



wwPDB X-ray Structure Validation Summary Report ⓘ

Oct 10, 2023 – 04:40 AM EDT

PDB ID : 4V85
Title : Crystal Structure of Release Factor RF3 Trapped in the GTP State on a Rotated Conformation of the Ribosome.
Authors : Zhou, J.; Lancaster, L.; Trakhanov, S.; Noller, H.F.
Deposited on : 2011-06-13
Resolution : 3.20 Å(reported)

This is a wwPDB X-ray Structure 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/XrayValidationReportHelp>

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:

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtrriage (Phenix) : 1.13
EDS : 2.35.1
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.35.1

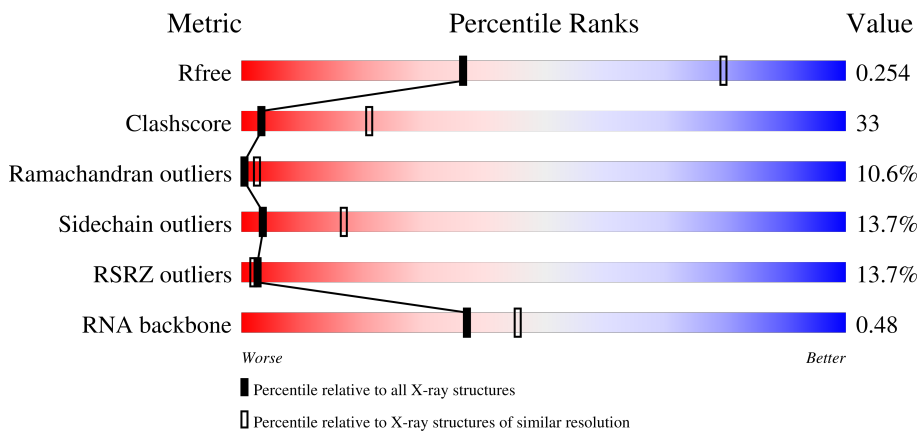
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1133 (3.20-3.20)
Clashscore	141614	1253 (3.20-3.20)
Ramachandran outliers	138981	1234 (3.20-3.20)
Sidechain outliers	138945	1233 (3.20-3.20)
RSRZ outliers	127900	1095 (3.20-3.20)
RNA backbone	3102	1010 (3.50-2.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1533	8% (Poor fit) 28% (0 outliers), 56% (1 outlier), 16% (2 outliers)
2	AB	241	27% (Poor fit) 25% (0 outliers), 45% (1 outlier), 17% (2 outliers), 10% (Not modelled)
3	AC	233	9% (Poor fit) 30% (0 outliers), 44% (1 outlier), 13% (2 outliers), 12% (Not modelled)
4	AD	206	29% (Poor fit) 27% (0 outliers), 57% (1 outlier), 15% (2 outliers)

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Mol	Chain	Length	Quality of chain
5	AE	167	
6	AF	131	
7	AG	156	
8	AH	130	
9	AI	130	
10	AJ	103	
11	AK	129	
12	AL	124	
13	AM	118	
14	AN	101	
15	AO	89	
16	AP	82	
17	AQ	84	
18	AR	75	
19	AS	92	
20	AT	87	
21	AU	71	
22	AV	27	
23	AW	529	
24	AY	6	
25	B0	85	
26	B1	78	
27	B2	63	
28	B3	59	
29	B4	57	

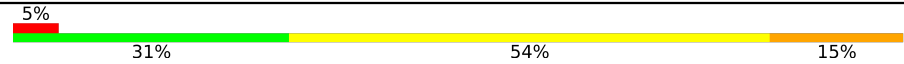
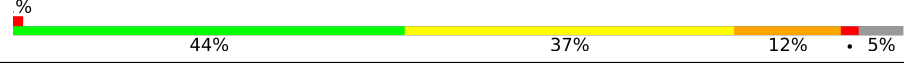
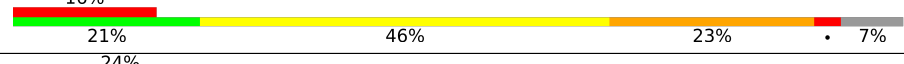
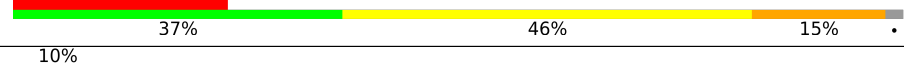

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Mol	Chain	Length	Quality of chain
30	B5	55	
31	B6	46	
32	B7	65	
33	B8	38	
34	BA	2903	
35	BB	118	
36	BC	273	
37	BD	209	
38	BE	201	
39	BF	179	
40	BG	177	
41	BH	165	
42	BI	142	
43	BJ	121	
43	BK	121	
43	BL	121	
43	BM	121	
44	BN	142	
45	BO	123	
46	BP	144	
47	BQ	136	
48	BR	127	
49	BS	117	
50	BT	115	
51	BU	118	

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Mol	Chain	Length	Quality of chain
52	BV	103	
53	BW	116	
54	BX	100	
55	BY	104	
56	BZ	94	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
24	KBE	AY	1	-	-	X	X
24	UAL	AY	5	-	-	X	-
24	5OH	AY	6	-	-	X	-
57	MG	AA	1658	-	-	-	X
57	MG	AA	1686	-	-	-	X
57	MG	AA	1687	-	-	-	X
57	MG	BA	3204	-	-	-	X
57	MG	BA	3216	-	-	-	X
57	MG	BA	3219	-	-	-	X
57	MG	BA	3233	-	-	-	X
57	MG	BA	3333	-	-	-	X
57	MG	BA	3345	-	-	-	X
57	MG	BA	3353	-	-	-	X

2 Entry composition [i](#)

There are 59 unique types of molecules in this entry. The entry contains 147221 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	AA	1532	32873	14661	6031	10649	1532	0	0	0

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	AB	218	1704	1081	305	311	7	0	0	0

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	AC	206	1624	1028	305	288	3	0	0	0

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	AD	205	1643	1026	315	298	4	0	0	0

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	AE	150	1105	687	211	201	6	0	0	0

- Molecule 6 is a protein called 30S ribosomal protein S6 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	AF	100	817	515	148	148	6	0	0	0

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	AG	151	1181	735	227	215	4	0	0	0

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	AH	129	979	616	173	184	6	0	0	0

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
9	AI	127	1022	634	206	179	3	0	0	0

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	AJ	98	786	493	150	142	1	0	0	0

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	AK	117	877	540	174	160	3	0	0	0

- Molecule 12 is a protein called 30S ribosomal protein S12 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	AL	123	955	590	196	165	4	0	0	0

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	AM	114	883	546	178	156	3	0	0	0

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- Molecule 15 is a protein called 30S ribosomal protein S15 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	55	Total	C	N	O	0	0	0
			455	288	86	81			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 22 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	6	Total	C	N	O	P	0	0	0
			129	58	24	41	6			

- Molecule 23 is a protein called Peptide chain release factor 3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	525	Total	C	N	O	S	0	0	0
			4144	2617	722	783	22			

- Molecule 24 is a protein called Viomycin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
24	AY	6	Total	C	N	O	0	0	0
			48	25	13	10			

- Molecule 25 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	B0	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			

- Molecule 26 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	B1	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 27 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	B2	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 28 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	B3	58	449	281	87	79	2	0	0	0

- Molecule 29 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
29	B4	56	444	269	94	80	1	0	0	0

- Molecule 30 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
30	B5	50	409	263	75	71	0	0	0

- Molecule 31 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
31	B6	46	377	228	90	57	2	0	0	0

- Molecule 32 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
32	B7	64	504	323	105	74	2	0	0	0

- Molecule 33 is a protein called 50S ribosomal protein L36 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
33	B8	38	302	185	65	48	4	0	0	0

- Molecule 34 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
34	BA	2853	61252	27324	11274	19801	2853	0	0	0

- Molecule 35 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
35	BB	118	2529	1126	464	821	118	0	0	0

- Molecule 36 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	BC	271	2082	1288	423	364	7	0	0	0

- Molecule 37 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
37	BD	209	1565	979	288	294	4	0	0	0

- Molecule 38 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
38	BE	201	1552	974	283	290	5	0	0	0

- Molecule 39 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
39	BF	177	1410	899	249	256	6	0	0	0

- Molecule 40 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
40	BG	176	1323	832	243	246	2	0	0	0

- Molecule 41 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
41	BH	163	1230	775	219	229	7	0	0	0

- Molecule 42 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
42	BI	141	1032	651	179	196	6	0	0	0

- Molecule 43 is a protein called 50S ribosomal protein L7/L12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
43	BJ	30	227	144	33	47	3	0	0	0
43	BK	30	227	144	33	47	3	0	0	0
43	BL	30	227	144	33	47	3	0	0	0
43	BM	30	227	144	33	47	3	0	0	0

- Molecule 44 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	BN	142	1129	714	212	199	4	0	0	0

- Molecule 45 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	BO	122	938	587	180	165	6	0	0	0

- Molecule 46 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
46	BP	143	1045	649	206	189	1	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BP	77	ILE	VAL	SEE REMARK 999	UNP C3SR37

- Molecule 47 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	BQ	136	1074	686	205	177	6	0	0	0

- Molecule 48 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
48	BR	120	960	593	196	166	5	0	0	0

- Molecule 49 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
49	BS	116	892	552	178	162	0	0	0

- Molecule 50 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
50	BT	114	917	574	179	163	1	0	0	0

- Molecule 51 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
51	BU	117	947	604	192	151	0	0	0

- Molecule 52 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	BV	103	816	516	153	145	2	0	0	0

- Molecule 53 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
53	BW	110	856	532	166	155	3	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BW	111	HIS	-	EXPRESSION TAG	UNP C3SQW7
BW	112	HIS	-	EXPRESSION TAG	UNP C3SQW7
BW	113	HIS	-	EXPRESSION TAG	UNP C3SQW7
BW	114	HIS	-	EXPRESSION TAG	UNP C3SQW7
BW	115	HIS	-	EXPRESSION TAG	UNP C3SQW7
BW	116	HIS	-	EXPRESSION TAG	UNP C3SQW7

- Molecule 54 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	BX	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			

- Molecule 55 is a protein called 50S ribosomal protein L24 1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
55	BY	102	Total	C	N	O	0	0	0
			779	492	146	141			

- Molecule 56 is a protein called 50S ribosomal protein L25 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	BZ	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

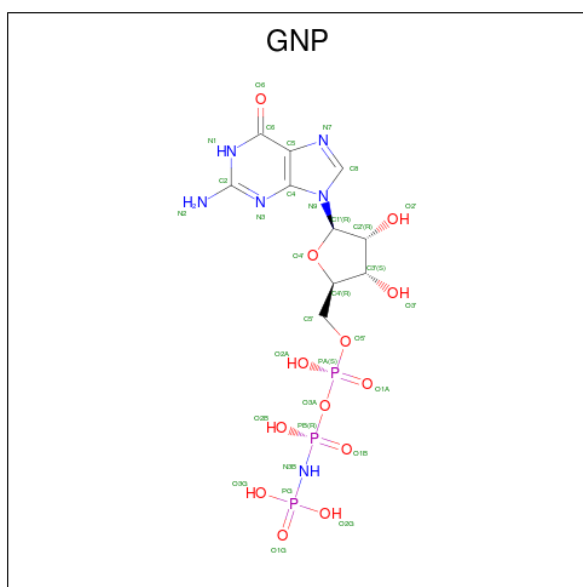
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	AA	102	Total	Mg	0	0
			102	102		
57	AF	1	Total	Mg	0	0
			1	1		
57	AH	1	Total	Mg	0	0
			1	1		
57	AL	2	Total	Mg	0	0
			2	2		
57	AM	1	Total	Mg	0	0
			1	1		
57	AW	1	Total	Mg	0	0
			1	1		
57	B0	3	Total	Mg	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	B2	1	Total 1	Mg 1	0	0
57	B4	1	Total 1	Mg 1	0	0
57	BA	357	Total 357	Mg 357	0	0
57	BB	9	Total 9	Mg 9	0	0
57	BC	1	Total 1	Mg 1	0	0
57	BD	5	Total 5	Mg 5	0	0
57	BE	1	Total 1	Mg 1	0	0
57	BN	1	Total 1	Mg 1	0	0
57	BO	1	Total 1	Mg 1	0	0
57	BQ	1	Total 1	Mg 1	0	0
57	BR	2	Total 2	Mg 2	0	0
57	BT	1	Total 1	Mg 1	0	0
57	BX	1	Total 1	Mg 1	0	0

- Molecule 58 is PHOSPHOAMINOPHOSPHONIC ACID-GUANYLATE ESTER (three-letter code: GNP) (formula: C₁₀H₁₇N₆O₁₃P₃).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
58	AW	1	32	10	6	13	3	0	0

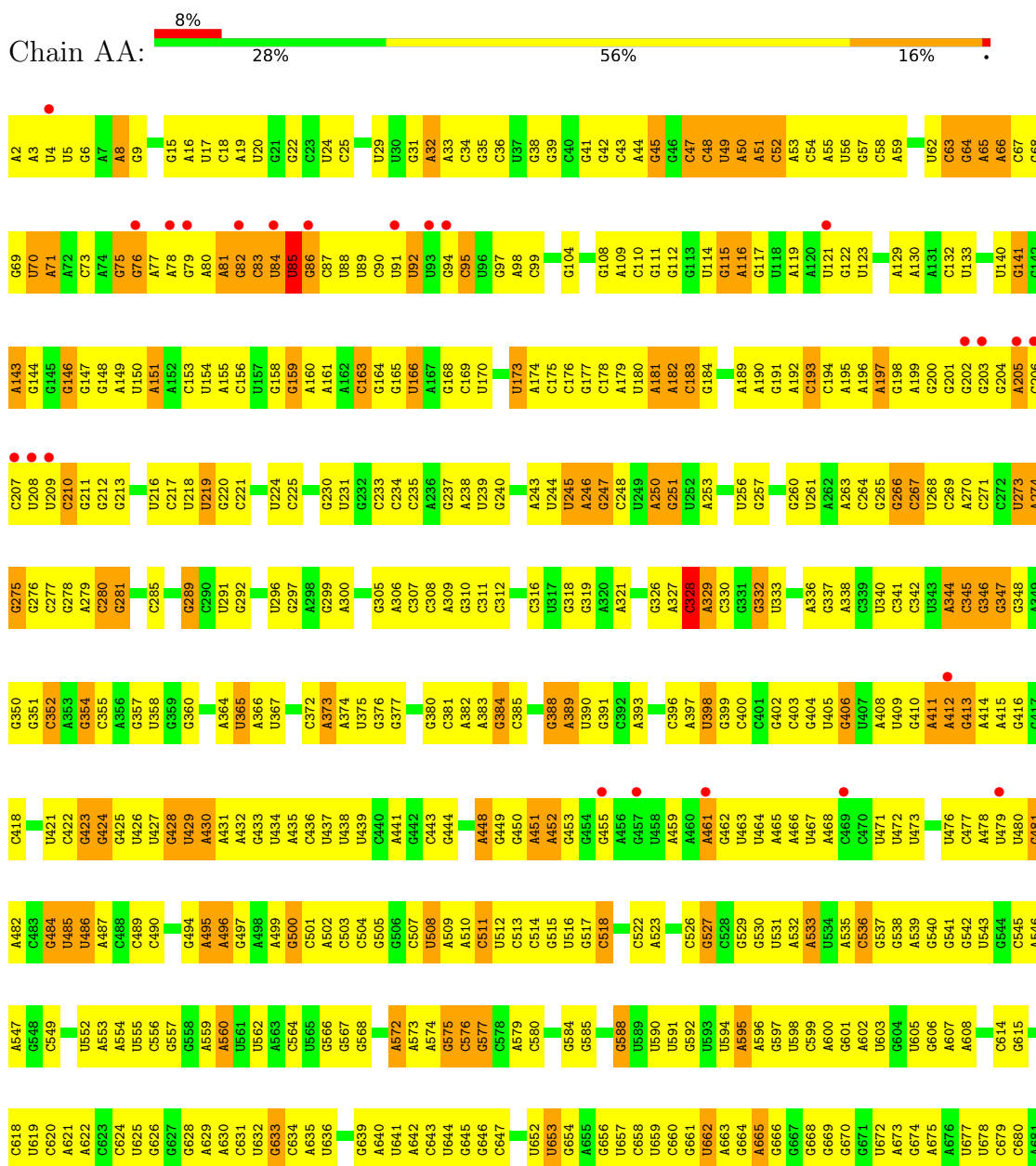
- Molecule 59 is water.

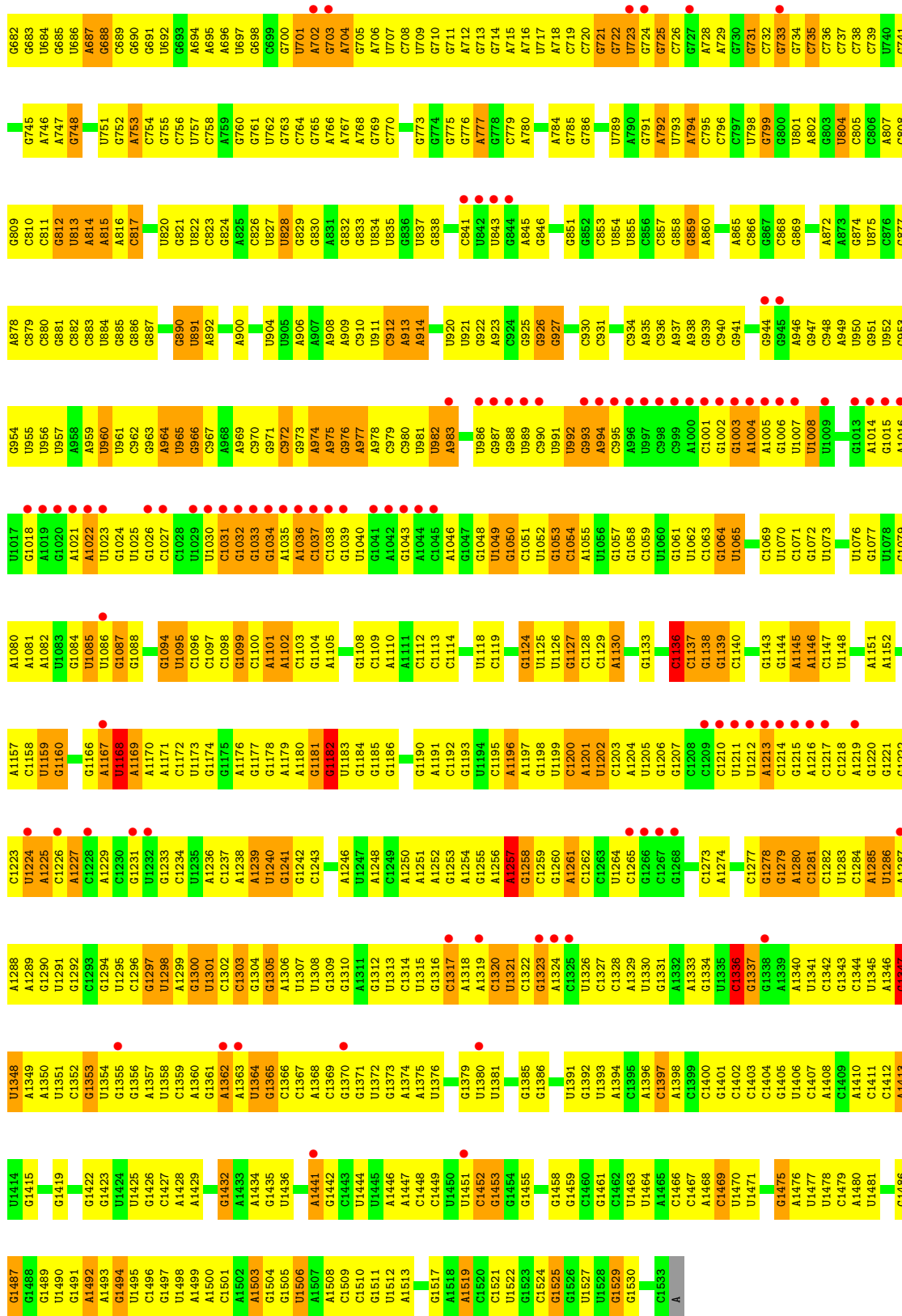
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AW	2	Total 2 2	0	0
59	B8	1	Total 1 1	0	0
59	BA	8	Total 8 8	0	0
59	BC	2	Total 2 2	0	0
59	BD	1	Total 1 1	0	0
59	BF	1	Total 1 1	0	0
59	BG	1	Total 1 1	0	0
59	BW	1	Total 1 1	0	0

3 Residue-property plots i

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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.

