



wwPDB X-ray Structure Validation Summary Report

Sep 14, 2023 – 07:17 PM EDT

PDB ID : 4V55
Title : Crystal structure of the bacterial ribosome from Escherichia coli in complex with gentamicin and ribosome recycling factor (RRF).
Authors : Borovinskaya, M.A.; Pai, R.D.; Zhang, W.; Schuwirth, B.-S.; Holton, J.M.; Hirokawa, G.; Kaji, H.; Kaji, A.; Cate, J.H.D.
Deposited on : 2007-06-17
Resolution : 4.00 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)
Xtriage (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

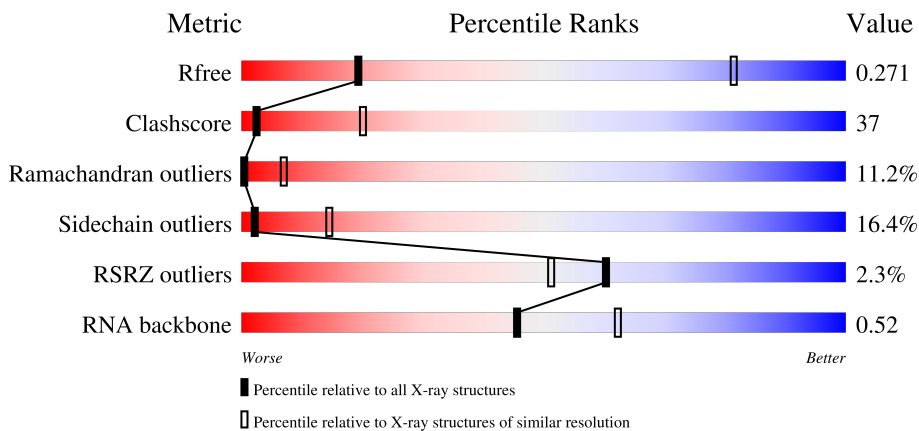
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.00 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	1087 (4.30-3.70)
Clashscore	141614	1148 (4.30-3.70)
Ramachandran outliers	138981	1108 (4.30-3.70)
Sidechain outliers	138945	1099 (4.30-3.70)
RSRZ outliers	127900	1028 (4.34-3.66)
RNA backbone	3102	1048 (5.00-3.00)

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	1542	 24% 62% 12% ..
1	CA	1542	 22% 65% 12% ..
2	AC	232	 29% 48% 11% 11%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	CC	232	28% 49% 12% 11%
3	AD	205	4% 27% 60% 12%
3	CD	205	26% 61% 12%
4	AE	166	2% 32% 51% 7% 10%
4	CE	166	2% 29% 54% 8% 10%
5	AF	135	4% 18% 43% 13% 26%
5	CF	135	21% 40% 13% 26%
6	AG	178	2% 26% 48% 10% 16%
6	CG	178	30% 44% 10% 15%
7	AH	129	6% 26% 67% 7%
7	CH	129	29% 65% 6%
8	AI	129	2% 25% 60% 13%
8	CI	129	2% 24% 60% 14%
9	AJ	103	2% 29% 52% 14% 5%
9	CJ	103	5% 30% 50% 16% 5%
10	AK	128	26% 55% 11% 9%
10	CK	128	2% 26% 53% 12% 9%
11	AL	123	2% 33% 52% 11% 5%
11	CL	123	33% 52% 11% 5%
12	AM	117	17% 63% 17%
12	CM	117	16% 62% 18%
13	AN	100	23% 54% 18%
13	CN	100	22% 54% 19%
14	AO	89	38% 53% 7%
14	CO	89	38% 53% 7%

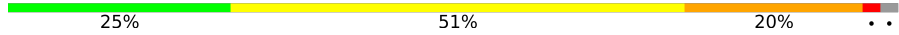
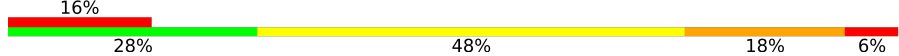
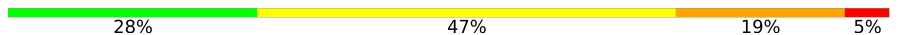
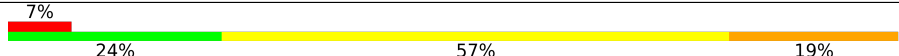
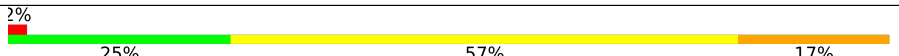
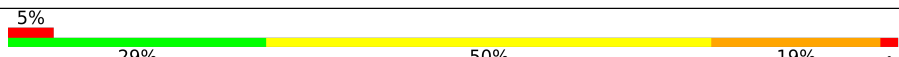
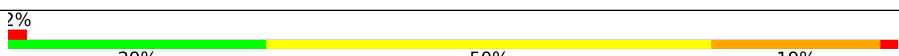
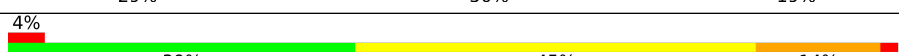
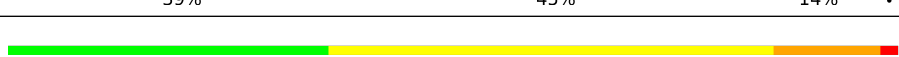
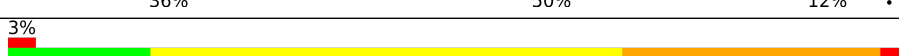
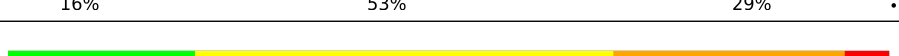
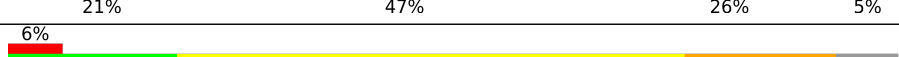
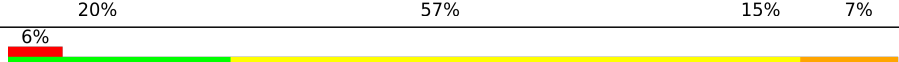
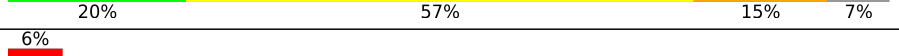

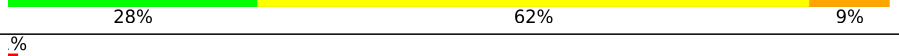
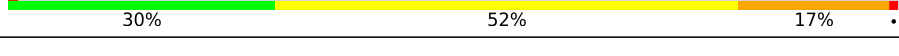

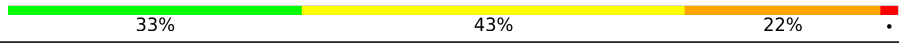
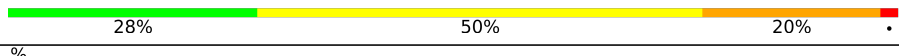
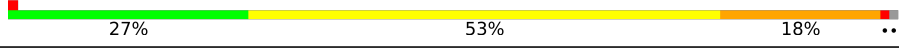
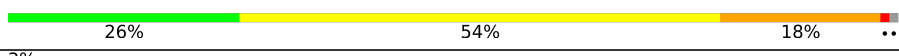
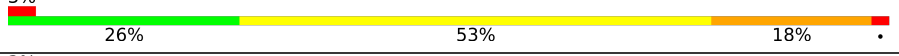
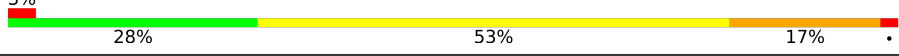
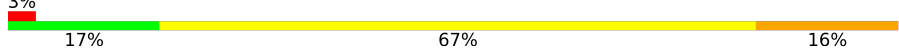
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
15	AP	82	4% 35% 55% 9%
15	CP	82	6% 35% 51% 10%
16	AQ	83	24% 54% 17%
16	CQ	83	33% 48% 16%
17	AR	74	26% 36% 11% 26%
17	CR	74	4% 24% 38% 11% 26%
18	AS	91	7% 19% 53% 14% 13%
18	CS	91	18% 55% 14% 12%
19	AT	86	30% 59% 7%
19	CT	86	30% 58% 8%
20	AB	240	3% 21% 54% 15% 9%
20	CB	240	2% 21% 53% 15% 9%
21	AU	70	19% 33% 19% 27%
21	CU	70	17% 36% 17% 27%
22	BA	120	22% 62% 12%
22	DA	120	2% 22% 64% 12%
23	BB	2904	22% 65% 11%
23	DB	2904	22% 64% 11%
24	BI	141	17% 35% 60% 5%
24	DI	141	9% 35% 57% 8%
25	BC	272	28% 50% 19%
25	DC	272	29% 47% 20%
26	BD	209	8% 26% 52% 21%
26	DD	209	24% 54% 22%
27	BK	123	4% 25% 50% 21%

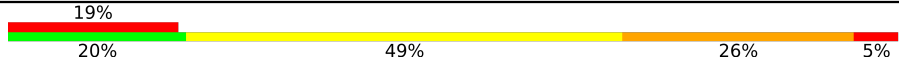
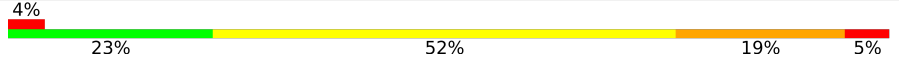
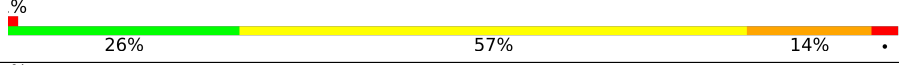
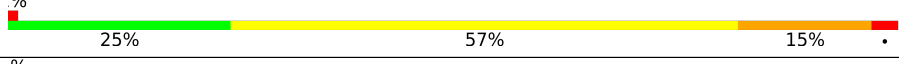
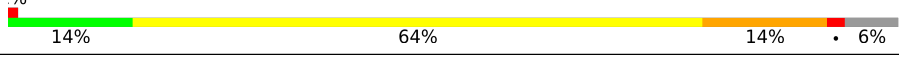
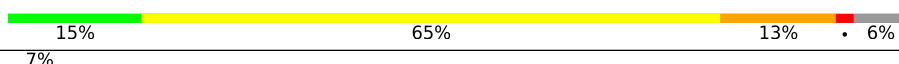
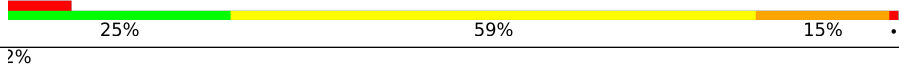
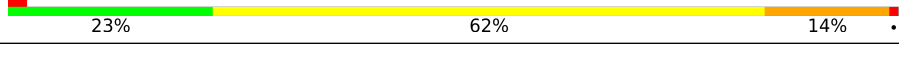
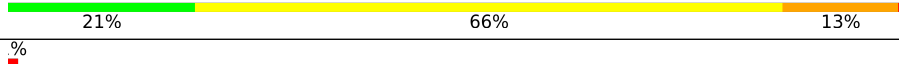
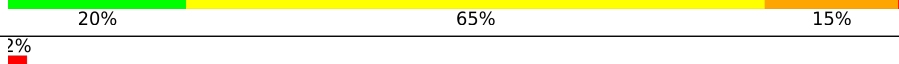
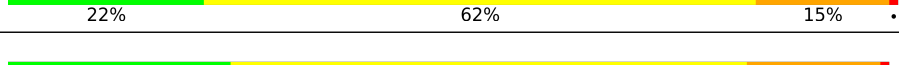
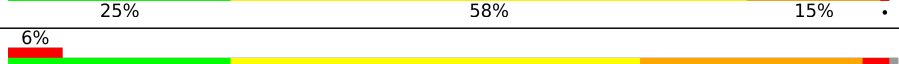
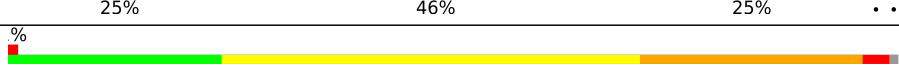
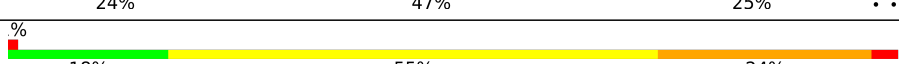
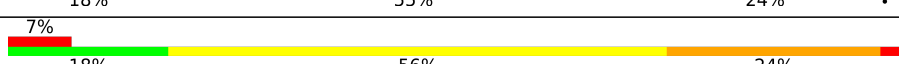
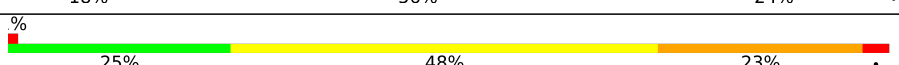
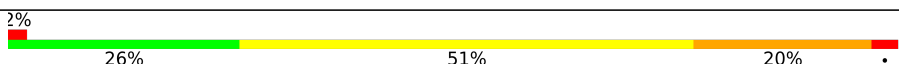
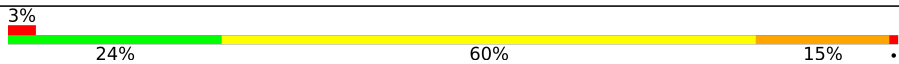
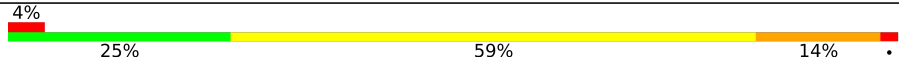


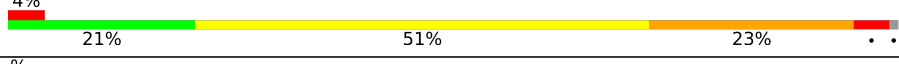
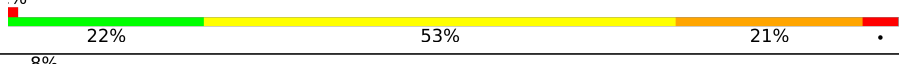


Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
27	DK	123	
28	BP	114	
28	DP	114	
29	BE	201	
29	DE	201	
30	BY	58	
30	DY	58	
31	B0	56	
31	D0	56	
32	B4	38	
32	D4	38	
33	B1	54	
33	D1	54	
34	B3	64	
34	D3	64	
35	BV	94	
35	DV	94	
36	B2	46	
36	D2	46	
37	BL	144	
37	DL	144	
38	BM	136	
38	DM	136	
39	BX	63	
39	DX	63	



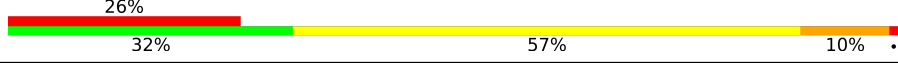
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
40	BH	149	
40	DH	149	
41	BJ	142	
41	DJ	142	
42	BN	127	
42	DN	127	
43	BO	117	
43	DO	117	
44	BQ	117	
44	DQ	117	
45	BS	110	
45	DS	110	
46	BU	103	
46	DU	103	
47	BF	178	
47	DF	178	
48	BG	176	
48	DG	176	
49	BR	103	
49	DR	103	
50	BT	100	
50	DT	100	
51	BZ	78	
51	DZ	78	
52	BW	84	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
52	DW	84	
53	B6	185	
53	D6	185	

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
54	MG	AA	1625	-	-	-	X
54	MG	AA	1637	-	-	-	X
54	MG	AA	1647	-	-	-	X
54	MG	AA	1656	-	-	-	X
54	MG	AA	1657	-	-	-	X
54	MG	AA	1659	-	-	-	X
54	MG	BB	3033	-	-	-	X

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 287083 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	1530	Total 32831	C 14642	N 6024	O 10635	P 1530	0	0	0
1	CA	1530	Total 32831	C 14642	N 6024	O 10635	P 1530	0	0	0

- Molecule 2 is a protein called 30S ribosomal protein S3.

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

- Molecule 3 is a protein called 30S ribosomal protein S4.

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

- Molecule 4 is a protein called 30S ribosomal protein S5.

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

- Molecule 5 is a protein called 30S ribosomal protein S6.

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

- Molecule 6 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AG	150	Total	C	N	O	S	0	0	0
			1174	730	226	214	4			
6	CG	152	Total	C	N	O	S	0	0	0
			1196	745	230	217	4			

- Molecule 7 is a protein called 30S ribosomal protein S8.

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

- Molecule 8 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
8	CI	127	Total	C	N	O	S	0	0	0
			1021	634	206	178	3			

- Molecule 9 is a protein called 30S ribosomal protein S10.

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

- Molecule 10 is a protein called 30S ribosomal protein S11.

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

Continued on next page...

Continued from previous page...

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

- Molecule 11 is a protein called 30S ribosomal protein S12.

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

- Molecule 12 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	AM	114	883	546	178	156	3	0	0	0
12	CM	113	876	541	177	155	3	0	0	0

- Molecule 13 is a protein called 30S ribosomal protein S14.

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

- Molecule 14 is a protein called 30S ribosomal protein S15.

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

- Molecule 15 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
15	AP	82	649	406	128	114	1	0	0	0
15	CP	80	638	400	126	111	1	0	0	0

- Molecule 16 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
16	CQ	81	Total	C	N	O	S	0	0	0
			657	417	122	115	3			

- Molecule 17 is a protein called 30S ribosomal protein S18.

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

- Molecule 18 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
18	CS	80	Total	C	N	O	S	0	0	0
			644	413	121	108	2			

- Molecule 19 is a protein called 30S ribosomal protein S20.

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

- Molecule 20 is a protein called 30S ribosomal protein S2.

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

- 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			
21	CU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 22 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	BA	117	Total	C	N	O	P	0	0	0
			2507	1116	459	815	117			
22	DA	117	Total	C	N	O	P	0	0	0
			2507	1116	459	815	117			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BB	2841	Total	C	N	O	P	0	0	0
			60995	27210	11229	19715	2841			
23	DB	2841	Total	C	N	O	P	0	0	0
			60995	27210	11229	19715	2841			

- Molecule 24 is a protein called 50S ribosomal protein L11.

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

- Molecule 25 is a protein called 50S ribosomal protein L2.

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

- Molecule 26 is a protein called 50S ribosomal protein L3.

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

Continued on next page...

Continued from previous page...

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

- Molecule 27 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BK	121	Total	C	N	O	S	0	0	0
			930	582	179	164	5			
27	DK	121	Total	C	N	O	S	0	0	0
			930	582	179	164	5			

- Molecule 28 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
28	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 29 is a protein called 50S ribosomal protein L4.

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

- Molecule 30 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BY	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
30	DY	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

- Molecule 31 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	B0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
31	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 32 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	B4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
32	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 33 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
33	B1	50	Total	C	N	O	0	0	0
			409	263	75	71			
33	D1	50	Total	C	N	O	0	0	0
			409	263	75	71			

- Molecule 34 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	B3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
34	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 35 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
35	DV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 36 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	B2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
36	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 37 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
37	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 38 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
38	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 39 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BX	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
39	DX	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 40 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			
40	DH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			

- Molecule 41 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
41	DJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 42 is a protein called 50S ribosomal protein L17.

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

Continued on next page...

Continued from previous page...

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

- Molecule 43 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
43	BO	116	Total	C	N	O	0	0	0
			892	552	178	162			
43	DO	116	Total	C	N	O	0	0	0
			892	552	178	162			

- Molecule 44 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BQ	117	Total	C	N	O	0	0	0
			947	604	192	151			
44	DQ	117	Total	C	N	O	0	0	0
			947	604	192	151			

- Molecule 45 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
45	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 46 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
46	BU	102	Total	C	N	O	0	0	0
			779	492	146	141			
46	DU	102	Total	C	N	O	0	0	0
			779	492	146	141			

- Molecule 47 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BF	178	Total	C	N	O	S	0	0	0
			1420	905	251	258	6			
47	DF	178	Total	C	N	O	S	0	0	0
			1420	905	251	258	6			

- Molecule 48 is a protein called 50S ribosomal protein L6.

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

- Molecule 49 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
49	BR	103	Total 816	C 516	N 153	O 145	S 2	0	0	0
49	DR	103	Total 816	C 516	N 153	O 145	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
50	BT	93	Total 738	C 466	N 139	O 131	S 2	0	0	0
50	DT	93	Total 738	C 466	N 139	O 131	S 2	0	0	0

- Molecule 51 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
51	BZ	77	Total 625	C 388	N 129	O 106	S 2	0	0	0
51	DZ	77	Total 625	C 388	N 129	O 106	S 2	0	0	0

- Molecule 52 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	BW	79	Total 596	C 367	N 120	O 108	S 1	0	0	0
52	DW	79	Total 596	C 367	N 120	O 108	S 1	0	0	0

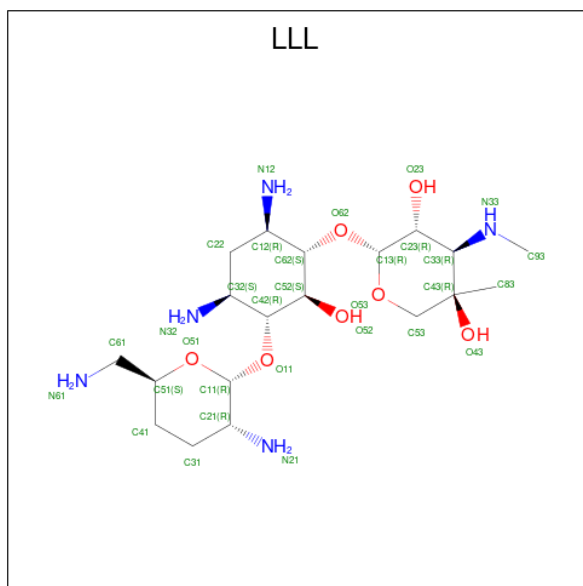
- Molecule 53 is a protein called 50S ribosomal protein RRF.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
53	B6	185	Total 1478	C 924	N 270	O 282	S 2	0	0	0
53	D6	185	Total 1478	C 924	N 270	O 282	S 2	0	0	0

- Molecule 54 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
54	AA	60	Total 60	Mg 60	0	0
54	BB	110	Total 110	Mg 110	0	0
54	CA	61	Total 61	Mg 61	0	0
54	CE	1	Total 1	Mg 1	0	0
54	DB	111	Total 111	Mg 111	0	0

- Molecule 55 is (2R,3R,4R,5R)-2-((1S,2S,3R,4S,6R)-4,6-DIAMINO-3-((2R,3R,6S)-3-AMINO-6-(AMINOMETHYL)-TETRAHYDRO-2H-PYRAN-2-YLOXY)-2-HYDR OXYCYCLOHEXYLOXY)-5-METHYL-4-(METHYLAMINO)-TETRAHYDRO-2H-PYRAN-3,5-DIOL (three-letter code: LLL) (formula: C₁₉H₃₉N₅O₇).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
55	AA	1	Total 31	C 19	N 5	O 7	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
55	BB	1	31	19	5	7	0	0
55	CA	1	31	19	5	7	0	0
55	DB	1	31	19	5	7	0	0

- Molecule 56 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Zn		
56	B4	1	1	1	0	0
56	D4	1	1	1	0	0

- Molecule 57 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
57	AA	287	287	287	0	0
57	AE	3	3	3	0	0
57	AK	1	1	1	0	0
57	AL	3	3	3	0	0
57	AN	4	4	4	0	0
57	AT	2	2	2	0	0
57	BB	492	492	492	0	0
57	BC	6	6	6	0	0
57	BD	1	1	1	0	0
57	BE	3	3	3	0	0
57	BL	3	3	3	0	0
57	BT	1	1	1	0	0

Continued on next page...

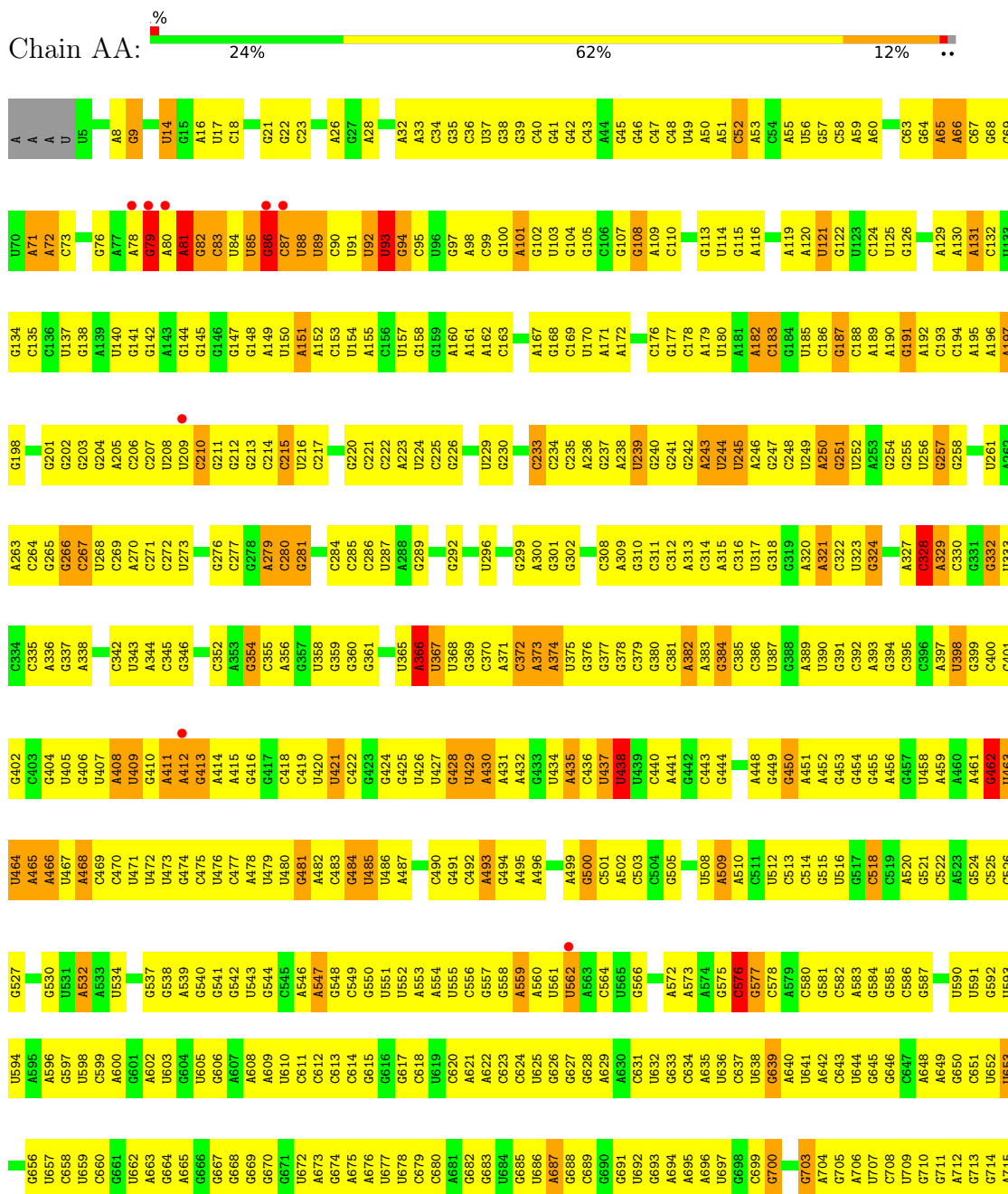
Continued from previous page...

