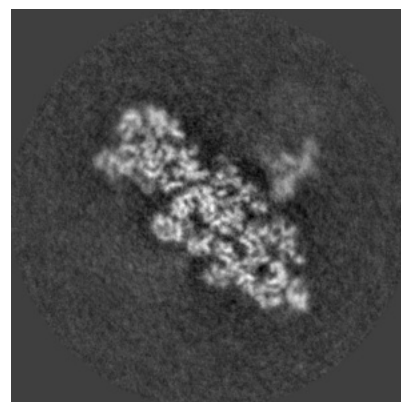
### 6.3.2 Raw map



X Index: 175



Y Index: 159

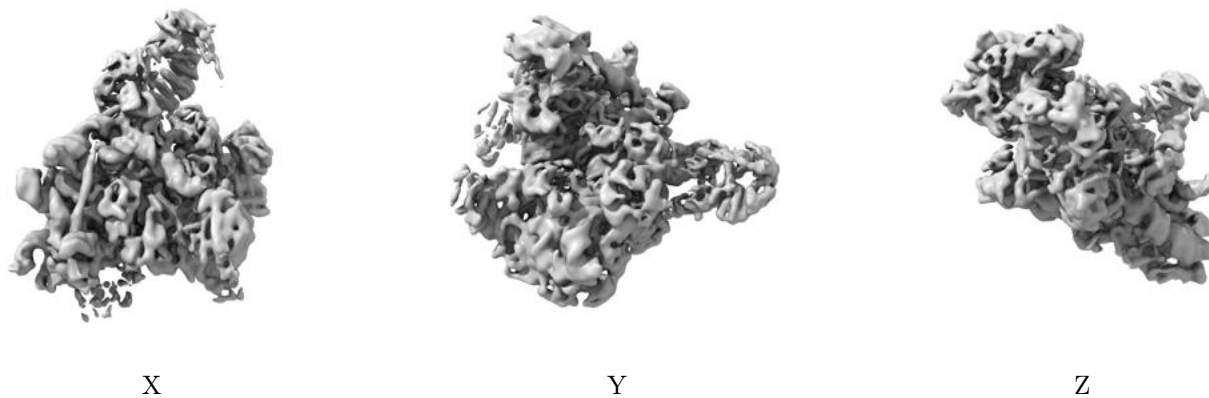


Z Index: 187

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

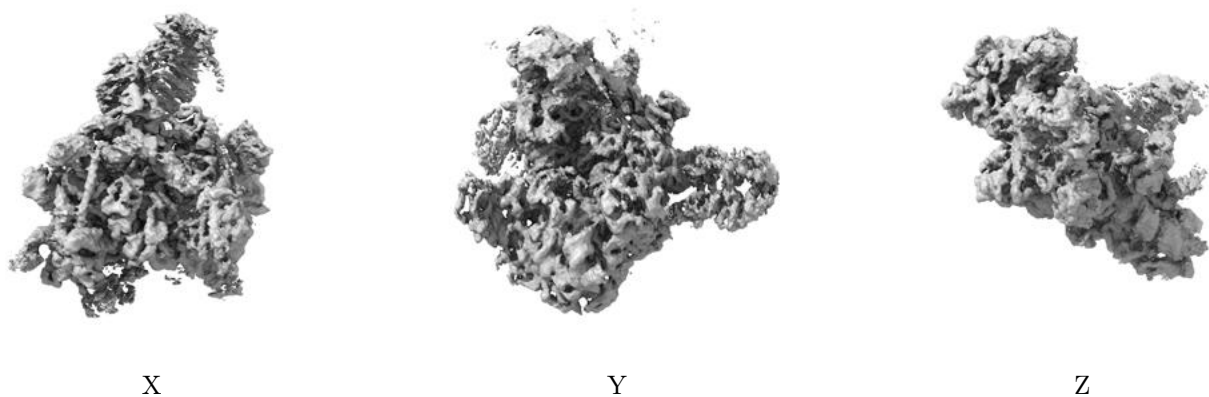
## 6.4 Orthogonal surface views [i](#)