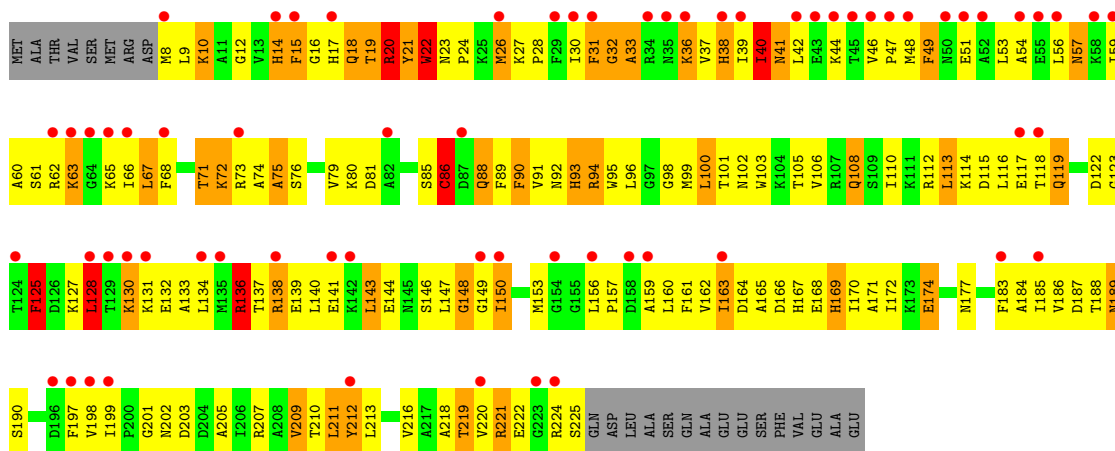
• Molecule 1: 16S rRNA



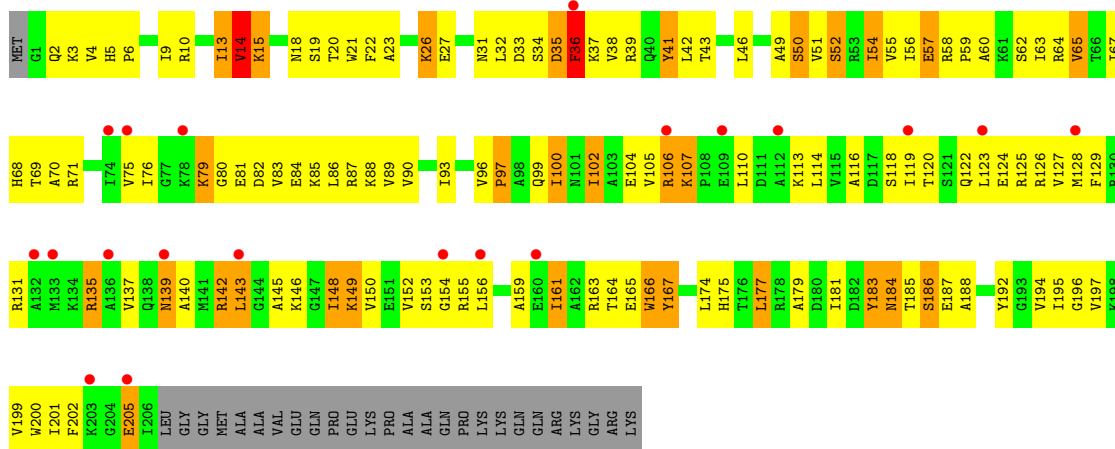


• Molecule 2: 30S ribosomal protein S2

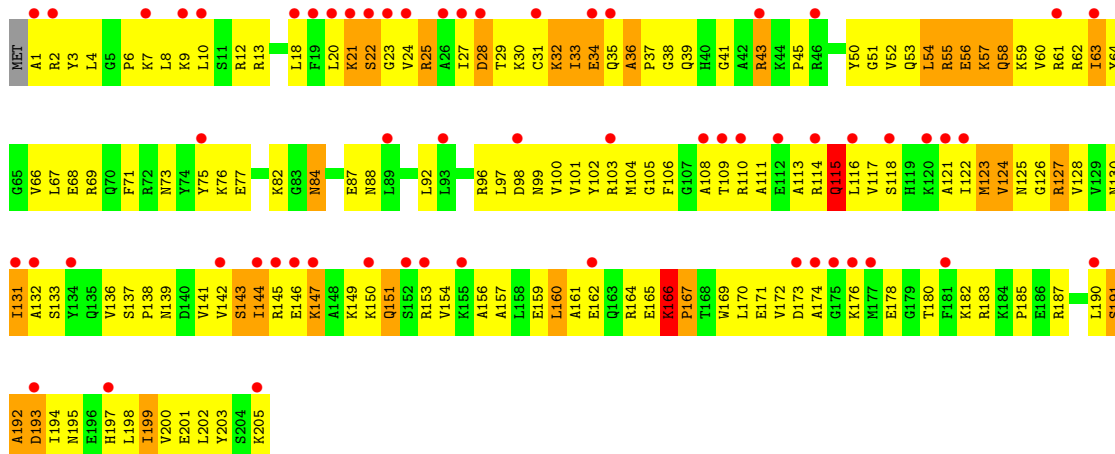




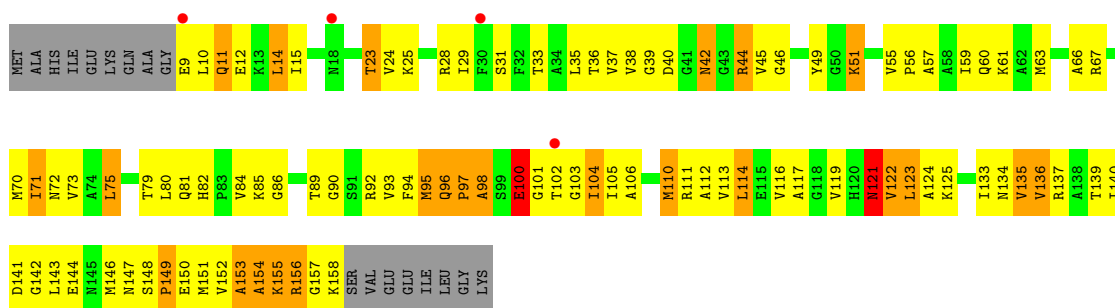
• Molecule 3: 30S ribosomal protein S3



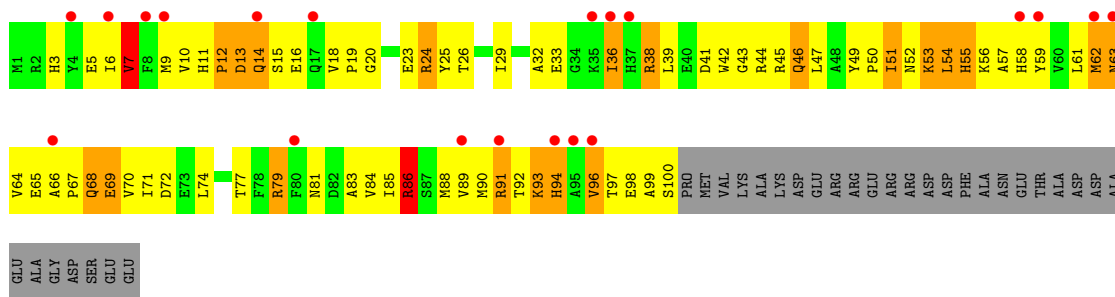
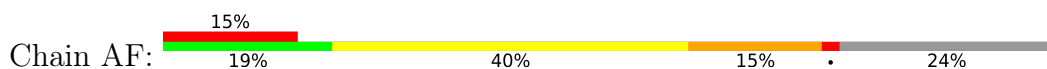
• Molecule 4: 30S ribosomal protein S4



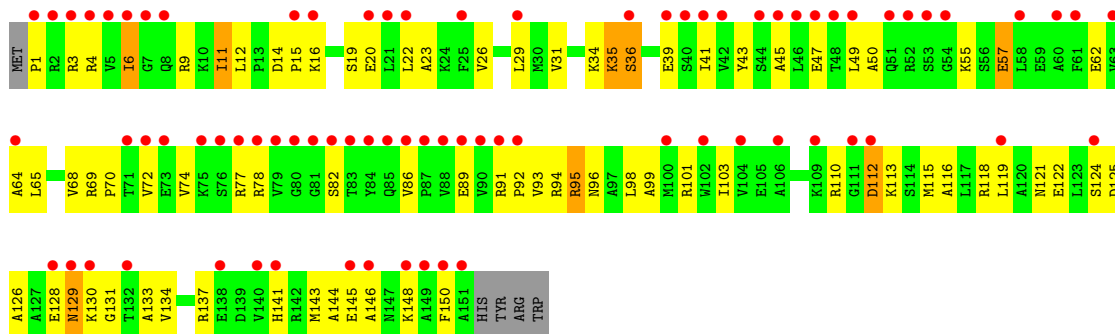
- Molecule 5: 30S ribosomal protein S5



- Molecule 6: 30S ribosomal protein S6 1



- Molecule 7: 30S ribosomal protein S7

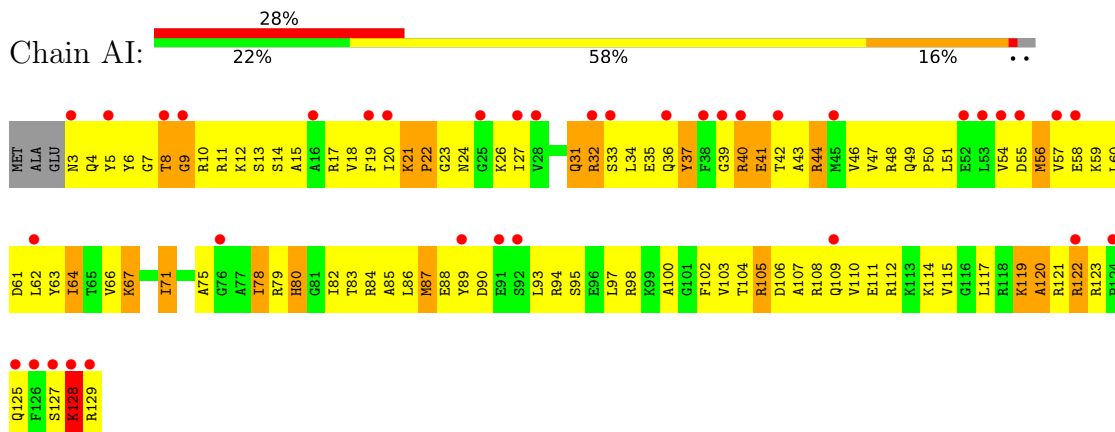


- Molecule 8: 30S ribosomal protein S8

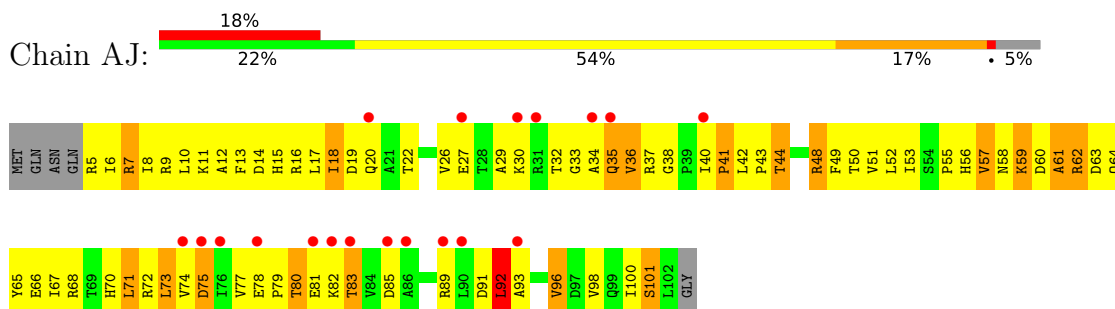




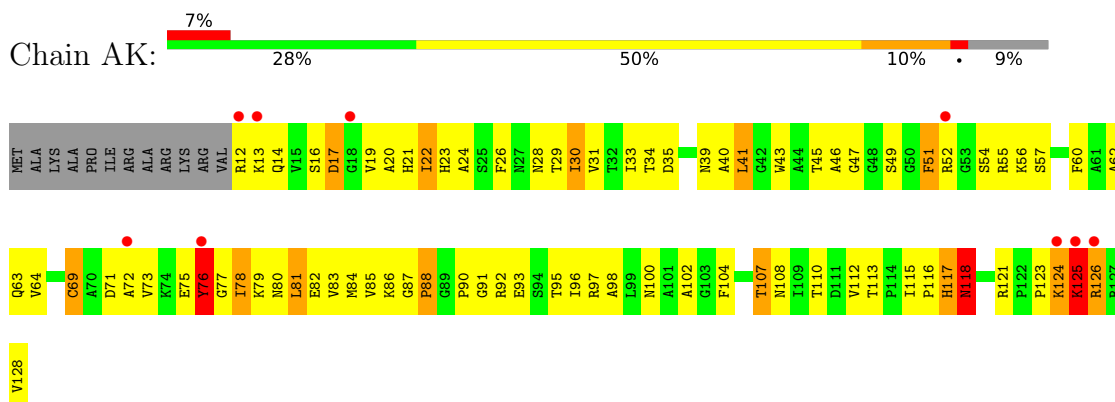
- Molecule 9: 30S ribosomal protein S9



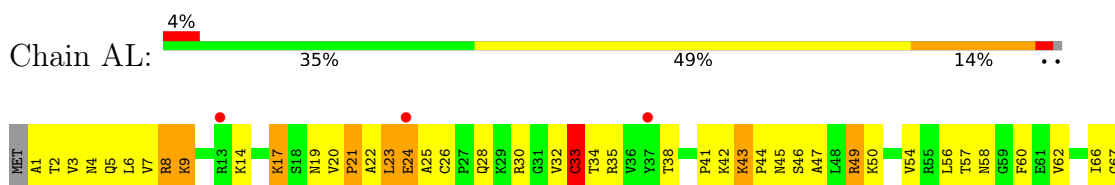
- Molecule 10: 30S ribosomal protein S10



- Molecule 11: 30S ribosomal protein S11

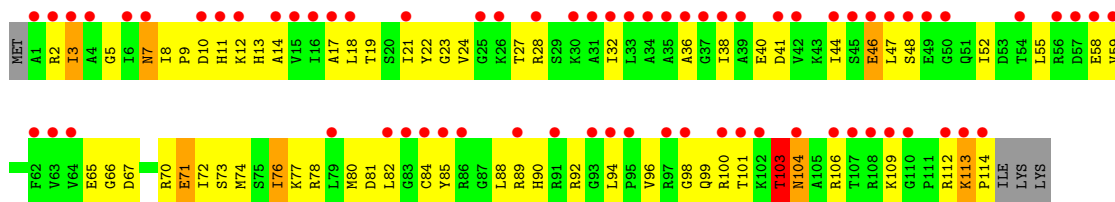
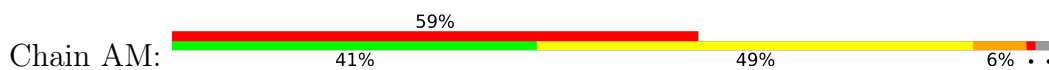


- Molecule 12: 30S ribosomal protein S12 1

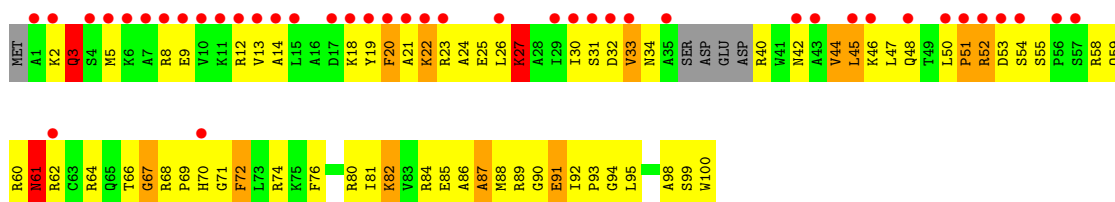




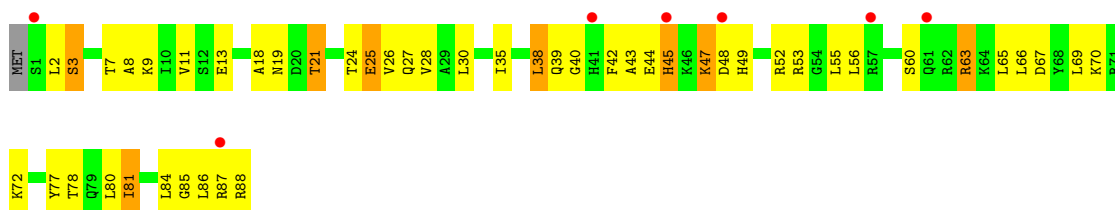
- Molecule 13: 30S ribosomal protein S13



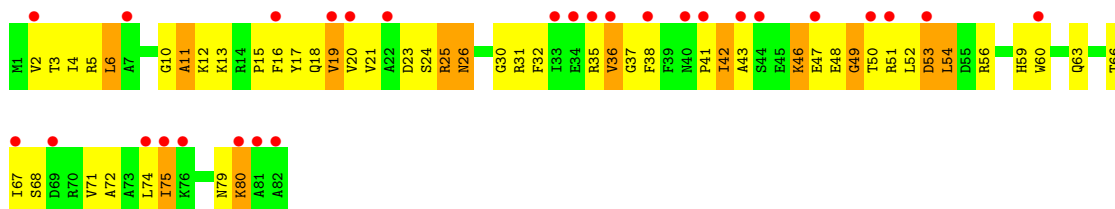
- Molecule 14: 30S ribosomal protein S14