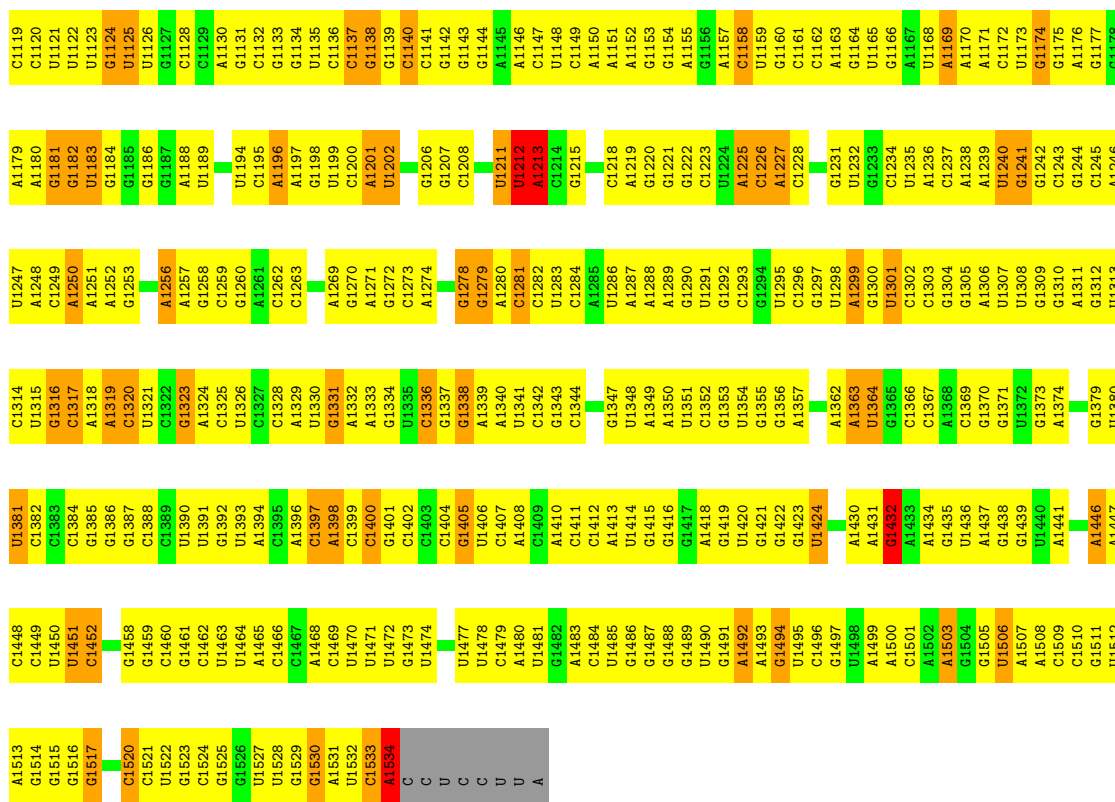
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	CA	296	Total O 296 296	0	0
57	CE	3	Total O 3 3	0	0
57	CK	1	Total O 1 1	0	0
57	CL	3	Total O 3 3	0	0
57	CN	4	Total O 4 4	0	0
57	CT	2	Total O 2 2	0	0
57	DB	500	Total O 500 500	0	0
57	DC	6	Total O 6 6	0	0
57	DE	2	Total O 2 2	0	0
57	DL	2	Total O 2 2	0	0
57	DR	1	Total O 1 1	0	0
57	DT	1	Total O 1 1	0	0

3 Residue-property plots

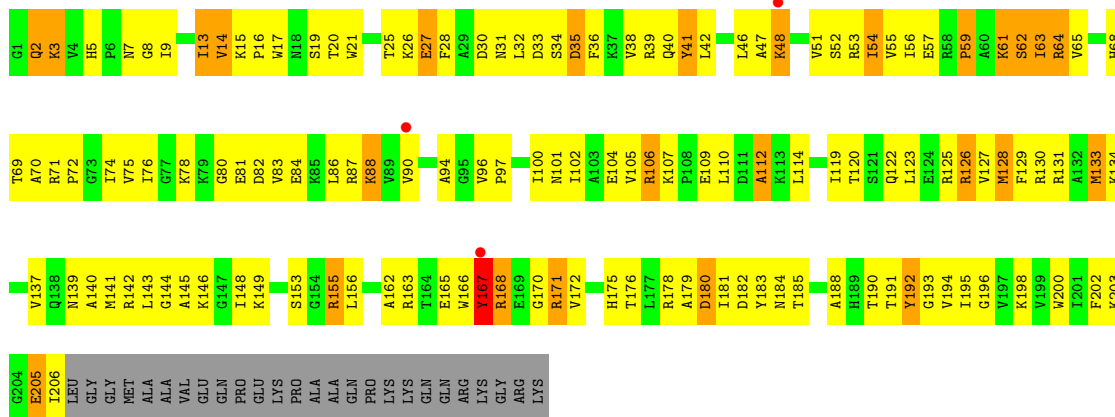
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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

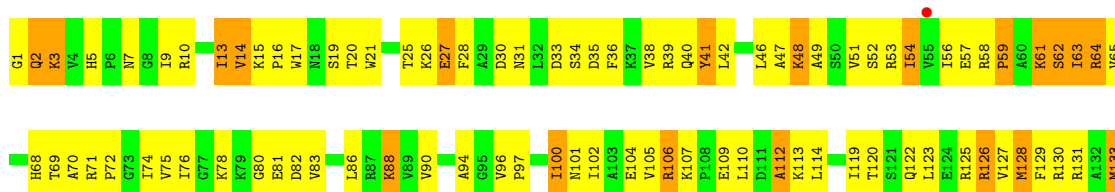
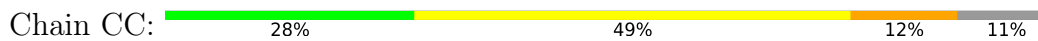


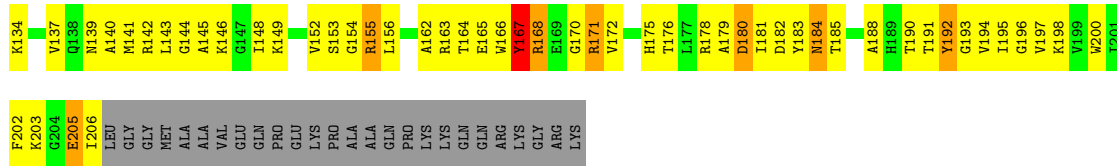


• Molecule 2: 30S ribosomal protein S3

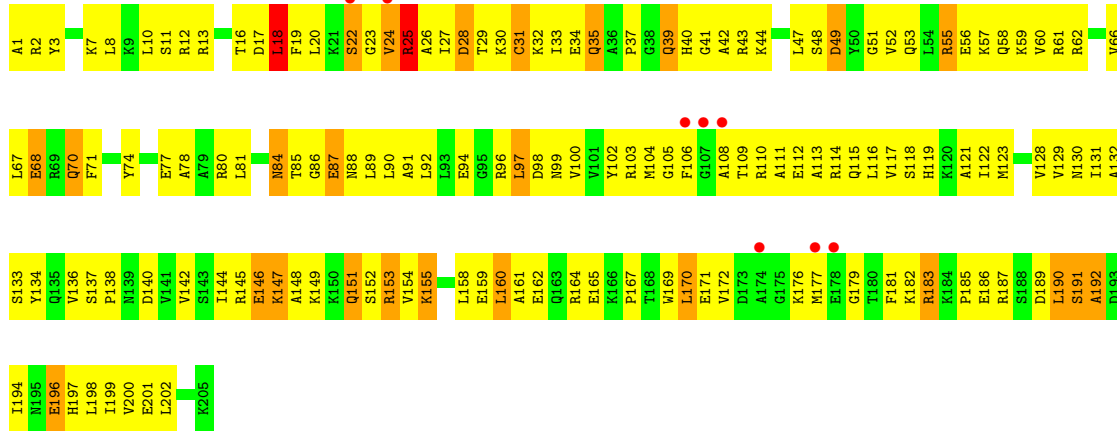


• Molecule 2: 30S ribosomal protein S3

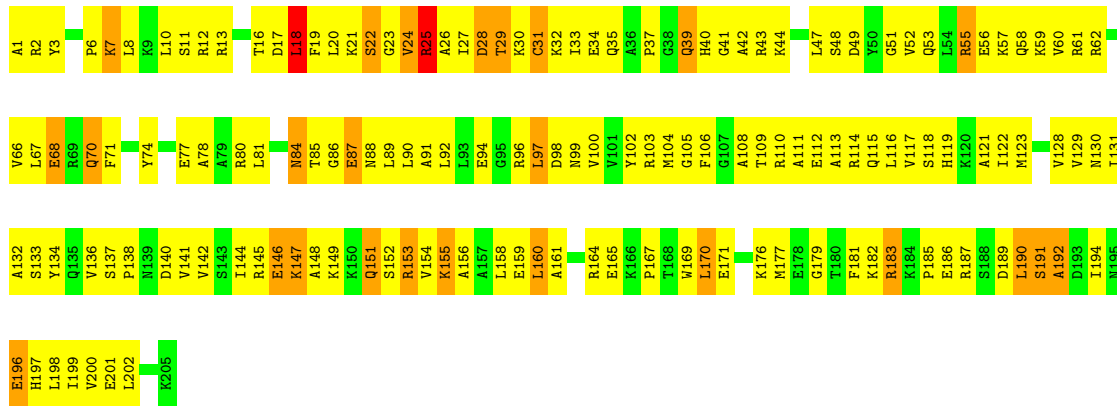




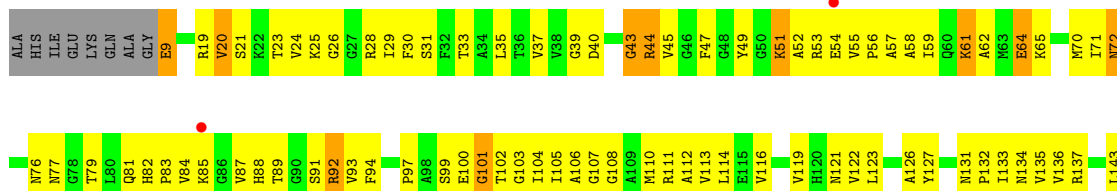
• Molecule 3: 30S ribosomal protein S4



• Molecule 3: 30S ribosomal protein S4

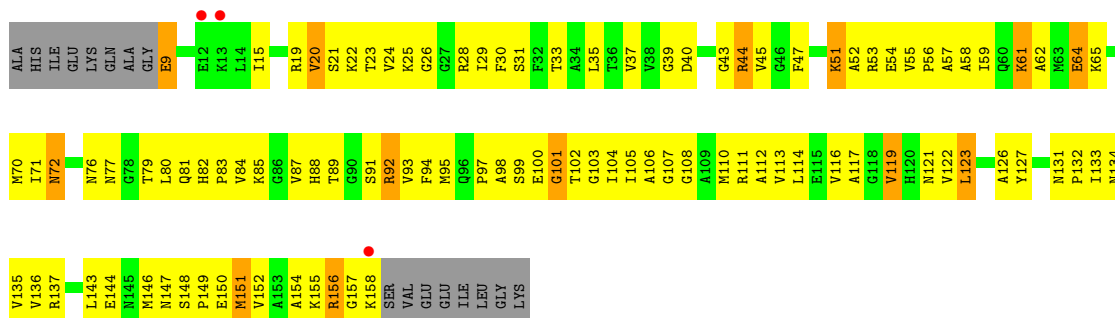


• Molecule 4: 30S ribosomal protein S5

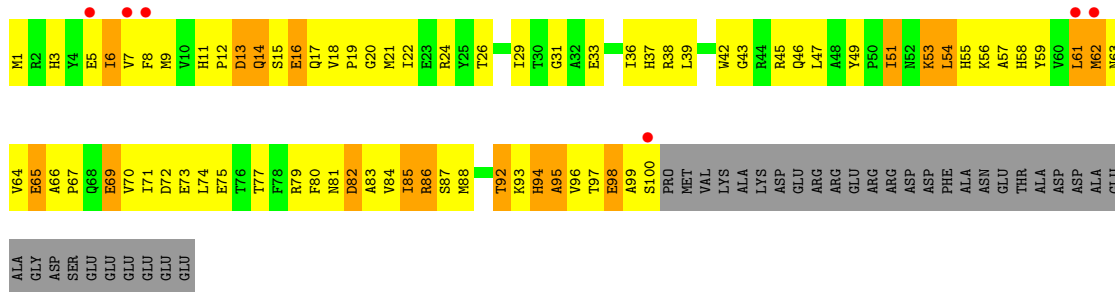
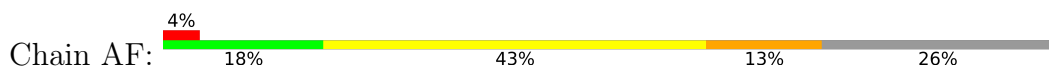




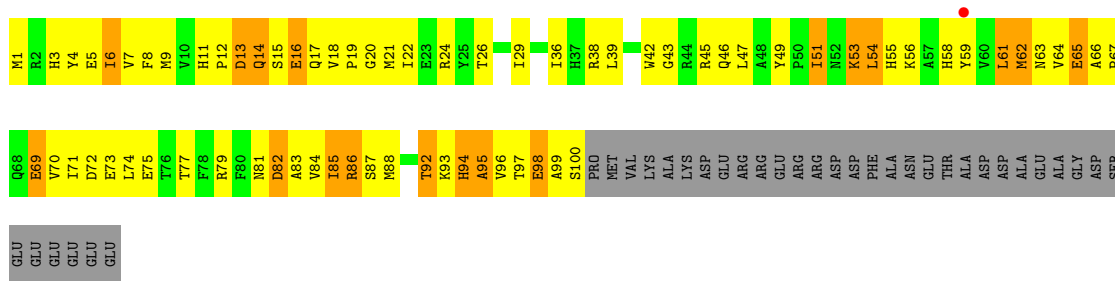
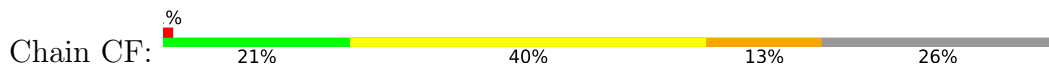
● Molecule 4: 30S ribosomal protein S5



● Molecule 5: 30S ribosomal protein S6

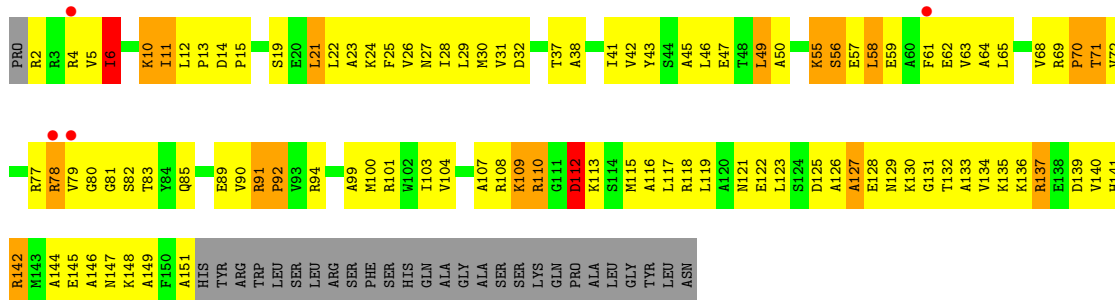


● Molecule 5: 30S ribosomal protein S6

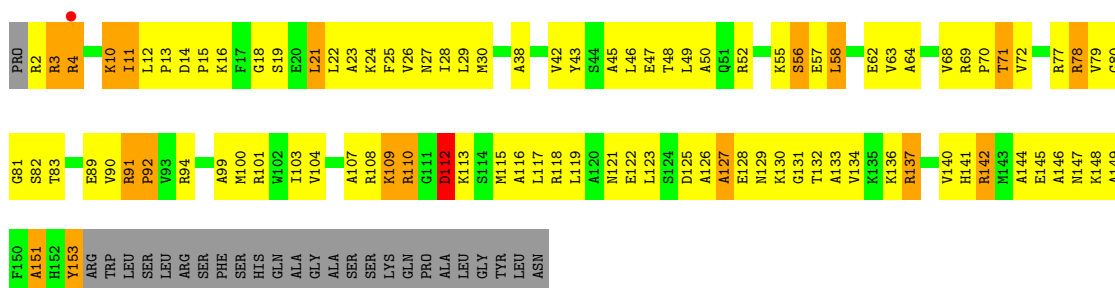


● Molecule 6: 30S ribosomal protein S7

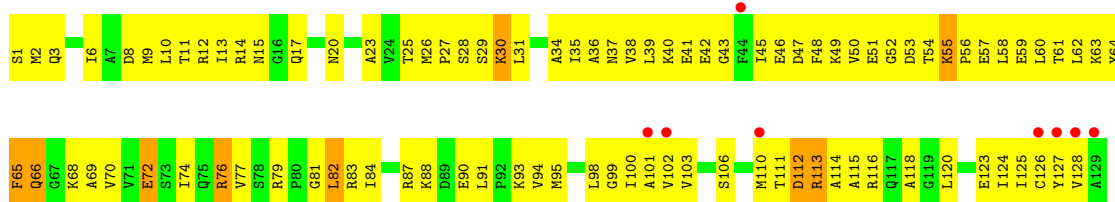




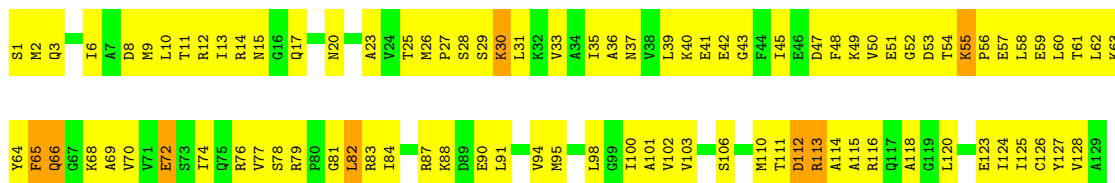
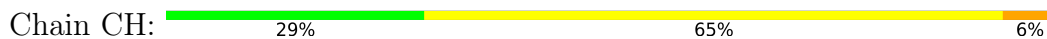
- Molecule 6: 30S ribosomal protein S7



- Molecule 7: 30S ribosomal protein S8

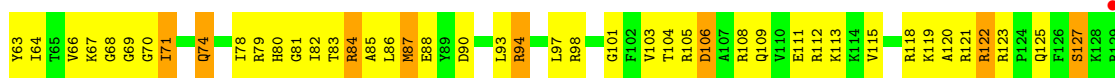


- Molecule 7: 30S ribosomal protein S8

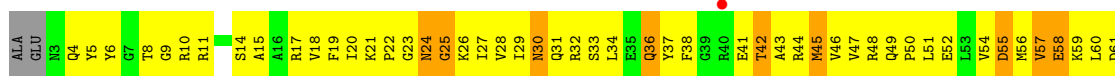


- Molecule 8: 30S ribosomal protein S9

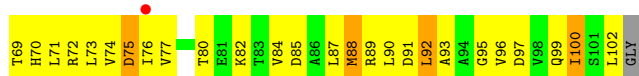
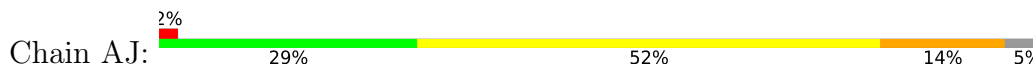




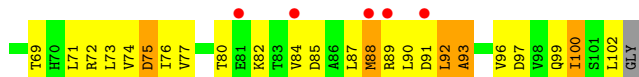
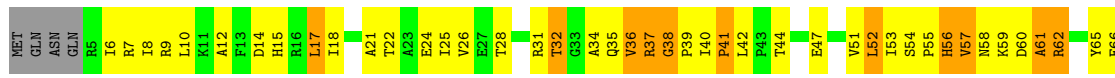
• Molecule 8: 30S ribosomal protein S9



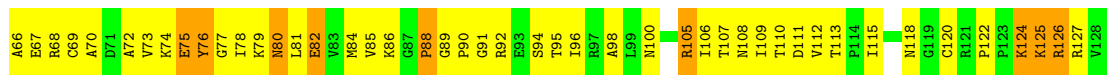
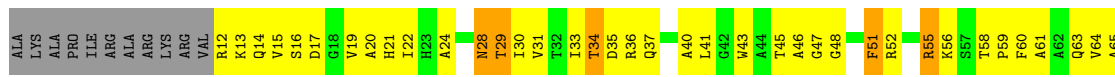
• Molecule 9: 30S ribosomal protein S10



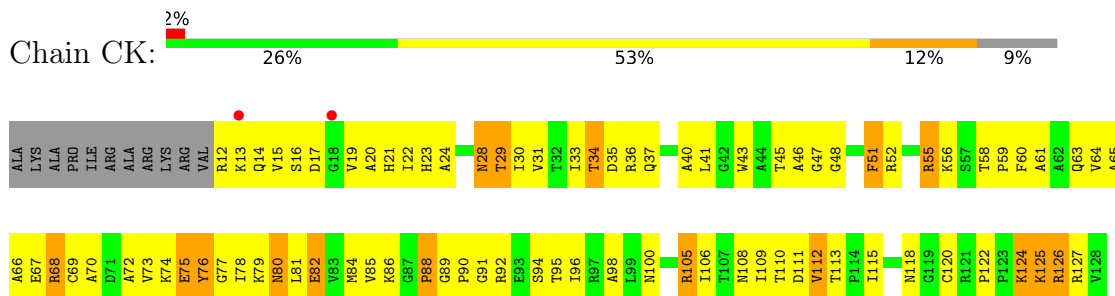
• Molecule 9: 30S ribosomal protein S10



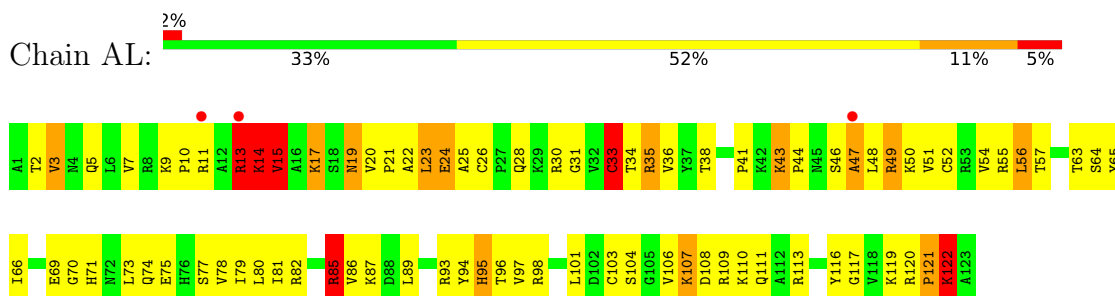
• Molecule 10: 30S ribosomal protein S11



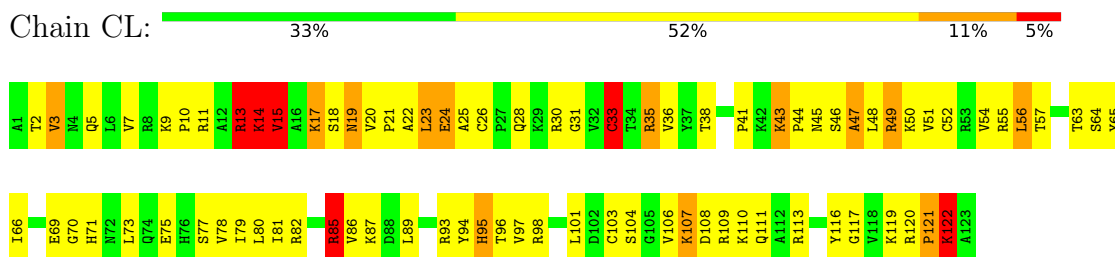
- Molecule 10: 30S ribosomal protein S11



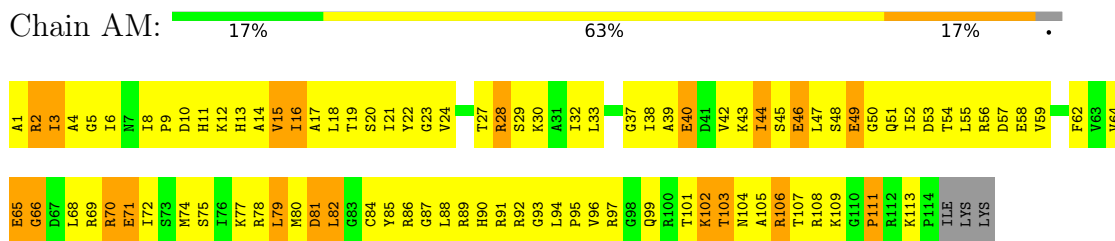
- Molecule 11: 30S ribosomal protein S12



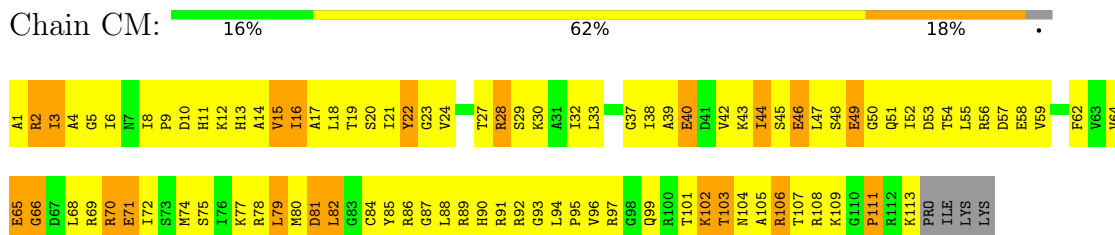
- Molecule 11: 30S ribosomal protein S12



- Molecule 12: 30S ribosomal protein S13

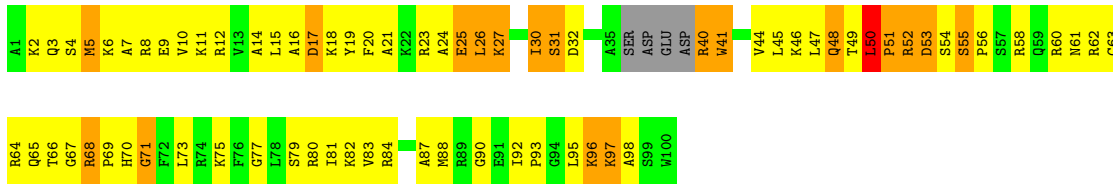


- Molecule 12: 30S ribosomal protein S13



- Molecule 13: 30S ribosomal protein S14

Chain AN:  23% 54% 18% ..



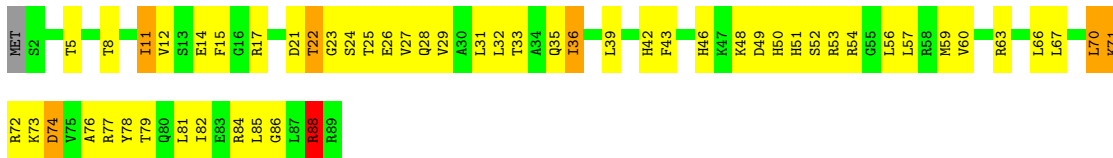
- Molecule 13: 30S ribosomal protein S14

Chain CN:  22% 54% 19% ..



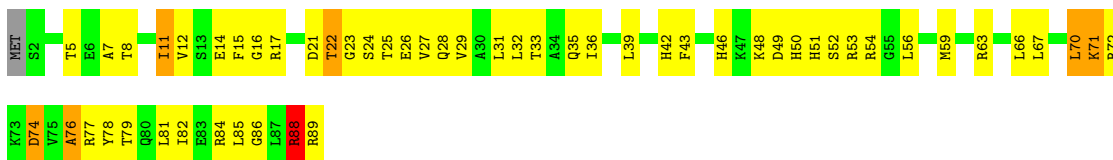
- Molecule 14: 30S ribosomal protein S15

Chain AO:  38% 53% 7% ..



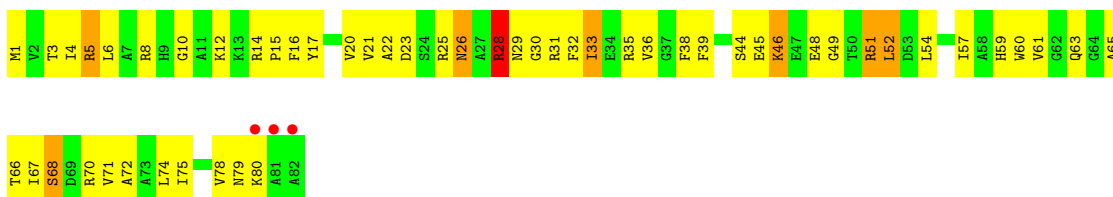
- Molecule 14: 30S ribosomal protein S15

Chain CO:  38% 53% 7% ..