### 6.4.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.02. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.4.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

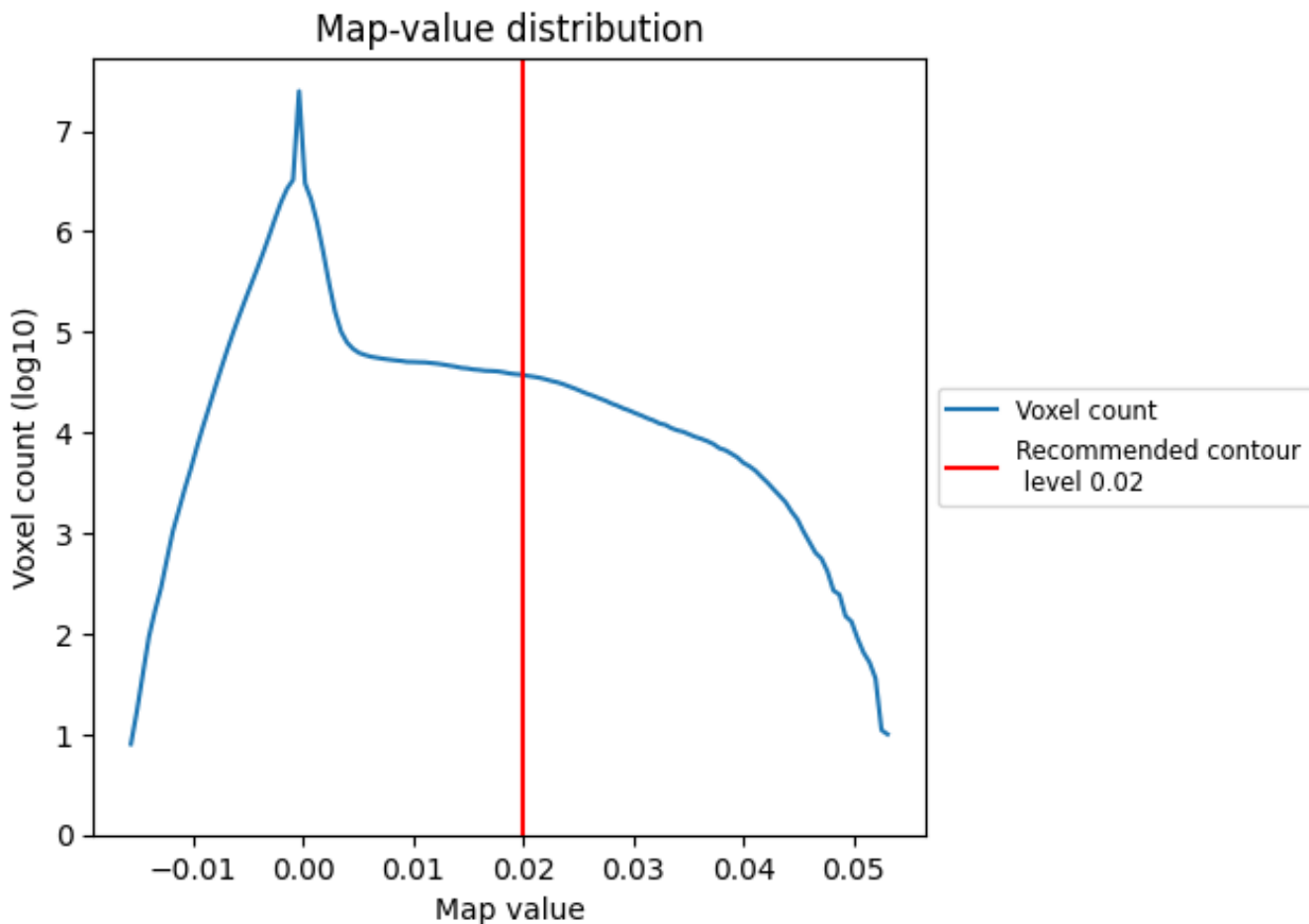
## 6.5 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