- Molecule 15: 30S ribosomal protein S15 1

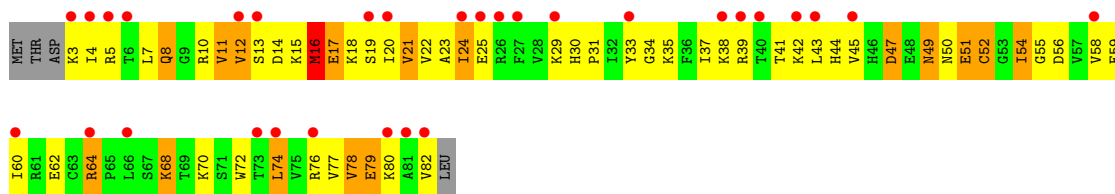


- Molecule 16: 30S ribosomal protein S16

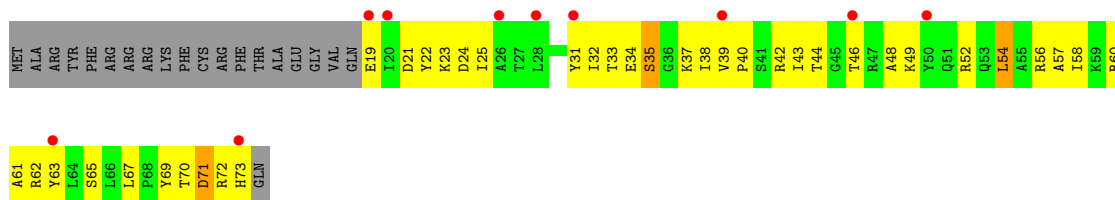


- Molecule 17: 30S ribosomal protein S17

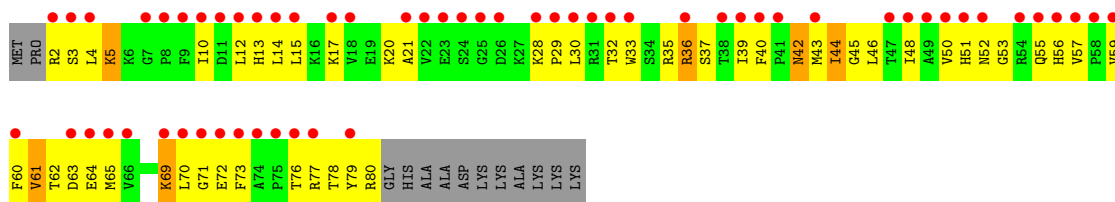




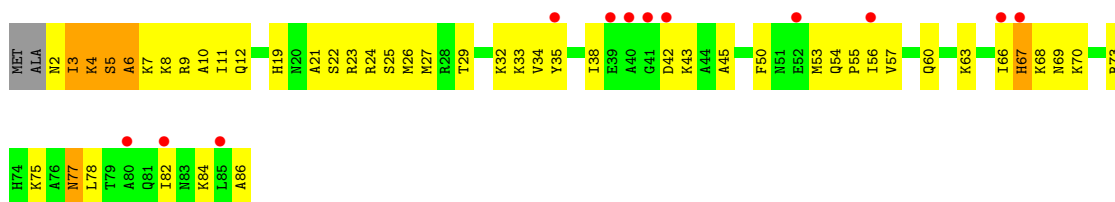
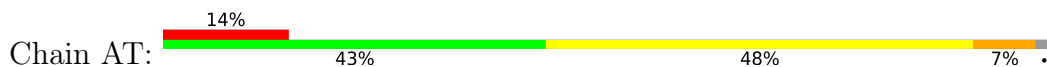
- Molecule 18: 30S ribosomal protein S18



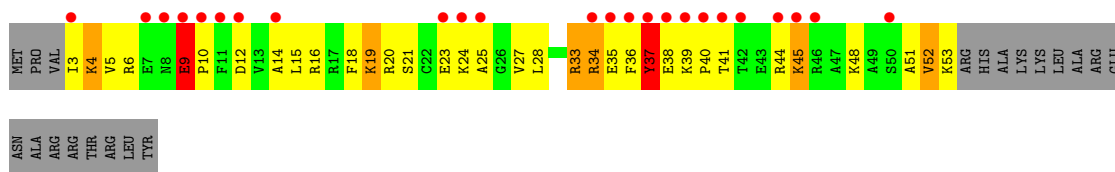
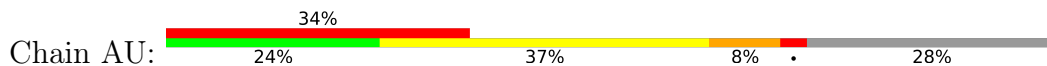
- Molecule 19: 30S ribosomal protein S19



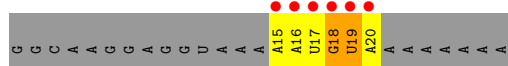
- Molecule 20: 30S ribosomal protein S20



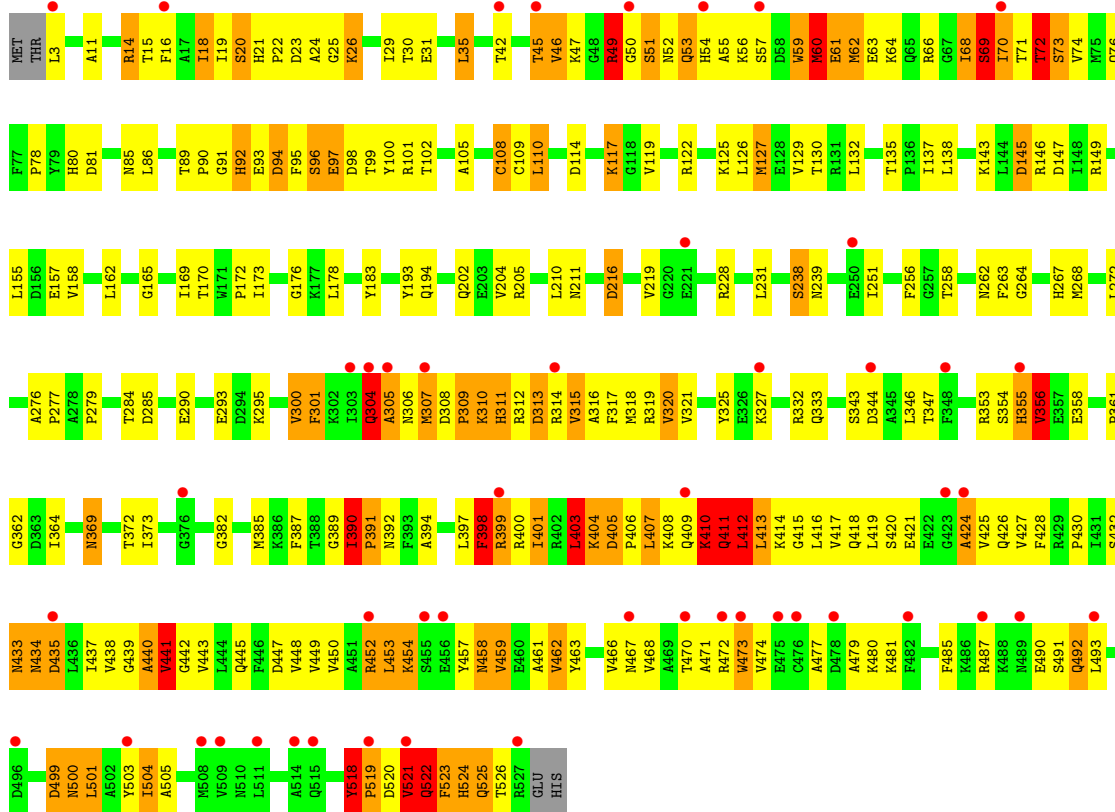
- Molecule 21: 30S ribosomal protein S21



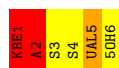
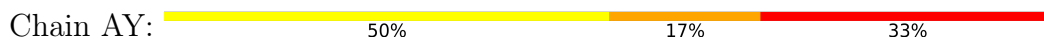
- Molecule 22: messenger RNA



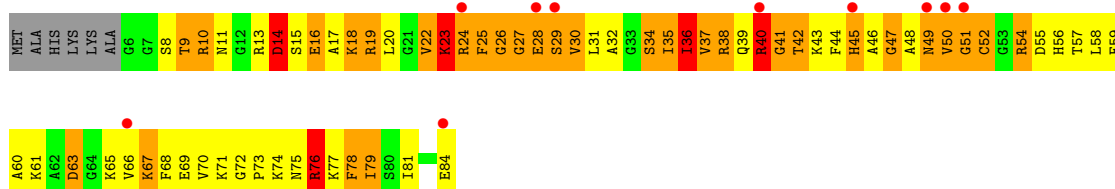
• Molecule 23: Peptide chain release factor 3



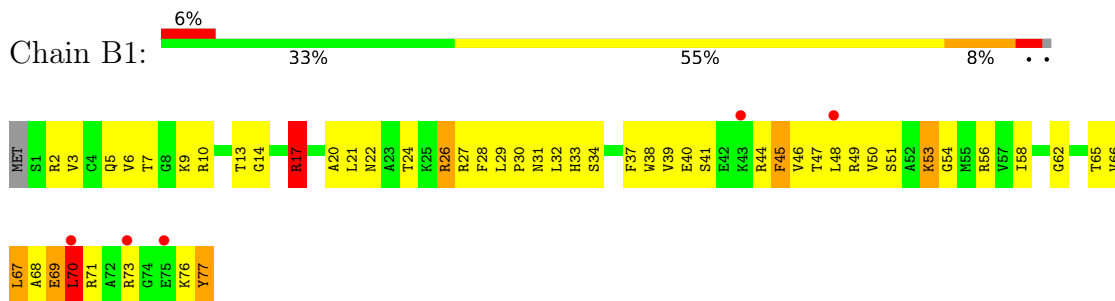
• Molecule 24: Viomycin



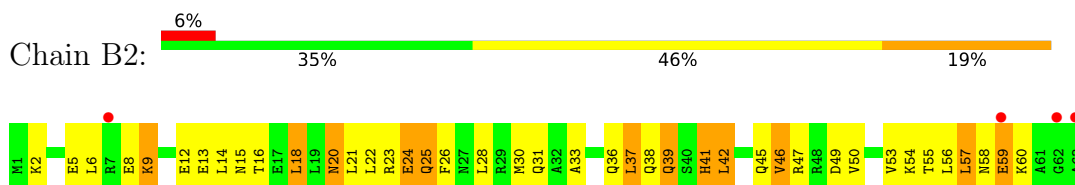
• Molecule 25: 50S ribosomal protein L27



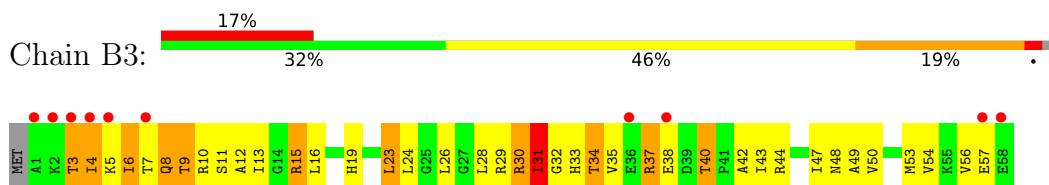
- Molecule 26: 50S ribosomal protein L28



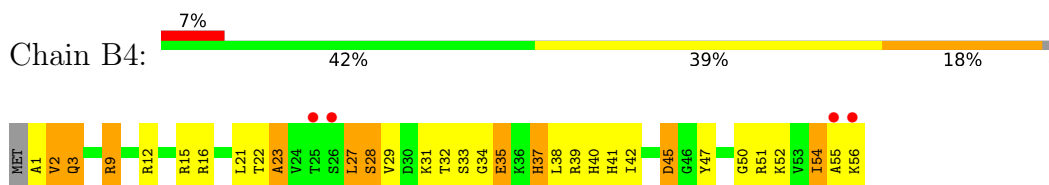
- Molecule 27: 50S ribosomal protein L29



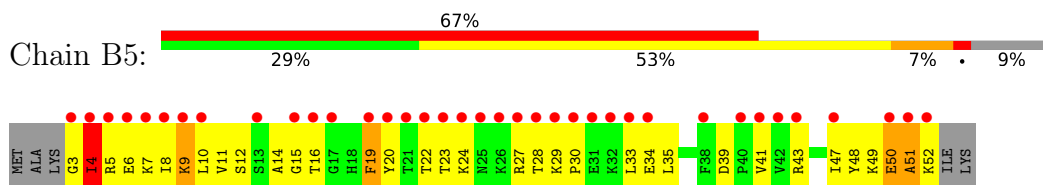
- Molecule 28: 50S ribosomal protein L30



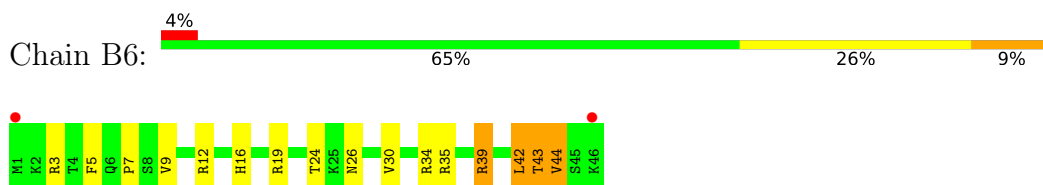
- Molecule 29: 50S ribosomal protein L32



- Molecule 30: 50S ribosomal protein L33



- Molecule 31: 50S ribosomal protein L34



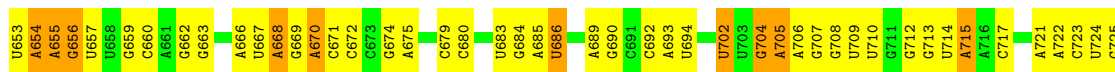
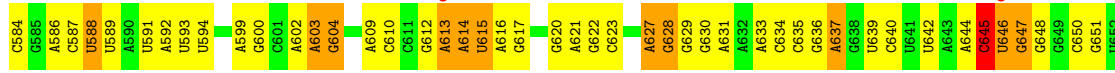
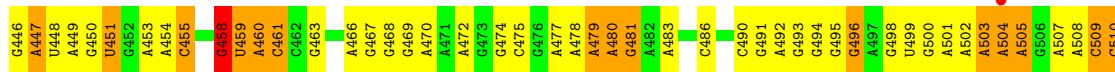
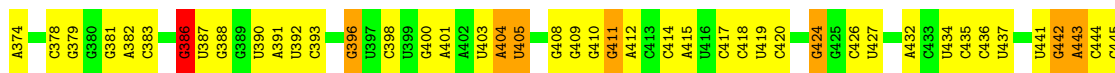
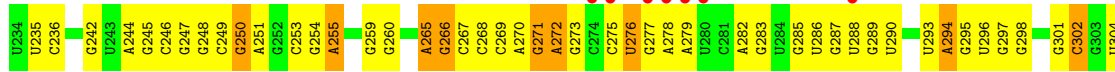
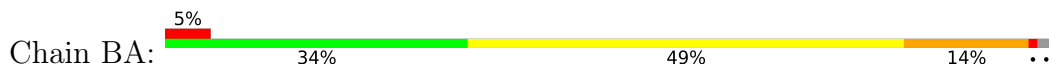
- Molecule 32: 50S ribosomal protein L35