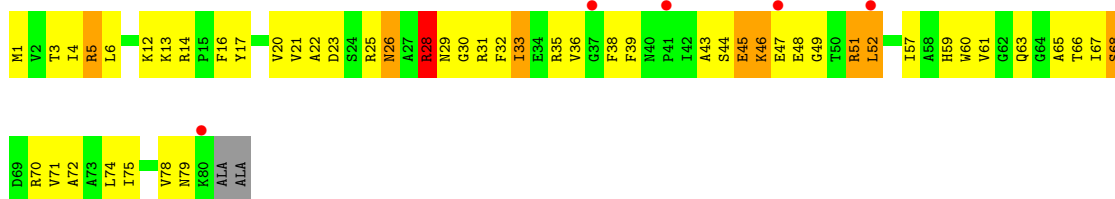
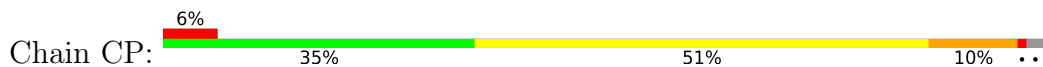


- Molecule 15: 30S ribosomal protein S16

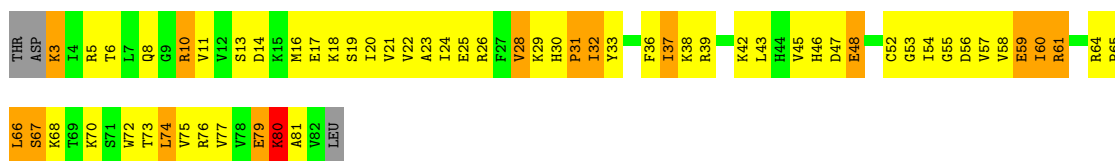
Chain AP:  4% 35% 55% 9% ..



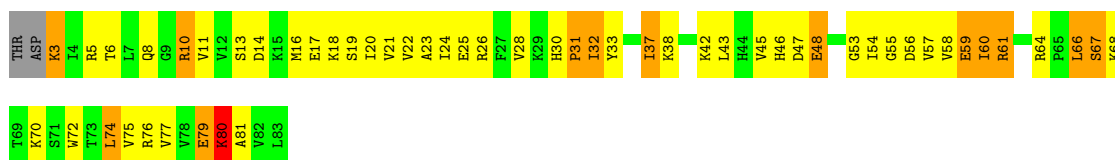
- Molecule 15: 30S ribosomal protein S16



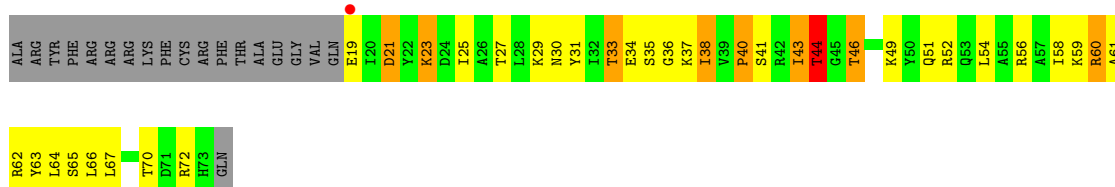
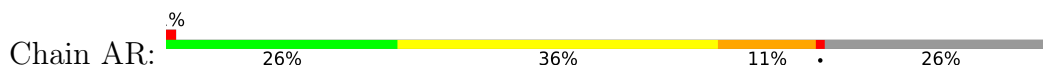
- Molecule 16: 30S ribosomal protein S17



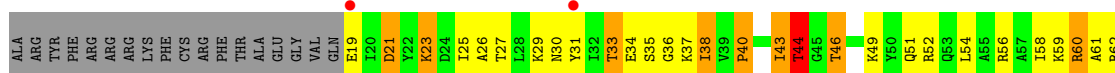
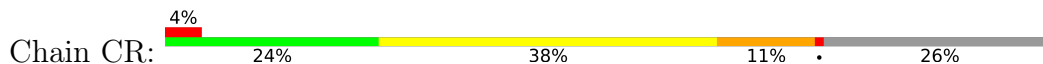
- Molecule 16: 30S ribosomal protein S17

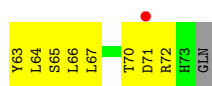


- Molecule 17: 30S ribosomal protein S18

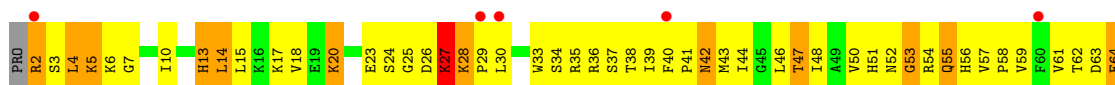
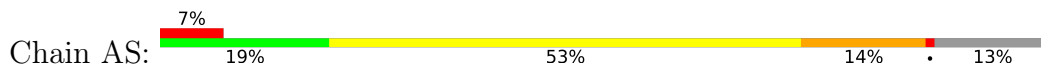


- Molecule 17: 30S ribosomal protein S18





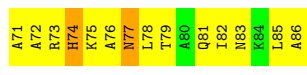
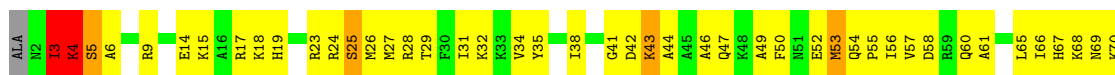
● Molecule 18: 30S ribosomal protein S19



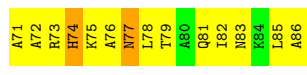
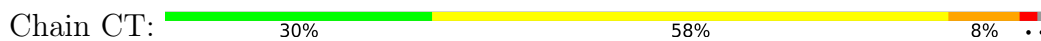
● Molecule 18: 30S ribosomal protein S19



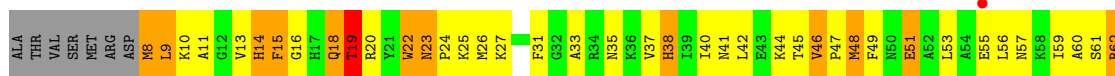
● Molecule 19: 30S ribosomal protein S20

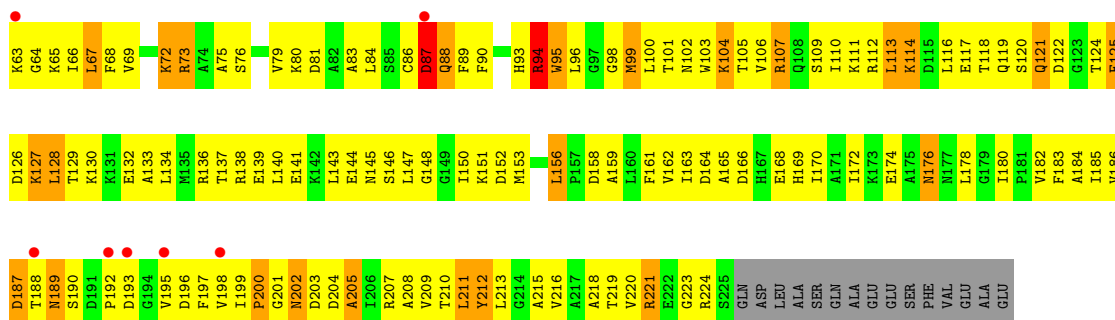


● Molecule 19: 30S ribosomal protein S20

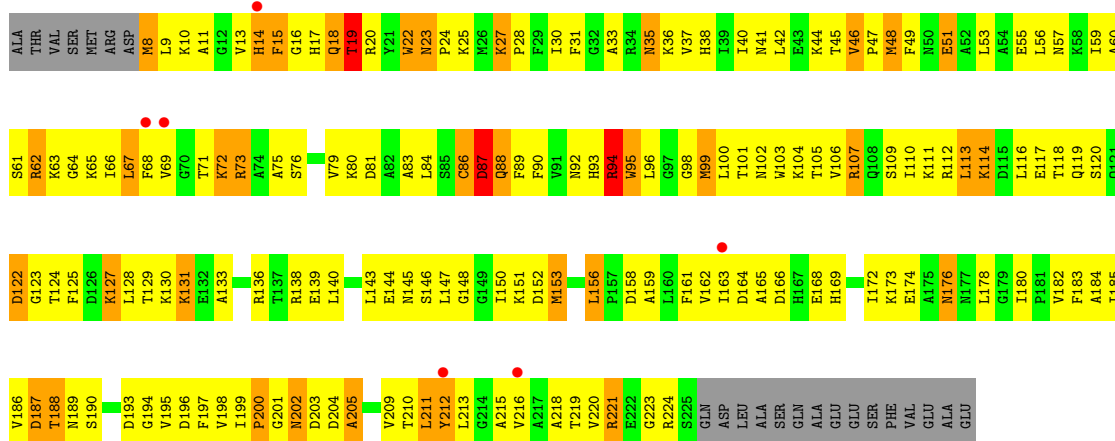


● Molecule 20: 30S ribosomal protein S2

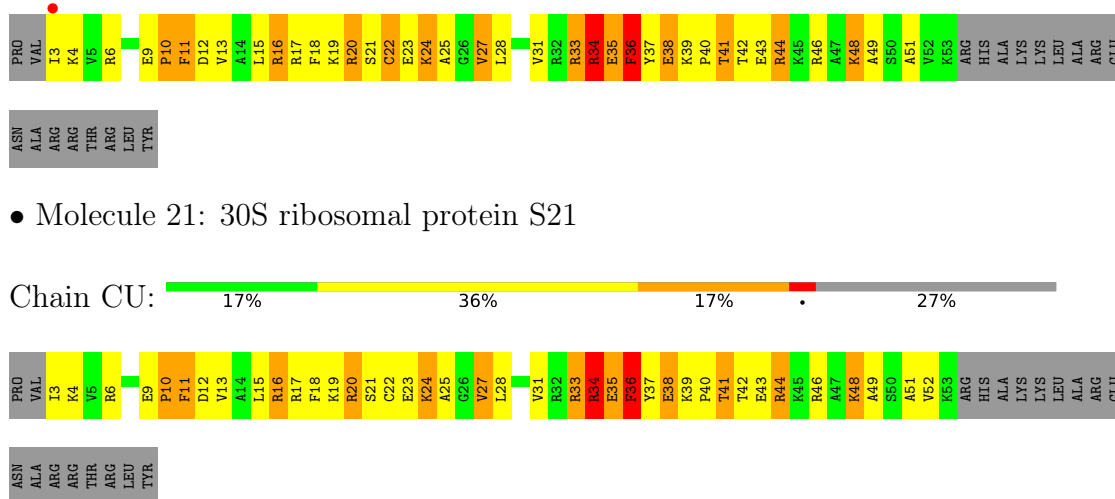
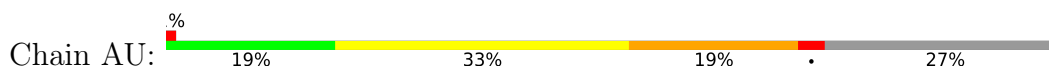




• Molecule 20: 30S ribosomal protein S2



• Molecule 21: 30S ribosomal protein S21

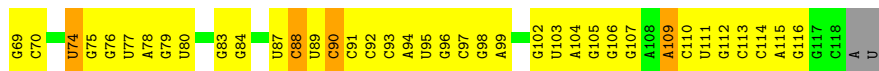
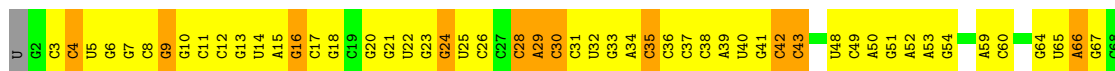


• Molecule 21: 30S ribosomal protein S21

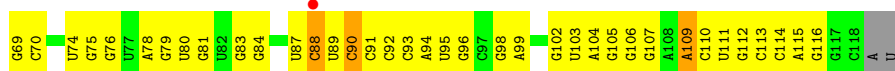
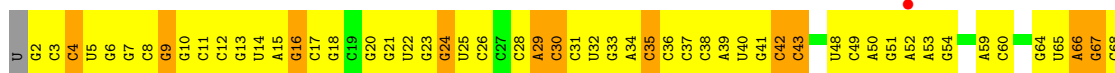


• Molecule 22: 5S rRNA

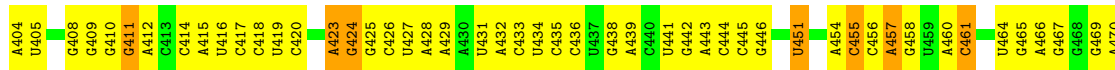
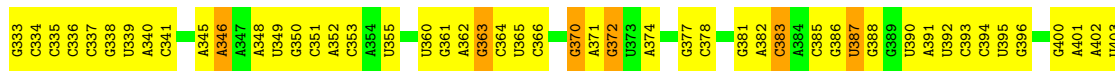
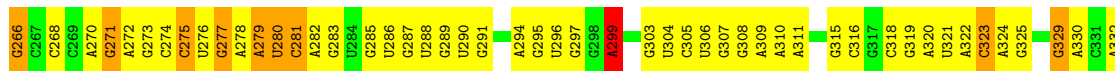
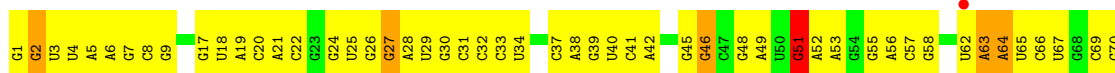




• Molecule 22: 5S rRNA

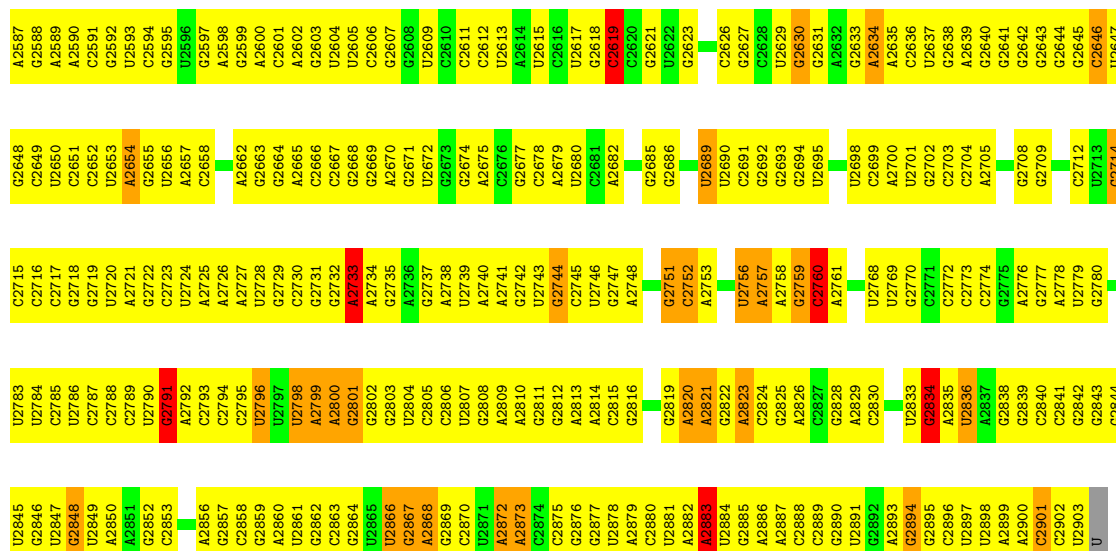


• Molecule 23: 23S rRNA



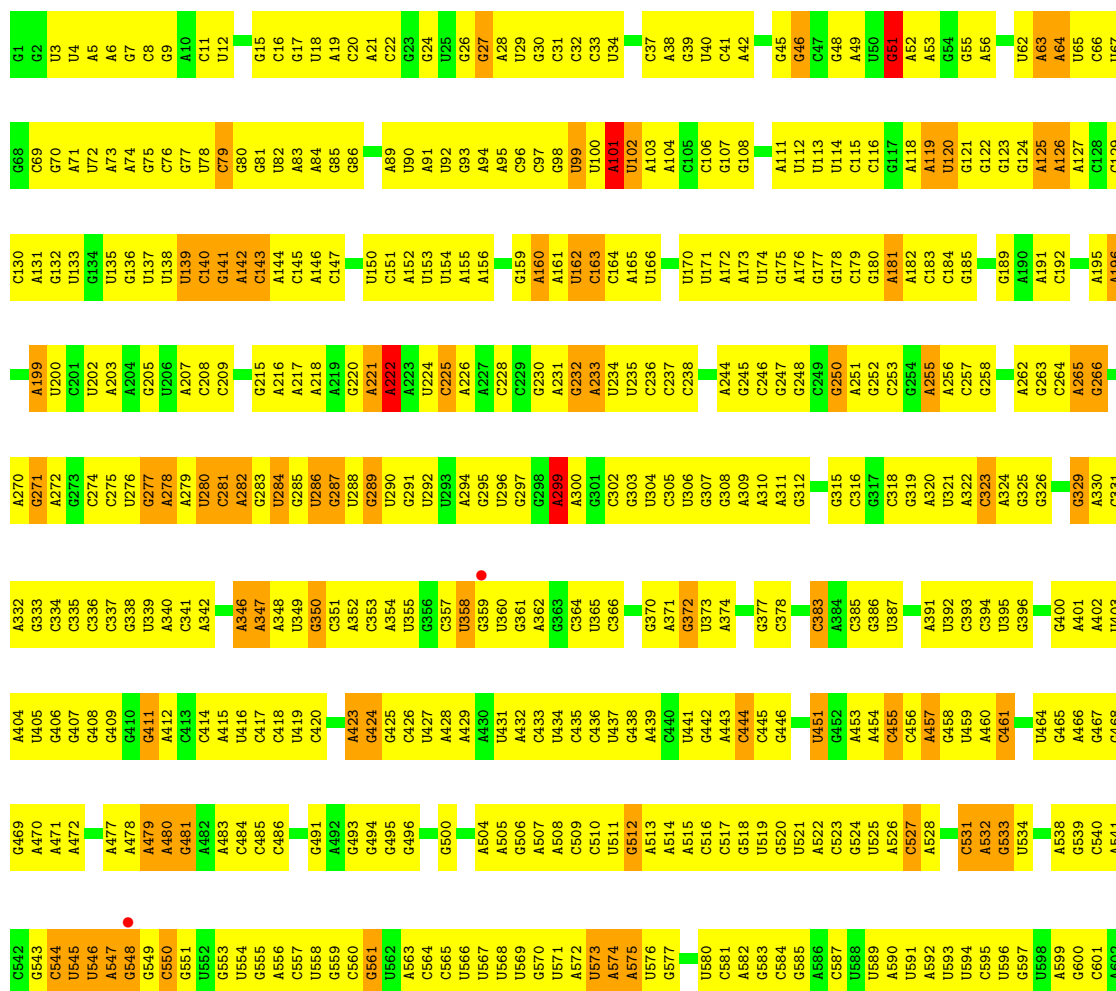
A1525	C1526	G1463	C1335	U1267	C1200	A1134	C994	U932	G662	G799	C731	U667	A607
A1526	G1527	G1464	A1336	A1268	U1201	C1135	C995	A933	A863	U803	C732	A608	A609
A1528	U1466	C1403	G1337	A1269	G1202	G1137	A996	C935	G864	U804	A733	A670	C610
U1467	U1468	U1405	G1338	G1270	A1204	G1138	A1000	C936	C865	G805	A734	C671	C611
A1468	A1469	U1406	G1339	G1271	A1205	G1139	A1001	C937	A866	C806	A735	C672	G612
A1470	G1407	G1407	G1340	U1272	G1206	C1140	G1002	G938	G869	U807	C736	C673	G612
A1471	G1408	G1408	U1141	U1273	C1207	U1141	C1007	G939	U870	G808	G738	G674	A614
A1472	U1411	U1411	A1142	A1274	C1208	A1142	G1007	G940	U871	G809	A739	A675	A614
G1473	U1412	G1473	A1143	A1275	U1209	A1143	A1010	A941	U872	U810	C740	C679	A616
U1474	A1413	G1474	A1144	G1276	G1210	A1144	A1011	A942	U873	U811	U741	A670	A616
U1475	U1414	C1348	C1145	G1277	C1211	C1145	G1011	A943	C874	C812	A742	C680	G617
U1476	U1415	C1349	C1146	G1278	G1212	C1146	U1012	A944	G875	U813	A743	C681	G618
A1477	G1416	C1350	A1147	G1279	A1213	A1147	C1013	A945	C876	C814	U744	C674	G619
A1478	C1417	C1351	U1148	U1280	G1214	U1148	A1014	C946	U877	U883	G745	G620	G620
G1478	C1418	U1352	A1149	A1281	G1215	A1149	U1015	A947	A878	C816	U746	A621	A621
A1544	A1419	U1353	G1149	U1282	U1216	A1149	G1016	A948	A879	C817	U747	A622	G622
A1545	A1420	A1354	A1151	G1283	G1217	A1151	G1017	C949	G	C818	U748	C623	C623
G1546	G1421	G1355	C1152	U1284	U1218	C1152	U1018	G950	G	A819	G748	C624	C624
C1547	G1422	G1356	C1153	A1285	U1219	C1153	U1019	C951	G	A820	G753	G625	G625
A1548	G1423	C1357	G1157	A1286	U1220	G1157	A1020	G952	G	A821	U754	A626	A626
G1482	G1424	G1358	G1158	A1287	C1221	A1090	A1021	G953	G	A822	U755	A627	A627
G1483	G1425	G1359	G1159	G1288	U1222	A1091	G1022	G954	C	A823	U756	A628	A628
U1484	G1426	A1359	C1161	C1291	G1223	C1092	U1023	G955	U	U824	G757	C629	C629
U1485	A1427	G1365	C1162	C1292	U1224	C1092	G1024	G956	A	U825	C758	G630	G630
U1486	C1428	A1366	G1163	C1293	G1226	U1097	G1025	G957	C	U826	G759	A631	A631
U1487	G1429	A1367	C1164	C1294	G1228	U1098	G1026	U958	C	U827	U760	A632	A632
U1488	G1430	G1368	A1165	C1295	C1229	U1099	A1027	U959	C	U828	A761	A633	A633
U1489	A1431	G1369	A1166	C1296	U1230	C1100	A1028	A960	C	U829	A764	C634	C634
U1491	G1432	G1370	C1167	G1297	U1231	U1101	A1029	A961	A	G830	G765	C635	C635
U1492	A1433	C1371	C1167	C1298	U1232	C1102	A1032	G962	C	G831	U766	G636	G636
C1493	A1434	G1372	G1171	G1299	G1236	U1103	A1033	G963	U	U832	U767	A637	A637
A1494	G1435	A1373	C1172	C1300	A1237	C1104	U1033	C964	U	U833	U768	G638	G638
U1495	A1436	G1374	U1173	G1301	U1240	U1105	G1038	C965	A	A834	G769	C640	C640
U1497	C1437	U1375	U1174	A1302	U1241	U1106	A1039	C966	C	C835	G770	A641	A641
U1498	U1438	C1376	A1175	A1303	U1242	G1107	A1040	G967	C	C836	C771	A642	A642
G1501	A1439	G1377	U1176	G1304	U1243	U1108	G1041	C968	C	C837	U772	A643	A643
A1502	U1440	A1378	G1177	G1305	C1243	U1109	G1042	G969	U	U838	U773	A644	A644
A1503	G1441	U1379	C1178	G1306	U1244	G1110	G1043	U970	G904	U839	G774	A645	A645
A1504	U1442	G1380	G1179	G1307	G1245	A1111	C1044	A972	A905	C840	G775	A646	A646
A1505	U1443	G1381	U1180	U1315	A1246	U1112	C1045	A973	A909	C841	G776	A647	A647
A1506	G1444	G1382	U1181	U1316	U1247	U1113	U1046	A974	A910	C842	G777	A648	A648
A1507	U1445	A1383	U1182	G1317	G1248	U1114	A1046	G975	A911	U843	G778	A649	A649
A1508	G1446	A1384	U1183	U1318	U1249	U1115	G1047	A976	A912	C845	U779	C650	C650
A1509	C1447	A1385	U1184	C1319	G1250	G1116	A1050	U979	U846	U847	G780	A651	A651
A1510	G1448	G1386	U1185	G1320	G1251	U1117	G1051	A980	C848	A781	A782	A652	A652
G1512	G1449	G1387	U1186	A1321	G1252	U1118	A1054	A981	C849	A782	A783	A653	A653
U1513	U1450	G1388	U1187	C1322	A1253	U1119	A1055	C982	U850	A783	A784	A654	A654
G1514	C1451	G1389	U1188	G1323	U1254	G1120	G1056	A983	C851	A784	A785	A655	A655
A1515	G1452	U1390	A1189	U1324	G1255	U1121	G1057	A984	U852	A785	C786	A656	A656
A1516	A1453	U1391	G1190	U1325	C1256	G1122	A1058	A985	C921	A786	C787	A657	A657
A1517	C1454	A1392	G1191	U1326	G1257	C1123	U1059	C986	C922	C853	C791	A658	A658
A1518	G1455	G1393	G1192	A1327	U1258	U1124	U1058	C987	C923	C854	G791	A659	A659
G1518	A1456	U1394	G1193	G1328	G1259	G1125	G1059	C988	G923	C855	C791	A660	A660
A1519	U1457	A1395	U1189	U1329	U1260	A1126	U1060	A988	A927	C856	A794	A661	A661
A1520	U1458	U1396	A1190	G1330	C1261	A1126	U1061	G989	A927	C857	A794	A661	A661
U1520	U1459	U1397	G1191	G1331	U1262	U1130	G1062	A990	A928	C858	C795	A662	A662
A1521	G1459	U1397	G1192	C1332	A1263	G1131	G1063	C991	U929	C859	C796	A663	A663
A1522	U1460	C1398	U1197	G1333	U1263	G1132	G1064	C992	G930	C860	C797	A664	A664
A1523	C1461	G1399	U1198	G1334	G1266	G1133	U1065	C993	U931	C861	G798	A665	A665
G1524	C1462	U1400	U1199	G1334	G1266	A1133		C994		C862	G798	A666	A666