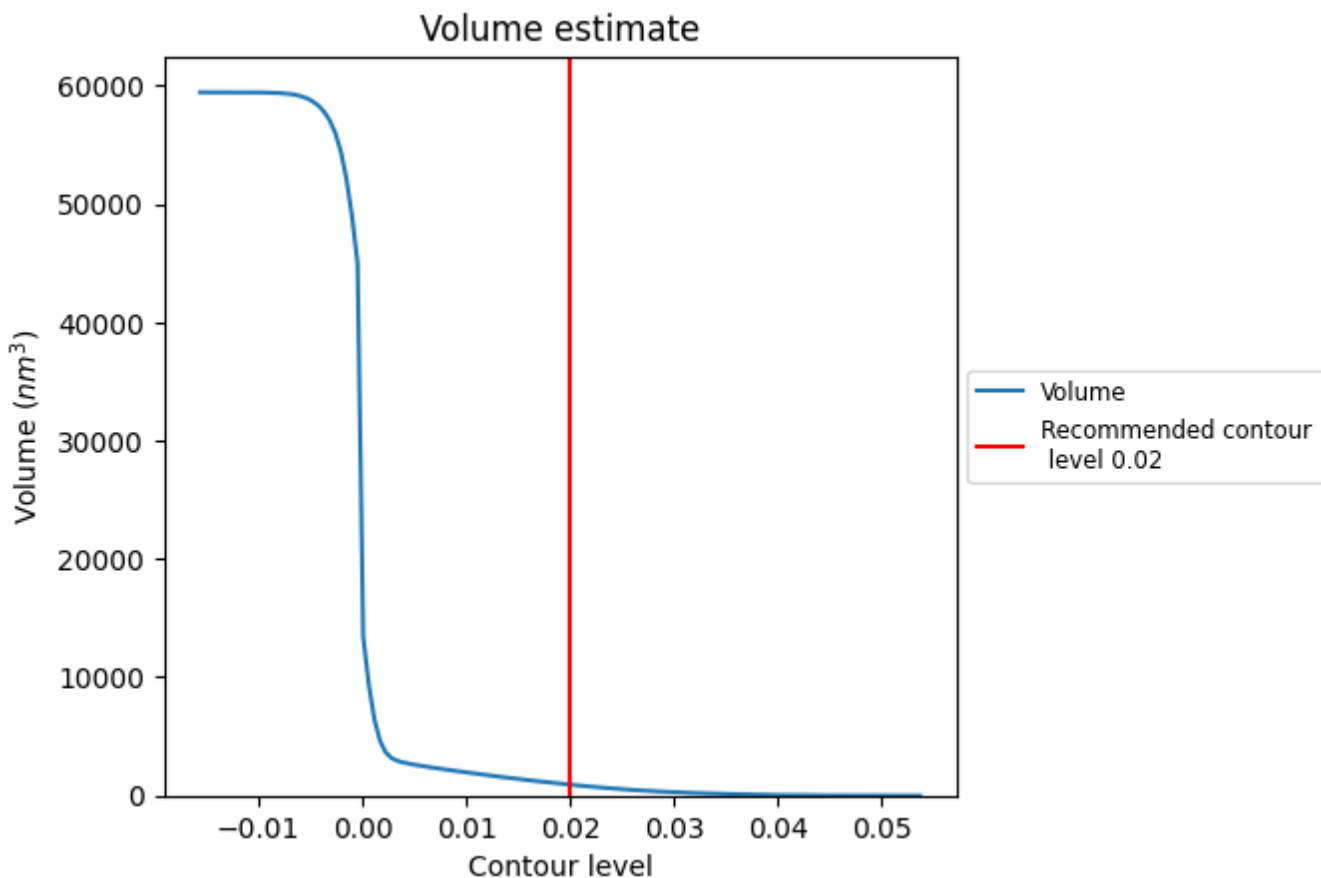
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