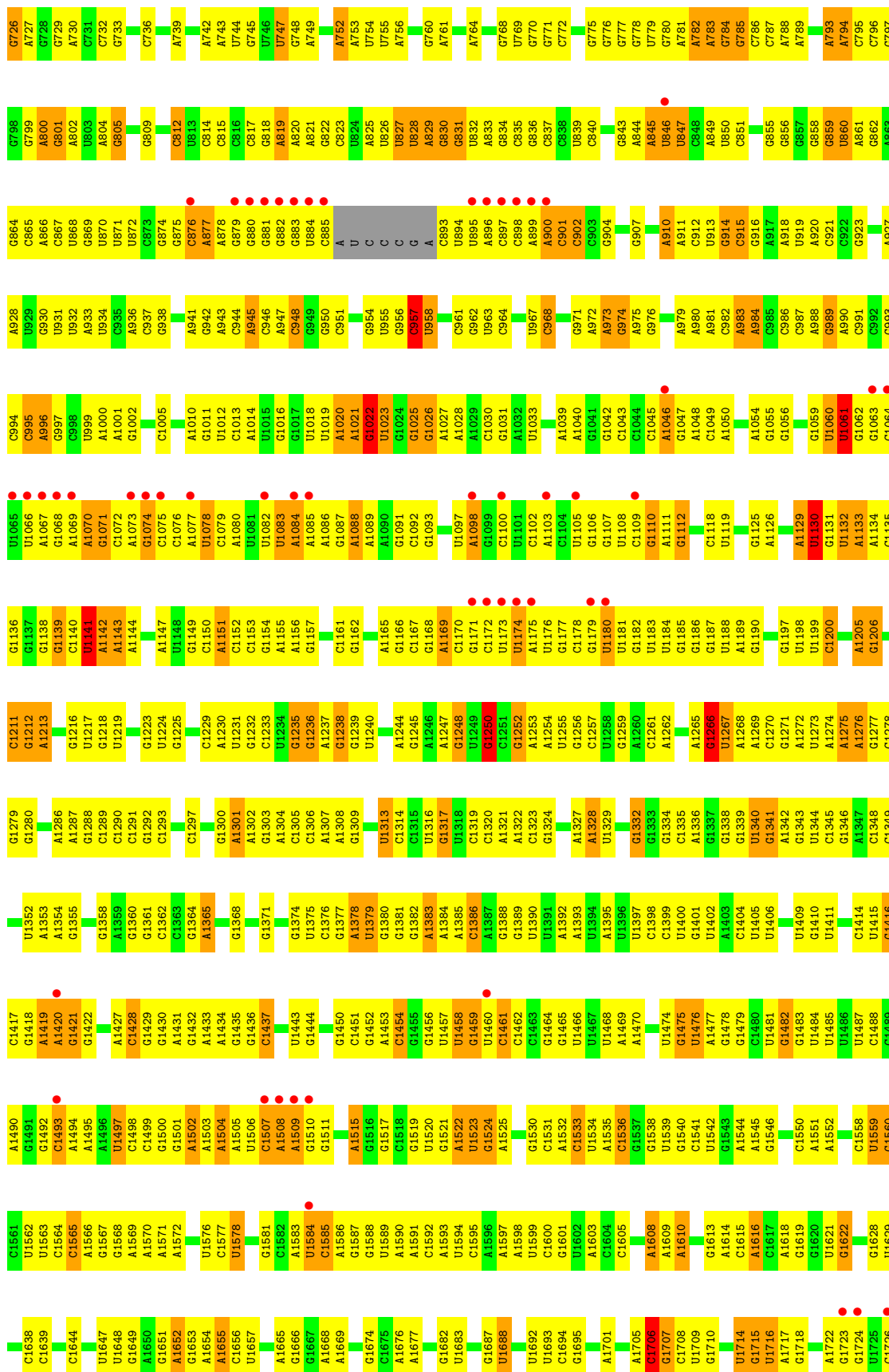


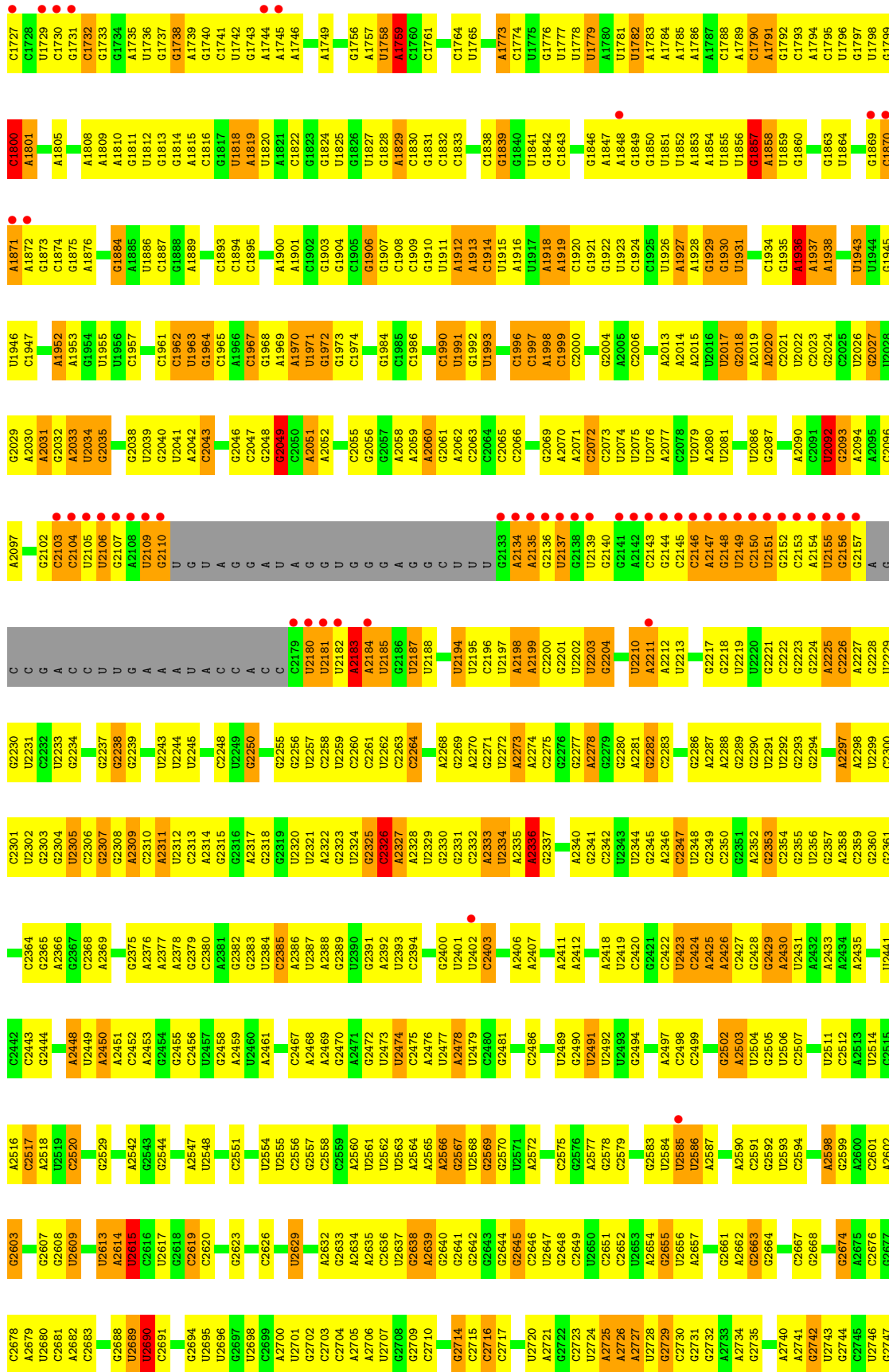
• Molecule 33: 50S ribosomal protein L36 1

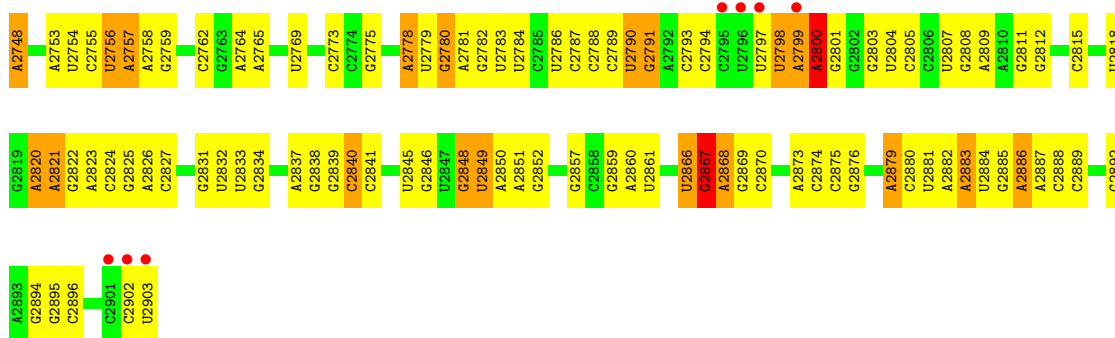


• Molecule 34: 23S rRNA

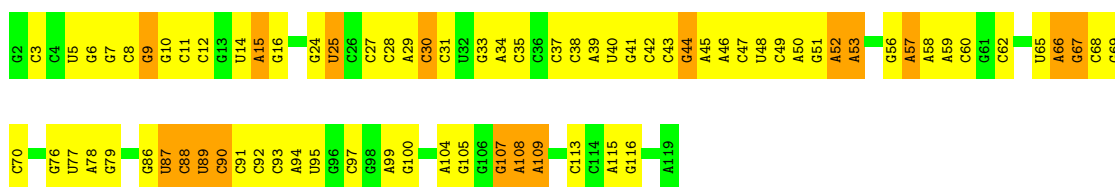




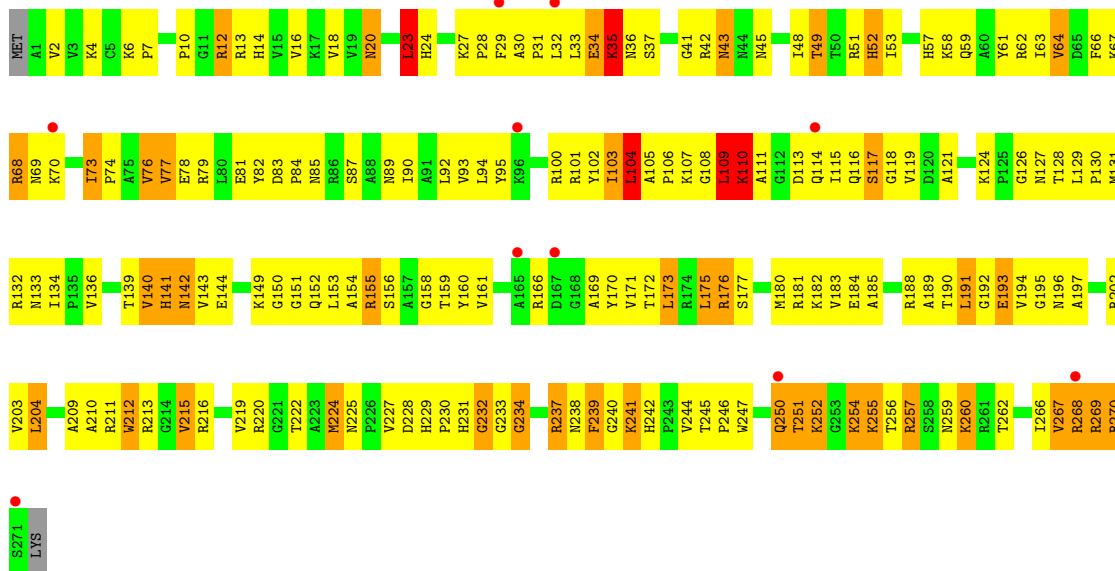




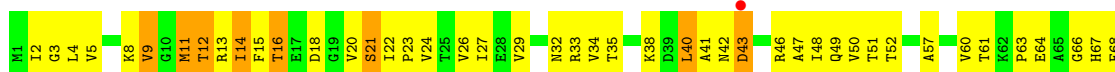
• Molecule 35: 5S ribosomal RNA

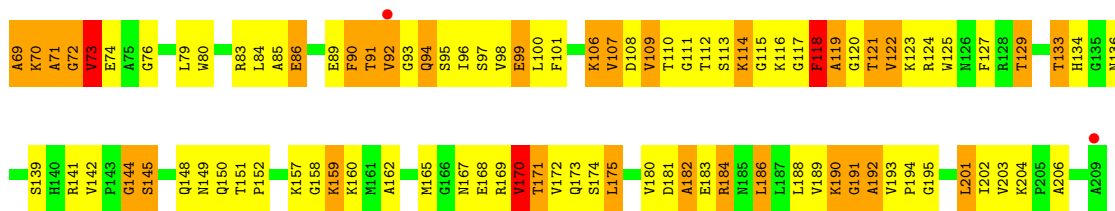


• Molecule 36: 50S ribosomal protein L2

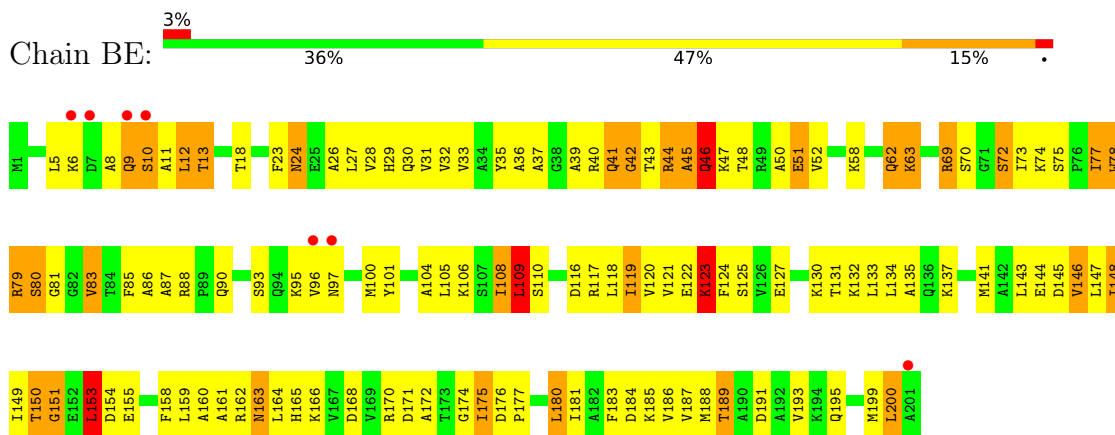


• Molecule 37: 50S ribosomal protein L3

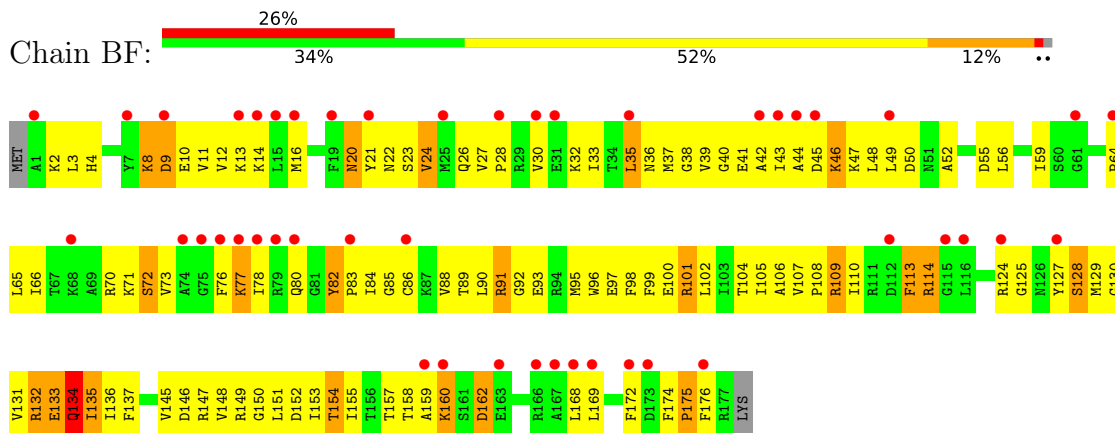




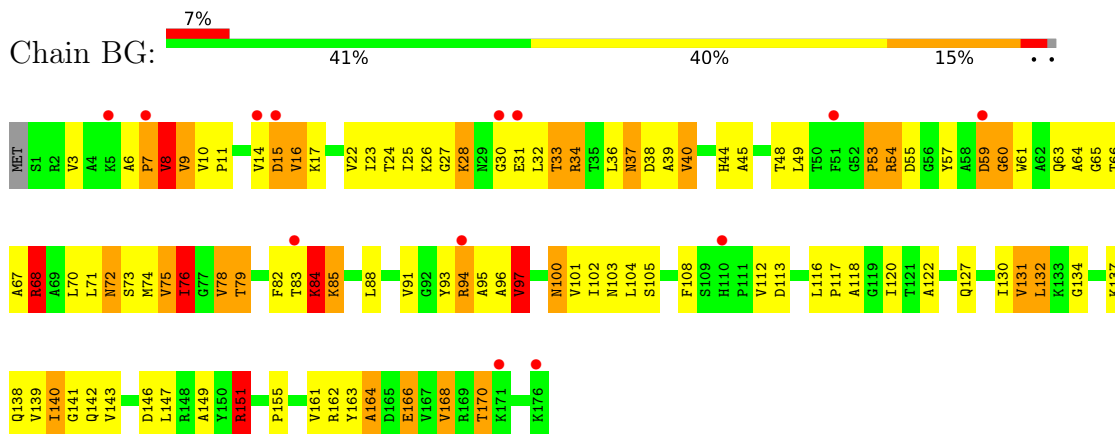
• Molecule 38: 50S ribosomal protein L4



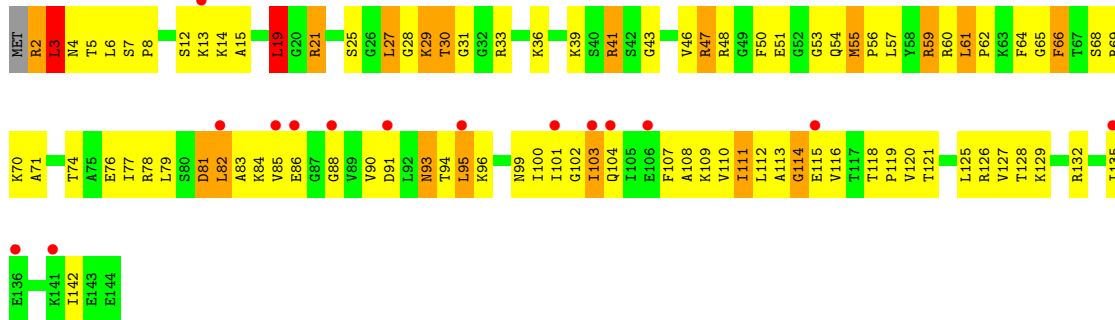
• Molecule 39: 50S ribosomal protein L5



• Molecule 40: 50S ribosomal protein L6

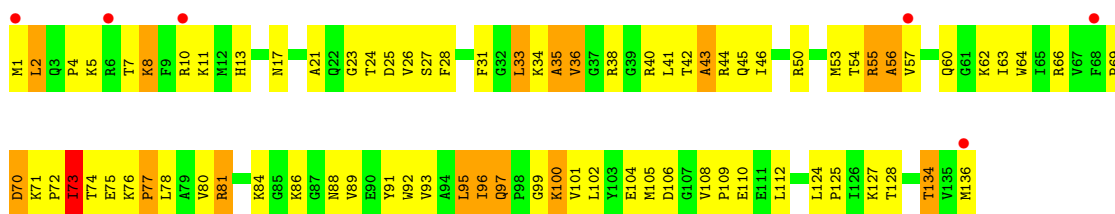


Chain BP: 10% 36% 49% 12% ..



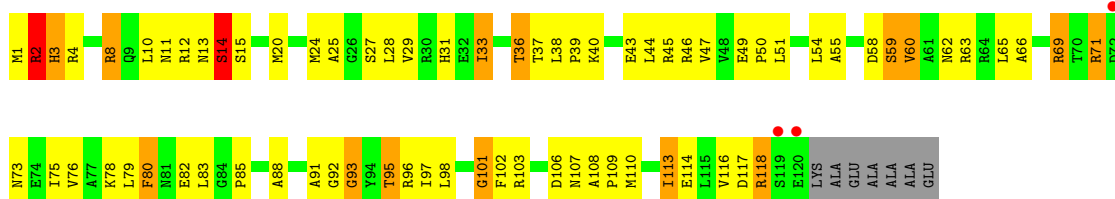
• Molecule 47: 50S ribosomal protein L16

Chain BQ: 4% 41% 46% 12% ..



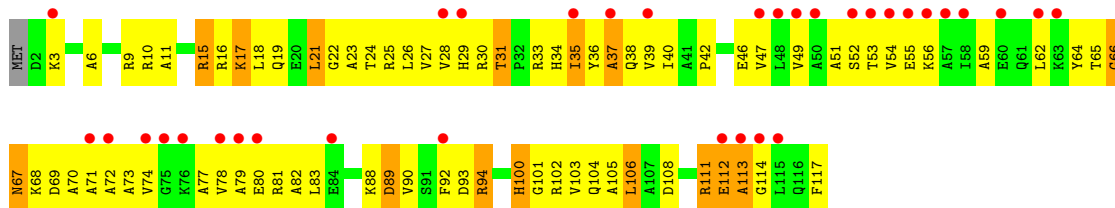
• Molecule 48: 50S ribosomal protein L17

Chain BR: 2% 37% 45% 11% 6% ..



• Molecule 49: 50S ribosomal protein L18

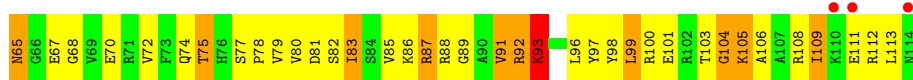
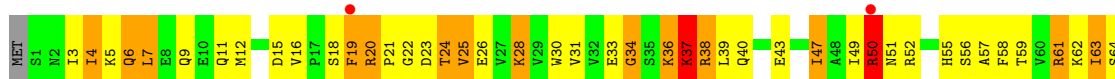
Chain BS: 29% 32% 54% 13% ..



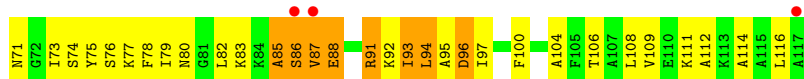
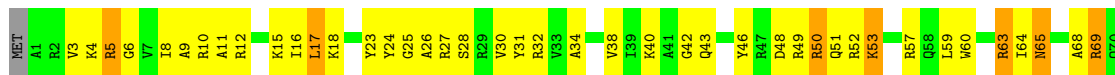
• Molecule 50: 50S ribosomal protein L19

Chain BT: 4% 29% 47% 21% ..