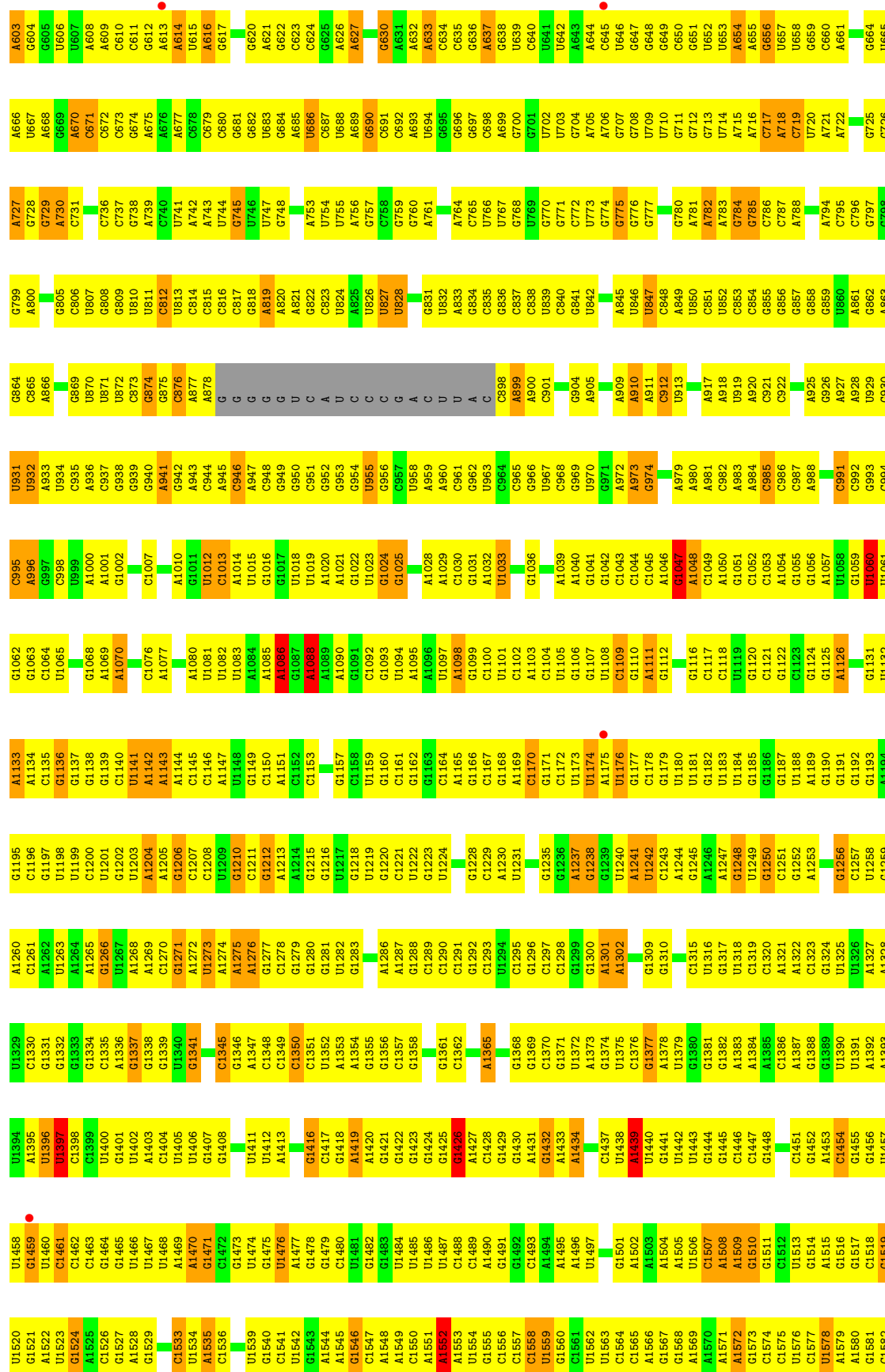
G1588	G1661	G1726	G1791	A1858	G1930	C1996	G2067	C	A2191	C2258	A2322	G2382	U2449	C2520
U1589	U1662	C1727	G1792	U1859	U1931	C1997	U2068	U	U2192	U2259	G2323	G2383	A2450	C2521
A1590	G1663	C1727	C1793	A1860	A1932	U1997	G2069	U	C2196	C2260	G2324	G2384	C2451	U2522
A1591	A1664	C1729	A1794	G1861	G1933	C2001	A2070	U	U2197	C2261	G2325	C2385	C2452	
C1592	A1665	U1729	C1795	G1862	C1934	U2007	A2071	A2133	U2198	C2262	G2326	A2386	G2453	G2526
A1593	A1666	C1730	U1796	G1863	A1935	C2008	C2072	A2135	A2199	C2263	A2327	U2387	G2454	G2527
U1594	G1667	G1731	G1797	U1864	A1936	C2009	C2073	A2136	A2199	C2264	A2328	A2388	G2455	U2528
C1595	G1668	C1732	U1799	U1865	A1937	A2009	U2074	G2136	C2200	A2265	U2329	C2389	G2456	C2529
C1596	A1669	C1733	U1799	A1866	A1938	A2010	U2075	G2137	U2203	A2266	U2330	C2390	U2457	A2530
A1598	A1670	G1733	C1800	G1867	U1939	U2011	U2076	G2138	U2204	A2267	U2331	C2391	G2458	A2531
U1599	A1671	A1735	A1901	G1868	U1940	U2012	U2077	A2142	U2205	A2268	U2332	A2392	G2459	
U1599	A1672	U1736	A1901	G1869	C1941	A2013	A2077	A2143	A2206	A2269	U2333	U2393	U2460	G2535
C1600	G1673	G1737	A1903	C1870	C1942	A2014	U2079	A2143	C2206	A2270	U2334	C2394	C2461	G2536
	G1674	G1738	C1804	A1871	U1943	A2015	A2080	G2144	C2207	U2272	A2335	C2395	C2462	U2537
	C1675	A1739	A1905	A1872	U1944	A2016	U2081	C2145	C2208	C2275	A2356	G2396	C2463	
	A1676	G1740	C1806	G1873	U1945	U2017	A2082	C2146	G2209	C2276	G2337	G2397	C2464	
	A1677	G1740	C1807	G1874	U1946	U2018	U2082	A2147	U2210	G2277	C2338	U2398	C2465	
	A1678	U1742	A1908	G1875	C1947	A2019	U2085	U2148	A2211	G2278	C2339	G2399	A2468	
	A1679	G1743	A1909	A1876	U1948	A2020	U2086	U2149	A2212	G2279	G2340	G2400	A2469	
	U1680	A1744	A1810	A1877	G1948	C2021	G2087	C2150	U2213	C2280	C2341	U2401	A2470	
	G1681	A1745	A1811	A1878	U1950	U2022	A2094	U2151	C2214	G2281	C2342	U2402	A2471	
	G1682	A1746	U1812	A1879	A1951	C2023	A2095	G2152	C2215	G2282	C2343	C2403	G2472	
	U1683	A1746	G1813	C1879	U1952	G2024	C2096	C2153	G2216	G2283	U2344	U2404	U2473	
	G1684	G1752	G1814	A1881	A1953	G2025	A2097	A2154	G2217	G2284	G2345	U2405	U2474	
	A1685	C1752	A1815	U1882	A1954	C2026	C2098	U2155	G2218	A2285	G2346	G2406	A2475	
	C1686	A1754	C1816	A1883	U1955	G2027	G2093	G2156	G2219	C2286	C2347	A2407	U2477	
	G1687	A1755	G1817	G1884	U1956	U2028	A2094	G2157	G2221	G2287	U2348	U2408	U2478	
	A1616	A1758	U1818	A1885	C1957	G2029	A2095	A	C2222	A2287	G2349	U2409	C2480	
	A1617	U1758	A1819	U1886	A2030	G2030	C2096	G	G2223	A2288	C2350	U2410	C2481	
	A1618	A1699	U1820	A1887	A2031	G2031	A2097	C	G2224	G2289	C2351	A2411	G2482	
	G1619	G1760	A1821	G1888	G2032	G2032	U2098	C	A2225	U2291	C2352	G2412	C2483	
	G1623	C1761	C1822	A1889	U1963	U2033	U2099	G	G2226	U2292	C2353	G2413	C2484	
	U1624	A1762	G1823	A1890	G1964	G2034	G2099	A	A2227	G2293	C2354	G2414	C2485	
	G1628	G1763	U1824	G1891	A1966	A2037	C2103	C	G2228	U2229	C2355	G2415	C2486	
	U1629	C1764	U1825	G1892	C1967	G2038	C2104	C	G2229	G2294	C2356	U2423	A2487	
		U1765	G1826	A1893	G1968	U2039	U2105	U	C2230	C2295	U2357	A2424	A2488	
		G1766	U1827	C1894	A1969	G2040	U2106	G	U2231	U2296	C2358	A2425	C2489	
		G1767	G1828	A1894	A1970	U2041	G2107	A	C2232	A2297	C2359	A2426	G2490	
		C1768	A1829	A1899	A1971	A2042	A2108	A	G2233	C2300	G2360	C2427	A2491	
		G1770	C1830	A1900	U1971	G2043	U2109	A	G2234	C2301	G2361	C2428	A2492	
		G1771	G1831	A1901	G1972	C2043	G2110	A	G2235	U2302	C2362	G2429	U2493	
		G1772	C1832	A1902	U1973	C2044	G2111	A	G2236	C2303	C2363	C2430	G2494	
		G1773	C1833	G1903	C1974	C2047	G2110	A	G2237	G2304	C2364	U2431	G2495	
		C1774	C1833	G1904	A1977	G2048	G2107	C	G2238	U2305	C2365	U2432	G2502	
		U1775	U1834	C1905	G2049	G2049	G2107	C	G2239	C2306	A2366	A2433	G2503	
		G1776	G1842	G1906	C2050	C2050	A2051	A	U2240	C2307	G2367	A2434	U2504	
		G1777	U1841	G1906	C2051	C2051	A2052	C	A2241	G2308	C2368	U2435	G2505	
		U1778	C1843	A1913	U1982	G2052	G2053	C	U2242	C2309	A2369	A2436	U2506	
		U1779	C1844	C1914	G1983	A2053	G2054	A	U2243	C2310	G2370	U2437	C2507	
		U1780	G1845	U1915	G1984	A2054	C2055	U	U2244	C2311	G2371	G2438	G2508	
		U1781	G1846	A1916	C1985	G2055	G2056	A	U2245	A2311	U2372	U2438	C2509	
		U1782	A1847	G1921	C1986	G2056	G2056	G	G2246	U2312	U2373	A2439	U2511	
		A1783	A1848	A1783	G1987	A2060	A2060	G	A2247	C2313	G2374	C2440	C2512	
		A1784	A1849	G1922	U1988	A2061	A2061	U	C2248	A2184	G2375	U2441	A2513	
		A1785	G1850	A1922	G1988	A2062	A2062	G	U2249	U2185	G2376	C2442	U2514	
		A1786	U1851	C1925	U1991	A2063	A2063	G	G2250	C2186	A2377	C2443	C2515	
		A1787	U1852	U1986	G1992	C2063	C2063	G	U2187	U2187	A2378	C2444	A2516	
		A1788	U1853	A1927	U1993	C2064	C2064	A	U2188	U2188	G2379	G2445	C2517	
		A1789	A1854	A1928	U1994	C2065	C2065	G	C2254	U2189	C2380	U2446	U2518	
		A1790	G1723	G1929	U1995	C2066	C2066	G	U2257	U2257	A2381	A2448	U2519	



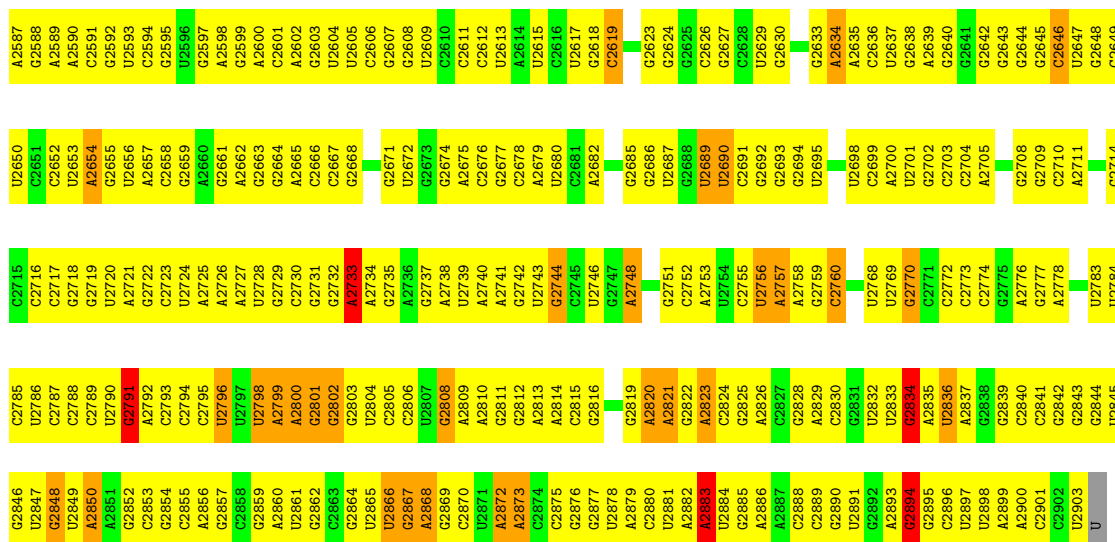
● Molecule 23: 23S rRNA

Chain DB: 22% 64% 11% ..

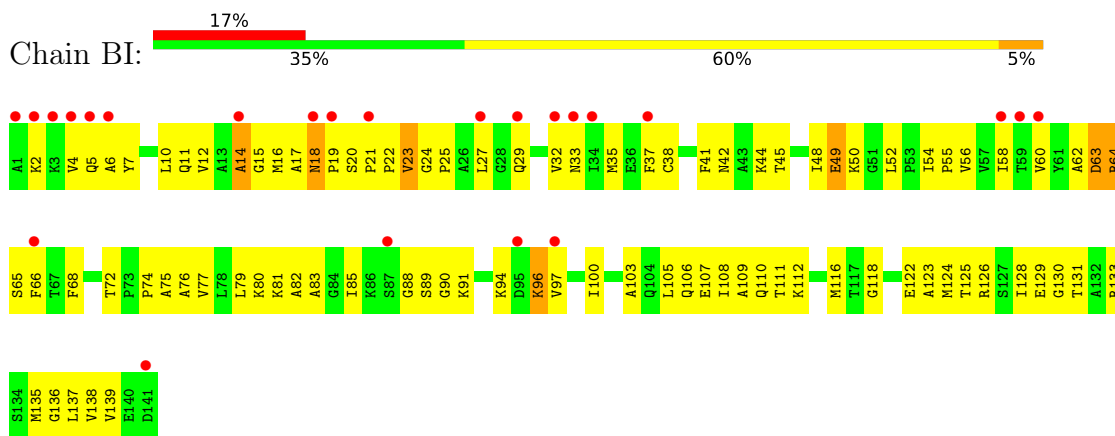




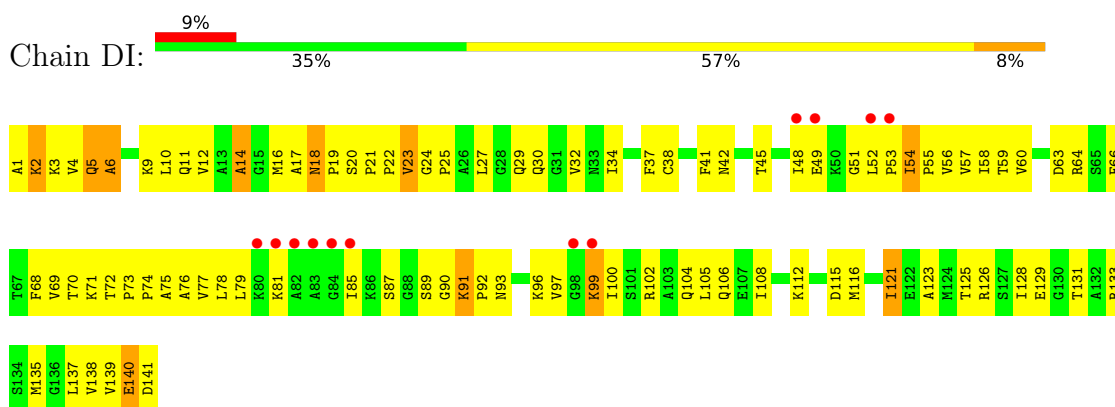
A2518	A2519	A2520	C2521	C2522	G2526	G2527	G2528	G2529	G2530	A2531	G2535	G2536	G2538	G2539	G2540	G2541	G2542	G2543	G2544	G2545	G2546	A2547	G2548	G2549	G2550	G2553	G2554	G2556	G2557	G2558	G2559	A2560	G2561	G2562	G2563	A2564	A2565	A2566	G2567	G2568	G2569	G2570	G2571	A2572	G2573	G2579	G2580	G2581	G2582	G2583	G2584	G2585	G2586																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
U2448	U2449	A2450	G2454	G2455	G2456	U2457	G2458	A2459	U2460	A2461	C2462	G2463	C2466	C2467	A2468	A2471	U2472	U2473	G2474	G2475	A2476	U2479	C2480	G2484	G2485	G2486	G2487	G2488	U2489	G2490	U2491	U2492	A2497	C2498	C2499	G2502	A2503	U2504	G2505	U2506	C2507	G2508	G2509	C2510	U2511	C2512	A2513	U2514	C2515	G2516	G2517	U2518	G2519	G2520	G2521	G2522	G2523	G2524	G2525																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
G2318	G2319	U2320	U2321	C2322	A2323	U2324	G2325	C2326	G2328	A2329	C2330	G2331	C2332	G2333	G2334	U2335	A2336	G2337	U2338	C2339	A2340	U2341	C2342	U2343	U2344	G2345	C2346	U2347	U2348	G2349	G2350	G2351	A2352	G2353	G2354	G2355	U2356	G2357	A2358	C2359	G2360	G2361	C2362	C2363	C2364	G2365	A2366	G2367	C2368	A2369	G2370	G2371	G2372	G2373	C2374	G2375	A2376	C2377	A2378	G2379	G2380	G2381	G2382	G2383	G2384	G2385	G2386	G2387	G2388	G2389	G2390	G2391	G2392	G2393	G2394	G2395	G2396	G2397	G2398	G2399	G2400	U2401	U2402	C2403	U2404	G2405	A2406	U2407	G2408	G2409	G2410	C2411	A2412	G2413	G2414	G2415	C2420	U2423	C2424	A2425	A2426	C2427	G2428	G2429	A2430	U2431	A2432	A2433	A2434	A2435	G2436	G2437	U2438	A2439	C2440	U2441	C2442	C2443	G2444	G2445	G2446	G2447	G2448	G2449	G2450	G2451	G2452	G2453	G2454	G2455	G2456	G2457	G2458	G2459	G2460	G2461	G2462	G2463	G2464	G2465	G2466	G2467	G2468	G2469	G2470	G2471	G2472	G2473	G2474	G2475	G2476	G2477	G2478	G2479	G2480	G2481	G2482	G2483	G2484	G2485	G2486	G2487	G2488	G2489	G2490	G2491	G2492	G2493	G2494	G2495	G2496	G2497	G2498	G2499	G2500	G2501	G2502	G2503	G2504	G2505	G2506	G2507	G2508	G2509	G2510	G2511	G2512	G2513	G2514	G2515	G2516	G2517	G2518	G2519	G2520	G2521	G2522	G2523	G2524	G2525	G2526	G2527	G2528	G2529	G2530	G2531	G2532	G2533	G2534	G2535	G2536	G2537	G2538	G2539	G2540	G2541	G2542	G2543	G2544	G2545	G2546	G2547	G2548	G2549	G2550	G2551	G2552	G2553	G2554	G2555	G2556	G2557	G2558	G2559	G2560	G2561	G2562	G2563	G2564	G2565	G2566	G2567	G2568	G2569	G2570	G2571	G2572	G2573	G2574	G2575	G2576	G2577	G2578	G2579	G2580	G2581	G2582	G2583	G2584	G2585	G2586	G2587	G2588	G2589	G2590	G2591	G2592	G2593	G2594	G2595	G2596	G2597	G2598	G2599	G2600	G2601	G2602	G2603	G2604	G2605	G2606	G2607	G2608	G2609	G2610	G2611	G2612	G2613	G2614	G2615	G2616	G2617	G2618	G2619	G2620	G2621	G2622	G2623	G2624	G2625	G2626	G2627	G2628	G2629	G2630	G2631	G2632	G2633	G2634	G2635	G2636	G2637	G2638	G2639	G2640	G2641	G2642	G2643	G2644	G2645	G2646	G2647	G2648	G2649	G2650	G2651	G2652	G2653	G2654	G2655	G2656	G2657	G2658	G2659	G2660	G2661	G2662	G2663	G2664	G2665	G2666	G2667	G2668	G2669	G2670	G2671	G2672	G2673	G2674	G2675	G2676	G2677	G2678	G2679	G2680	G2681	G2682	G2683	G2684	G2685	G2686	G2687	G2688	G2689	G2690	G2691	G2692	G2693	G2694	G2695	G2696	G2697	G2698	G2699	G2700	G2701	G2702	G2703	G2704	G2705	G2706	G2707	G2708	G2709	G2710	G2711	G2712	G2713	G2714	G2715	G2716	G2717	G2718	G2719	G2720	G2721	G2722	G2723	G2724	G2725	G2726	G2727	G2728	G2729	G2730	G2731	G2732	G2733	G2734	G2735	G2736	G2737	G2738	G2739	G2740	G2741	G2742	G2743	G2744	G2745	G2746	G2747	G2748	G2749	G2750	G2751	G2752	G2753	G2754	G2755	G2756	G2757	G2758	G2759	G2760	G2761	G2762	G2763	G2764	G2765	G2766	G2767	G2768	G2769	G2770	G2771	G2772	G2773	G2774	G2775	G2776	G2777	G2778	G2779	G2780	G2781	G2782	G2783	G2784	G2785	G2786	G2787	G2788	G2789	G2790	G2791	G2792	G2793	G2794	G2795	G2796	G2797	G2798	G2799	G2800	G2801	G2802	G2803	G2804	G2805	G2806	G2807	G2808	G2809	G2810	G2811	G2812	G2813	G2814	G2815	G2816	G2817	G2818	G2819	G2820	G2821	G2822	G2823	G2824	G2825	G2826	G2827	G2828	G2829	G2830	G2831	G2832	G2833	G2834	G2835	G2836	G2837	G2838	G2839	G2840	G2841	G2842	G2843	G2844	G2845	G2846	G2847	G2848	G2849	G2850	G2851	G2852	G2853	G2854	G2855	G2856	G2857	G2858	G2859	G2860	G2861	G2862	G2863	G2864	G2865	G2866	G2867	G2868	G2869	G2870	G2871	G2872	G2873	G2874	G2875	G2876	G2877	G2878	G2879	G2880	G2881	G2882	G2883	G2884	G2885	G2886	G2887	G2888	G2889	G2890	G2891	G2892	G2893	G2894	G2895	G2896	G2897	G2898	G2899	G2900	G2901	G2902	G2903	G2904	G2905	G2906	G2907	G2908	G2909	G2910	G2911	G2912	G2913	G2914	G2915	G2916	G2917	G2918	G2919	G2920	G2921	G2922	G2923	G2924	G2925	G2926	G2927	G2928	G2929	G2930	G2931	G2932	G2933	G2934	G2935	G2936	G2937	G2938	G2939	G2940	G2941	G2942	G2943	G2944	G2945	G2946	G2947	G2948	G2949	G2950	G2951	G2952	G2953	G2954	G2955	G2956	G2957	G2958	G2959	G2960	G2961	G2962	G2963	G2964	G2965	G2966	G2967	G2968	G2969	G2970	G2971	G2972	G2973	G2974	G2975	G2976	G2977	G2978	G2979	G2980	G2981	G2982	G2983	G2984	G2985	G2986	G2987	G2988	G2989	G2990	G2991	G2992	G2993	G2994	G2995	G2996	G2997	G2998	G2999	G3000	G3001	G3002	G3003	G3004	G3005	G3006	G3007	G3008	G3009	G3010	G3011	G3012	G3013	G3014	G3015	G3016	G3017	G3018	G3019	G3020	G3021	G3022	G3023	G3024	G3025	G3026	G3027	G3028	G3029	G3030	G3031	G3032	G3033	G3034	G3035	G3036	G3037	G3038	G3039	G3040	G3041	G3042	G3043	G3044	G3045	G3046	G3047	G3048	G3049	G3050	G3051	G3052	G3053	G3054	G3055	G3056	G3057	G3058	G3059	G3060	G3061	G3062	G3063	G3064	G3065	G3066	G3067	G3068	G3069	G3070	G3071	G3072	G3073	G3074	G3075	G3076	G3077	G3078	G3079	G3080	G3081	G3082	G3083	G3084	G3085	G3086	G3087	G3088	G3089	G3090	G3091	G3092	G3093	G3094	G3095	G3096	G3097	G3098	G3099	G3100	G3101	G3102	G3103	G3104	G3105	G3106	G3107	G3108	G3109	G3110	G3111	G3112	G3113	G3114	G3115	G3116	G3117	G3118	G3119	G3120	G3121	G3122	G3123	G3124	G3125	G3126	G3127	G3128	G3129	G3130	G3131	G3132	G3133	G3134	G3135	G3136	G3137	G3138	G3139	G3140	G3141	G3142	G3143	G3144	G3145	G3146	G3147	G3148	G3149	G3150	G3151	G3152	G3153	G3154	G3155	G3156	G3157	G3158	G3159	G3160	G3161	G3162	G3163	G3164	G3165	G3166	G3167	G3168	G3169	G3170	G3171	G3172	G3173	G3174	G3175	G3176	G3177	G3178	G3179	G3180	G3181	G3182	G3183	G3184	G3185	G3186	G3187	G3188	G3189	G3190	G3191	G3192	G3193	G3194	G3195	G3196	G3197	G3198	G3199	G3200	G3201	G3202	G3203	G3204	G3205	G3206	G3207	G3208	G3209	G3210	G3211	G3212	G3213	G3214	G3215	G3216	G3217	G3218	G3219	G3220	G3221	G3222	G3223	G3224	A2225	G3226	A2227	G3228	U2229	G3230	U2231	C2232	U2233	G3234	G3235	U2236	G3237	C2238	G3239	U2240	A2241	G3242	U2243	A2244	U2245	A2246	A2247	G3248	U2249	G3250	U2251	U2252	U2253	U2254	U2255	U2256	U2257	U2258	U2259	U2260	U2261	U2262	U2263	U2264	U2265	U2266	U2267	U2268	U2269	U2270	U2271	U2272	U2273	U2274	U2275	U2276	U2277	U2278	U2279	U2280	U2281	U2282	U2283	U2284	U2285	U2286	U2287	U2288	U2289	U2290	U2291	U2292	U2293	U2294	U2295	U2296	U2297	U2298	U2299	U2300	U2301	U2302	U2303	U2304	U2305	U2306	U2307	U2308	U2309	U2310	U2311	U2312	U2313	U2314	U2315	U2316	U2317	U2318	U2319	U2320	U2321	U2322	U2323	U2324	U2325	U2326	U2327	U2328	U2329	U2330	U2331	U2332	U2333	U2334	U2335	U2336	U2337	U2338	U2339	U2340	U2341	U2342	U2343	U2344	U2345	U2346	U2347	U2348	U2349	U2350	U2351	U2352	U2353	U2354	U2355	U2356	U2357	U2358	U2359	U2360	U2361	U2362	U2363	U2364	U2365	U2366	U2367	U2368	U2369	U2370	U2371	U2372	U2373	U2374	U2375	U2376	U2377	U2378	U2379	U2380	U2381	U2382	U2383	U2384	U2385	U2386	U2387	U2388	U2389	U2390	U2391	U2392	U2393	U2394	U2395	U2396	U2397	U2398	U2399	U2400	U2401	U2402	U2403	U2404	U2405	U2406	U2407	U2408	U2409	U2410	U2411	U2412	U2413	U2414	U2415	U2416	U2417	U2418	U2419	U2420	U2421	U2422	U2423	U2424	U2425	U2426	U2427	U2428	U2429	U2430	U2431	U2432	U2433	U2434	U2435	U2436	U2437	U2438	U2439	U2440	U2441	U2442	U2443	U2444	U2445	U2446	U2447	U2448	U2449	U2450	U2451	U2452	U2453	U2454	U2455	U2456	U2457	U2458	U2459	U2460	U2461	U2462	U2463	U2464	U2465	U2466	U2467	U2468	U2469	U2470	U2471	U2472	U2473	U2474	U2475	U2476	U2477	U2478	U2479	U2480	U2481	U2482	U2483	U2484	U2485	U2486	U2487	U2488	U2489	U2490	U2491	U2492	U2493	U2494	U2495	U2496	U2497	U2498	U2499	U2500	U2501	U2502	U2503	U2504	U2505	U2506	U2507	U2508	U2509	U2510	U2511	U2512	U2513	U2514	U2515	U2516	U2517	U2518	U2519	U2520	U2521	U2522	U2523	U2524	U2525	U2526	U2527	U2528	U2529	U2530	U2531	U2



• Molecule 24: 50S ribosomal protein L11

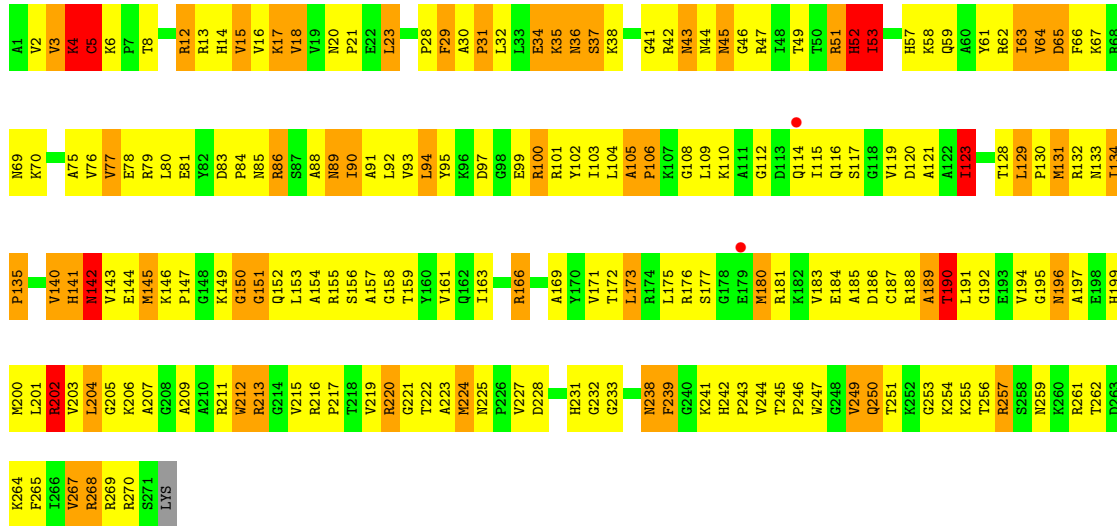


• Molecule 24: 50S ribosomal protein L11

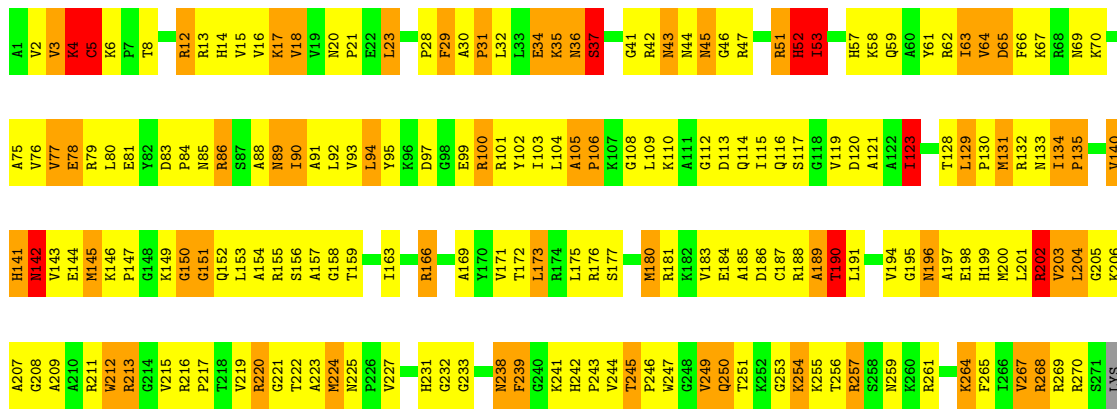
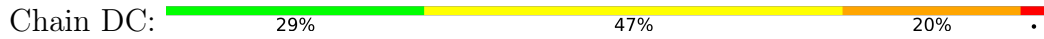