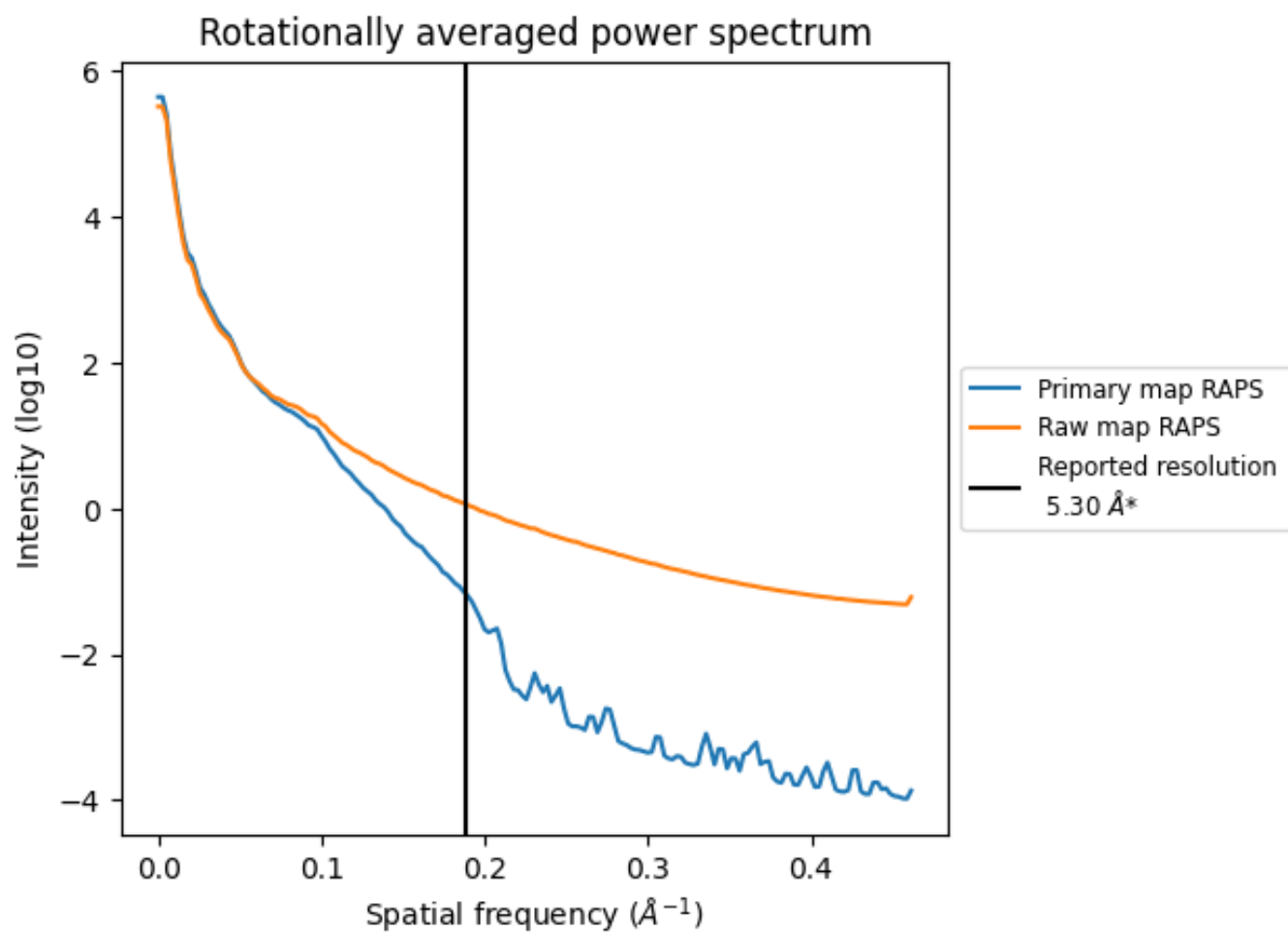
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 925 nm<sup>3</sup>; this corresponds to an approximate mass of 836 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](#)