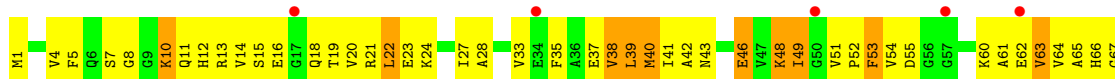




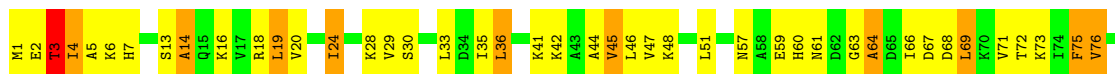
• Molecule 51: 50S ribosomal protein L20



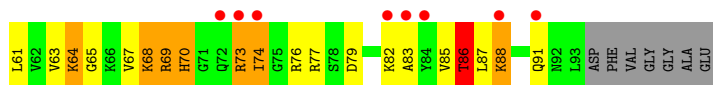
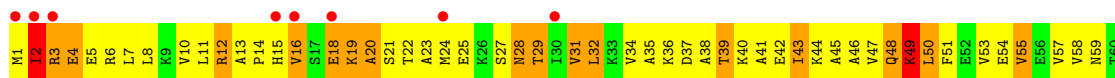
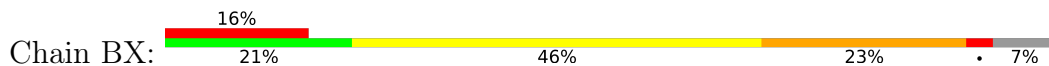
• Molecule 52: 50S ribosomal protein L21



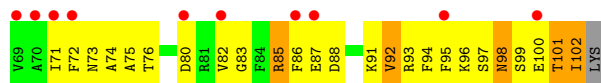
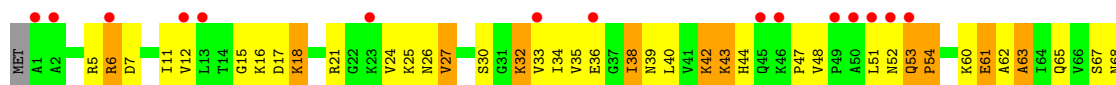
• Molecule 53: 50S ribosomal protein L22



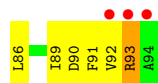
• Molecule 54: 50S ribosomal protein L23



• Molecule 55: 50S ribosomal protein L24 1



- Molecule 56: 50S ribosomal protein L25 1



4 Data and refinement statistics i

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	257.60Å 312.90Å 328.60Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 3.20 59.36 – 3.00	Depositor EDS
% Data completeness (in resolution range)	(Not available) (40.00-3.20) 99.9 (59.36-3.00)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.34 (at 3.01Å)	Xtrriage
Refinement program	PHENIX, CNS 1.2	Depositor
R, R_{free}	0.210 , 0.250 0.226 , 0.254	Depositor DCC
R_{free} test set	26311 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å ²)	64.1	Xtrriage
Anisotropy	0.241	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 87.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.27$	Xtrriage
Estimated twinning fraction	0.020 for -h,l,k	Xtrriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	147221	wwPDB-VP
Average B, all atoms (Å ²)	95.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.42% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: MG, DPP, GNP, UAL, KBE, 5OH

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	0.44	0/36809	0.81	26/57423 (0.0%)
2	AB	0.29	0/1735	0.48	0/2338
3	AC	0.29	0/1651	0.51	0/2225
4	AD	0.29	0/1665	0.50	0/2227
5	AE	0.34	0/1118	0.58	0/1504
6	AF	0.27	0/835	0.49	0/1128
7	AG	0.23	0/1195	0.41	0/1602
8	AH	0.30	0/989	0.50	0/1326
9	AI	0.26	0/1034	0.49	0/1375
10	AJ	0.30	0/796	0.54	0/1077
11	AK	0.29	0/893	0.51	0/1205
12	AL	0.38	0/969	0.65	0/1300
13	AM	0.21	0/892	0.42	0/1193
14	AN	0.28	0/785	0.47	0/1043
15	AO	0.28	0/722	0.49	0/964
16	AP	0.30	0/659	0.48	0/884
17	AQ	0.30	0/657	0.52	0/881
18	AR	0.30	0/462	0.49	0/621
19	AS	0.23	0/652	0.42	0/877
20	AT	0.31	0/671	0.53	0/888
21	AU	0.31	0/430	0.46	0/570
22	AV	0.53	0/144	0.91	0/222
23	AW	0.47	2/4221 (0.0%)	0.73	5/5702 (0.1%)
24	AY	0.97	0/11	0.62	0/13
25	B0	0.43	0/603	0.64	0/797
26	B1	0.37	0/635	0.66	0/848
27	B2	0.31	0/510	0.55	0/677
28	B3	0.34	0/453	0.59	0/605
29	B4	0.42	0/450	0.64	0/599
30	B5	0.27	0/416	0.46	0/554
31	B6	0.42	0/380	0.64	0/498
32	B7	0.37	0/513	0.57	0/676

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
33	B8	0.42	0/303	0.65	0/397
34	BA	0.61	9/68601 (0.0%)	0.98	142/107017 (0.1%)
35	BB	0.40	0/2828	0.78	1/4410 (0.0%)
36	BC	0.42	0/2121	0.70	0/2852
37	BD	0.46	0/1586	0.70	0/2134
38	BE	0.36	0/1571	0.56	0/2113
39	BF	0.27	0/1434	0.45	0/1926
40	BG	0.34	0/1343	0.60	0/1816
41	BH	0.28	0/1244	0.53	1/1675 (0.1%)
42	BI	0.22	0/1046	0.42	0/1410
43	BJ	0.28	0/227	0.52	0/304
43	BK	0.25	0/227	0.44	0/304
43	BL	0.27	0/227	0.49	0/304
43	BM	0.25	0/227	0.42	0/304
44	BN	0.41	0/1152	0.66	0/1551
45	BO	0.47	0/947	0.70	0/1268
46	BP	0.35	0/1054	0.64	0/1403
47	BQ	0.38	0/1093	0.61	0/1460
48	BR	0.42	0/973	0.64	0/1301
49	BS	0.32	0/902	0.51	0/1209
50	BT	0.43	0/929	0.67	0/1242
51	BU	0.42	0/960	0.58	0/1278
52	BV	0.36	0/829	0.62	0/1107
53	BW	0.45	0/863	0.63	0/1156
54	BX	0.40	0/744	0.65	0/994
55	BY	0.38	0/787	0.60	0/1051
56	BZ	0.32	0/766	0.50	0/1025
All	All	0.50	11/158939 (0.0%)	0.84	175/236853 (0.1%)

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
12	AL	0	1
23	AW	0	2
24	AY	0	2
All	All	0	5

The worst 5 of 11 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	2106	U	O3'-P	20.78	1.86	1.61
34	BA	2183	A	O3'-P	15.69	1.79	1.61
34	BA	974	G	O3'-P	-15.38	1.42	1.61
34	BA	973	A	O3'-P	-13.70	1.44	1.61
34	BA	974	G	N7-C5	-6.57	1.35	1.39

The worst 5 of 175 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	2183	A	O3'-P-O5'	-12.34	80.55	104.00
34	BA	2183	A	OP2-P-O3'	12.19	132.01	105.20
34	BA	752	A	C5-N7-C8	-8.85	99.48	103.90
34	BA	2106	U	OP2-P-O3'	8.38	123.64	105.20
34	BA	2183	A	P-O3'-C3'	-8.25	109.80	119.70

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
12	AL	22	ALA	Peptide
23	AW	410	LYS	Peptide
23	AW	411	GLN	Peptide
24	AY	1	KBE	Mainchain
24	AY	2	DPP	Mainchain

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	AA	32873	0	16542	1452	0
2	AB	1704	0	1732	189	0
3	AC	1624	0	1699	162	4
4	AD	1643	0	1710	196	0
5	AE	1105	0	1148	135	0
6	AF	817	0	808	102	0
7	AG	1181	0	1240	70	0
8	AH	979	0	1034	91	0
9	AI	1022	0	1070	126	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	AJ	786	0	828	97	0
11	AK	877	0	887	104	0
12	AL	955	0	1019	123	0
13	AM	883	0	944	96	0
14	AN	774	0	827	90	0
15	AO	714	0	737	45	0
16	AP	649	0	666	63	0
17	AQ	648	0	691	62	0
18	AR	455	0	478	41	0
19	AS	637	0	665	70	0
20	AT	665	0	714	60	0
21	AU	425	0	449	67	0
22	AV	129	0	65	9	0
23	AW	4144	0	4127	284	0
24	AY	48	0	40	31	0
25	B0	596	0	610	166	0
26	B1	625	0	655	54	0
27	B2	509	0	543	40	0
28	B3	449	0	491	53	0
29	B4	444	0	461	33	0
30	B5	409	0	440	39	0
31	B6	377	0	418	20	0
32	B7	504	0	574	49	0
33	B8	302	0	340	40	0
34	BA	61252	0	30808	2053	4
35	BB	2529	0	1281	94	0
36	BC	2082	0	2157	226	0
37	BD	1565	0	1616	201	0
38	BE	1552	0	1619	151	0
39	BF	1410	0	1447	142	0
40	BG	1323	0	1374	134	0
41	BH	1230	0	1282	253	0
42	BI	1032	0	1088	85	0
43	BJ	227	0	237	48	0
43	BK	227	0	237	23	0
43	BL	227	0	237	38	0
43	BM	227	0	237	47	0
44	BN	1129	0	1162	147	0
45	BO	938	0	1012	117	0
46	BP	1045	0	1117	108	0
47	BQ	1074	0	1157	79	0
48	BR	960	0	1000	87	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
49	BS	892	0	923	77	0
50	BT	917	0	965	123	0
51	BU	947	0	1022	108	0
52	BV	816	0	839	96	0
53	BW	856	0	922	55	0
54	BX	738	0	807	110	0
55	BY	779	0	834	74	0
56	BZ	753	0	780	54	0
57	AA	102	0	0	0	0
57	AF	1	0	0	0	0
57	AH	1	0	0	0	0
57	AL	2	0	0	0	0
57	AM	1	0	0	0	0
57	AW	1	0	0	0	0
57	B0	3	0	0	0	0
57	B2	1	0	0	0	0
57	B4	1	0	0	0	0
57	BA	357	0	0	0	0
57	BB	9	0	0	0	0
57	BC	1	0	0	0	0
57	BD	5	0	0	0	0
57	BE	1	0	0	0	0
57	BN	1	0	0	0	0
57	BO	1	0	0	0	0
57	BQ	1	0	0	0	0
57	BR	2	0	0	0	0
57	BT	1	0	0	0	0
57	BX	1	0	0	0	0
58	AW	32	0	13	6	0
59	AW	2	0	0	2	0
59	B8	1	0	0	0	0
59	BA	8	0	0	0	0
59	BC	2	0	0	0	0
59	BD	1	0	0	0	0
59	BF	1	0	0	0	0
59	BG	1	0	0	0	0
59	BW	1	0	0	1	0
All	All	147221	0	100825	8115	4

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 33.

The worst 5 of 8115 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)
1:AA:1495:U:O4	24:AY:1:KBE:CE	1.84	1.26
1:AA:1494:G:N7	24:AY:1:KBE:HGA	1.52	1.24
1:AA:1494:G:O6	24:AY:1:KBE:HG	1.35	1.22
1:AA:1495:U:C4	24:AY:1:KBE:HE	1.75	1.20
51:BU:63:ARG:NH1	51:BU:96:ASP:HA	1.58	1.18

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:131:ARG:NH2	34:BA:2157:G:P[4_445]	1.17	1.03
3:AC:131:ARG:NE	34:BA:2157:G:OP1[4_445]	1.68	0.52
3:AC:131:ARG:NH2	34:BA:2156:G:O3'[4_445]	1.80	0.40
3:AC:131:ARG:CZ	34:BA:2157:G:P[4_445]	2.10	0.10

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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	216/241 (90%)	130 (60%)	52 (24%)	34 (16%)	0	1
3	AC	204/233 (88%)	156 (76%)	32 (16%)	16 (8%)	1	6
4	AD	203/206 (98%)	134 (66%)	45 (22%)	24 (12%)	0	2
5	AE	148/167 (89%)	97 (66%)	31 (21%)	20 (14%)	0	1
6	AF	98/131 (75%)	66 (67%)	19 (19%)	13 (13%)	0	1
7	AG	149/156 (96%)	112 (75%)	28 (19%)	9 (6%)	1	12
8	AH	127/130 (98%)	96 (76%)	27 (21%)	4 (3%)	4	26
9	AI	125/130 (96%)	83 (66%)	25 (20%)	17 (14%)	0	1
10	AJ	96/103 (93%)	68 (71%)	18 (19%)	10 (10%)	0	3
11	AK	115/129 (89%)	82 (71%)	25 (22%)	8 (7%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	AL	121/124 (98%)	89 (74%)	22 (18%)	10 (8%)	1	5
13	AM	112/118 (95%)	78 (70%)	27 (24%)	7 (6%)	1	10
14	AN	92/101 (91%)	55 (60%)	24 (26%)	13 (14%)	0	1
15	AO	86/89 (97%)	68 (79%)	15 (17%)	3 (4%)	3	24
16	AP	80/82 (98%)	57 (71%)	16 (20%)	7 (9%)	1	4
17	AQ	78/84 (93%)	57 (73%)	10 (13%)	11 (14%)	0	1
18	AR	53/75 (71%)	38 (72%)	12 (23%)	3 (6%)	1	14
19	AS	77/92 (84%)	60 (78%)	14 (18%)	3 (4%)	3	22
20	AT	83/87 (95%)	59 (71%)	20 (24%)	4 (5%)	2	17
21	AU	49/71 (69%)	24 (49%)	19 (39%)	6 (12%)	0	2
23	AW	523/529 (99%)	381 (73%)	82 (16%)	60 (12%)	0	2
24	AY	2/6 (33%)	1 (50%)	1 (50%)	0	100	100
25	B0	77/85 (91%)	35 (46%)	18 (23%)	24 (31%)	0	0
26	B1	75/78 (96%)	56 (75%)	16 (21%)	3 (4%)	3	21
27	B2	61/63 (97%)	41 (67%)	15 (25%)	5 (8%)	1	5
28	B3	56/59 (95%)	46 (82%)	5 (9%)	5 (9%)	1	4
29	B4	54/57 (95%)	43 (80%)	7 (13%)	4 (7%)	1	7
30	B5	48/55 (87%)	41 (85%)	3 (6%)	4 (8%)	1	5
31	B6	44/46 (96%)	35 (80%)	7 (16%)	2 (4%)	2	18
32	B7	62/65 (95%)	53 (86%)	6 (10%)	3 (5%)	2	17
33	B8	36/38 (95%)	27 (75%)	5 (14%)	4 (11%)	0	2
36	BC	269/273 (98%)	212 (79%)	31 (12%)	26 (10%)	0	3
37	BD	207/209 (99%)	157 (76%)	23 (11%)	27 (13%)	0	1
38	BE	199/201 (99%)	143 (72%)	33 (17%)	23 (12%)	0	2
39	BF	175/179 (98%)	117 (67%)	41 (23%)	17 (10%)	0	3
40	BG	174/177 (98%)	104 (60%)	44 (25%)	26 (15%)	0	1
41	BH	161/165 (98%)	98 (61%)	38 (24%)	25 (16%)	0	1
42	BI	139/142 (98%)	83 (60%)	38 (27%)	18 (13%)	0	1
43	BJ	28/121 (23%)	17 (61%)	6 (21%)	5 (18%)	0	0
43	BK	28/121 (23%)	21 (75%)	5 (18%)	2 (7%)	1	8
43	BL	28/121 (23%)	22 (79%)	4 (14%)	2 (7%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	BM	28/121 (23%)	19 (68%)	7 (25%)	2 (7%)	1	8
44	BN	140/142 (99%)	101 (72%)	24 (17%)	15 (11%)	0	2
45	BO	120/123 (98%)	88 (73%)	19 (16%)	13 (11%)	0	2
46	BP	141/144 (98%)	88 (62%)	34 (24%)	19 (14%)	0	1
47	BQ	134/136 (98%)	104 (78%)	18 (13%)	12 (9%)	1	4
48	BR	118/127 (93%)	86 (73%)	20 (17%)	12 (10%)	0	3
49	BS	114/117 (97%)	90 (79%)	14 (12%)	10 (9%)	1	4
50	BT	112/115 (97%)	74 (66%)	21 (19%)	17 (15%)	0	1
51	BU	115/118 (98%)	85 (74%)	23 (20%)	7 (6%)	1	12
52	BV	101/103 (98%)	75 (74%)	18 (18%)	8 (8%)	1	6
53	BW	108/116 (93%)	89 (82%)	15 (14%)	4 (4%)	3	22
54	BX	91/100 (91%)	49 (54%)	23 (25%)	19 (21%)	0	0
55	BY	100/104 (96%)	65 (65%)	22 (22%)	13 (13%)	0	1
56	BZ	92/94 (98%)	72 (78%)	14 (15%)	6 (6%)	1	10
All	All	6272/6999 (90%)	4427 (71%)	1181 (19%)	664 (11%)	0	2

5 of 664 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	21	TYR
2	AB	22	TRP
2	AB	33	ALA
2	AB	40	ILE
2	AB	75	ALA

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	180/199 (90%)	145 (81%)	35 (19%)	1	7
3	AC	170/190 (90%)	146 (86%)	24 (14%)	3	16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	AD	172/173 (99%)	152 (88%)	20 (12%)	5	24
5	AE	113/126 (90%)	95 (84%)	18 (16%)	2	12
6	AF	87/112 (78%)	73 (84%)	14 (16%)	2	11
7	AG	124/129 (96%)	121 (98%)	3 (2%)	49	77
8	AH	104/105 (99%)	94 (90%)	10 (10%)	8	32
9	AI	105/107 (98%)	92 (88%)	13 (12%)	4	21
10	AJ	86/90 (96%)	70 (81%)	16 (19%)	1	8
11	AK	90/99 (91%)	74 (82%)	16 (18%)	2	9
12	AL	103/104 (99%)	89 (86%)	14 (14%)	3	17
13	AM	92/96 (96%)	87 (95%)	5 (5%)	22	58
14	AN	79/84 (94%)	71 (90%)	8 (10%)	7	29
15	AO	76/77 (99%)	66 (87%)	10 (13%)	4	19
16	AP	65/65 (100%)	57 (88%)	8 (12%)	4	21
17	AQ	74/78 (95%)	61 (82%)	13 (18%)	2	9
18	AR	48/65 (74%)	44 (92%)	4 (8%)	11	40
19	AS	70/79 (89%)	64 (91%)	6 (9%)	10	38
20	AT	65/66 (98%)	60 (92%)	5 (8%)	13	44
21	AU	44/61 (72%)	37 (84%)	7 (16%)	2	12
23	AW	447/453 (99%)	381 (85%)	66 (15%)	3	14
24	AY	2/2 (100%)	2 (100%)	0	100	100
25	B0	59/63 (94%)	42 (71%)	17 (29%)	0	1
26	B1	67/68 (98%)	56 (84%)	11 (16%)	2	11
27	B2	55/55 (100%)	46 (84%)	9 (16%)	2	11
28	B3	48/49 (98%)	39 (81%)	9 (19%)	1	8
29	B4	47/48 (98%)	40 (85%)	7 (15%)	3	14
30	B5	45/49 (92%)	42 (93%)	3 (7%)	16	50
31	B6	38/38 (100%)	34 (90%)	4 (10%)	7	28
32	B7	51/52 (98%)	48 (94%)	3 (6%)	19	54
33	B8	34/34 (100%)	32 (94%)	2 (6%)	19	54
36	BC	216/218 (99%)	177 (82%)	39 (18%)	1	8
37	BD	164/164 (100%)	143 (87%)	21 (13%)	4	20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
38	BE	165/165 (100%)	138 (84%)	27 (16%)	2	11
39	BF	148/150 (99%)	136 (92%)	12 (8%)	11	42
40	BG	137/138 (99%)	116 (85%)	21 (15%)	2	13
41	BH	123/123 (100%)	109 (89%)	14 (11%)	5	24
42	BI	109/110 (99%)	101 (93%)	8 (7%)	14	46
43	BJ	26/85 (31%)	23 (88%)	3 (12%)	5	24
43	BK	26/85 (31%)	26 (100%)	0	100	100
43	BL	26/85 (31%)	25 (96%)	1 (4%)	33	67
43	BM	26/85 (31%)	24 (92%)	2 (8%)	13	44
44	BN	116/116 (100%)	94 (81%)	22 (19%)	1	8
45	BO	103/104 (99%)	80 (78%)	23 (22%)	1	4
46	BP	102/103 (99%)	85 (83%)	17 (17%)	2	10
47	BQ	109/109 (100%)	91 (84%)	18 (16%)	2	10
48	BR	100/103 (97%)	88 (88%)	12 (12%)	5	22
49	BS	86/87 (99%)	76 (88%)	10 (12%)	5	24
50	BT	99/100 (99%)	81 (82%)	18 (18%)	1	8
51	BU	89/90 (99%)	77 (86%)	12 (14%)	4	18
52	BV	84/84 (100%)	74 (88%)	10 (12%)	5	22
53	BW	93/99 (94%)	73 (78%)	20 (22%)	1	5
54	BX	80/84 (95%)	66 (82%)	14 (18%)	2	9
55	BY	83/85 (98%)	74 (89%)	9 (11%)	6	27
56	BZ	78/78 (100%)	74 (95%)	4 (5%)	24	60
All	All	5228/5666 (92%)	4511 (86%)	717 (14%)	3	17