• Molecule 25: 50S ribosomal protein L2

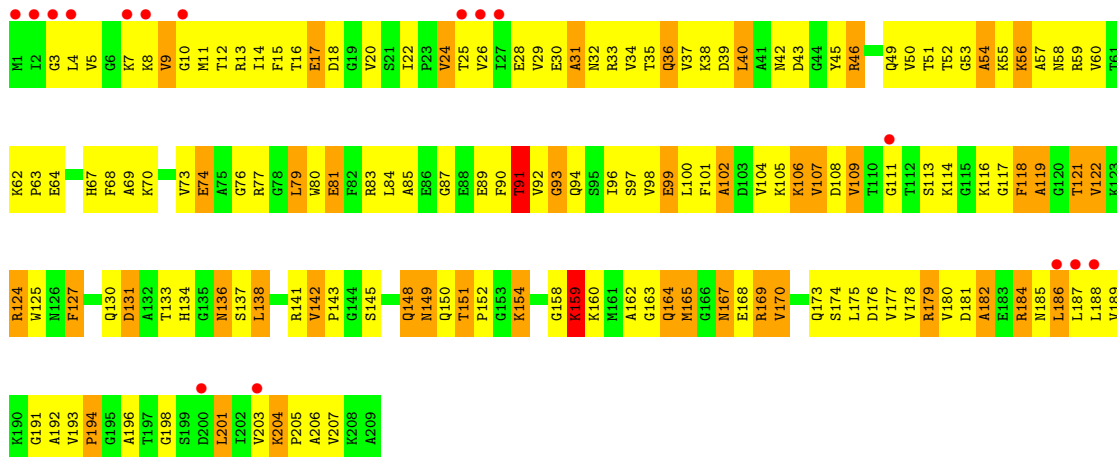




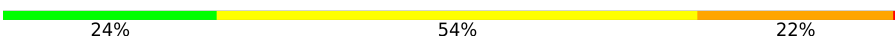
• Molecule 25: 50S ribosomal protein L2

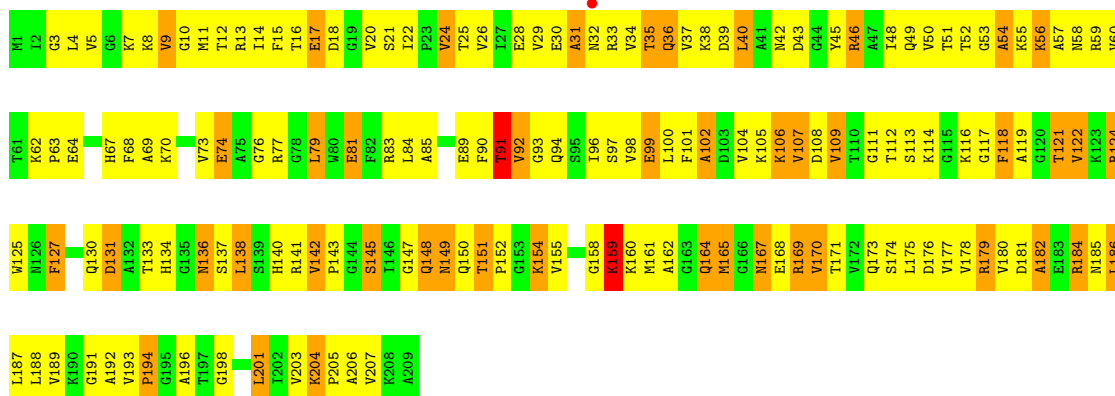


• Molecule 26: 50S ribosomal protein L3



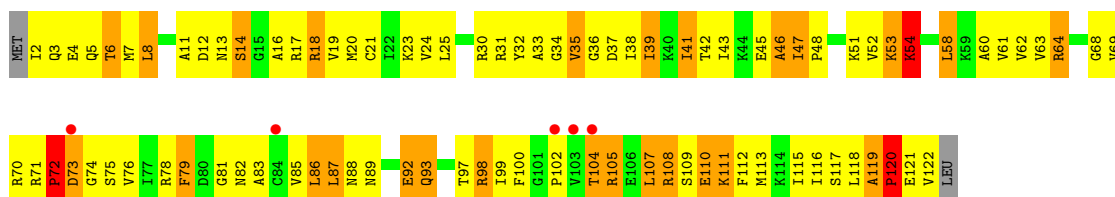
- Molecule 26: 50S ribosomal protein L3

Chain DD:  24% 54% 22%



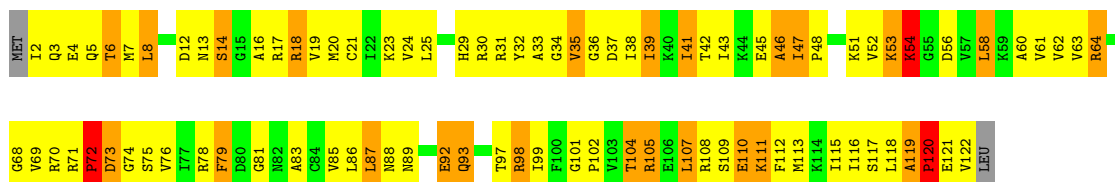
- Molecule 27: 50S ribosomal protein L14

Chain BK:  4% 25% 50% 21%



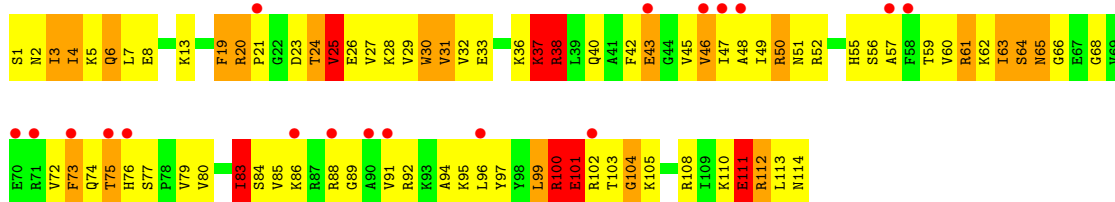
- Molecule 27: 50S ribosomal protein L14

Chain DK:  25% 51% 20%

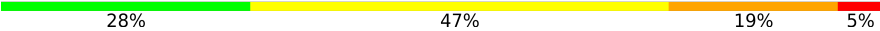


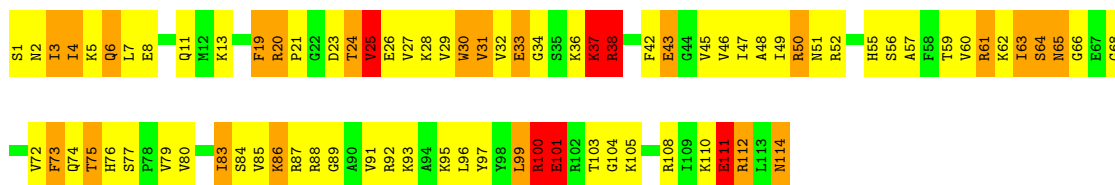
- Molecule 28: 50S ribosomal protein L19

Chain BP:  16% 28% 48% 18% 6%

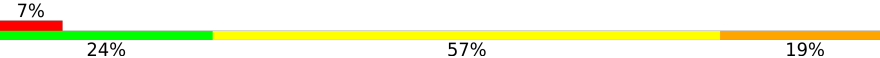


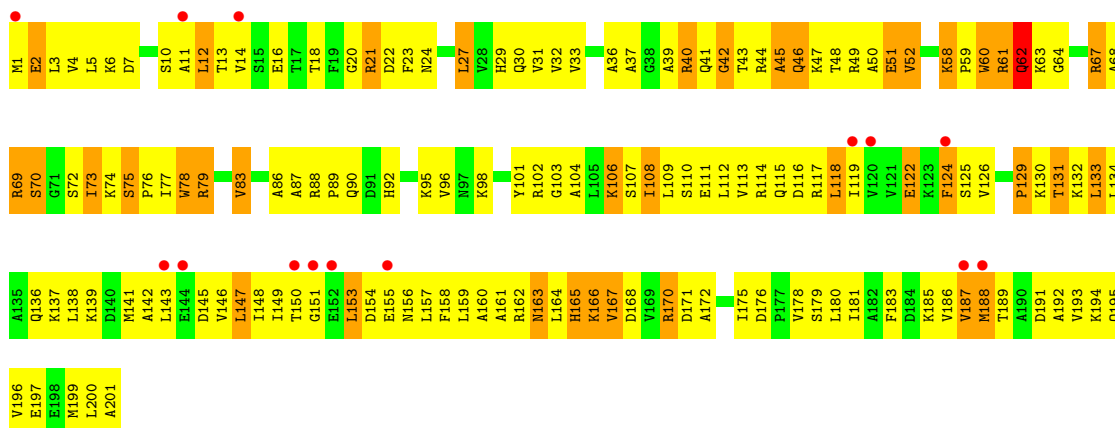
- Molecule 28: 50S ribosomal protein L19

Chain DP: 



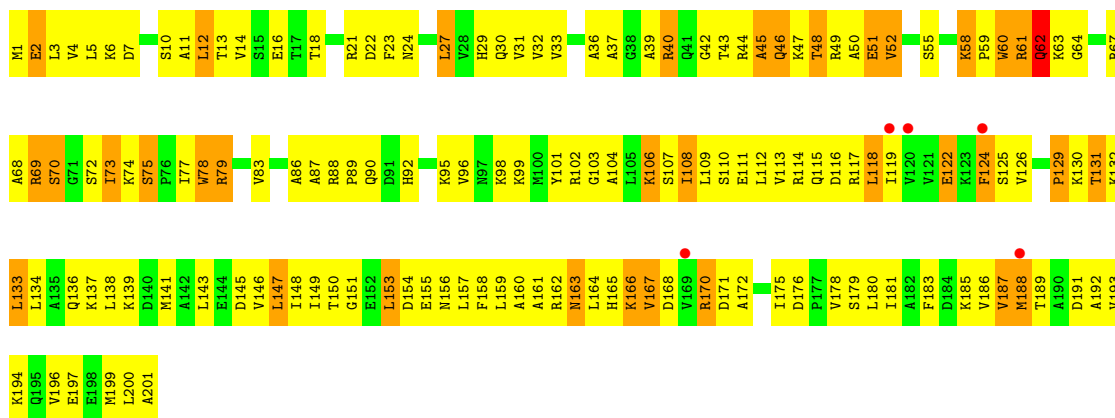
• Molecule 29: 50S ribosomal protein L4

Chain BE: 



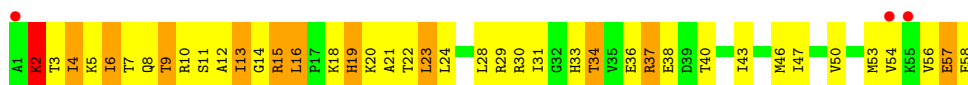
• Molecule 29: 50S ribosomal protein L4

Chain DE: 

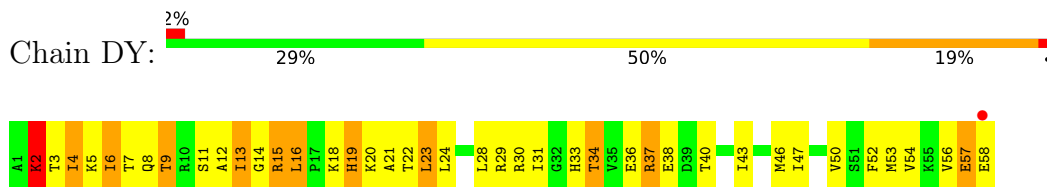


• Molecule 30: 50S ribosomal protein L30

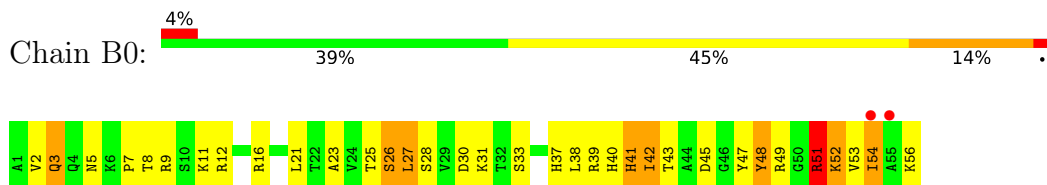
Chain BY: 



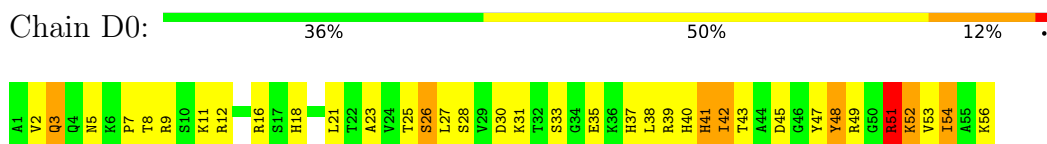
- Molecule 30: 50S ribosomal protein L30



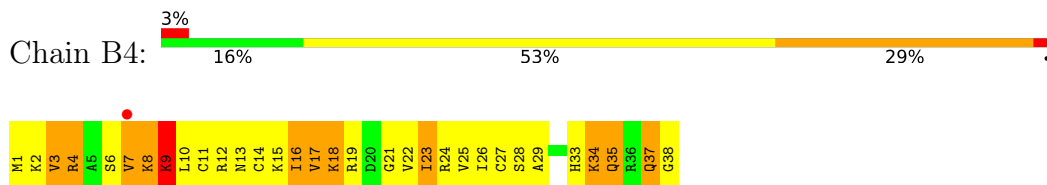
- Molecule 31: 50S ribosomal protein L32



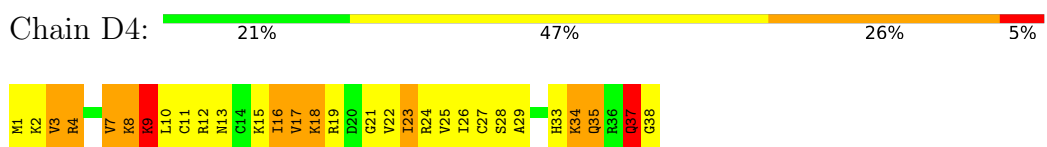
- Molecule 31: 50S ribosomal protein L32



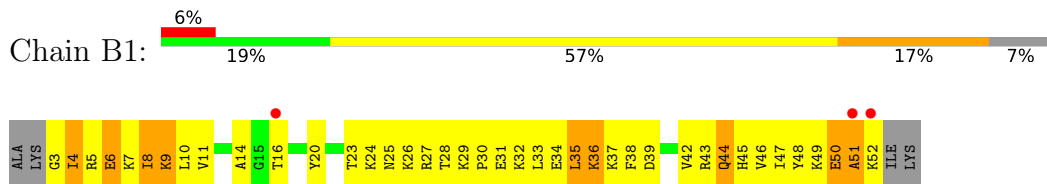
- Molecule 32: 50S ribosomal protein L36



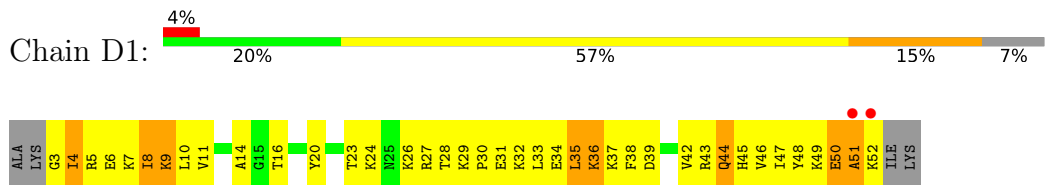
- Molecule 32: 50S ribosomal protein L36



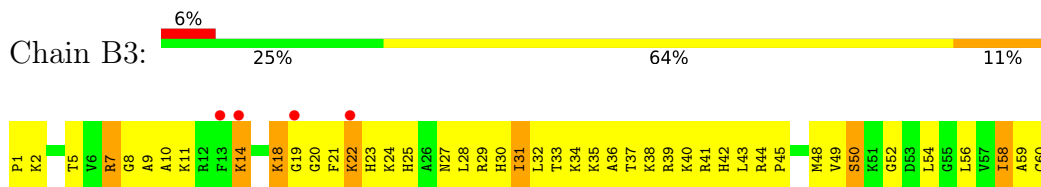
- Molecule 33: 50S ribosomal protein L33



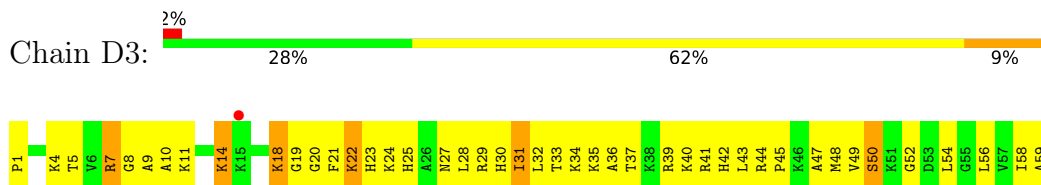
- Molecule 33: 50S ribosomal protein L33



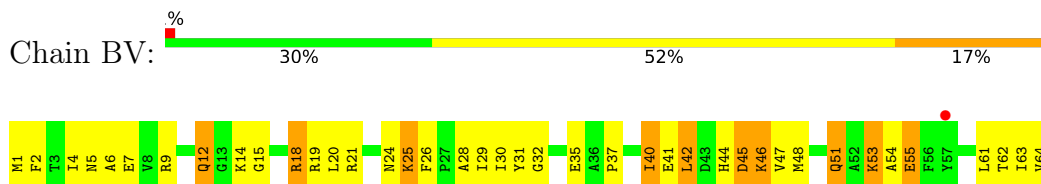
- Molecule 34: 50S ribosomal protein L35



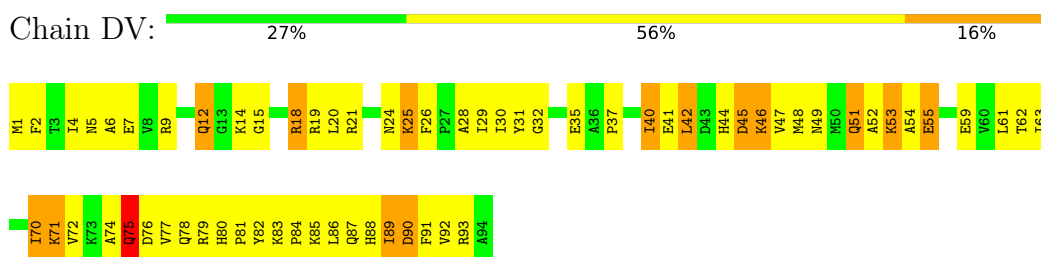
- Molecule 34: 50S ribosomal protein L35



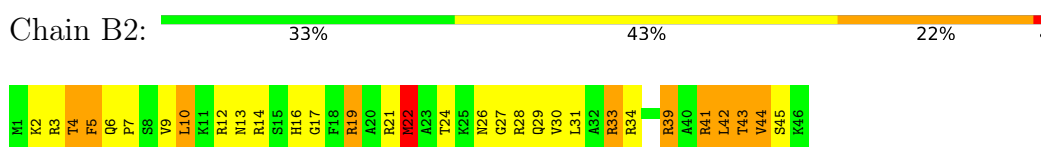
- Molecule 35: 50S ribosomal protein L25



- Molecule 35: 50S ribosomal protein L25

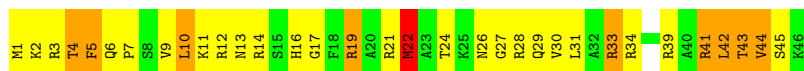


- Molecule 36: 50S ribosomal protein L34

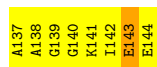
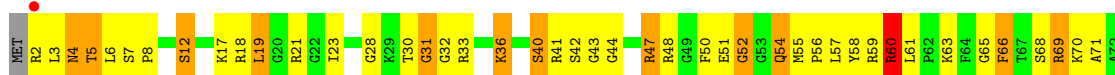


- Molecule 36: 50S ribosomal protein L34

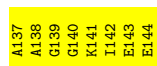
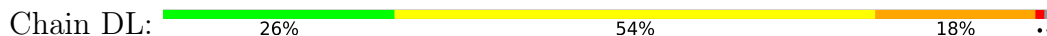




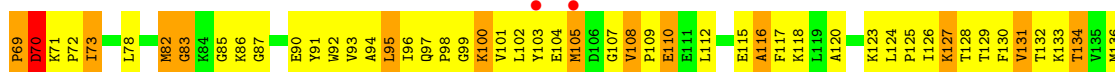
● Molecule 37: 50S ribosomal protein L15



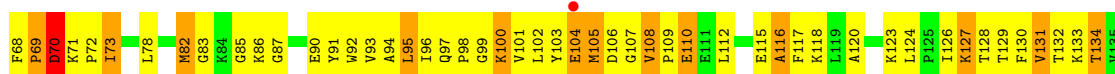
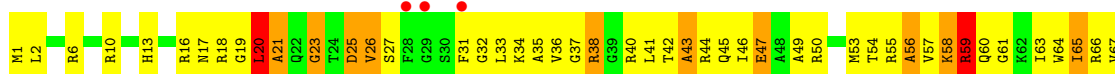
● Molecule 37: 50S ribosomal protein L15



● Molecule 38: 50S ribosomal protein L16

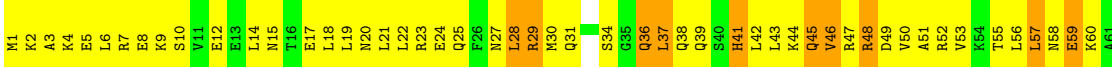


● Molecule 38: 50S ribosomal protein L16



M136

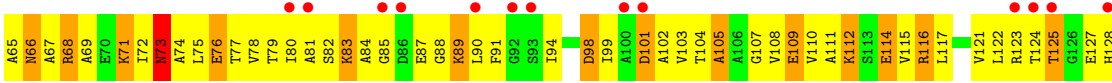
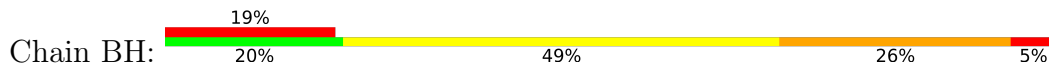
• Molecule 39: 50S ribosomal protein L29



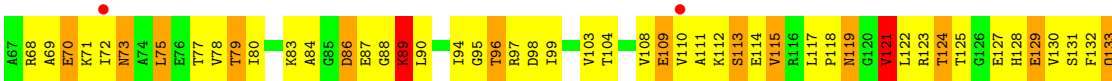
• Molecule 39: 50S ribosomal protein L29

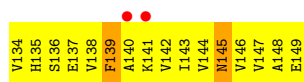


• Molecule 40: 50S ribosomal protein L9

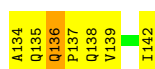
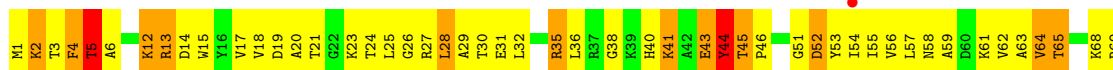


• Molecule 40: 50S ribosomal protein L9

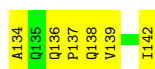




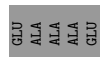
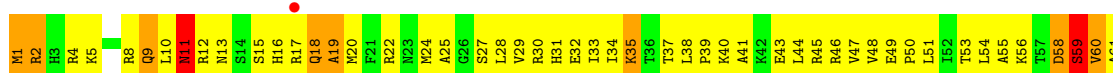
- Molecule 41: 50S ribosomal protein L13



- Molecule 41: 50S ribosomal protein L13



- Molecule 42: 50S ribosomal protein L17

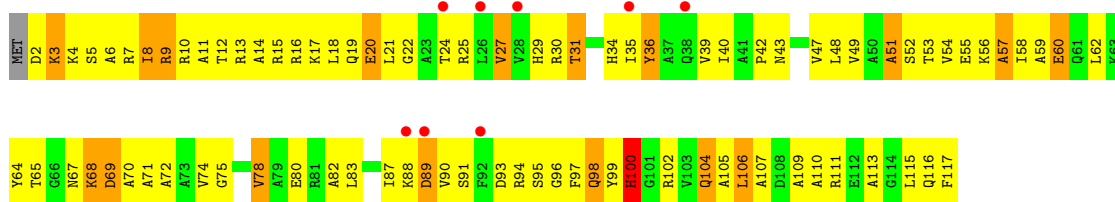


- Molecule 42: 50S ribosomal protein L17

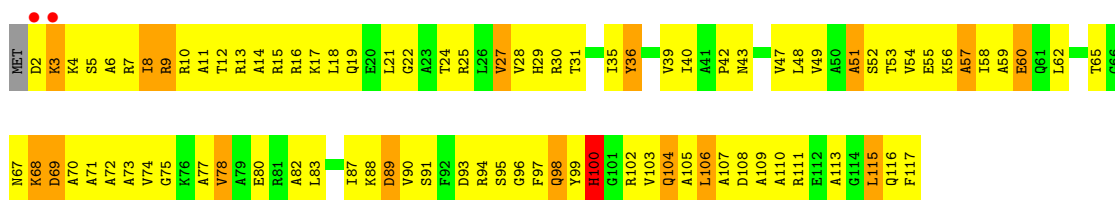




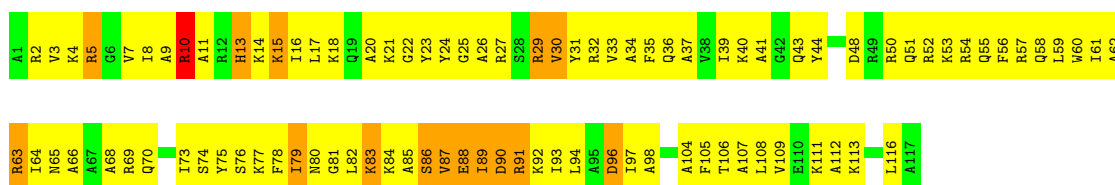
- Molecule 43: 50S ribosomal protein L18



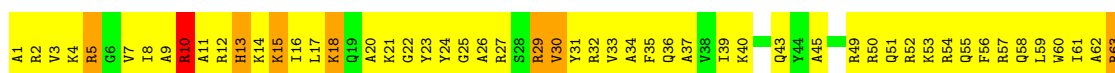
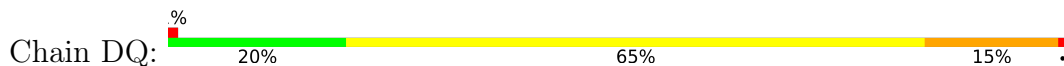
- Molecule 43: 50S ribosomal protein L18

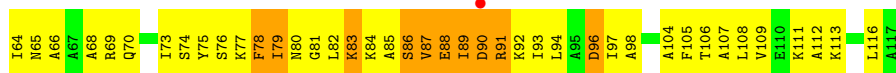


- Molecule 44: 50S ribosomal protein L20



- Molecule 44: 50S ribosomal protein L20





• Molecule 45: 50S ribosomal protein L22



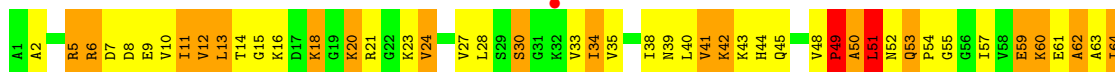
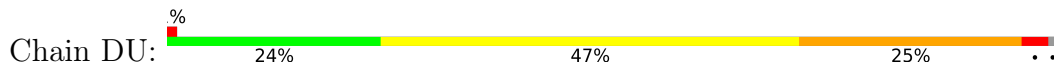
• Molecule 45: 50S ribosomal protein L22