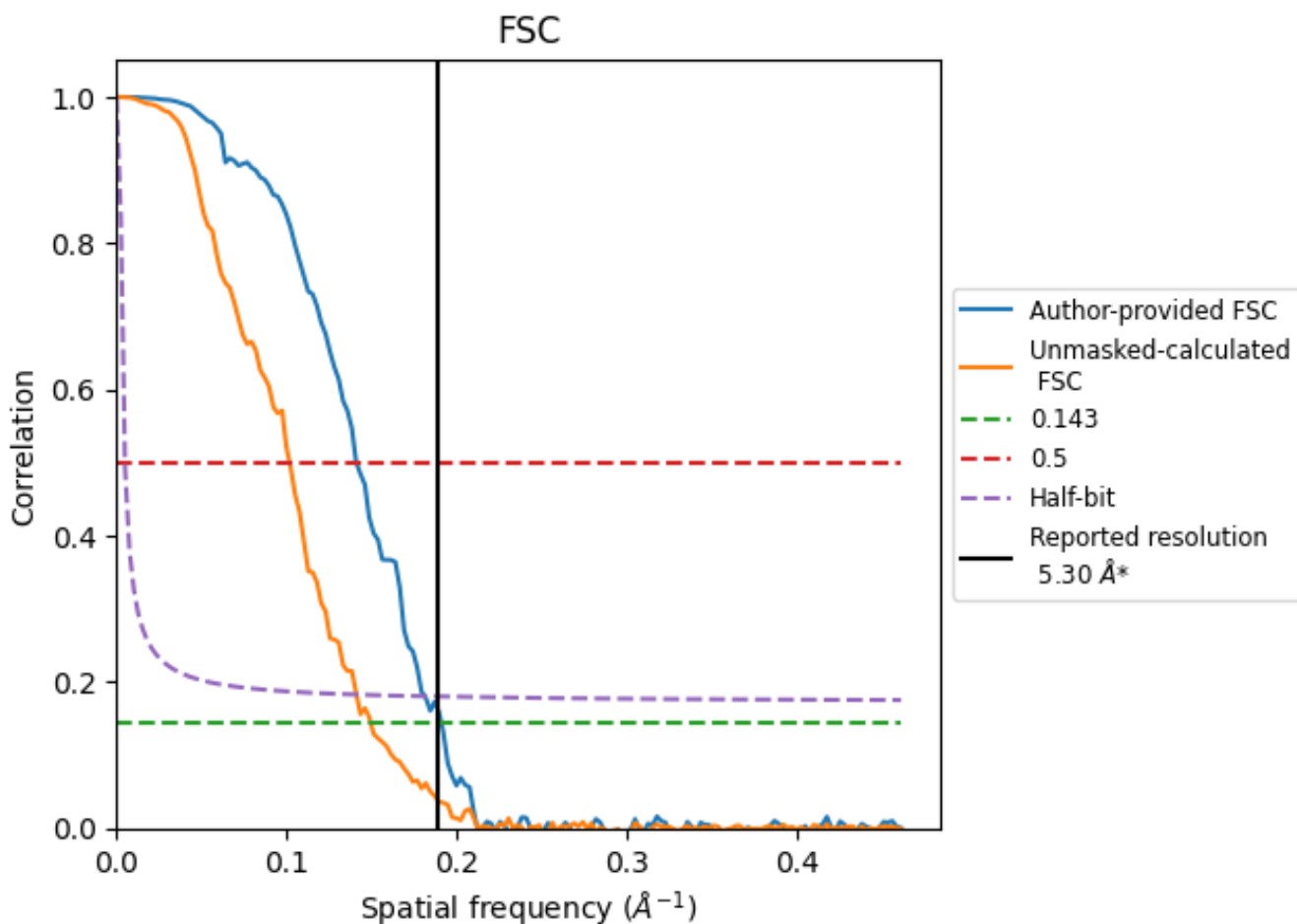
\*Reported resolution corresponds to spatial frequency of 0.189 Å<sup>-1</sup>