5 of 717 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
38	BE	170	ARG
46	BP	2	ARG
39	BF	114	ARG
38	BE	153	LEU
42	BI	126	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 184 such sidechains are listed below:

Mol	Chain	Res	Type
37	BD	67	HIS
46	BP	93	ASN
38	BE	24	ASN
41	BH	103	ASN
48	BR	73	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1531/1533 (99%)	298 (19%)	45 (2%)
22	AV	5/27 (18%)	3 (60%)	0
34	BA	2849/2903 (98%)	570 (20%)	95 (3%)
35	BB	117/118 (99%)	22 (18%)	3 (2%)
All	All	4502/4581 (98%)	893 (19%)	143 (3%)

5 of 893 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	9	G
1	AA	19	A
1	AA	22	G
1	AA	31	G

5 of 143 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
34	BA	1930	G
34	BA	2033	A
34	BA	2638	G
34	BA	60	G
34	BA	51	G

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

4 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
24	UAL	AY	5	24	7,8,9	2.46	2 (28%)	5,9,11	1.45	1 (20%)
24	KBE	AY	1	24	8,8,9	0.59	0	7,8,10	1.30	1 (14%)
24	DPP	AY	2	24	3,5,6	1.21	1 (33%)	1,5,7	0.16	0
24	5OH	AY	6	24	8,12,13	0.60	0	3,16,18	0.80	0

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
24	UAL	AY	5	24	-	0/3/7/9	-
24	KBE	AY	1	24	-	1/7/7/8	-
24	DPP	AY	2	24	-	0/2/4/6	-
24	5OH	AY	6	24	-	0/2/18/20	0/1/1/1

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	AY	5	UAL	C-CA	5.10	1.53	1.45
24	AY	5	UAL	C1-N1	-3.10	1.35	1.40
24	AY	2	DPP	O-C	2.06	1.28	1.19

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AY	1	KBE	CB-CA-C	2.80	116.38	112.25
24	AY	5	UAL	O-C-CA	-2.33	122.42	125.39

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
24	AY	1	KBE	C-CA-CB-N

There are no ring outliers.

4 monomers are involved in 28 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
24	AY	5	UAL	4	0
24	AY	1	KBE	17	0
24	AY	2	DPP	1	0
24	AY	6	5OH	7	0

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 494 ligands modelled in this entry, 493 are monoatomic - leaving 1 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
58	GNP	AW	602	57	29,34,34	1.55	4 (13%)	33,54,54	2.68	13 (39%)

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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	GNP	AW	602	57	-	7/14/38/38	0/3/3/3

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	AW	602	GNP	PG-O1G	4.81	1.53	1.46
58	AW	602	GNP	C6-N1	3.56	1.39	1.33
58	AW	602	GNP	PB-O3A	-2.44	1.56	1.59
58	AW	602	GNP	PA-O2A	-2.12	1.45	1.55

The worst 5 of 13 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	AW	602	GNP	C5-C6-N1	-8.58	111.69	123.43
58	AW	602	GNP	C2-N1-C6	5.80	125.14	115.93
58	AW	602	GNP	C2-N3-C4	-4.83	109.85	115.36
58	AW	602	GNP	PB-O3A-PA	-4.70	116.08	132.62
58	AW	602	GNP	O2B-PB-O1B	3.49	117.24	109.92

There are no chirality outliers.

5 of 7 torsion outliers are listed below:

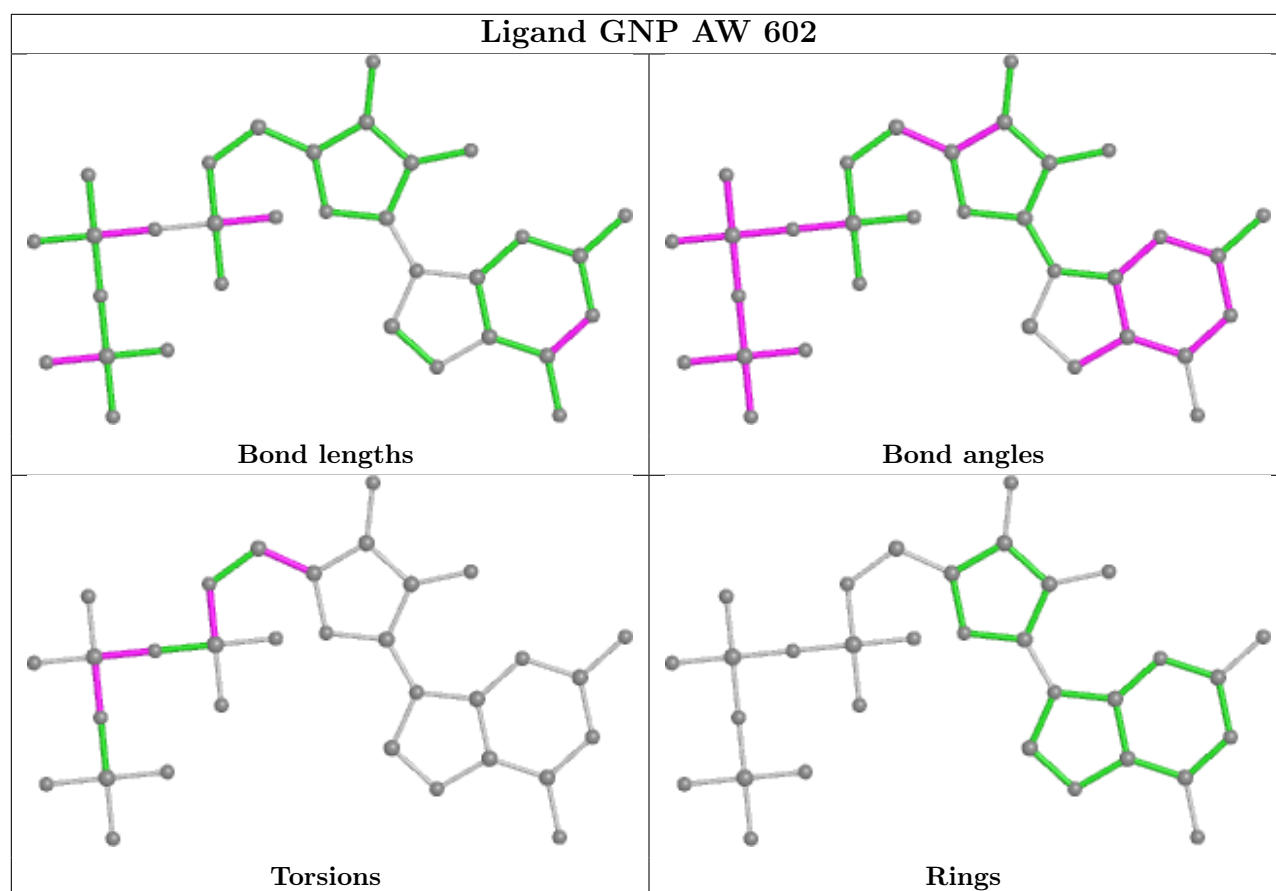
Mol	Chain	Res	Type	Atoms
58	AW	602	GNP	PG-N3B-PB-O1B
58	AW	602	GNP	PG-N3B-PB-O3A
58	AW	602	GNP	PA-O3A-PB-O1B
58	AW	602	GNP	PA-O3A-PB-O2B
58	AW	602	GNP	C5'-O5'-PA-O3A

There are no ring outliers.

1 monomer is involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	AW	602	GNP	6	0

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



5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

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

The following chains have linkage breaks:

Mol	Chain	Number of breaks
34	BA	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BA	2106:U	O3'	2107:G	P	1.86
1	BA	2183:A	O3'	2184:A	P	1.80

6 Fit of model and data i

6.1 Protein, DNA and RNA chains i

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1532/1533 (99%)	0.45	121 (7%) 12 6	51, 102, 197, 245	0
2	AB	218/241 (90%)	1.47	66 (30%) 0 0	91, 120, 142, 158	0
3	AC	206/233 (88%)	0.55	20 (9%) 7 4	75, 114, 132, 139	0
4	AD	205/206 (99%)	1.36	60 (29%) 0 0	86, 110, 132, 147	0
5	AE	150/167 (89%)	0.22	4 (2%) 54 39	73, 94, 129, 143	0
6	AF	100/131 (76%)	0.95	20 (20%) 1 1	98, 122, 135, 145	0
7	AG	151/156 (96%)	2.26	78 (51%) 0 0	107, 144, 159, 163	0
8	AH	129/130 (99%)	0.66	9 (6%) 16 9	77, 97, 121, 139	0
9	AI	127/130 (97%)	1.62	37 (29%) 0 0	77, 122, 148, 159	0
10	AJ	98/103 (95%)	1.22	19 (19%) 1 1	89, 106, 143, 156	0
11	AK	117/129 (90%)	0.61	9 (7%) 13 7	73, 105, 133, 150	0
12	AL	123/124 (99%)	0.58	5 (4%) 37 24	55, 74, 111, 142	0
13	AM	114/118 (96%)	3.29	70 (61%) 0 0	137, 149, 163, 165	0
14	AN	96/101 (95%)	2.49	42 (43%) 0 0	79, 128, 152, 160	0
15	AO	88/89 (98%)	0.51	7 (7%) 12 6	79, 101, 131, 142	0
16	AP	82/82 (100%)	1.59	28 (34%) 0 0	72, 95, 131, 147	0
17	AQ	80/84 (95%)	1.94	30 (37%) 0 0	78, 111, 136, 147	0
18	AR	55/75 (73%)	1.19	10 (18%) 1 1	77, 100, 126, 165	0
19	AS	79/92 (85%)	4.25	59 (74%) 0 0	131, 153, 159, 164	0
20	AT	85/87 (97%)	0.96	12 (14%) 2 2	80, 105, 126, 142	0
21	AU	51/71 (71%)	2.06	24 (47%) 0 0	106, 132, 153, 157	0
22	AV	6/27 (22%)	5.58	6 (100%) 0 0	181, 198, 202, 206	0
23	AW	525/529 (99%)	0.59	49 (9%) 8 5	47, 99, 188, 267	0
24	AY	2/6 (33%)	-0.12	0 100 100	85, 85, 85, 88	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	B0	79/85 (92%)	1.02	10 (12%) 3 2	62, 87, 115, 129	0
26	B1	77/78 (98%)	0.60	5 (6%) 18 11	55, 71, 124, 126	0
27	B2	63/63 (100%)	0.18	4 (6%) 20 11	69, 101, 126, 140	0
28	B3	58/59 (98%)	0.86	10 (17%) 1 1	63, 75, 121, 129	0
29	B4	56/57 (98%)	0.23	4 (7%) 16 9	42, 63, 97, 125	0
30	B5	50/55 (90%)	3.26	37 (74%) 0 0	114, 128, 137, 151	0
31	B6	46/46 (100%)	0.42	2 (4%) 35 22	43, 56, 77, 114	0
32	B7	64/65 (98%)	0.37	0 100 100	57, 68, 83, 90	0
33	B8	38/38 (100%)	0.52	0 100 100	61, 78, 90, 105	0
34	BA	2853/2903 (98%)	0.29	133 (4%) 31 19	35, 67, 195, 445	0
35	BB	118/118 (100%)	0.02	0 100 100	61, 106, 152, 188	0
36	BC	271/273 (99%)	0.27	10 (3%) 41 26	36, 66, 83, 108	0
37	BD	209/209 (100%)	0.02	3 (1%) 75 63	37, 57, 89, 99	0
38	BE	201/201 (100%)	0.18	7 (3%) 44 28	37, 76, 109, 131	0
39	BF	177/179 (98%)	1.32	46 (25%) 0 0	106, 128, 152, 165	0
40	BG	176/177 (99%)	0.41	13 (7%) 14 8	54, 80, 116, 131	0
41	BH	163/165 (98%)	4.72	124 (76%) 0 0	80, 145, 163, 185	1 (0%)
42	BI	141/142 (99%)	3.87	111 (78%) 0 0	135, 157, 169, 176	0
43	BJ	30/121 (24%)	1.37	7 (23%) 0 0	126, 137, 143, 145	0
43	BK	30/121 (24%)	1.65	10 (33%) 0 0	133, 146, 152, 156	0
43	BL	30/121 (24%)	4.12	23 (76%) 0 0	132, 148, 158, 163	0
43	BM	30/121 (24%)	2.71	14 (46%) 0 0	128, 142, 149, 151	0
44	BN	142/142 (100%)	0.47	7 (4%) 29 17	45, 65, 91, 117	0
45	BO	122/123 (99%)	0.24	3 (2%) 57 43	41, 61, 84, 104	0
46	BP	143/144 (99%)	0.61	15 (10%) 6 3	41, 84, 112, 132	0
47	BQ	136/136 (100%)	0.42	6 (4%) 34 21	47, 70, 100, 126	0
48	BR	120/127 (94%)	0.31	3 (2%) 57 43	40, 56, 72, 138	0
49	BS	116/117 (99%)	1.43	34 (29%) 0 0	81, 100, 121, 128	0
50	BT	114/115 (99%)	0.25	5 (4%) 34 21	48, 71, 112, 121	0
51	BU	117/118 (99%)	0.10	3 (2%) 56 40	37, 59, 94, 108	0
52	BV	103/103 (100%)	0.35	5 (4%) 29 17	43, 86, 111, 119	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
53	BW	110/116 (94%)	-0.04	1 (0%) 84 75	41, 54, 82, 127	0
54	BX	93/100 (93%)	1.03	16 (17%) 1 1	50, 81, 134, 144	0
55	BY	102/104 (98%)	1.30	25 (24%) 0 0	63, 84, 126, 141	0
56	BZ	94/94 (100%)	0.63	9 (9%) 8 4	68, 94, 113, 126	0
All	All	10891/11580 (94%)	0.77	1490 (13%) 3 2	35, 89, 165, 445	1 (0%)

The worst 5 of 1490 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
41	BH	88	HIS	21.4
34	BA	2903	U	21.0
19	AS	55	GLN	17.4
41	BH	84	TYR	17.1
41	BH	89	PRO	17.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
24	KBE	AY	1	9/10	0.51	0.60	78,79,82,82	0
24	UAL	AY	5	9/10	0.72	0.31	81,82,83,84	0
24	DPP	AY	2	6/7	0.81	0.31	79,82,82,84	0
24	5OH	AY	6	12/13	0.81	0.30	84,89,92,94	0