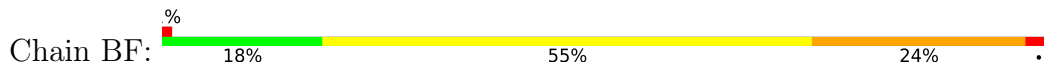
• Molecule 46: 50S ribosomal protein L24

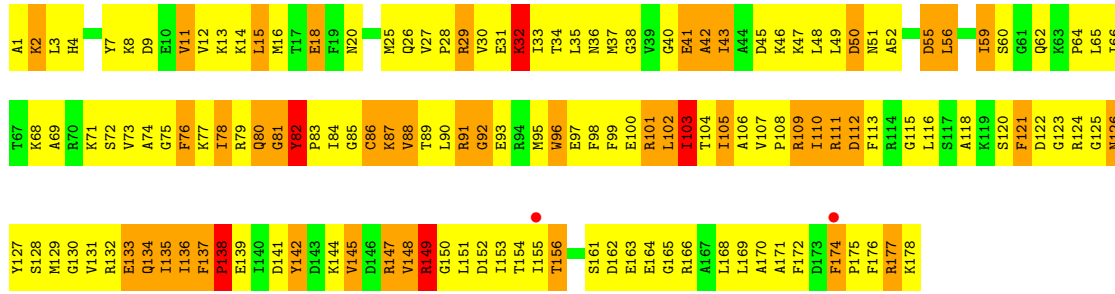


• Molecule 46: 50S ribosomal protein L24

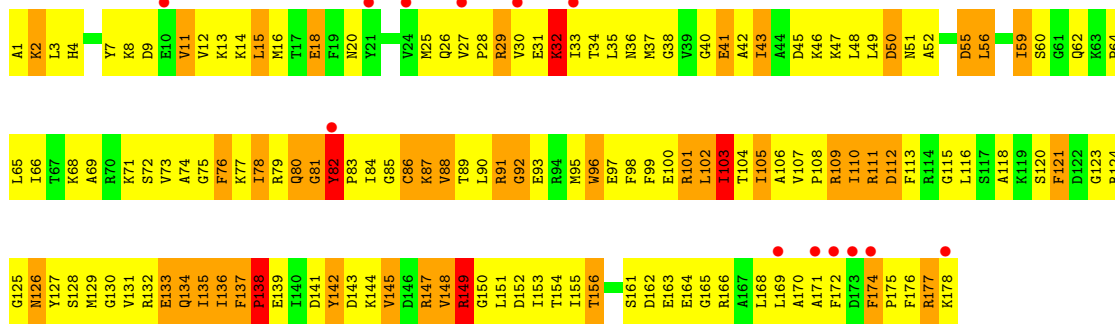
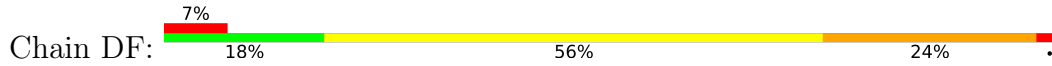


• Molecule 47: 50S ribosomal protein L5

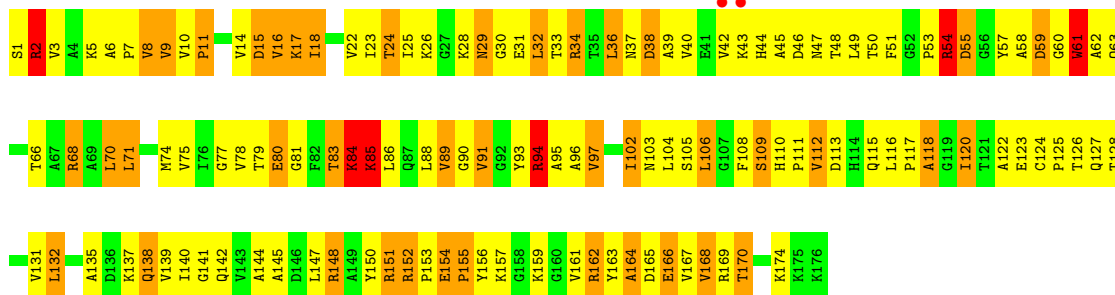




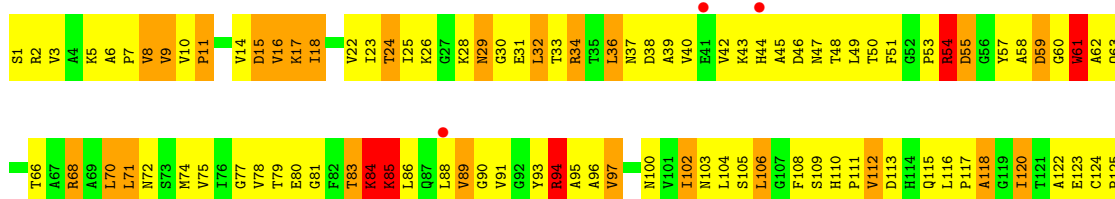
- Molecule 47: 50S ribosomal protein L5

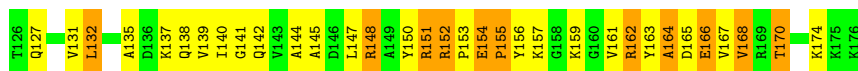


- Molecule 48: 50S ribosomal protein L6

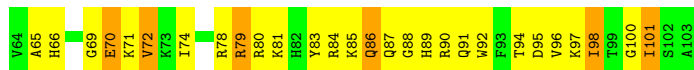
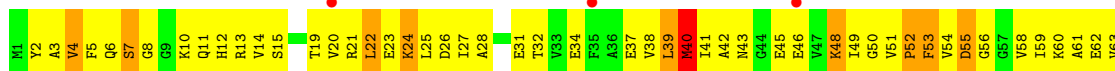


- Molecule 48: 50S ribosomal protein L6

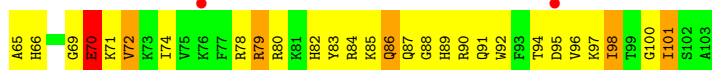
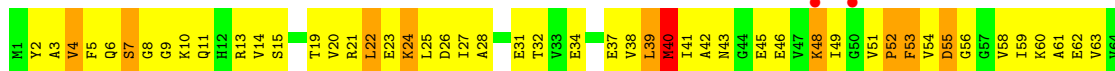




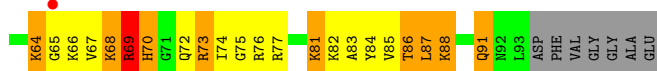
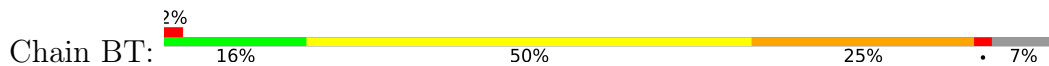
• Molecule 49: 50S ribosomal protein L21



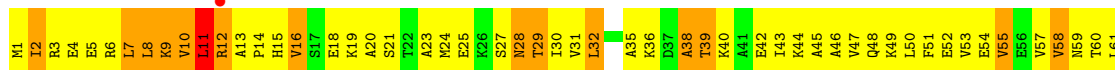
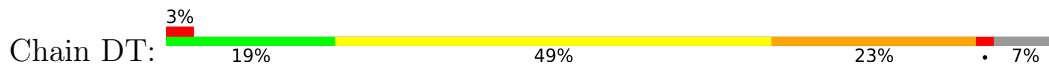
• Molecule 49: 50S ribosomal protein L21



• Molecule 50: 50S ribosomal protein L23

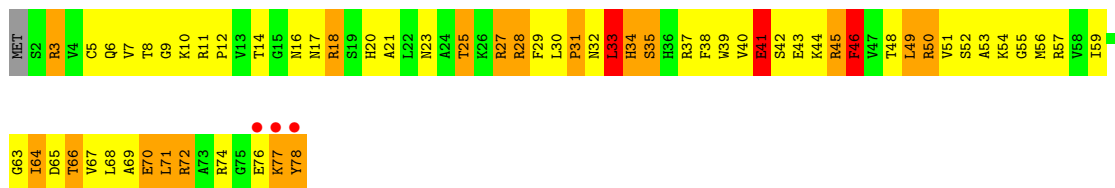


• Molecule 50: 50S ribosomal protein L23

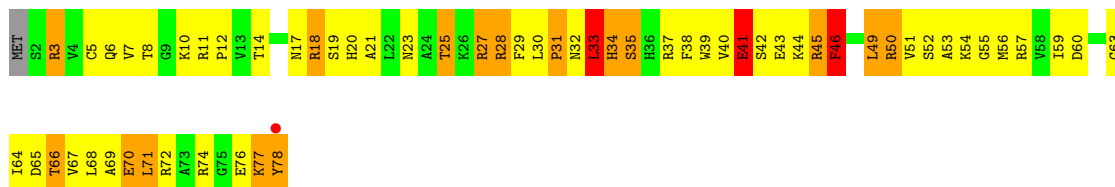


• Molecule 51: 50S ribosomal protein L28

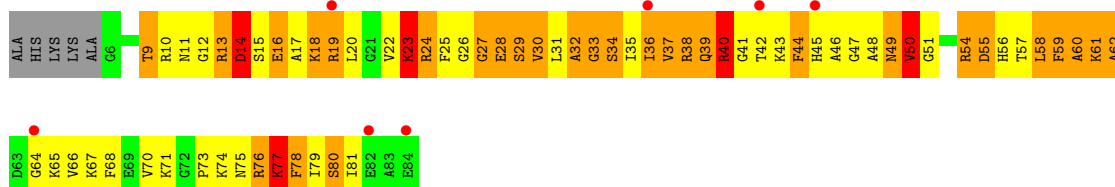




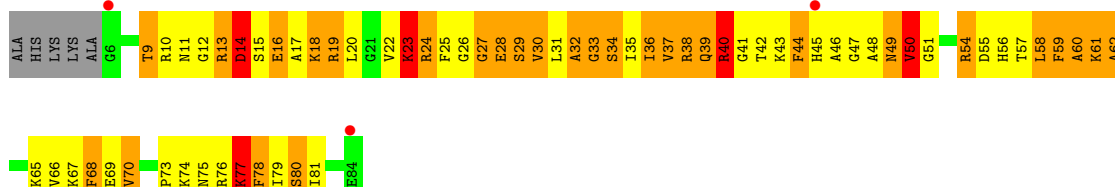
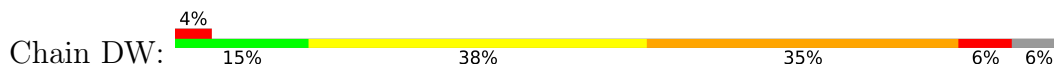
• Molecule 51: 50S ribosomal protein L28



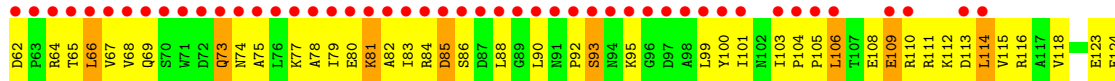
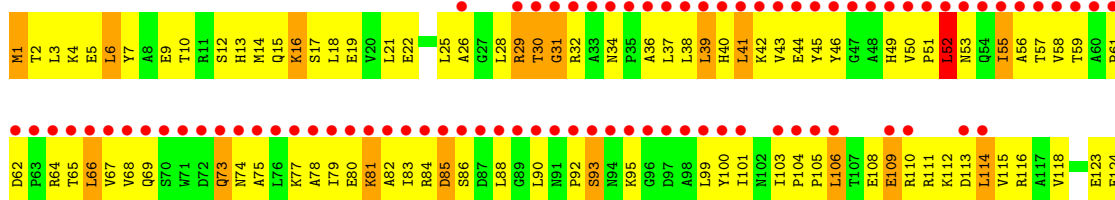
• Molecule 52: 50S ribosomal protein L27



• Molecule 52: 50S ribosomal protein L27

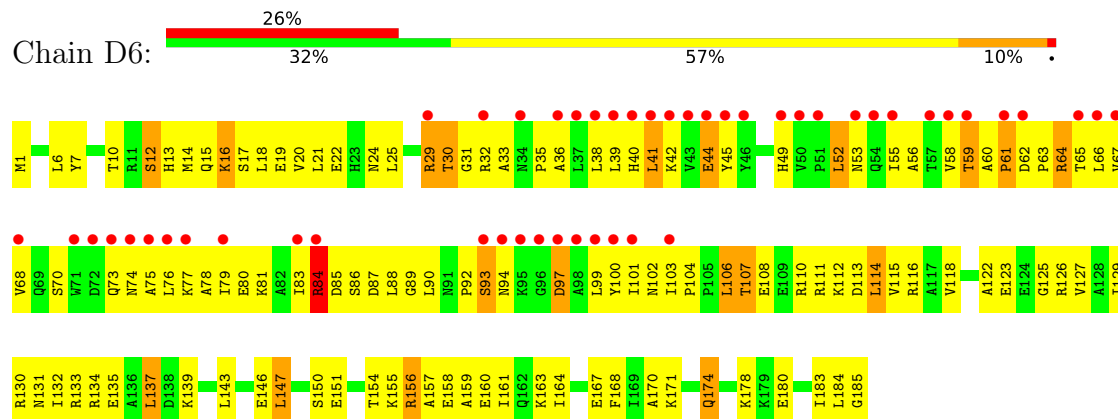


• Molecule 53: 50S ribosomal protein RRF





• Molecule 53: 50S ribosomal protein RRF



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	208.54Å 378.89Å 736.90Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 4.00 138.07 – 4.15	Depositor EDS
% Data completeness (in resolution range)	87.4 (40.00-4.00) 87.4 (138.07-4.15)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.14 (at 4.15Å)	Xtrriage
Refinement program	CNS	Depositor
R, R_{free}	0.261 , 0.305 0.232 , 0.271	Depositor DCC
R_{free} test set	18876 reflections (4.93%)	wwPDB-VP
Wilson B-factor (Å ²)	133.1	Xtrriage
Anisotropy	0.323	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.22 , 74.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	287083	wwPDB-VP
Average B, all atoms (Å ²)	72.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.69% 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: LLL, MG, ZN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	AA	0.29	3/36762 (0.0%)	0.78	21/57350 (0.0%)
1	CA	0.29	4/36762 (0.0%)	0.78	22/57350 (0.0%)
2	AC	0.23	0/1651	0.44	0/2225
2	CC	0.23	0/1651	0.44	0/2225
3	AD	0.23	0/1665	0.44	0/2227
3	CD	0.23	0/1665	0.44	0/2227
4	AE	0.23	0/1118	0.46	0/1504
4	CE	0.23	0/1118	0.46	0/1504
5	AF	0.24	0/835	0.45	0/1128
5	CF	0.24	0/835	0.45	0/1128
6	AG	0.23	0/1187	0.46	0/1591
6	CG	0.23	0/1211	0.46	0/1624
7	AH	0.23	0/989	0.44	0/1326
7	CH	0.23	0/989	0.44	0/1326
8	AI	0.24	0/1034	0.46	0/1375
8	CI	0.24	0/1033	0.46	0/1375
9	AJ	0.22	0/796	0.48	0/1077
9	CJ	0.22	0/796	0.48	0/1077
10	AK	0.24	0/893	0.46	0/1205
10	CK	0.24	0/893	0.46	0/1205
11	AL	0.22	0/969	0.50	0/1300
11	CL	0.22	0/969	0.50	0/1300
12	AM	0.21	0/892	0.46	0/1193
12	CM	0.21	0/884	0.46	0/1181
13	AN	0.24	0/785	0.45	0/1043
13	CN	0.24	0/785	0.45	0/1043
14	AO	0.23	0/722	0.47	0/964
14	CO	0.23	0/722	0.47	0/964
15	AP	0.25	0/659	0.46	0/884
15	CP	0.25	0/648	0.47	0/870
16	AQ	0.24	0/657	0.47	0/881
16	CQ	0.24	0/666	0.47	0/892

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AR	0.23	0/462	0.46	0/621
17	CR	0.23	0/462	0.46	0/621
18	AS	0.25	0/652	0.47	0/877
18	CS	0.25	0/660	0.48	0/888
19	AT	0.23	0/671	0.39	0/888
19	CT	0.23	0/671	0.39	0/888
20	AB	0.25	0/1735	0.45	0/2338
20	CB	0.25	0/1735	0.45	0/2338
21	AU	0.26	0/430	0.48	0/570
21	CU	0.26	0/430	0.48	0/570
22	BA	0.28	0/2803	0.76	1/4371 (0.0%)
22	DA	0.28	0/2803	0.76	0/4371
23	BB	0.28	6/68314 (0.0%)	0.78	48/106569 (0.0%)
23	DB	0.30	6/68314 (0.0%)	0.79	48/106569 (0.0%)
24	BI	0.24	0/1046	0.47	0/1410
24	DI	0.25	0/1046	0.48	0/1410
25	BC	0.22	0/2121	0.48	0/2852
25	DC	0.22	0/2121	0.48	0/2852
26	BD	0.24	0/1586	0.49	0/2134
26	DD	0.24	0/1586	0.49	0/2134
27	BK	0.24	0/939	0.55	0/1258
27	DK	0.24	0/939	0.55	0/1258
28	BP	0.24	0/929	0.51	0/1242
28	DP	0.24	0/929	0.51	0/1242
29	BE	0.24	0/1571	0.51	0/2113
29	DE	0.24	0/1571	0.51	0/2113
30	BY	0.23	0/453	0.49	0/605
30	DY	0.23	0/453	0.49	0/605
31	B0	0.22	0/450	0.55	0/599
31	D0	0.23	0/450	0.55	0/599
32	B4	0.23	0/303	0.47	0/397
32	D4	0.23	0/303	0.47	0/397
33	B1	0.27	0/416	0.49	0/554
33	D1	0.27	0/416	0.49	0/554
34	B3	0.24	0/513	0.48	0/676
34	D3	0.24	0/513	0.48	0/676
35	BV	0.25	0/766	0.43	0/1025
35	DV	0.25	0/766	0.43	0/1025
36	B2	0.25	0/380	0.48	0/498
36	D2	0.25	0/380	0.48	0/498
37	BL	0.23	0/1054	0.48	0/1403
37	DL	0.23	0/1054	0.48	0/1403
38	BM	0.25	0/1093	0.48	0/1460

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DM	0.25	0/1093	0.48	0/1460
39	BX	0.24	0/510	0.53	0/677
39	DX	0.24	0/510	0.53	0/677
40	BH	0.25	0/1122	0.48	0/1515
40	DH	0.25	0/1122	0.48	0/1515
41	BJ	0.24	0/1152	0.48	0/1551
41	DJ	0.23	0/1152	0.48	0/1551
42	BN	0.24	0/973	0.51	0/1301
42	DN	0.24	0/973	0.51	0/1301
43	BO	0.23	0/902	0.49	0/1209
43	DO	0.23	0/902	0.49	0/1209
44	BQ	0.25	0/960	0.49	0/1278
44	DQ	0.26	0/960	0.49	0/1278
45	BS	0.22	0/864	0.52	0/1156
45	DS	0.22	0/864	0.52	0/1156
46	BU	0.25	0/787	0.47	0/1051
46	DU	0.25	0/787	0.47	0/1051
47	BF	0.26	0/1444	0.52	0/1937
47	DF	0.26	0/1444	0.52	0/1937
48	BG	0.23	0/1343	0.47	0/1816
48	DG	0.23	0/1343	0.47	0/1816
49	BR	0.25	0/829	0.50	0/1107
49	DR	0.25	0/829	0.50	0/1107
50	BT	0.23	0/744	0.55	0/994
50	DT	0.22	0/744	0.55	0/994
51	BZ	0.25	0/635	0.51	0/848
51	DZ	0.25	0/635	0.52	0/848
52	BW	0.28	0/603	0.51	0/797
52	DW	0.28	0/603	0.51	0/797
53	B6	0.23	0/1497	0.52	1/2017 (0.0%)
53	D6	0.30	0/1497	0.58	1/2017 (0.0%)
All	All	0.28	19/309353 (0.0%)	0.71	142/462003 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	16
1	CA	0	17
23	BB	0	35

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
23	DB	0	47
All	All	0	115

The worst 5 of 19 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BB	1086	A	C5-C6	-16.56	1.26	1.41
23	DB	1086	A	C5-C6	-16.53	1.26	1.41
23	DB	1088	A	C6-N1	-10.57	1.28	1.35
23	BB	1088	A	C6-N1	-10.52	1.28	1.35
1	CA	1213	A	P-OP1	-9.61	1.32	1.49

The worst 5 of 142 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1213	A	O5'-P-OP1	-31.90	72.42	110.70
1	AA	1213	A	O5'-P-OP2	-30.12	74.56	110.70
23	DB	2204	G	O5'-P-OP1	-29.74	75.02	110.70
23	BB	2204	G	O5'-P-OP2	-28.90	76.02	110.70
23	BB	2791	G	O5'-P-OP1	-28.07	77.02	110.70

There are no chirality outliers.

5 of 115 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	187	G	Sidechain
1	AA	281	G	Sidechain
1	AA	324	G	Sidechain
1	AA	437	U	Sidechain
1	AA	86	G	Sidechain

5.2 Too-close contacts

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	32831	0	16521	1290	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	CA	32831	0	16521	1350	0
2	AC	1624	0	1699	140	0
2	CC	1624	0	1699	146	0
3	AD	1643	0	1710	174	0
3	CD	1643	0	1710	170	0
4	AE	1105	0	1148	95	0
4	CE	1105	0	1148	96	0
5	AF	817	0	808	96	0
5	CF	817	0	808	94	0
6	AG	1174	0	1230	112	0
6	CG	1196	0	1246	106	0
7	AH	979	0	1034	95	0
7	CH	979	0	1034	96	0
8	AI	1022	0	1070	149	0
8	CI	1021	0	1070	149	0
9	AJ	786	0	828	77	0
9	CJ	786	0	828	80	0
10	AK	877	0	887	111	0
10	CK	877	0	887	114	0
11	AL	955	0	1019	92	0
11	CL	955	0	1019	91	0
12	AM	883	0	944	119	0
12	CM	876	0	937	120	0
13	AN	774	0	827	121	0
13	CN	774	0	827	131	0
14	AO	714	0	734	60	0
14	CO	714	0	734	54	0
15	AP	649	0	666	56	0
15	CP	638	0	656	57	0
16	AQ	648	0	691	71	0
16	CQ	657	0	702	67	0
17	AR	455	0	478	51	0
17	CR	455	0	478	56	0
18	AS	637	0	665	85	0
18	CS	644	0	675	87	0
19	AT	665	0	714	68	0
19	CT	665	0	714	70	0
20	AB	1704	0	1732	220	0
20	CB	1704	0	1732	211	0
21	AU	425	0	449	79	0
21	CU	425	0	449	89	0
22	BA	2507	0	1270	106	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	DA	2507	0	1270	108	0
23	BB	60995	0	30678	2536	0
23	DB	60995	0	30678	2543	0
24	BI	1032	0	1088	119	0
24	DI	1032	0	1088	181	0
25	BC	2082	0	2157	239	0
25	DC	2082	0	2157	241	0
26	BD	1565	0	1616	206	0
26	DD	1565	0	1616	216	0
27	BK	930	0	1000	122	0
27	DK	930	0	1000	122	0
28	BP	917	0	965	102	0
28	DP	917	0	965	108	0
29	BE	1552	0	1619	194	0
29	DE	1552	0	1619	181	0
30	BY	449	0	491	49	0
30	DY	449	0	491	55	0
31	B0	444	0	461	49	0
31	D0	444	0	461	47	0
32	B4	302	0	340	38	0
32	D4	302	0	340	44	0
33	B1	409	0	440	58	0
33	D1	409	0	440	54	0
34	B3	504	0	574	51	0
34	D3	504	0	574	48	0
35	BV	753	0	780	97	0
35	DV	753	0	780	102	0
36	B2	377	0	418	38	0
36	D2	377	0	418	38	0
37	BL	1045	0	1117	148	0
37	DL	1045	0	1117	153	0
38	BM	1074	0	1157	129	0
38	DM	1074	0	1157	121	0
39	BX	509	0	543	55	0
39	DX	509	0	543	60	0
40	BH	1111	0	1148	186	0
40	DH	1111	0	1148	158	0
41	BJ	1129	0	1162	136	0
41	DJ	1129	0	1162	137	0
42	BN	960	0	1000	130	0
42	DN	960	0	1000	129	0
43	BO	892	0	923	94	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	DO	892	0	923	96	0
44	BQ	947	0	1022	171	0
44	DQ	947	0	1022	178	0
45	BS	857	0	922	101	0
45	DS	857	0	922	101	0
46	BU	779	0	834	114	0
46	DU	779	0	834	109	0
47	BF	1420	0	1460	223	0
47	DF	1420	0	1460	216	0
48	BG	1323	0	1374	218	0
48	DG	1323	0	1374	195	0
49	BR	816	0	839	113	0
49	DR	816	0	839	128	0
50	BT	738	0	807	125	0
50	DT	738	0	807	121	0
51	BZ	625	0	652	82	0
51	DZ	625	0	652	82	0
52	BW	596	0	610	120	0
52	DW	596	0	610	126	0
53	B6	1478	0	1526	192	0
53	D6	1478	0	1526	150	0
54	AA	60	0	0	0	0
54	BB	110	0	0	0	0
54	CA	61	0	0	0	0
54	CE	1	0	0	0	0
54	DB	111	0	0	0	0
55	AA	31	0	39	0	0
55	BB	31	0	39	2	0
55	CA	31	0	39	3	0
55	DB	31	0	39	0	0
56	B4	1	0	0	0	0
56	D4	1	0	0	0	0
57	AA	287	0	0	1	0
57	AE	3	0	0	0	0
57	AK	1	0	0	0	0
57	AL	3	0	0	0	0
57	AN	4	0	0	0	0
57	AT	2	0	0	0	0
57	BB	492	0	0	8	0
57	BC	6	0	0	0	0
57	BD	1	0	0	0	0
57	BE	3	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	BL	3	0	0	0	0
57	BT	1	0	0	0	0
57	CA	296	0	0	2	0
57	CE	3	0	0	0	0
57	CK	1	0	0	0	0
57	CL	3	0	0	0	0
57	CN	4	0	0	0	0
57	CT	2	0	0	0	0
57	DB	500	0	0	7	0
57	DC	6	0	0	0	0
57	DE	2	0	0	0	0
57	DL	2	0	0	0	0
57	DR	1	0	0	0	0
57	DT	1	0	0	0	0
All	All	287083	0	193870	17818	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 37.