## 8 Fourier-Shell correlation [i](#)

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 [i](#)



\*Reported resolution corresponds to spatial frequency of 0.189 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

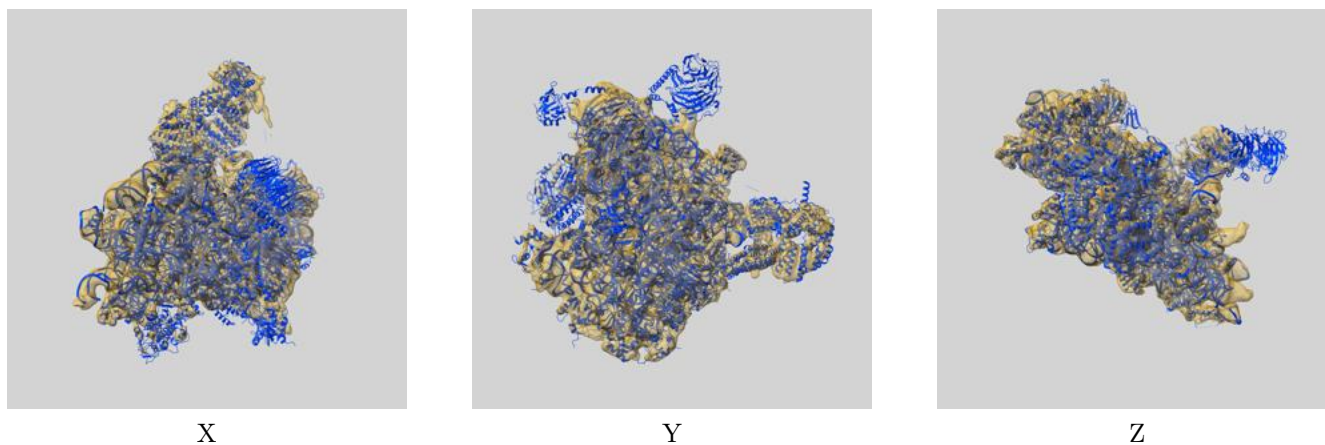
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	5.30	-	-
Author-provided FSC curve	5.23	7.09	5.52
Unmasked-calculated*	6.68	9.82	7.08

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 6.68 differs from the reported value 5.3 by more than 10 %

## 9 Map-model fit [i](#)

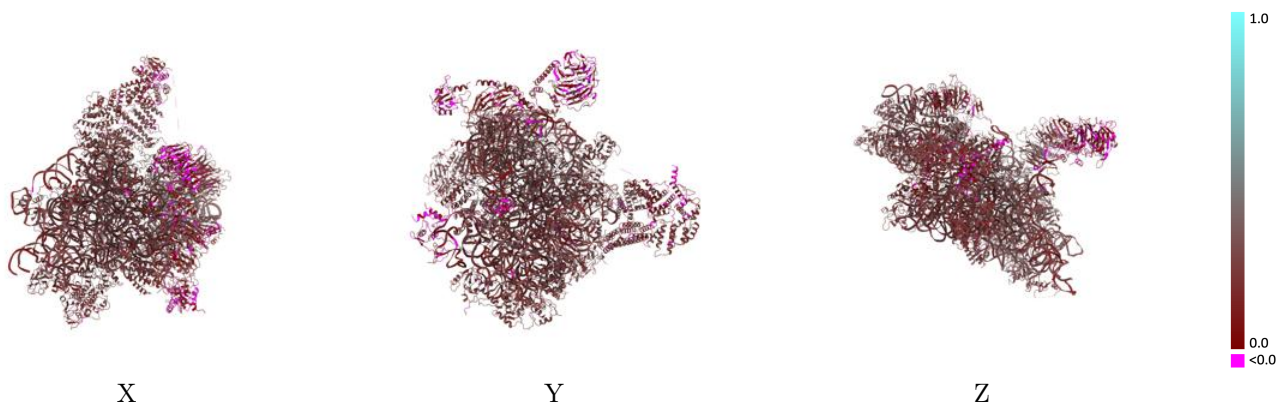
This section contains information regarding the fit between EMDB map EMD-11160 and PDB model 6ZCE. Per-residue inclusion information can be found in section 3 on page 15.