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AW	601	1/1	0.43	0.15	36,36,36,36	0
57	MG	AA	1686	1/1	0.44	0.62	93,93,93,93	0
57	MG	BA	3317	1/1	0.44	0.36	88,88,88,88	0
57	MG	AA	1685	1/1	0.46	0.24	64,64,64,64	0
57	MG	BA	3333	1/1	0.50	0.83	77,77,77,77	0
57	MG	BA	3204	1/1	0.53	0.53	72,72,72,72	0
57	MG	BA	3332	1/1	0.55	0.23	96,96,96,96	0
57	MG	BA	3210	1/1	0.60	0.39	73,73,73,73	0
57	MG	BA	3219	1/1	0.63	0.75	69,69,69,69	0
57	MG	BA	3338	1/1	0.64	0.13	61,61,61,61	0
57	MG	AA	1670	1/1	0.65	0.35	62,62,62,62	0
57	MG	BA	3288	1/1	0.65	0.18	95,95,95,95	0
57	MG	BA	3306	1/1	0.66	0.35	67,67,67,67	0
57	MG	BA	3242	1/1	0.69	0.27	72,72,72,72	0
57	MG	AA	1657	1/1	0.69	0.36	83,83,83,83	0
57	MG	BA	3295	1/1	0.69	0.20	57,57,57,57	0
57	MG	AA	1687	1/1	0.69	0.82	81,81,81,81	0
57	MG	BA	3348	1/1	0.69	0.29	67,67,67,67	0
57	MG	BA	3349	1/1	0.69	0.34	79,79,79,79	0
57	MG	BA	3202	1/1	0.70	0.35	57,57,57,57	0
57	MG	BA	3345	1/1	0.70	0.43	67,67,67,67	0
57	MG	BB	203	1/1	0.70	0.19	51,51,51,51	0
57	MG	BA	3280	1/1	0.72	0.36	73,73,73,73	0
57	MG	BD	301	1/1	0.72	0.22	49,49,49,49	0
57	MG	BA	3216	1/1	0.73	0.49	63,63,63,63	0
57	MG	BA	3312	1/1	0.73	0.26	56,56,56,56	0
57	MG	BA	3313	1/1	0.73	0.35	67,67,67,67	0
57	MG	AA	1701	1/1	0.74	0.16	79,79,79,79	0
57	MG	AA	1669	1/1	0.75	0.17	71,71,71,71	0
57	MG	BA	3355	1/1	0.75	0.24	69,69,69,69	0
57	MG	BA	3353	1/1	0.76	0.53	73,73,73,73	0
57	MG	AA	1658	1/1	0.76	0.47	61,61,61,61	0
57	MG	BA	3297	1/1	0.77	0.31	49,49,49,49	0
57	MG	BA	3172	1/1	0.77	0.19	53,53,53,53	0
57	MG	BA	3311	1/1	0.77	0.22	48,48,48,48	0
57	MG	BA	3284	1/1	0.77	0.33	73,73,73,73	0
57	MG	BA	3336	1/1	0.78	0.29	86,86,86,86	0
57	MG	BA	3356	1/1	0.78	0.23	61,61,61,61	0
57	MG	BA	3233	1/1	0.78	0.48	46,46,46,46	0
57	MG	AA	1667	1/1	0.78	0.15	87,87,87,87	0
57	MG	BA	3303	1/1	0.79	0.38	56,56,56,56	0
57	MG	AA	1671	1/1	0.79	0.16	53,53,53,53	0
57	MG	AA	1631	1/1	0.80	0.33	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	BB	201	1/1	0.80	0.33	54,54,54,54	0
57	MG	BA	3321	1/1	0.80	0.14	73,73,73,73	0
57	MG	BA	3327	1/1	0.80	0.24	64,64,64,64	0
57	MG	BD	303	1/1	0.80	0.20	57,57,57,57	0
57	MG	BA	3316	1/1	0.81	0.32	61,61,61,61	0
57	MG	BA	3150	1/1	0.81	0.39	53,53,53,53	0
57	MG	BA	3319	1/1	0.81	0.20	68,68,68,68	0
57	MG	BA	3298	1/1	0.81	0.26	76,76,76,76	0
57	MG	AA	1678	1/1	0.81	0.53	65,65,65,65	0
57	MG	BA	3331	1/1	0.81	0.33	64,64,64,64	0
57	MG	AA	1626	1/1	0.81	0.19	45,45,45,45	0
57	MG	AA	1654	1/1	0.81	0.31	58,58,58,58	0
57	MG	BB	208	1/1	0.81	0.29	59,59,59,59	0
57	MG	BA	3291	1/1	0.81	0.51	58,58,58,58	0
57	MG	BA	3240	1/1	0.81	0.52	56,56,56,56	0
57	MG	BA	3346	1/1	0.82	0.56	83,83,83,83	0
57	MG	BA	3185	1/1	0.82	0.28	52,52,52,52	0
57	MG	BA	3322	1/1	0.82	0.20	62,62,62,62	0
57	MG	BA	3350	1/1	0.82	0.25	80,80,80,80	0
57	MG	BA	3225	1/1	0.82	0.41	60,60,60,60	0
57	MG	BA	3207	1/1	0.82	0.36	54,54,54,54	0
57	MG	BA	3294	1/1	0.82	0.27	43,43,43,43	0
57	MG	BA	3192	1/1	0.82	0.44	59,59,59,59	0
57	MG	BA	3334	1/1	0.82	0.26	56,56,56,56	0
57	MG	BA	3215	1/1	0.82	0.12	53,53,53,53	0
57	MG	BC	301	1/1	0.82	0.38	53,53,53,53	0
57	MG	AA	1637	1/1	0.82	0.09	54,54,54,54	0
57	MG	BA	3302	1/1	0.82	0.53	68,68,68,68	0
57	MG	BA	3232	1/1	0.83	0.33	54,54,54,54	0
57	MG	AA	1679	1/1	0.83	0.30	62,62,62,62	0
57	MG	AL	201	1/1	0.83	0.30	54,54,54,54	0
57	MG	BA	3357	1/1	0.83	0.22	81,81,81,81	0
57	MG	AM	201	1/1	0.83	0.12	80,80,80,80	0
57	MG	BA	3271	1/1	0.83	0.48	53,53,53,53	0
57	MG	BA	3195	1/1	0.83	0.15	47,47,47,47	0
57	MG	AA	1652	1/1	0.83	0.26	60,60,60,60	0
57	MG	BA	3223	1/1	0.83	1.05	75,75,75,75	0
57	MG	AA	1688	1/1	0.83	0.07	77,77,77,77	0
57	MG	BA	3328	1/1	0.84	0.12	71,71,71,71	0
57	MG	AA	1691	1/1	0.84	0.38	63,63,63,63	0
57	MG	AA	1693	1/1	0.84	0.28	56,56,56,56	0
57	MG	AA	1700	1/1	0.84	0.35	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3170	1/1	0.84	0.38	52,52,52,52	0
57	MG	BA	3272	1/1	0.84	0.26	55,55,55,55	0
57	MG	BA	3337	1/1	0.84	0.27	55,55,55,55	0
57	MG	AA	1668	1/1	0.84	0.27	51,51,51,51	0
57	MG	BA	3343	1/1	0.84	0.07	71,71,71,71	0
57	MG	BA	3281	1/1	0.84	0.64	73,73,73,73	0
57	MG	AA	1647	1/1	0.84	0.25	60,60,60,60	0
57	MG	BA	3285	1/1	0.84	0.26	75,75,75,75	0
57	MG	BA	3305	1/1	0.85	0.19	71,71,71,71	0
57	MG	BA	3125	1/1	0.85	0.53	53,53,53,53	0
57	MG	AA	1672	1/1	0.85	0.17	52,52,52,52	0
57	MG	BA	3169	1/1	0.85	0.26	39,39,39,39	0
57	MG	AA	1663	1/1	0.85	0.26	74,74,74,74	0
57	MG	AA	1646	1/1	0.85	0.18	50,50,50,50	0
57	MG	BA	3257	1/1	0.85	0.31	48,48,48,48	0
57	MG	BA	3177	1/1	0.85	0.48	59,59,59,59	0
57	MG	BA	3181	1/1	0.85	0.27	44,44,44,44	0
57	MG	AA	1694	1/1	0.85	0.11	75,75,75,75	0
57	MG	BA	3323	1/1	0.85	0.29	64,64,64,64	0
57	MG	AA	1699	1/1	0.85	0.37	49,49,49,49	0
57	MG	BA	3239	1/1	0.86	0.17	71,71,71,71	0
57	MG	AF	201	1/1	0.86	0.33	65,65,65,65	0
57	MG	AA	1639	1/1	0.86	0.17	49,49,49,49	0
57	MG	BA	3131	1/1	0.86	0.23	40,40,40,40	0
57	MG	BA	3324	1/1	0.86	0.24	59,59,59,59	0
57	MG	AA	1627	1/1	0.86	0.27	40,40,40,40	0
57	MG	BB	207	1/1	0.86	0.12	47,47,47,47	0
57	MG	BA	3151	1/1	0.86	0.33	47,47,47,47	0
57	MG	BA	3296	1/1	0.86	0.29	60,60,60,60	0
57	MG	BA	3160	1/1	0.86	0.35	49,49,49,49	0
57	MG	BA	3211	1/1	0.86	0.54	48,48,48,48	0
57	MG	BA	3314	1/1	0.87	0.42	56,56,56,56	0
57	MG	AA	1689	1/1	0.87	0.28	69,69,69,69	0
57	MG	BA	3127	1/1	0.87	0.27	38,38,38,38	0
57	MG	AA	1655	1/1	0.87	0.26	60,60,60,60	0
57	MG	BA	3189	1/1	0.87	0.12	51,51,51,51	0
57	MG	BA	3148	1/1	0.87	0.23	50,50,50,50	0
57	MG	AA	1675	1/1	0.87	0.18	57,57,57,57	0
57	MG	BA	3196	1/1	0.87	0.54	46,46,46,46	0
57	MG	AA	1633	1/1	0.87	0.29	53,53,53,53	0
57	MG	BA	3159	1/1	0.87	0.49	49,49,49,49	0
57	MG	BA	3246	1/1	0.87	0.27	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3206	1/1	0.87	0.24	52,52,52,52	0
57	MG	BA	3259	1/1	0.87	0.10	69,69,69,69	0
57	MG	AA	1696	1/1	0.87	0.24	89,89,89,89	0
57	MG	AA	1641	1/1	0.87	0.24	67,67,67,67	0
57	MG	BA	3104	1/1	0.87	0.25	45,45,45,45	0
57	MG	BD	302	1/1	0.87	0.48	53,53,53,53	0
57	MG	BA	3105	1/1	0.87	0.42	49,49,49,49	0
57	MG	BA	3282	1/1	0.88	0.25	55,55,55,55	0
57	MG	BA	3320	1/1	0.88	0.21	52,52,52,52	0
57	MG	BA	3097	1/1	0.88	0.41	48,48,48,48	0
57	MG	BA	3227	1/1	0.88	0.25	63,63,63,63	0
57	MG	BA	3214	1/1	0.88	0.23	43,43,43,43	0
57	MG	BA	3262	1/1	0.88	0.29	85,85,85,85	0
57	MG	BA	3267	1/1	0.88	0.21	52,52,52,52	0
57	MG	AA	1648	1/1	0.88	0.13	54,54,54,54	0
57	MG	AA	1644	1/1	0.88	0.18	49,49,49,49	0
57	MG	BA	3137	1/1	0.88	0.57	42,42,42,42	0
57	MG	BA	3146	1/1	0.88	0.33	40,40,40,40	0
57	MG	BE	301	1/1	0.88	0.09	67,67,67,67	0
57	MG	BA	3252	1/1	0.89	0.33	49,49,49,49	0
57	MG	BA	3255	1/1	0.89	0.34	66,66,66,66	0
57	MG	BA	3220	1/1	0.89	0.32	56,56,56,56	0
57	MG	AA	1606	1/1	0.89	0.37	45,45,45,45	0
57	MG	BA	3351	1/1	0.89	0.19	58,58,58,58	0
57	MG	AA	1684	1/1	0.89	0.50	60,60,60,60	0
57	MG	BA	3075	1/1	0.89	0.13	43,43,43,43	0
57	MG	BA	3299	1/1	0.89	0.17	64,64,64,64	0
57	MG	BA	3228	1/1	0.89	0.23	42,42,42,42	0
57	MG	BA	3132	1/1	0.89	0.26	52,52,52,52	0
57	MG	BA	3275	1/1	0.89	0.12	59,59,59,59	0
57	MG	BA	3165	1/1	0.89	0.50	52,52,52,52	0
57	MG	BA	3238	1/1	0.89	0.17	50,50,50,50	0
57	MG	AA	1702	1/1	0.89	0.32	58,58,58,58	0
57	MG	AA	1677	1/1	0.89	0.48	57,57,57,57	0
57	MG	BA	3201	1/1	0.89	0.20	47,47,47,47	0
57	MG	BA	3286	1/1	0.89	0.20	48,48,48,48	0
57	MG	AA	1651	1/1	0.89	0.30	51,51,51,51	0
57	MG	BA	3047	1/1	0.90	0.42	51,51,51,51	0
57	MG	BA	3065	1/1	0.90	0.36	46,46,46,46	0
57	MG	BA	3293	1/1	0.90	0.38	53,53,53,53	0
57	MG	AA	1604	1/1	0.90	0.50	42,42,42,42	0
57	MG	BA	3091	1/1	0.90	0.40	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3264	1/1	0.90	0.20	67,67,67,67	0
57	MG	BA	3352	1/1	0.90	0.29	61,61,61,61	0
57	MG	BA	3138	1/1	0.90	0.34	58,58,58,58	0
57	MG	BA	3354	1/1	0.90	0.12	62,62,62,62	0
57	MG	BA	3093	1/1	0.90	0.24	42,42,42,42	0
57	MG	BA	3235	1/1	0.90	0.22	64,64,64,64	0
57	MG	BA	3300	1/1	0.90	0.55	69,69,69,69	0
57	MG	BA	3274	1/1	0.90	0.12	52,52,52,52	0
57	MG	AA	1623	1/1	0.90	0.29	42,42,42,42	0
57	MG	BB	205	1/1	0.90	0.12	79,79,79,79	0
57	MG	AA	1682	1/1	0.90	0.12	76,76,76,76	0
57	MG	AA	1692	1/1	0.90	0.16	67,67,67,67	0
57	MG	BA	3116	1/1	0.90	0.24	41,41,41,41	0
57	MG	AA	1683	1/1	0.90	0.22	63,63,63,63	0
57	MG	BA	3197	1/1	0.90	0.16	38,38,38,38	0
57	MG	BA	3253	1/1	0.90	0.14	65,65,65,65	0
57	MG	BA	3344	1/1	0.90	0.14	71,71,71,71	0
57	MG	BQ	201	1/1	0.90	0.17	44,44,44,44	0
57	MG	BA	3261	1/1	0.91	0.22	63,63,63,63	0
57	MG	BA	3318	1/1	0.91	0.31	57,57,57,57	0
57	MG	BA	3292	1/1	0.91	0.28	54,54,54,54	0
57	MG	AA	1681	1/1	0.91	0.15	38,38,38,38	0
57	MG	BA	3174	1/1	0.91	0.26	49,49,49,49	0
57	MG	BA	3266	1/1	0.91	0.30	56,56,56,56	0
57	MG	BA	3175	1/1	0.91	0.15	44,44,44,44	0
57	MG	BA	3268	1/1	0.91	0.28	52,52,52,52	0
57	MG	BA	3270	1/1	0.91	0.29	59,59,59,59	0
57	MG	B0	103	1/1	0.91	0.53	54,54,54,54	0
57	MG	BA	3028	1/1	0.91	0.36	26,26,26,26	0
57	MG	BA	3222	1/1	0.91	0.14	50,50,50,50	0
57	MG	BB	202	1/1	0.91	0.24	43,43,43,43	0
57	MG	BA	3164	1/1	0.91	0.14	45,45,45,45	0
57	MG	AA	1656	1/1	0.91	0.15	73,73,73,73	0
57	MG	BB	206	1/1	0.91	0.08	65,65,65,65	0
57	MG	BA	3335	1/1	0.91	0.17	58,58,58,58	0
57	MG	BA	3208	1/1	0.91	0.26	62,62,62,62	0
57	MG	BA	3130	1/1	0.91	0.43	41,41,41,41	0
57	MG	BA	3256	1/1	0.91	0.19	56,56,56,56	0
57	MG	BA	3342	1/1	0.91	0.26	54,54,54,54	0
57	MG	BA	3229	1/1	0.91	0.09	46,46,46,46	0
57	MG	AA	1635	1/1	0.91	0.29	58,58,58,58	0
57	MG	BA	3260	1/1	0.91	0.24	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AA	1638	1/1	0.92	0.20	55,55,55,55	0
57	MG	AH	201	1/1	0.92	0.21	50,50,50,50	0
57	MG	BA	3070	1/1	0.92	0.34	44,44,44,44	0
57	MG	BA	3205	1/1	0.92	0.21	50,50,50,50	0
57	MG	BA	3308	1/1	0.92	0.44	82,82,82,82	0
57	MG	AA	1676	1/1	0.92	0.41	52,52,52,52	0
57	MG	BA	3087	1/1	0.92	0.46	42,42,42,42	0
57	MG	BA	3089	1/1	0.92	0.07	52,52,52,52	0
57	MG	BA	3139	1/1	0.92	0.42	43,43,43,43	0
57	MG	BA	3279	1/1	0.92	0.11	50,50,50,50	0
57	MG	BA	3241	1/1	0.92	0.25	57,57,57,57	0
57	MG	AA	1610	1/1	0.92	0.32	45,45,45,45	0
57	MG	BA	3213	1/1	0.92	0.32	46,46,46,46	0
57	MG	BA	3247	1/1	0.92	0.17	61,61,61,61	0
57	MG	BA	3249	1/1	0.92	0.09	49,49,49,49	0
57	MG	AA	1625	1/1	0.92	0.22	40,40,40,40	0
57	MG	BA	3187	1/1	0.92	0.10	56,56,56,56	0
57	MG	BA	3289	1/1	0.92	0.17	62,62,62,62	0
57	MG	BA	3188	1/1	0.92	0.27	51,51,51,51	0
57	MG	AA	1674	1/1	0.92	0.14	55,55,55,55	0
57	MG	BA	3017	1/1	0.92	0.34	30,30,30,30	0
57	MG	BA	3025	1/1	0.92	0.31	32,32,32,32	0
57	MG	AA	1680	1/1	0.92	0.07	55,55,55,55	0
57	MG	BA	3030	1/1	0.92	0.27	38,38,38,38	0
57	MG	BA	3226	1/1	0.92	0.24	51,51,51,51	0
57	MG	BA	3263	1/1	0.92	0.23	53,53,53,53	0
57	MG	BA	3198	1/1	0.92	0.15	60,60,60,60	0
57	MG	BA	3265	1/1	0.92	0.32	45,45,45,45	0
57	MG	BT	201	1/1	0.92	0.12	40,40,40,40	0
57	MG	BX	201	1/1	0.92	0.29	47,47,47,47	0
57	MG	BA	3048	1/1	0.93	0.39	40,40,40,40	0
57	MG	BA	3325	1/1	0.93	0.36	59,59,59,59	0
57	MG	BA	3050	1/1	0.93	0.40	33,33,33,33	0
57	MG	BA	3277	1/1	0.93	0.25	42,42,42,42	0
57	MG	BA	3278	1/1	0.93	0.32	48,48,48,48	0
57	MG	BA	3064	1/1	0.93	0.22	24,24,24,24	0
57	MG	BA	3176	1/1	0.93	0.28	50,50,50,50	0
57	MG	AA	1661	1/1	0.93	0.25	49,49,49,49	0
57	MG	BA	3231	1/1	0.93	0.09	56,56,56,56	0
57	MG	BA	3179	1/1	0.93	0.15	46,46,46,46	0
57	MG	AA	1613	1/1	0.93	0.18	58,58,58,58	0
57	MG	BA	3234	1/1	0.93	0.47	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3341	1/1	0.93	0.53	57,57,57,57	0
57	MG	BA	3287	1/1	0.93	0.23	83,83,83,83	0
57	MG	BA	3133	1/1	0.93	0.27	45,45,45,45	0
57	MG	BA	3136	1/1	0.93	0.65	53,53,53,53	0
57	MG	AA	1643	1/1	0.93	0.39	56,56,56,56	0
57	MG	BA	3083	1/1	0.93	0.35	47,47,47,47	0
57	MG	B4	101	1/1	0.93	0.42	40,40,40,40	0
57	MG	BA	3140	1/1	0.93	0.16	46,46,46,46	0
57	MG	BA	3244	1/1	0.93	0.46	76,76,76,76	0
57	MG	BA	3142	1/1	0.93	0.22	50,50,50,50	0
57	MG	BA	3144	1/1	0.93	0.12	68,68,68,68	0
57	MG	BA	3248	1/1	0.93	0.17	52,52,52,52	0
57	MG	BA	3145	1/1	0.93	0.23	55,55,55,55	0
57	MG	BA	3200	1/1	0.93	0.40	44,44,44,44	0
57	MG	AA	1690	1/1	0.93	0.29	83,83,83,83	0
57	MG	BA	3147	1/1	0.93	0.22	46,46,46,46	0
57	MG	AA	1650	1/1	0.93	0.23	67,67,67,67	0
57	MG	AA	1617	1/1	0.93	0.19	47,47,47,47	0
57	MG	AA	1602	1/1	0.93	0.31	37,37,37,37	0
57	MG	BB	204	1/1	0.93	0.12	53,53,53,53	0
57	MG	BA	3152	1/1	0.93	0.07	41,41,41,41	0
57	MG	BA	3154	1/1	0.93	0.56	43,43,43,43	0
57	MG	BA	3031	1/1	0.93	0.39	25,25,25,25	0
57	MG	BA	3037	1/1	0.93	0.45	36,36,36,36	0
57	MG	BA	3161	1/1	0.93	0.21	42,42,42,42	0
57	MG	BA	3108	1/1	0.93	0.19	42,42,42,42	0
57	MG	BA	3109	1/1	0.93	0.13	38,38,38,38	0
57	MG	BA	3167	1/1	0.93	0.41	48,48,48,48	0
57	MG	BA	3168	1/1	0.93	0.15	32,32,32,32	0
57	MG	BA	3110	1/1	0.93	0.30	38,38,38,38	0
57	MG	AA	1659	1/1	0.93	0.12	55,55,55,55	0
57	MG	BA	3171	1/1	0.93	0.27	57,57,57,57	0
57	MG	BA	3180	1/1	0.94	0.12	45,45,45,45	0
57	MG	AA	1645	1/1	0.94	0.44	62,62,62,62	0
57	MG	BA	3184	1/1	0.94	0.14	37,37,37,37	0
57	MG	BA	3007	1/1	0.94	0.37	17,17,17,17	0
57	MG	BA	3060	1/1	0.94	0.39	27,27,27,27	0
57	MG	BA	3149	1/1	0.94	0.32	42,42,42,42	0
57	MG	BA	3061	1/1	0.94	0.27	48,48,48,48	0
57	MG	BA	3304	1/1	0.94	0.46	50,50,50,50	0
57	MG	BA	3062	1/1	0.94	0.33	42,42,42,42	0
57	MG	BA	3347	1/1	0.94	0.14	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3014	1/1	0.94	0.22	27,27,27,27	0
57	MG	BA	3121	1/1	0.94	0.48	39,39,39,39	0
57	MG	BA	3158	1/1	0.94	0.26	35,35,35,35	0
57	MG	BA	3016	1/1	0.94	0.38	39,39,39,39	0
57	MG	BA	3067	1/1	0.94	0.29	35,35,35,35	0
57	MG	BA	3128	1/1	0.94	0.29	33,33,33,33	0
57	MG	BA	3315	1/1	0.94	0.19	63,63,63,63	0
57	MG	AA	1624	1/1	0.94	0.45	51,51,51,51	0
57	MG	BA	3072	1/1	0.94	0.22	36,36,36,36	0
57	MG	BA	3019	1/1	0.94	0.23	15,15,15,15	0
57	MG	BA	3078	1/1	0.94	0.42	32,32,32,32	0
57	MG	AA	1621	1/1	0.94	0.39	57,57,57,57	0
57	MG	AA	1665	1/1	0.94	0.53	56,56,56,56	0
57	MG	AA	1634	1/1	0.94	0.34	55,55,55,55	0
57	MG	AA	1622	1/1	0.94	0.29	42,42,42,42	0
57	MG	BA	3250	1/1	0.94	0.64	66,66,66,66	0
57	MG	BA	3173	1/1	0.94	0.11	36,36,36,36	0
57	MG	B0	101	1/1	0.94	0.11	23,23,23,23	0
57	MG	BA	3290	1/1	0.94	0.10	56,56,56,56	0
57	MG	BA	3329	1/1	0.94	0.24	58,58,58,58	0
57	MG	BA	3330	1/1	0.94	0.16	83,83,83,83	0
57	MG	BA	3141	1/1	0.94	0.19	54,54,54,54	0
57	MG	BA	3096	1/1	0.94	0.37	44,44,44,44	0
57	MG	BA	3218	1/1	0.94	0.22	50,50,50,50	0
57	MG	AA	1607	1/1	0.94	0.33	33,33,33,33	0
57	MG	BA	3099	1/1	0.94	0.46	44,44,44,44	0
57	MG	BA	3080	1/1	0.95	0.23	43,43,43,43	0
57	MG	BA	3269	1/1	0.95	0.26	51,51,51,51	0
57	MG	BA	3134	1/1	0.95	0.63	49,49,49,49	0
57	MG	BA	3135	1/1	0.95	0.15	45,45,45,45	0
57	MG	BA	3221	1/1	0.95	0.37	43,43,43,43	0
57	MG	AA	1673	1/1	0.95	0.48	84,84,84,84	0
57	MG	AA	1662	1/1	0.95	0.34	57,57,57,57	0
57	MG	BA	3276	1/1	0.95	0.31	58,58,58,58	0
57	MG	BA	3088	1/1	0.95	0.27	36,36,36,36	0
57	MG	BA	3178	1/1	0.95	0.26	49,49,49,49	0
57	MG	BA	3036	1/1	0.95	0.28	43,43,43,43	0
57	MG	AA	1603	1/1	0.95	0.44	42,42,42,42	0
57	MG	BA	3038	1/1	0.95	0.19	21,21,21,21	0
57	MG	BA	3183	1/1	0.95	0.26	48,48,48,48	0
57	MG	BA	3095	1/1	0.95	0.28	42,42,42,42	0
57	MG	AA	1698	1/1	0.95	0.15	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	B2	101	1/1	0.95	0.12	49,49,49,49	0
57	MG	BA	3340	1/1	0.95	0.49	61,61,61,61	0
57	MG	AA	1619	1/1	0.95	0.18	40,40,40,40	0
57	MG	BA	3237	1/1	0.95	0.14	51,51,51,51	0
57	MG	AA	1612	1/1	0.95	0.22	29,29,29,29	0
57	MG	BA	3190	1/1	0.95	0.58	43,43,43,43	0
57	MG	AA	1636	1/1	0.95	0.16	36,36,36,36	0
57	MG	BA	3193	1/1	0.95	0.48	61,61,61,61	0
57	MG	AA	1605	1/1	0.95	0.24	38,38,38,38	0
57	MG	BA	3243	1/1	0.95	0.07	62,62,62,62	0
57	MG	AA	1629	1/1	0.95	0.26	41,41,41,41	0
57	MG	AA	1630	1/1	0.95	0.44	48,48,48,48	0
57	MG	BA	3114	1/1	0.95	0.33	32,32,32,32	0
57	MG	BA	3199	1/1	0.95	0.43	42,42,42,42	0
57	MG	BA	3115	1/1	0.95	0.24	37,37,37,37	0
57	MG	BA	3156	1/1	0.95	0.18	41,41,41,41	0
57	MG	BA	3301	1/1	0.95	0.23	64,64,64,64	0
57	MG	BA	3251	1/1	0.95	0.24	49,49,49,49	0
57	MG	BA	3157	1/1	0.95	0.51	46,46,46,46	0
57	MG	BA	3022	1/1	0.95	0.29	28,28,28,28	0
57	MG	BA	3254	1/1	0.95	0.22	59,59,59,59	0
57	MG	BA	3118	1/1	0.95	0.26	40,40,40,40	0
57	MG	BA	3307	1/1	0.95	0.22	52,52,52,52	0
57	MG	BA	3023	1/1	0.95	0.41	39,39,39,39	0
57	MG	BA	3310	1/1	0.95	0.17	75,75,75,75	0
57	MG	BA	3124	1/1	0.95	0.56	42,42,42,42	0
57	MG	AA	1616	1/1	0.95	0.35	37,37,37,37	0
57	MG	BA	3209	1/1	0.95	0.10	42,42,42,42	0
57	MG	BA	3074	1/1	0.95	0.40	44,44,44,44	0
57	MG	BA	3026	1/1	0.95	0.31	24,24,24,24	0
57	MG	BA	3129	1/1	0.95	0.21	43,43,43,43	0
57	MG	BA	3076	1/1	0.95	0.19	36,36,36,36	0
57	MG	BN	201	1/1	0.95	0.30	51,51,51,51	0
57	MG	BA	3077	1/1	0.95	0.57	41,41,41,41	0
57	MG	AL	202	1/1	0.95	0.15	73,73,73,73	0
57	MG	BA	3217	1/1	0.95	0.06	56,56,56,56	0
58	GNP	AW	602	32/32	0.95	0.16	58,71,81,83	0
57	MG	BA	3102	1/1	0.96	0.30	36,36,36,36	0
57	MG	BA	3041	1/1	0.96	0.29	27,27,27,27	0
57	MG	BA	3044	1/1	0.96	0.42	37,37,37,37	0
57	MG	BA	3186	1/1	0.96	0.24	47,47,47,47	0
57	MG	AA	1611	1/1	0.96	0.40	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3162	1/1	0.96	0.11	56,56,56,56	0
57	MG	AA	1632	1/1	0.96	0.44	40,40,40,40	0
57	MG	AA	1666	1/1	0.96	0.36	62,62,62,62	0
57	MG	BA	3051	1/1	0.96	0.26	33,33,33,33	0
57	MG	BA	3245	1/1	0.96	0.50	46,46,46,46	0
57	MG	BA	3081	1/1	0.96	0.39	35,35,35,35	0
57	MG	AA	1695	1/1	0.96	0.10	62,62,62,62	0
57	MG	AA	1608	1/1	0.96	0.19	59,59,59,59	0
57	MG	AA	1697	1/1	0.96	0.11	64,64,64,64	0
57	MG	BA	3123	1/1	0.96	0.31	36,36,36,36	0
57	MG	BA	3224	1/1	0.96	0.13	41,41,41,41	0
57	MG	BA	3063	1/1	0.96	0.45	32,32,32,32	0
57	MG	BA	3032	1/1	0.96	0.54	38,38,38,38	0
57	MG	BB	209	1/1	0.96	0.34	36,36,36,36	0
57	MG	BA	3035	1/1	0.96	0.33	26,26,26,26	0
57	MG	BA	3339	1/1	0.96	0.15	76,76,76,76	0
57	MG	BA	3283	1/1	0.96	0.33	25,25,25,25	0
57	MG	AA	1653	1/1	0.96	0.17	41,41,41,41	0
57	MG	AA	1620	1/1	0.96	0.16	52,52,52,52	0
57	MG	BA	3230	1/1	0.96	0.21	46,46,46,46	0
57	MG	BO	201	1/1	0.96	0.17	41,41,41,41	0
57	MG	BA	3071	1/1	0.96	0.39	35,35,35,35	0
57	MG	BR	201	1/1	0.96	0.15	69,69,69,69	0
57	MG	BA	3098	1/1	0.96	0.13	47,47,47,47	0
57	MG	AA	1649	1/1	0.96	0.39	49,49,49,49	0
57	MG	BA	3101	1/1	0.96	0.23	43,43,43,43	0
57	MG	BA	3086	1/1	0.97	0.44	43,43,43,43	0
57	MG	BA	3003	1/1	0.97	0.42	18,18,18,18	0
57	MG	AA	1609	1/1	0.97	0.49	40,40,40,40	0
57	MG	BA	3054	1/1	0.97	0.43	36,36,36,36	0
57	MG	BA	3056	1/1	0.97	0.22	26,26,26,26	0
57	MG	BA	3212	1/1	0.97	0.21	45,45,45,45	0
57	MG	BA	3059	1/1	0.97	0.20	43,43,43,43	0
57	MG	BA	3094	1/1	0.97	0.19	47,47,47,47	0
57	MG	BA	3027	1/1	0.97	0.43	40,40,40,40	0
57	MG	BA	3008	1/1	0.97	0.29	22,22,22,22	0
57	MG	BA	3029	1/1	0.97	0.39	28,28,28,28	0
57	MG	BA	3009	1/1	0.97	0.33	14,14,14,14	0
57	MG	BA	3012	1/1	0.97	0.43	18,18,18,18	0
57	MG	AA	1614	1/1	0.97	0.18	42,42,42,42	0
57	MG	BA	3034	1/1	0.97	0.30	36,36,36,36	0
57	MG	BA	3103	1/1	0.97	0.33	28,28,28,28	0

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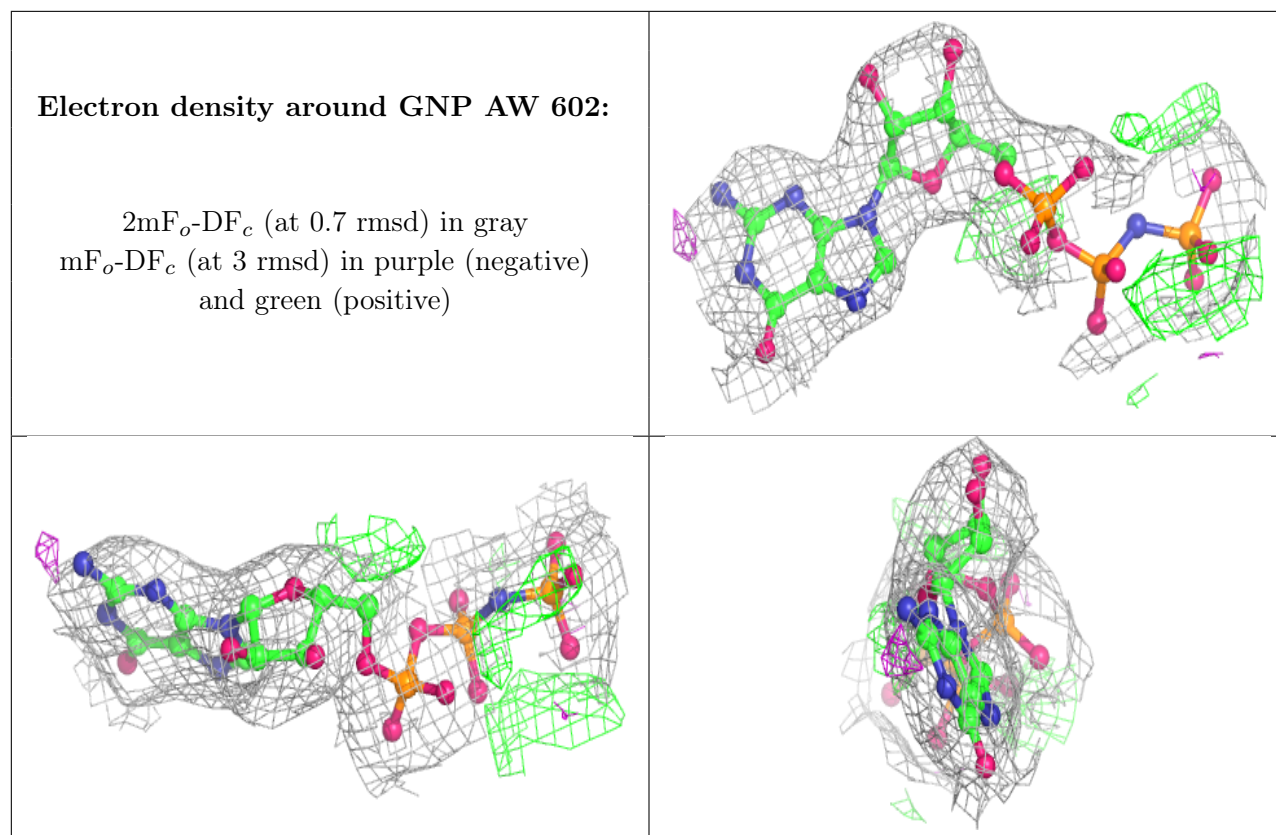
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3068	1/1	0.97	0.30	28,28,28,28	0
57	MG	BA	3182	1/1	0.97	0.57	48,48,48,48	0
57	MG	AA	1660	1/1	0.97	0.17	46,46,46,46	0
57	MG	BA	3106	1/1	0.97	0.23	37,37,37,37	0
57	MG	AA	1618	1/1	0.97	0.27	49,49,49,49	0
57	MG	BA	3018	1/1	0.97	0.25	16,16,16,16	0
57	MG	AA	1640	1/1	0.97	0.09	41,41,41,41	0
57	MG	BA	3273	1/1	0.97	0.57	72,72,72,72	0
57	MG	BA	3112	1/1	0.97	0.27	41,41,41,41	0
57	MG	BA	3040	1/1	0.97	0.42	43,43,43,43	0
57	MG	BA	3020	1/1	0.97	0.41	29,29,29,29	0
57	MG	BA	3191	1/1	0.97	0.10	57,57,57,57	0
57	MG	BA	3021	1/1	0.97	0.34	18,18,18,18	0
57	MG	BA	3153	1/1	0.97	0.26	59,59,59,59	0
57	MG	BA	3194	1/1	0.97	0.24	49,49,49,49	0
57	MG	BA	3117	1/1	0.97	0.21	46,46,46,46	0
57	MG	BA	3155	1/1	0.97	0.69	51,51,51,51	0
57	MG	BA	3326	1/1	0.97	0.14	42,42,42,42	0
57	MG	BA	3045	1/1	0.97	0.46	35,35,35,35	0
57	MG	BA	3120	1/1	0.97	0.09	31,31,31,31	0
57	MG	BA	3079	1/1	0.97	0.68	44,44,44,44	0
57	MG	BA	3122	1/1	0.97	0.21	38,38,38,38	0
57	MG	AA	1615	1/1	0.97	0.29	40,40,40,40	0
57	MG	BA	3001	1/1	0.97	0.42	42,42,42,42	0
57	MG	BR	202	1/1	0.97	0.18	51,51,51,51	0
57	MG	BA	3049	1/1	0.97	0.24	31,31,31,31	0
57	MG	BA	3163	1/1	0.97	0.21	49,49,49,49	0
57	MG	BA	3126	1/1	0.97	0.26	31,31,31,31	0
57	MG	BA	3092	1/1	0.98	0.54	43,43,43,43	0
57	MG	BA	3258	1/1	0.98	0.14	50,50,50,50	0
57	MG	BA	3119	1/1	0.98	0.26	29,29,29,29	0
57	MG	BA	3015	1/1	0.98	0.58	38,38,38,38	0
57	MG	BA	3203	1/1	0.98	0.31	50,50,50,50	0
57	MG	B0	102	1/1	0.98	0.30	33,33,33,33	0
57	MG	BA	3004	1/1	0.98	0.25	21,21,21,21	0
57	MG	BA	3073	1/1	0.98	0.49	42,42,42,42	0
57	MG	BA	3055	1/1	0.98	0.42	24,24,24,24	0
57	MG	BA	3236	1/1	0.98	0.21	46,46,46,46	0
57	MG	BA	3039	1/1	0.98	0.40	31,31,31,31	0
57	MG	BA	3057	1/1	0.98	0.30	33,33,33,33	0
57	MG	BA	3100	1/1	0.98	0.43	36,36,36,36	0
57	MG	BA	3058	1/1	0.98	0.32	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	BA	3005	1/1	0.98	0.25	20,20,20,20	0
57	MG	AA	1601	1/1	0.98	0.27	22,22,22,22	0
57	MG	BA	3042	1/1	0.98	0.33	27,27,27,27	0
57	MG	AA	1642	1/1	0.98	0.28	53,53,53,53	0
57	MG	BA	3082	1/1	0.98	0.38	36,36,36,36	0
57	MG	BA	3107	1/1	0.98	0.31	36,36,36,36	0
57	MG	AA	1664	1/1	0.98	0.20	41,41,41,41	0
57	MG	BA	3085	1/1	0.98	0.23	40,40,40,40	0
57	MG	BD	304	1/1	0.98	0.41	28,28,28,28	0
57	MG	BD	305	1/1	0.98	0.16	16,16,16,16	0
57	MG	BA	3309	1/1	0.98	0.14	62,62,62,62	0
57	MG	BA	3046	1/1	0.98	0.42	27,27,27,27	0
57	MG	BA	3111	1/1	0.98	0.23	29,29,29,29	0
57	MG	AA	1628	1/1	0.98	0.28	44,44,44,44	0
57	MG	BA	3066	1/1	0.98	0.49	41,41,41,41	0
57	MG	BA	3002	1/1	0.98	0.20	13,13,13,13	0
57	MG	BA	3090	1/1	0.98	0.46	40,40,40,40	0
57	MG	BA	3143	1/1	0.98	0.19	32,32,32,32	0
57	MG	BA	3024	1/1	0.98	0.42	32,32,32,32	0
57	MG	BA	3166	1/1	0.99	0.07	50,50,50,50	0
57	MG	BA	3011	1/1	0.99	0.50	23,23,23,23	0
57	MG	BA	3006	1/1	0.99	0.37	22,22,22,22	0
57	MG	BA	3113	1/1	0.99	0.27	34,34,34,34	0
57	MG	BA	3043	1/1	0.99	0.46	26,26,26,26	0
57	MG	BA	3084	1/1	0.99	0.32	21,21,21,21	0
57	MG	BA	3033	1/1	0.99	0.42	25,25,25,25	0
57	MG	BA	3013	1/1	0.99	0.38	20,20,20,20	0
57	MG	BA	3052	1/1	0.99	0.38	39,39,39,39	0
57	MG	BA	3069	1/1	0.99	0.24	39,39,39,39	0
57	MG	BA	3053	1/1	0.99	0.51	31,31,31,31	0
57	MG	BA	3010	1/1	0.99	0.28	33,33,33,33	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.



6.5 Other polymers [i](#)

There are no such residues in this entry.