### 9.1 Map-model overlay [i](#)



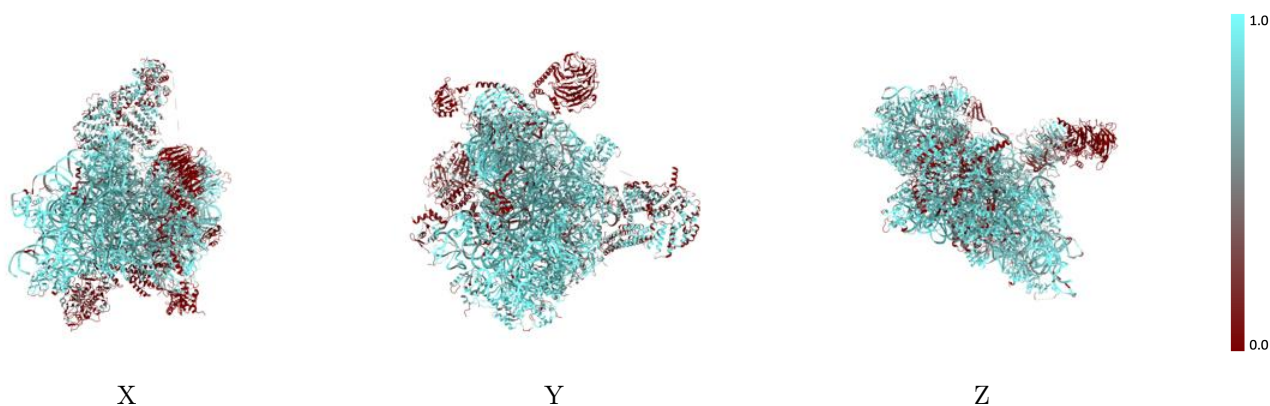
The images above show the 3D surface view of the map at the recommended contour level 0.02 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



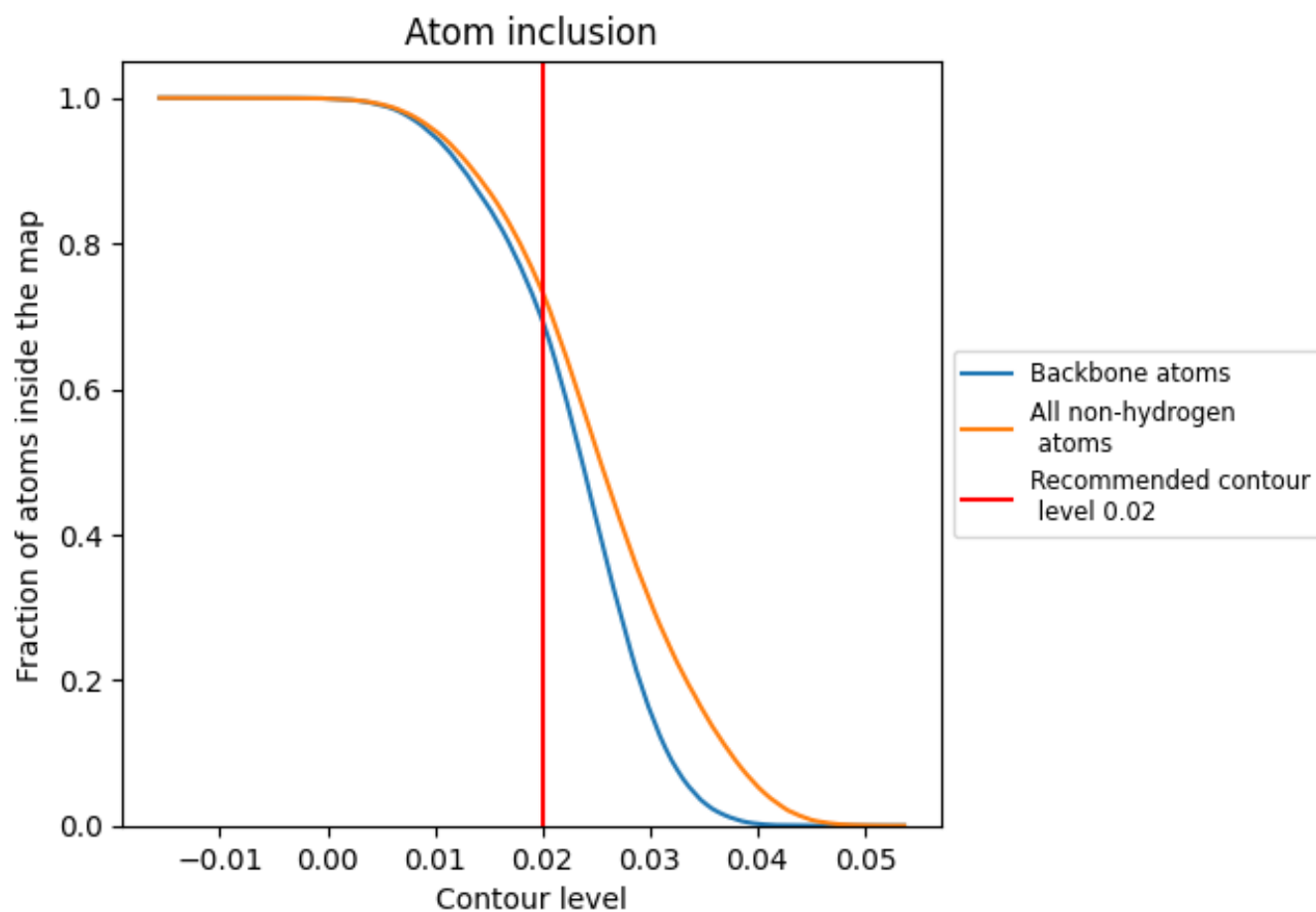
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

## 9.3 Atom inclusion mapped to coordinate model [\(i\)](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.02).







































































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 69% of all backbone atoms, 73% 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 (0.02) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7339	 0.2310
A	 0.9031	 0.2370
B	 0.8186	 0.2900
C	 0.7974	 0.2700
D	 0.7253	 0.2860
E	 0.6375	 0.2750
F	 0.7915	 0.2840
G	 0.7529	 0.2640
H	 0.8113	 0.2590
I	 0.8171	 0.2710
J	 0.8615	 0.2650
K	 0.7824	 0.2710
L	 0.8575	 0.2530
M	 0.7407	 0.2930
N	 0.3356	 0.0530
O	 0.8046	 0.2740
P	 0.7742	 0.2340
Q	 0.6389	 0.2110
R	 0.7749	 0.2540
S	 0.6822	 0.2760
T	 0.8028	 0.2530
U	 0.8229	 0.2390
V	 0.7274	 0.2600
W	 0.7809	 0.2850
X	 0.7366	 0.2680
Y	 0.8026	 0.2870
Z	 0.8321	 0.2640
a	 0.7522	 0.2380
b	 0.6563	 0.2730
c	 0.6534	 0.2650
d	 0.5738	 0.2590
e	 0.8654	 0.2460
f	 0.6935	 0.2870
g	 0.4716	 0.0900
h	 0.7596	 0.2200



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Chain	Atom inclusion	Q-score
i	 0.0294	 0.2280
j	 0.0026	 0.0520
k	 0.1884	 0.2140
l	 0.0000	 0.0820
m	 0.4921	 0.2080
o	 0.5089	 0.1870
p	 0.4121	 0.1670
q	 0.5336	 0.1930
r	 0.0000	 0.1130
s	 0.0298	 0.1930
t	 0.0000	 0.2500