The worst 5 of 17818 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)
23:DB:1099:G:H8	24:DI:3:LYS:N	1.36	1.20
40:BH:31:VAL:HB	40:BH:32:PRO:HD2	1.23	1.17
21:CU:36:PHE:HB3	21:CU:40:PRO:HD3	1.28	1.14
21:AU:36:PHE:HB3	21:AU:40:PRO:HD3	1.29	1.11
25:DC:144:GLU:HA	25:DC:151:GLY:HA2	1.33	1.11

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 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	AC	204/232 (88%)	151 (74%)	38 (19%)	15 (7%)	1	15
2	CC	204/232 (88%)	152 (74%)	37 (18%)	15 (7%)	1	15
3	AD	203/205 (99%)	151 (74%)	39 (19%)	13 (6%)	1	18
3	CD	203/205 (99%)	148 (73%)	42 (21%)	13 (6%)	1	18
4	AE	148/166 (89%)	117 (79%)	25 (17%)	6 (4%)	3	25
4	CE	148/166 (89%)	117 (79%)	25 (17%)	6 (4%)	3	25
5	AF	98/135 (73%)	64 (65%)	25 (26%)	9 (9%)	1	11
5	CF	98/135 (73%)	65 (66%)	24 (24%)	9 (9%)	1	11
6	AG	148/178 (83%)	106 (72%)	33 (22%)	9 (6%)	1	19
6	CG	150/178 (84%)	112 (75%)	29 (19%)	9 (6%)	1	19
7	AH	127/129 (98%)	98 (77%)	23 (18%)	6 (5%)	2	23
7	CH	127/129 (98%)	96 (76%)	25 (20%)	6 (5%)	2	23
8	AI	125/129 (97%)	99 (79%)	17 (14%)	9 (7%)	1	16
8	CI	125/129 (97%)	98 (78%)	18 (14%)	9 (7%)	1	16
9	AJ	96/103 (93%)	70 (73%)	13 (14%)	13 (14%)	0	4
9	CJ	96/103 (93%)	71 (74%)	12 (12%)	13 (14%)	0	4
10	AK	115/128 (90%)	87 (76%)	22 (19%)	6 (5%)	2	21
10	CK	115/128 (90%)	87 (76%)	22 (19%)	6 (5%)	2	21
11	AL	121/123 (98%)	73 (60%)	33 (27%)	15 (12%)	0	5
11	CL	121/123 (98%)	75 (62%)	31 (26%)	15 (12%)	0	5
12	AM	112/117 (96%)	79 (70%)	24 (21%)	9 (8%)	1	14
12	CM	111/117 (95%)	76 (68%)	25 (22%)	10 (9%)	1	12
13	AN	92/100 (92%)	59 (64%)	26 (28%)	7 (8%)	1	14
13	CN	92/100 (92%)	60 (65%)	24 (26%)	8 (9%)	1	12
14	AO	86/89 (97%)	59 (69%)	22 (26%)	5 (6%)	1	19
14	CO	86/89 (97%)	60 (70%)	22 (26%)	4 (5%)	2	23
15	AP	80/82 (98%)	59 (74%)	16 (20%)	5 (6%)	1	18
15	CP	78/82 (95%)	56 (72%)	16 (20%)	6 (8%)	1	14
16	AQ	78/83 (94%)	58 (74%)	15 (19%)	5 (6%)	1	18
16	CQ	79/83 (95%)	59 (75%)	15 (19%)	5 (6%)	1	18
17	AR	53/74 (72%)	41 (77%)	9 (17%)	3 (6%)	1	19
17	CR	53/74 (72%)	41 (77%)	9 (17%)	3 (6%)	1	19

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	AS	77/91 (85%)	60 (78%)	12 (16%)	5 (6%)	1	18
18	CS	78/91 (86%)	61 (78%)	11 (14%)	6 (8%)	1	14
19	AT	83/86 (96%)	63 (76%)	15 (18%)	5 (6%)	1	19
19	CT	83/86 (96%)	62 (75%)	16 (19%)	5 (6%)	1	19
20	AB	216/240 (90%)	142 (66%)	57 (26%)	17 (8%)	1	14
20	CB	216/240 (90%)	134 (62%)	65 (30%)	17 (8%)	1	14
21	AU	49/70 (70%)	28 (57%)	11 (22%)	10 (20%)	0	2
21	CU	49/70 (70%)	28 (57%)	12 (24%)	9 (18%)	0	2
24	BI	139/141 (99%)	120 (86%)	14 (10%)	5 (4%)	3	28
24	DI	139/141 (99%)	114 (82%)	20 (14%)	5 (4%)	3	28
25	BC	269/272 (99%)	155 (58%)	66 (24%)	48 (18%)	0	2
25	DC	269/272 (99%)	155 (58%)	65 (24%)	49 (18%)	0	2
26	BD	207/209 (99%)	122 (59%)	54 (26%)	31 (15%)	0	3
26	DD	207/209 (99%)	124 (60%)	51 (25%)	32 (16%)	0	3
27	BK	119/123 (97%)	78 (66%)	24 (20%)	17 (14%)	0	3
27	DK	119/123 (97%)	78 (66%)	24 (20%)	17 (14%)	0	3
28	BP	112/114 (98%)	61 (54%)	32 (29%)	19 (17%)	0	3
28	DP	112/114 (98%)	61 (54%)	34 (30%)	17 (15%)	0	3
29	BE	199/201 (99%)	125 (63%)	50 (25%)	24 (12%)	0	5
29	DE	199/201 (99%)	125 (63%)	51 (26%)	23 (12%)	0	6
30	BY	56/58 (97%)	39 (70%)	12 (21%)	5 (9%)	1	12
30	DY	56/58 (97%)	39 (70%)	12 (21%)	5 (9%)	1	12
31	B0	54/56 (96%)	39 (72%)	8 (15%)	7 (13%)	0	4
31	D0	54/56 (96%)	39 (72%)	8 (15%)	7 (13%)	0	4
32	B4	36/38 (95%)	16 (44%)	10 (28%)	10 (28%)	0	0
32	D4	36/38 (95%)	16 (44%)	10 (28%)	10 (28%)	0	0
33	B1	48/54 (89%)	37 (77%)	7 (15%)	4 (8%)	1	13
33	D1	48/54 (89%)	36 (75%)	8 (17%)	4 (8%)	1	13
34	B3	62/64 (97%)	35 (56%)	21 (34%)	6 (10%)	0	10
34	D3	62/64 (97%)	34 (55%)	22 (36%)	6 (10%)	0	10
35	BV	92/94 (98%)	64 (70%)	22 (24%)	6 (6%)	1	18

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	DV	92/94 (98%)	62 (67%)	24 (26%)	6 (6%)	1	18
36	B2	44/46 (96%)	30 (68%)	10 (23%)	4 (9%)	1	12
36	D2	44/46 (96%)	30 (68%)	10 (23%)	4 (9%)	1	12
37	BL	141/144 (98%)	89 (63%)	31 (22%)	21 (15%)	0	3
37	DL	141/144 (98%)	89 (63%)	32 (23%)	20 (14%)	0	3
38	BM	134/136 (98%)	84 (63%)	29 (22%)	21 (16%)	0	3
38	DM	134/136 (98%)	83 (62%)	31 (23%)	20 (15%)	0	3
39	BX	61/63 (97%)	36 (59%)	17 (28%)	8 (13%)	0	4
39	DX	61/63 (97%)	36 (59%)	17 (28%)	8 (13%)	0	4
40	BH	147/149 (99%)	76 (52%)	46 (31%)	25 (17%)	0	3
40	DH	147/149 (99%)	91 (62%)	33 (22%)	23 (16%)	0	3
41	BJ	140/142 (99%)	85 (61%)	37 (26%)	18 (13%)	0	4
41	DJ	140/142 (99%)	85 (61%)	36 (26%)	19 (14%)	0	4
42	BN	118/127 (93%)	76 (64%)	29 (25%)	13 (11%)	0	7
42	DN	118/127 (93%)	77 (65%)	28 (24%)	13 (11%)	0	7
43	BO	114/117 (97%)	74 (65%)	29 (25%)	11 (10%)	0	10
43	DO	114/117 (97%)	75 (66%)	27 (24%)	12 (10%)	0	8
44	BQ	115/117 (98%)	75 (65%)	31 (27%)	9 (8%)	1	14
44	DQ	115/117 (98%)	75 (65%)	29 (25%)	11 (10%)	0	10
45	BS	108/110 (98%)	68 (63%)	29 (27%)	11 (10%)	0	9
45	DS	108/110 (98%)	66 (61%)	31 (29%)	11 (10%)	0	9
46	BU	100/103 (97%)	58 (58%)	23 (23%)	19 (19%)	0	2
46	DU	100/103 (97%)	59 (59%)	22 (22%)	19 (19%)	0	2
47	BF	176/178 (99%)	103 (58%)	44 (25%)	29 (16%)	0	3
47	DF	176/178 (99%)	105 (60%)	42 (24%)	29 (16%)	0	3
48	BG	174/176 (99%)	99 (57%)	42 (24%)	33 (19%)	0	2
48	DG	174/176 (99%)	101 (58%)	41 (24%)	32 (18%)	0	2
49	BR	101/103 (98%)	72 (71%)	20 (20%)	9 (9%)	1	12
49	DR	101/103 (98%)	74 (73%)	18 (18%)	9 (9%)	1	12
50	BT	91/100 (91%)	48 (53%)	23 (25%)	20 (22%)	0	1
50	DT	91/100 (91%)	46 (50%)	27 (30%)	18 (20%)	0	2

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	BZ	75/78 (96%)	50 (67%)	13 (17%)	12 (16%)	0	3
51	DZ	75/78 (96%)	50 (67%)	13 (17%)	12 (16%)	0	3
52	BW	77/84 (92%)	28 (36%)	23 (30%)	26 (34%)	0	0
52	DW	77/84 (92%)	28 (36%)	24 (31%)	25 (32%)	0	0
53	B6	183/185 (99%)	162 (88%)	16 (9%)	5 (3%)	5	34
53	D6	183/185 (99%)	152 (83%)	24 (13%)	7 (4%)	3	27
All	All	11607/12284 (94%)	7731 (67%)	2581 (22%)	1295 (11%)	0	7

5 of 1295 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AC	14	VAL
2	AC	54	ILE
2	AC	205	GLU
3	AD	24	VAL
3	AD	25	ARG

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	AC	170/189 (90%)	144 (85%)	26 (15%)	2	16
2	CC	170/189 (90%)	143 (84%)	27 (16%)	2	16
3	AD	172/172 (100%)	146 (85%)	26 (15%)	3	17
3	CD	172/172 (100%)	147 (86%)	25 (14%)	3	18
4	AE	113/125 (90%)	95 (84%)	18 (16%)	2	16
4	CE	113/125 (90%)	96 (85%)	17 (15%)	3	17
5	AF	87/116 (75%)	76 (87%)	11 (13%)	4	22
5	CF	87/116 (75%)	76 (87%)	11 (13%)	4	22
6	AG	123/146 (84%)	105 (85%)	18 (15%)	3	18
6	CG	125/146 (86%)	106 (85%)	19 (15%)	3	16

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	AH	104/104 (100%)	96 (92%)	8 (8%)	13	40
7	CH	104/104 (100%)	97 (93%)	7 (7%)	16	44
8	AI	105/106 (99%)	91 (87%)	14 (13%)	4	21
8	CI	105/106 (99%)	89 (85%)	16 (15%)	3	16
9	AJ	86/90 (96%)	76 (88%)	10 (12%)	5	24
9	CJ	86/90 (96%)	76 (88%)	10 (12%)	5	24
10	AK	90/98 (92%)	77 (86%)	13 (14%)	3	18
10	CK	90/98 (92%)	75 (83%)	15 (17%)	2	14
11	AL	103/103 (100%)	86 (84%)	17 (16%)	2	14
11	CL	103/103 (100%)	85 (82%)	18 (18%)	2	12
12	AM	92/95 (97%)	77 (84%)	15 (16%)	2	15
12	CM	91/95 (96%)	76 (84%)	15 (16%)	2	14
13	AN	79/83 (95%)	62 (78%)	17 (22%)	1	6
13	CN	79/83 (95%)	62 (78%)	17 (22%)	1	6
14	AO	76/77 (99%)	69 (91%)	7 (9%)	9	32
14	CO	76/77 (99%)	69 (91%)	7 (9%)	9	32
15	AP	65/65 (100%)	59 (91%)	6 (9%)	9	32
15	CP	65/65 (100%)	59 (91%)	6 (9%)	9	32
16	AQ	74/77 (96%)	61 (82%)	13 (18%)	2	12
16	CQ	75/77 (97%)	63 (84%)	12 (16%)	2	15
17	AR	48/64 (75%)	40 (83%)	8 (17%)	2	14
17	CR	48/64 (75%)	39 (81%)	9 (19%)	1	10
18	AS	70/78 (90%)	56 (80%)	14 (20%)	1	8
18	CS	71/78 (91%)	57 (80%)	14 (20%)	1	8
19	AT	65/65 (100%)	55 (85%)	10 (15%)	2	16
19	CT	65/65 (100%)	55 (85%)	10 (15%)	2	16
20	AB	180/198 (91%)	148 (82%)	32 (18%)	2	12
20	CB	180/198 (91%)	150 (83%)	30 (17%)	2	14
21	AU	44/60 (73%)	32 (73%)	12 (27%)	0	3
21	CU	44/60 (73%)	32 (73%)	12 (27%)	0	3
24	BI	109/109 (100%)	107 (98%)	2 (2%)	59	77

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	DI	109/109 (100%)	103 (94%)	6 (6%)	21	50
25	BC	216/217 (100%)	179 (83%)	37 (17%)	2	13
25	DC	216/217 (100%)	176 (82%)	40 (18%)	1	10
26	BD	164/164 (100%)	135 (82%)	29 (18%)	2	12
26	DD	164/164 (100%)	134 (82%)	30 (18%)	1	11
27	BK	102/104 (98%)	80 (78%)	22 (22%)	1	6
27	DK	102/104 (98%)	81 (79%)	21 (21%)	1	7
28	BP	99/99 (100%)	80 (81%)	19 (19%)	1	9
28	DP	99/99 (100%)	80 (81%)	19 (19%)	1	9
29	BE	165/165 (100%)	143 (87%)	22 (13%)	4	21
29	DE	165/165 (100%)	142 (86%)	23 (14%)	3	20
30	BY	48/48 (100%)	38 (79%)	10 (21%)	1	6
30	DY	48/48 (100%)	38 (79%)	10 (21%)	1	6
31	B0	47/47 (100%)	38 (81%)	9 (19%)	1	9
31	D0	47/47 (100%)	38 (81%)	9 (19%)	1	9
32	B4	34/34 (100%)	28 (82%)	6 (18%)	2	12
32	D4	34/34 (100%)	29 (85%)	5 (15%)	3	18
33	B1	45/48 (94%)	40 (89%)	5 (11%)	6	26
33	D1	45/48 (94%)	41 (91%)	4 (9%)	9	34
34	B3	51/51 (100%)	45 (88%)	6 (12%)	5	24
34	D3	51/51 (100%)	46 (90%)	5 (10%)	8	29
35	BV	78/78 (100%)	64 (82%)	14 (18%)	2	11
35	DV	78/78 (100%)	64 (82%)	14 (18%)	2	11
36	B2	38/38 (100%)	28 (74%)	10 (26%)	0	3
36	D2	38/38 (100%)	28 (74%)	10 (26%)	0	3
37	BL	102/103 (99%)	91 (89%)	11 (11%)	6	27
37	DL	102/103 (99%)	91 (89%)	11 (11%)	6	27
38	BM	109/109 (100%)	87 (80%)	22 (20%)	1	7
38	DM	109/109 (100%)	87 (80%)	22 (20%)	1	7
39	BX	55/55 (100%)	46 (84%)	9 (16%)	2	14
39	DX	55/55 (100%)	46 (84%)	9 (16%)	2	14

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
40	BH	114/114 (100%)	79 (69%)	35 (31%)	0	2
40	DH	114/114 (100%)	89 (78%)	25 (22%)	1	6
41	BJ	116/116 (100%)	100 (86%)	16 (14%)	3	20
41	DJ	116/116 (100%)	100 (86%)	16 (14%)	3	20
42	BN	100/103 (97%)	84 (84%)	16 (16%)	2	15
42	DN	100/103 (97%)	84 (84%)	16 (16%)	2	15
43	BO	86/87 (99%)	71 (83%)	15 (17%)	2	12
43	DO	86/87 (99%)	72 (84%)	14 (16%)	2	15
44	BQ	89/89 (100%)	79 (89%)	10 (11%)	6	25
44	DQ	89/89 (100%)	79 (89%)	10 (11%)	6	25
45	BS	93/93 (100%)	77 (83%)	16 (17%)	2	13
45	DS	93/93 (100%)	77 (83%)	16 (17%)	2	13
46	BU	83/84 (99%)	65 (78%)	18 (22%)	1	6
46	DU	83/84 (99%)	65 (78%)	18 (22%)	1	6
47	BF	149/149 (100%)	117 (78%)	32 (22%)	1	6
47	DF	149/149 (100%)	117 (78%)	32 (22%)	1	6
48	BG	137/137 (100%)	110 (80%)	27 (20%)	1	8
48	DG	137/137 (100%)	112 (82%)	25 (18%)	1	11
49	BR	84/84 (100%)	71 (84%)	13 (16%)	2	16
49	DR	84/84 (100%)	70 (83%)	14 (17%)	2	14
50	BT	80/84 (95%)	64 (80%)	16 (20%)	1	8
50	DT	80/84 (95%)	64 (80%)	16 (20%)	1	8
51	BZ	67/68 (98%)	53 (79%)	14 (21%)	1	6
51	DZ	67/68 (98%)	56 (84%)	11 (16%)	2	14
52	BW	59/62 (95%)	42 (71%)	17 (29%)	0	2
52	DW	59/62 (95%)	42 (71%)	17 (29%)	0	2
53	B6	157/157 (100%)	137 (87%)	20 (13%)	4	22
53	D6	157/157 (100%)	134 (85%)	23 (15%)	3	18
All	All	9647/10014 (96%)	8066 (84%)	1581 (16%)	2	14

5 of 1581 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
10	CK	29	THR
26	DD	84	LEU
11	CL	77	SER
10	CK	28	ASN
19	CT	5	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 320 such sidechains are listed below:

Mol	Chain	Res	Type
26	DD	126	ASN
43	DO	61	GLN
27	DK	89	ASN
37	DL	4	ASN
48	DG	29	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1529/1542 (99%)	244 (15%)	21 (1%)
1	CA	1529/1542 (99%)	235 (15%)	19 (1%)
22	BA	116/120 (96%)	17 (14%)	0
22	DA	116/120 (96%)	16 (13%)	0
23	BB	2837/2904 (97%)	457 (16%)	17 (0%)
23	DB	2837/2904 (97%)	435 (15%)	22 (0%)
All	All	8964/9132 (98%)	1404 (15%)	79 (0%)

5 of 1404 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	14	U
1	AA	32	A
1	AA	39	G
1	AA	47	C

5 of 79 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
23	DB	63	A
23	DB	2148	G
23	DB	139	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	DB	1205	A
23	DB	2756	U

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 349 ligands modelled in this entry, 345 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
55	LLL	BB	3111	-	29,33,33	2.33	11 (37%)	34,49,49	1.20	4 (11%)
55	LLL	AA	1661	-	29,33,33	2.37	11 (37%)	34,49,49	1.26	4 (11%)
55	LLL	CA	1662	-	29,33,33	2.37	11 (37%)	34,49,49	1.26	4 (11%)
55	LLL	DB	3112	-	29,33,33	2.38	12 (41%)	34,49,49	1.23	5 (14%)

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
55	LLL	BB	3111	-	-	1/11/65/65	0/3/3/3
55	LLL	AA	1661	-	-	1/11/65/65	0/3/3/3
55	LLL	CA	1662	-	-	1/11/65/65	0/3/3/3
55	LLL	DB	3112	-	-	1/11/65/65	0/3/3/3

The worst 5 of 45 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	CA	1662	LLL	O53-C53	6.36	1.52	1.43
55	AA	1661	LLL	O53-C53	6.34	1.52	1.43
55	DB	3112	LLL	O53-C53	6.32	1.52	1.43
55	BB	3111	LLL	O53-C53	6.27	1.52	1.43
55	CA	1662	LLL	O53-C13	4.57	1.51	1.41

The worst 5 of 17 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	CA	1662	LLL	C53-O53-C13	3.78	117.62	111.53
55	DB	3112	LLL	C53-O53-C13	3.76	117.59	111.53
55	AA	1661	LLL	C53-O53-C13	3.68	117.45	111.53
55	BB	3111	LLL	C53-O53-C13	3.68	117.45	111.53
55	AA	1661	LLL	C13-O62-C62	2.64	124.50	117.96

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	AA	1661	LLL	C23-C33-N33-C93
55	BB	3111	LLL	C23-C33-N33-C93
55	CA	1662	LLL	C23-C33-N33-C93
55	DB	3112	LLL	C23-C33-N33-C93

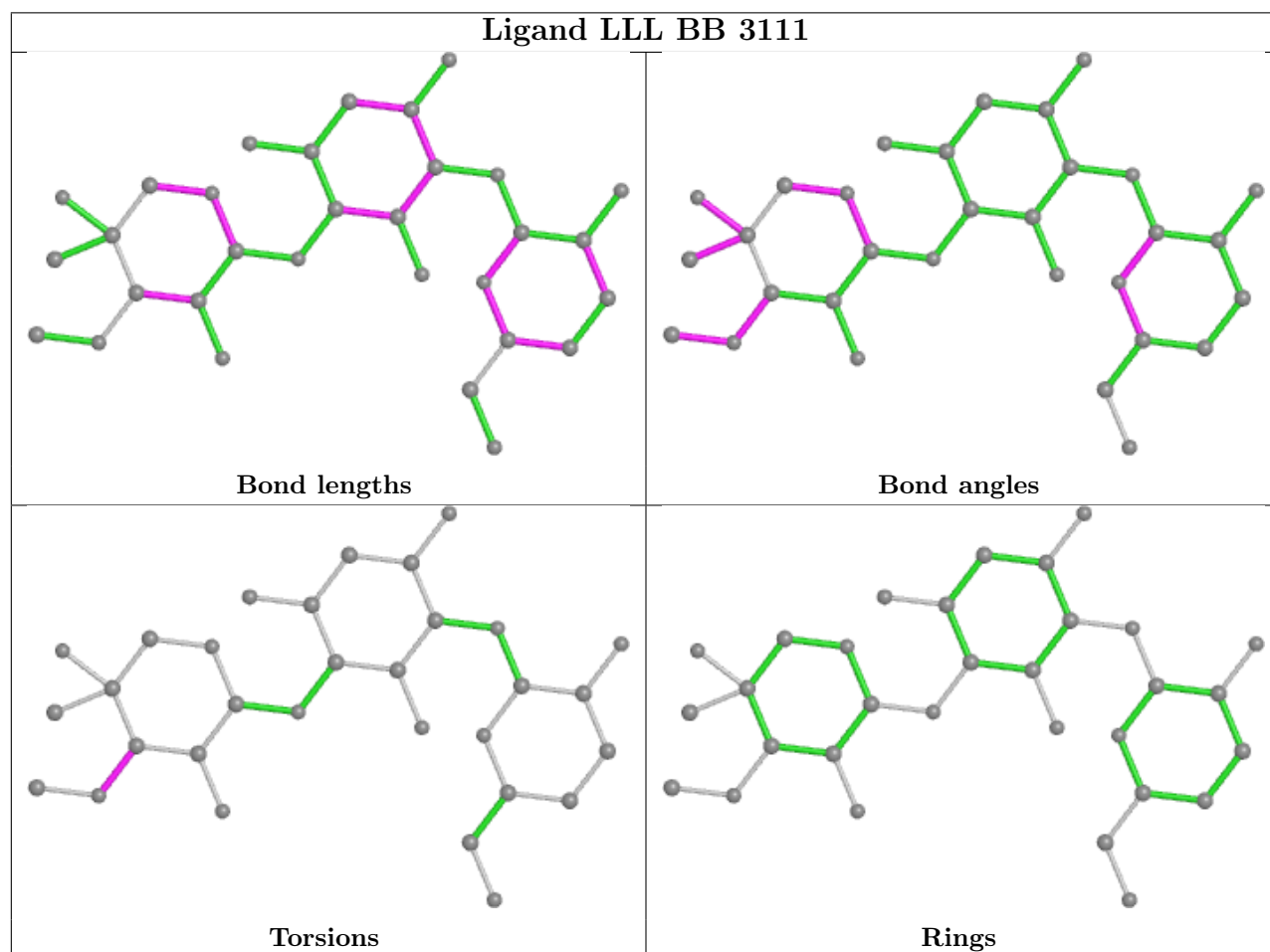
There are no ring outliers.

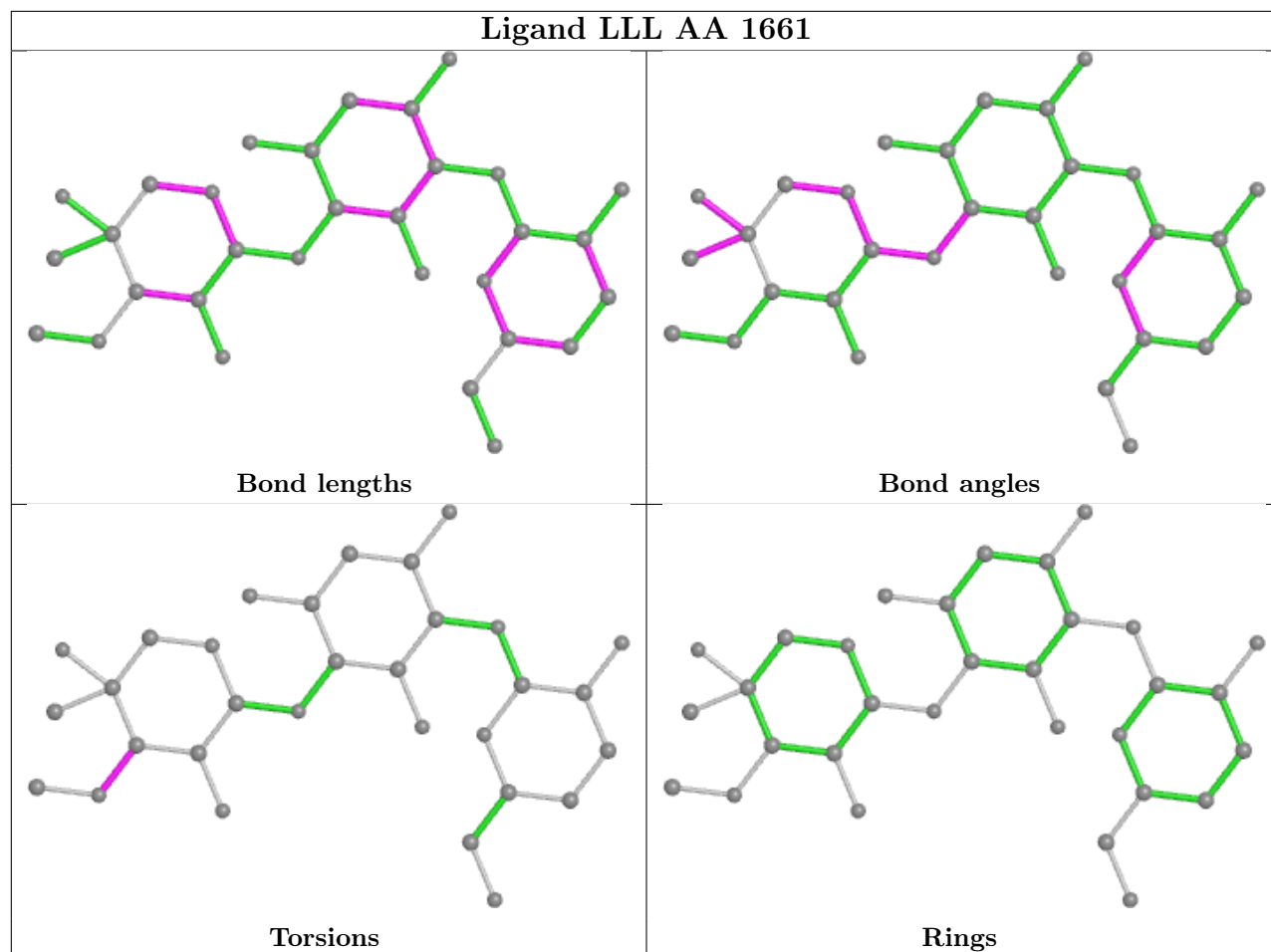
2 monomers are involved in 5 short contacts:

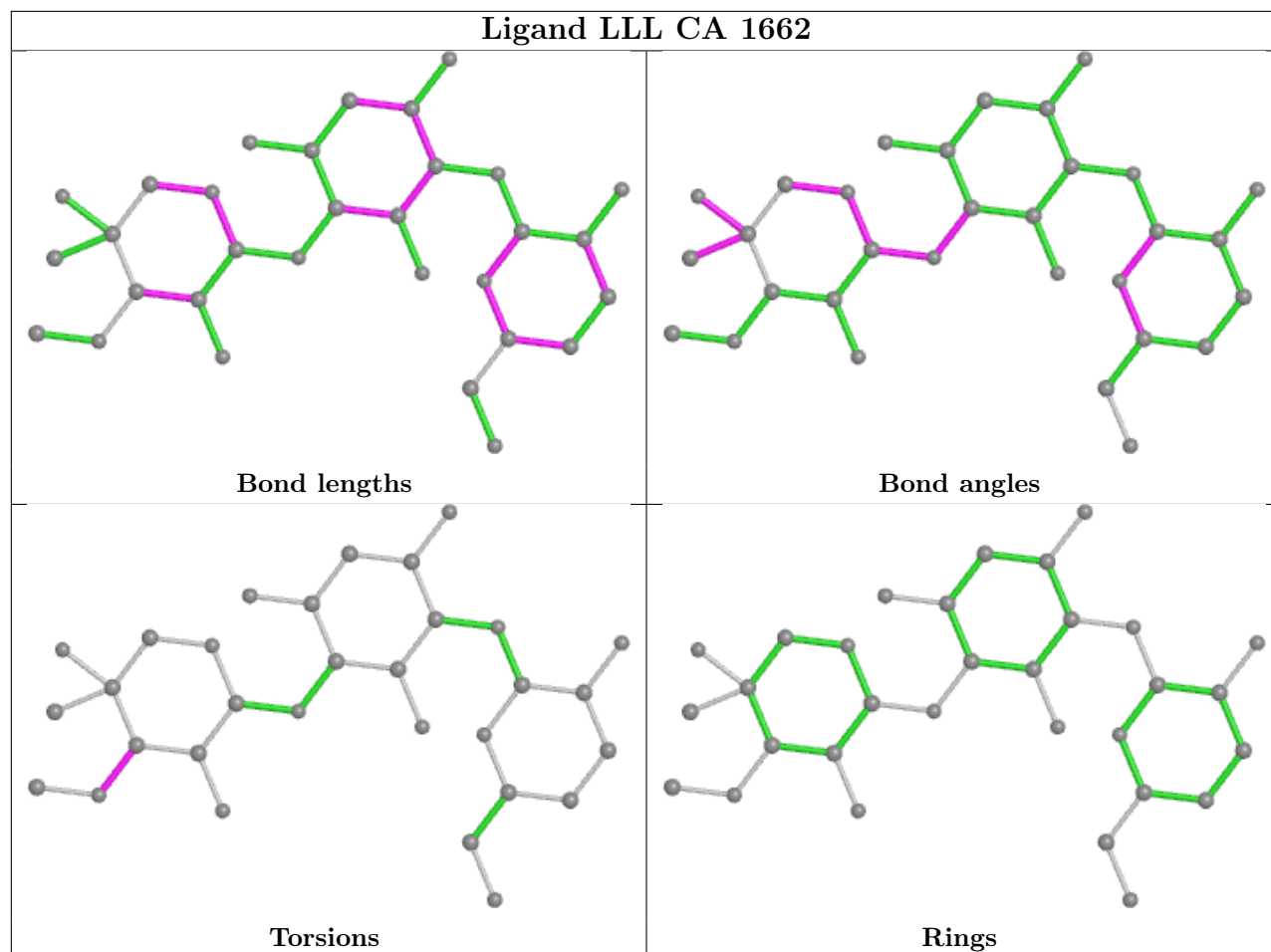
Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	BB	3111	LLL	2	0
55	CA	1662	LLL	3	0

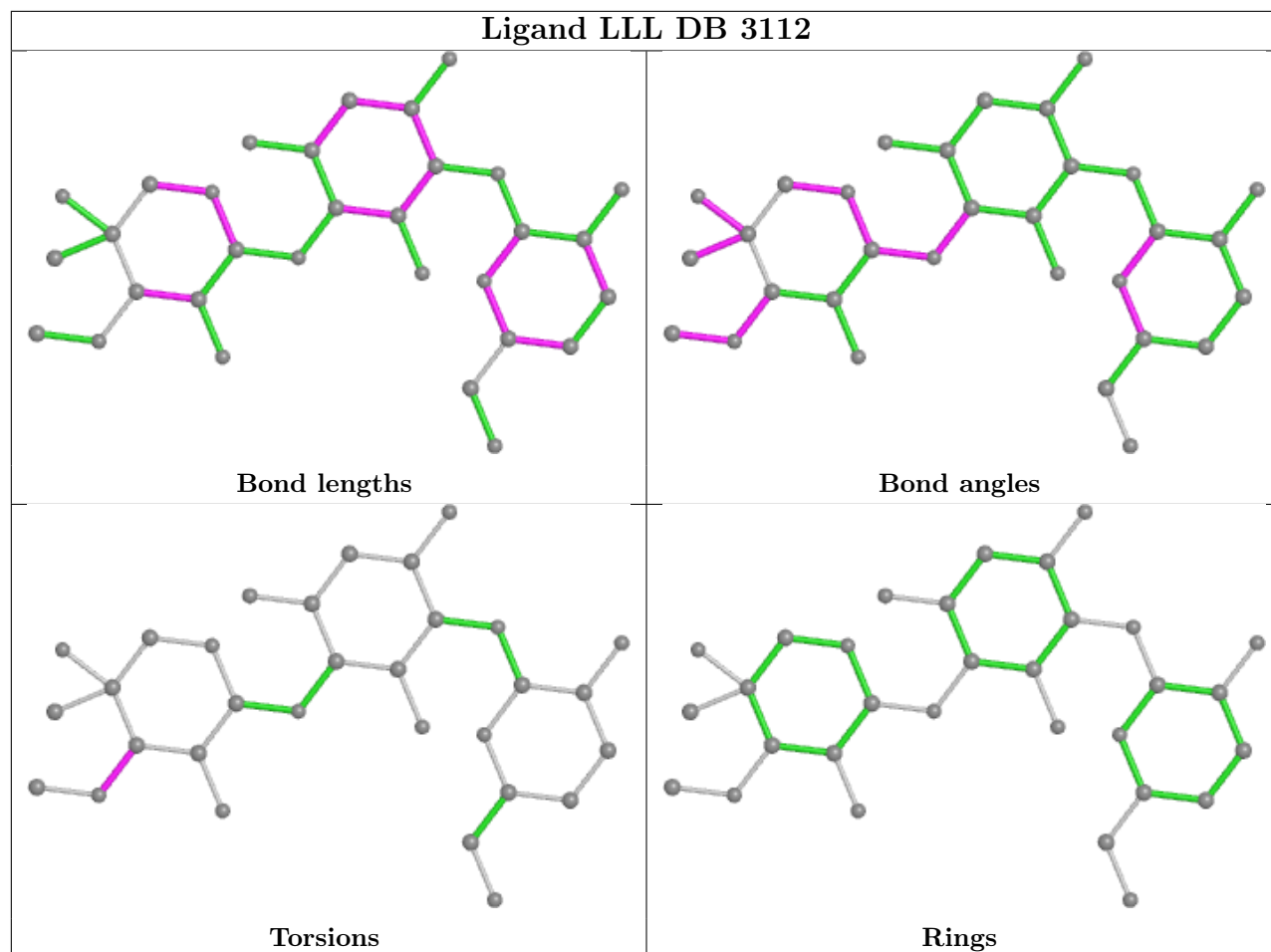
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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](#)

There are no chain breaks in this entry.

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	1530/1542 (99%)	-0.34	8 (0%) 91 85	13, 75, 157, 180	0
1	CA	1530/1542 (99%)	-0.40	1 (0%) 95 94	8, 52, 139, 180	0
2	AC	206/232 (88%)	-0.19	3 (1%) 73 64	5, 72, 147, 180	0
2	CC	206/232 (88%)	-0.10	1 (0%) 91 85	6, 72, 131, 180	0
3	AD	205/205 (100%)	0.19	8 (3%) 39 31	20, 95, 159, 180	0
3	CD	205/205 (100%)	-0.17	0 100 100	5, 56, 145, 180	0
4	AE	150/166 (90%)	0.16	3 (2%) 65 56	7, 69, 146, 180	0
4	CE	150/166 (90%)	0.16	3 (2%) 65 56	5, 49, 112, 180	0
5	AF	100/135 (74%)	0.24	6 (6%) 21 17	5, 69, 150, 177	0
5	CF	100/135 (74%)	-0.01	1 (1%) 82 74	5, 72, 143, 166	0
6	AG	150/178 (84%)	0.01	4 (2%) 54 44	20, 97, 159, 175	0
6	CG	152/178 (85%)	-0.14	1 (0%) 87 82	29, 85, 147, 180	0
7	AH	129/129 (100%)	0.26	8 (6%) 20 17	26, 80, 143, 177	0
7	CH	129/129 (100%)	0.00	0 100 100	6, 49, 117, 174	0
8	AI	127/129 (98%)	0.01	2 (1%) 72 62	18, 89, 171, 180	0
8	CI	127/129 (98%)	-0.05	2 (1%) 72 62	22, 92, 160, 180	0
9	AJ	98/103 (95%)	0.21	2 (2%) 65 56	16, 92, 169, 180	0
9	CJ	98/103 (95%)	0.30	5 (5%) 28 24	26, 87, 153, 180	0
10	AK	117/128 (91%)	-0.16	0 100 100	7, 59, 119, 180	0
10	CK	117/128 (91%)	-0.19	2 (1%) 70 60	5, 52, 120, 180	0
11	AL	123/123 (100%)	0.10	3 (2%) 59 49	14, 78, 152, 180	0
11	CL	123/123 (100%)	-0.05	0 100 100	5, 46, 127, 170	0
12	AM	114/117 (97%)	-0.18	0 100 100	40, 114, 180, 180	0
12	CM	113/117 (96%)	-0.23	0 100 100	27, 100, 173, 180	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AN	96/100 (96%)	-0.01	0 100 100	8, 86, 158, 180	0
13	CN	96/100 (96%)	0.08	1 (1%) 82 74	14, 87, 147, 178	0
14	AO	88/89 (98%)	-0.35	0 100 100	5, 76, 128, 180	0
14	CO	88/89 (98%)	-0.20	0 100 100	10, 63, 132, 159	0
15	AP	82/82 (100%)	0.67	3 (3%) 41 32	24, 94, 154, 180	0
15	CP	80/82 (97%)	0.43	5 (6%) 20 16	5, 46, 128, 180	0
16	AQ	80/83 (96%)	0.02	0 100 100	36, 96, 168, 180	0
16	CQ	81/83 (97%)	0.02	0 100 100	5, 52, 135, 180	0
17	AR	55/74 (74%)	-0.05	1 (1%) 68 59	14, 70, 148, 180	0
17	CR	55/74 (74%)	0.39	3 (5%) 25 21	12, 64, 136, 180	0
18	AS	79/91 (86%)	0.40	6 (7%) 13 11	44, 120, 176, 180	0
18	CS	80/91 (87%)	-0.18	0 100 100	34, 107, 180, 180	0
19	AT	85/86 (98%)	-0.20	0 100 100	34, 101, 168, 180	0
19	CT	85/86 (98%)	-0.40	0 100 100	5, 62, 140, 180	0
20	AB	218/240 (90%)	0.13	8 (3%) 41 32	18, 97, 160, 180	0
20	CB	218/240 (90%)	0.11	6 (2%) 53 42	16, 93, 160, 180	0
21	AU	51/70 (72%)	0.00	1 (1%) 65 56	27, 89, 171, 180	0
21	CU	51/70 (72%)	-0.11	0 100 100	23, 81, 137, 180	0
22	BA	117/120 (97%)	-0.42	0 100 100	49, 85, 136, 180	0
22	DA	117/120 (97%)	-0.35	2 (1%) 70 60	36, 88, 148, 180	0
23	BB	2841/2904 (97%)	-0.16	14 (0%) 91 85	6, 60, 150, 180	0
23	DB	2841/2904 (97%)	-0.20	8 (0%) 94 90	5, 46, 154, 180	0
24	BI	141/141 (100%)	0.97	24 (17%) 1 2	72, 166, 180, 180	0
24	DI	141/141 (100%)	0.58	12 (8%) 10 9	63, 162, 180, 180	0
25	BC	271/272 (99%)	0.09	2 (0%) 87 82	5, 47, 107, 156	0
25	DC	271/272 (99%)	0.03	0 100 100	5, 38, 99, 145	0
26	BD	209/209 (100%)	0.38	16 (7%) 13 11	8, 72, 145, 180	0
26	DD	209/209 (100%)	0.10	1 (0%) 91 85	5, 51, 131, 180	0
27	BK	121/123 (98%)	0.62	5 (4%) 37 30	16, 62, 142, 180	0
27	DK	121/123 (98%)	0.24	0 100 100	5, 42, 103, 180	0
28	BP	114/114 (100%)	1.10	18 (15%) 2 2	28, 86, 155, 173	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DP	114/114 (100%)	-0.22	0 100 100	5, 52, 119, 161	0
29	BE	201/201 (100%)	0.34	14 (6%) 16 13	5, 76, 143, 180	0
29	DE	201/201 (100%)	0.08	5 (2%) 57 47	5, 66, 138, 180	0
30	BY	58/58 (100%)	0.28	3 (5%) 27 24	22, 84, 137, 180	0
30	DY	58/58 (100%)	-0.05	1 (1%) 70 60	10, 66, 149, 158	0
31	B0	56/56 (100%)	0.16	2 (3%) 42 34	5, 81, 149, 180	0
31	D0	56/56 (100%)	-0.25	0 100 100	9, 54, 119, 180	0
32	B4	38/38 (100%)	0.08	1 (2%) 56 46	5, 71, 153, 168	0
32	D4	38/38 (100%)	-0.01	0 100 100	17, 62, 132, 171	0
33	B1	50/54 (92%)	0.40	3 (6%) 21 17	32, 87, 132, 174	0
33	D1	50/54 (92%)	0.17	2 (4%) 38 30	24, 73, 125, 155	0
34	B3	64/64 (100%)	0.59	4 (6%) 20 16	19, 64, 105, 133	0
34	D3	64/64 (100%)	0.14	1 (1%) 72 62	6, 49, 107, 180	0
35	BV	94/94 (100%)	-0.11	1 (1%) 80 72	37, 92, 143, 180	0
35	DV	94/94 (100%)	-0.09	0 100 100	27, 94, 160, 180	0
36	B2	46/46 (100%)	0.00	0 100 100	5, 50, 123, 143	0
36	D2	46/46 (100%)	-0.12	0 100 100	7, 43, 103, 180	0
37	BL	143/144 (99%)	0.25	1 (0%) 87 82	7, 72, 131, 180	0
37	DL	143/144 (99%)	0.12	0 100 100	5, 61, 128, 162	0
38	BM	136/136 (100%)	0.08	4 (2%) 51 41	16, 68, 144, 165	0
38	DM	136/136 (100%)	0.22	4 (2%) 51 41	5, 63, 134, 171	0
39	BX	63/63 (100%)	0.26	2 (3%) 47 37	24, 92, 169, 180	0
39	DX	63/63 (100%)	-0.09	2 (3%) 47 37	38, 94, 166, 180	0
40	BH	149/149 (100%)	1.22	28 (18%) 1 1	13, 125, 180, 180	0
40	DH	149/149 (100%)	0.38	6 (4%) 38 30	5, 109, 171, 180	0
41	BJ	142/142 (100%)	0.03	2 (1%) 75 65	13, 77, 132, 166	0
41	DJ	142/142 (100%)	-0.13	1 (0%) 87 82	5, 65, 128, 180	0
42	BN	120/127 (94%)	0.06	1 (0%) 86 79	5, 68, 136, 180	0
42	DN	120/127 (94%)	-0.38	0 100 100	5, 44, 116, 141	0
43	BO	116/117 (99%)	0.39	8 (6%) 16 13	29, 94, 144, 180	0
43	DO	116/117 (99%)	-0.10	2 (1%) 70 60	5, 93, 156, 180	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BQ	117/117 (100%)	-0.37	0 100 100	5, 72, 134, 171	0
44	DQ	117/117 (100%)	0.05	1 (0%) 84 77	5, 50, 131, 156	0
45	BS	110/110 (100%)	0.44	2 (1%) 68 59	5, 67, 129, 180	0
45	DS	110/110 (100%)	0.29	0 100 100	5, 50, 120, 157	0
46	BU	102/103 (99%)	0.71	6 (5%) 22 18	13, 88, 148, 177	0
46	DU	102/103 (99%)	-0.00	1 (0%) 82 74	26, 93, 154, 180	0
47	BF	178/178 (100%)	0.29	2 (1%) 80 72	39, 115, 174, 180	0
47	DF	178/178 (100%)	0.60	13 (7%) 15 12	22, 106, 175, 180	0
48	BG	176/176 (100%)	0.23	2 (1%) 80 72	8, 102, 172, 180	0
48	DG	176/176 (100%)	0.03	3 (1%) 70 60	32, 104, 164, 180	0
49	BR	103/103 (100%)	0.14	3 (2%) 51 41	18, 99, 151, 173	0
49	DR	103/103 (100%)	0.29	4 (3%) 39 31	5, 85, 144, 180	0
50	BT	93/100 (93%)	0.23	2 (2%) 62 52	13, 83, 160, 180	0
50	DT	93/100 (93%)	0.31	3 (3%) 47 37	15, 79, 167, 180	0
51	BZ	77/78 (98%)	0.29	3 (3%) 39 31	12, 57, 112, 152	0
51	DZ	77/78 (98%)	-0.13	1 (1%) 77 68	5, 56, 101, 131	0
52	BW	79/84 (94%)	0.60	7 (8%) 9 8	19, 88, 139, 180	0
52	DW	79/84 (94%)	0.03	3 (3%) 40 32	5, 79, 143, 180	0
53	B6	185/185 (100%)	2.72	83 (44%) 0 0	23, 123, 180, 180	0
53	D6	185/185 (100%)	1.06	49 (26%) 0 0	5, 104, 180, 180	0
All	All	20787/21416 (97%)	0.00	485 (2%) 60 51	5, 69, 159, 180	0

The worst 5 of 485 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
53	B6	96	GLY	15.3
53	B6	97	ASP	15.0
53	B6	98	ALA	13.2
53	B6	88	LEU	10.7
53	B6	94	ASN	10.0

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

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

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(Å ²)	Q<0.9
54	MG	AA	1625	1/1	0.26	0.88	84,84,84,84	1
54	MG	AA	1608	1/1	0.48	0.29	147,147,147,147	0
54	MG	BB	3033	1/1	0.48	0.65	141,141,141,141	0
54	MG	AA	1635	1/1	0.52	0.09	103,103,103,103	0
54	MG	CA	1627	1/1	0.52	0.33	69,69,69,69	1
54	MG	AA	1622	1/1	0.53	0.39	163,163,163,163	0
54	MG	AA	1626	1/1	0.54	0.18	49,49,49,49	1
54	MG	AA	1647	1/1	0.55	0.99	180,180,180,180	0
54	MG	DB	3060	1/1	0.55	0.10	104,104,104,104	0
54	MG	BB	3042	1/1	0.56	0.12	135,135,135,135	0
54	MG	AA	1639	1/1	0.60	0.34	134,134,134,134	0
54	MG	AA	1632	1/1	0.65	0.26	62,62,62,62	0
54	MG	AA	1619	1/1	0.65	0.25	180,180,180,180	0
54	MG	AA	1637	1/1	0.66	2.40	151,151,151,151	0
54	MG	DB	3066	1/1	0.68	0.30	158,158,158,158	0
54	MG	DB	3059	1/1	0.69	0.23	166,166,166,166	0
54	MG	AA	1659	1/1	0.69	0.45	180,180,180,180	0
54	MG	AA	1650	1/1	0.69	0.14	122,122,122,122	0
54	MG	BB	3093	1/1	0.70	0.37	131,131,131,131	0
54	MG	CA	1619	1/1	0.70	0.19	70,70,70,70	0
54	MG	CA	1614	1/1	0.71	0.16	90,90,90,90	0
54	MG	AA	1614	1/1	0.71	0.11	113,113,113,113	0
54	MG	AA	1656	1/1	0.71	0.79	161,161,161,161	0
54	MG	AA	1646	1/1	0.73	0.18	104,104,104,104	0
54	MG	AA	1602	1/1	0.73	0.18	147,147,147,147	0
54	MG	AA	1657	1/1	0.76	0.42	124,124,124,124	0
54	MG	CA	1623	1/1	0.76	0.08	173,173,173,173	0
54	MG	BB	3080	1/1	0.79	0.20	77,77,77,77	0
54	MG	AA	1627	1/1	0.79	0.19	68,68,68,68	0
54	MG	BB	3079	1/1	0.79	0.20	63,63,63,63	0
54	MG	BB	3097	1/1	0.80	0.07	88,88,88,88	0
54	MG	CE	201	1/1	0.80	0.22	113,113,113,113	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	DB	3057	1/1	0.80	0.10	77,77,77,77	0
54	MG	BB	3013	1/1	0.81	0.18	92,92,92,92	0
54	MG	CA	1641	1/1	0.81	0.17	42,42,42,42	0
54	MG	AA	1613	1/1	0.81	0.08	71,71,71,71	0
54	MG	DB	3034	1/1	0.81	0.20	69,69,69,69	0
54	MG	BB	3043	1/1	0.82	0.08	122,122,122,122	0
54	MG	CA	1616	1/1	0.83	0.14	88,88,88,88	0
54	MG	DB	3058	1/1	0.83	0.85	162,162,162,162	0
54	MG	CA	1658	1/1	0.83	0.34	53,53,53,53	0
54	MG	AA	1623	1/1	0.83	0.65	73,73,73,73	1
54	MG	CA	1635	1/1	0.83	0.14	98,98,98,98	0
54	MG	BB	3010	1/1	0.84	0.13	40,40,40,40	0
54	MG	CA	1643	1/1	0.84	0.07	32,32,32,32	0
55	LLL	DB	3112	31/31	0.84	0.34	121,121,121,121	0
54	MG	DB	3100	1/1	0.85	0.21	46,46,46,46	0
54	MG	AA	1620	1/1	0.85	0.06	113,113,113,113	0
54	MG	CA	1638	1/1	0.86	0.11	98,98,98,98	0
54	MG	DB	3030	1/1	0.86	0.17	10,10,10,10	0
54	MG	AA	1651	1/1	0.86	0.09	112,112,112,112	0
54	MG	BB	3019	1/1	0.86	0.09	40,40,40,40	0
54	MG	AA	1658	1/1	0.86	0.09	85,85,85,85	0
55	LLL	BB	3111	31/31	0.87	0.26	107,107,107,107	0
54	MG	AA	1606	1/1	0.87	0.08	47,47,47,47	0
54	MG	DB	3029	1/1	0.88	0.14	59,59,59,59	0
54	MG	BB	3081	1/1	0.88	0.17	16,16,16,16	0
54	MG	BB	3049	1/1	0.88	0.15	35,35,35,35	0
54	MG	DB	3055	1/1	0.88	0.13	41,41,41,41	0
54	MG	DB	3013	1/1	0.88	0.14	41,41,41,41	0
54	MG	DB	3026	1/1	0.88	0.18	54,54,54,54	0
54	MG	BB	3053	1/1	0.89	0.07	79,79,79,79	0
54	MG	CA	1629	1/1	0.89	0.12	65,65,65,65	1
54	MG	BB	3092	1/1	0.89	0.08	45,45,45,45	0
54	MG	BB	3008	1/1	0.89	0.20	75,75,75,75	0
54	MG	DB	3015	1/1	0.89	0.10	24,24,24,24	0
54	MG	AA	1645	1/1	0.89	0.09	95,95,95,95	0
54	MG	BB	3057	1/1	0.90	0.36	65,65,65,65	0
54	MG	DB	3072	1/1	0.90	0.09	54,54,54,54	0
54	MG	DB	3033	1/1	0.90	0.12	43,43,43,43	0
54	MG	BB	3072	1/1	0.90	0.14	79,79,79,79	0
54	MG	BB	3037	1/1	0.90	0.11	44,44,44,44	0
54	MG	BB	3078	1/1	0.91	0.21	101,101,101,101	0
54	MG	AA	1601	1/1	0.91	0.12	41,41,41,41	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	CA	1621	1/1	0.91	0.53	110,110,110,110	0
54	MG	BB	3061	1/1	0.91	0.10	56,56,56,56	0
54	MG	CA	1646	1/1	0.91	0.08	99,99,99,99	0
54	MG	CA	1649	1/1	0.91	0.14	127,127,127,127	0
54	MG	DB	3074	1/1	0.91	0.09	17,17,17,17	0
54	MG	CA	1609	1/1	0.91	0.04	84,84,84,84	0
54	MG	DB	3052	1/1	0.91	0.24	113,113,113,113	0
54	MG	AA	1649	1/1	0.91	0.06	82,82,82,82	0
54	MG	CA	1659	1/1	0.92	0.09	90,90,90,90	0
54	MG	DB	3053	1/1	0.92	0.09	80,80,80,80	0
54	MG	CA	1660	1/1	0.92	0.10	63,63,63,63	0
54	MG	AA	1615	1/1	0.92	0.23	106,106,106,106	0
54	MG	DB	3006	1/1	0.92	0.14	15,15,15,15	0
54	MG	BB	3088	1/1	0.92	0.08	36,36,36,36	0
54	MG	BB	3018	1/1	0.92	0.18	50,50,50,50	0
54	MG	DB	3064	1/1	0.92	0.10	19,19,19,19	0
54	MG	BB	3003	1/1	0.92	0.09	51,51,51,51	0
54	MG	AA	1630	1/1	0.92	0.11	88,88,88,88	0
54	MG	BB	3108	1/1	0.92	0.22	44,44,44,44	0
54	MG	CA	1657	1/1	0.92	0.24	89,89,89,89	0
54	MG	AA	1641	1/1	0.92	0.04	69,69,69,69	0
54	MG	DB	3045	1/1	0.92	0.07	68,68,68,68	0
54	MG	DB	3003	1/1	0.93	0.16	33,33,33,33	0
54	MG	CA	1620	1/1	0.93	0.14	37,37,37,37	0
54	MG	CA	1642	1/1	0.93	0.13	108,108,108,108	0
54	MG	CA	1606	1/1	0.93	0.13	138,138,138,138	0
54	MG	AA	1624	1/1	0.93	0.10	77,77,77,77	0
54	MG	CA	1624	1/1	0.93	0.12	56,56,56,56	0
54	MG	BB	3017	1/1	0.93	0.17	73,73,73,73	0
54	MG	CA	1615	1/1	0.93	0.09	180,180,180,180	0
54	MG	BB	3035	1/1	0.93	0.13	82,82,82,82	0
54	MG	DB	3035	1/1	0.93	0.19	75,75,75,75	0
54	MG	DB	3080	1/1	0.93	0.08	5,5,5,5	0
54	MG	DB	3037	1/1	0.93	0.17	54,54,54,54	0
54	MG	CA	1636	1/1	0.93	0.05	92,92,92,92	0
54	MG	BB	3004	1/1	0.93	0.19	73,73,73,73	0
54	MG	BB	3065	1/1	0.94	0.06	5,5,5,5	0
54	MG	AA	1660	1/1	0.94	0.08	37,37,37,37	0
54	MG	BB	3100	1/1	0.94	0.22	151,151,151,151	0
54	MG	DB	3061	1/1	0.94	0.09	69,69,69,69	0
54	MG	CA	1652	1/1	0.94	0.17	65,65,65,65	0
54	MG	CA	1654	1/1	0.94	0.10	59,59,59,59	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	DB	3042	1/1	0.94	0.07	23,23,23,23	0
54	MG	AA	1631	1/1	0.94	0.12	88,88,88,88	0
54	MG	DB	3020	1/1	0.94	0.20	13,13,13,13	0
54	MG	DB	3093	1/1	0.94	0.17	10,10,10,10	0
54	MG	DB	3097	1/1	0.94	0.18	64,64,64,64	0
54	MG	DB	3022	1/1	0.94	0.08	71,71,71,71	0
54	MG	DB	3106	1/1	0.94	0.18	64,64,64,64	0
54	MG	DB	3110	1/1	0.94	0.18	38,38,38,38	0
54	MG	AA	1644	1/1	0.94	0.13	98,98,98,98	0
55	LLL	CA	1662	31/31	0.94	0.22	14,14,14,14	0
54	MG	CA	1628	1/1	0.94	0.07	44,44,44,44	0
56	ZN	D4	101	1/1	0.94	0.07	45,45,45,45	0
54	MG	DB	3038	1/1	0.95	0.15	37,37,37,37	0
54	MG	CA	1651	1/1	0.95	0.11	38,38,38,38	0
54	MG	BB	3024	1/1	0.95	0.06	44,44,44,44	0
54	MG	BB	3026	1/1	0.95	0.21	43,43,43,43	0
54	MG	BB	3067	1/1	0.95	0.13	24,24,24,24	0
54	MG	BB	3027	1/1	0.95	0.13	42,42,42,42	0
54	MG	BB	3031	1/1	0.95	0.13	63,63,63,63	0
54	MG	AA	1648	1/1	0.95	0.07	40,40,40,40	0
54	MG	AA	1654	1/1	0.95	0.07	82,82,82,82	0
54	MG	AA	1655	1/1	0.95	0.06	54,54,54,54	0
54	MG	CA	1625	1/1	0.95	0.18	6,6,6,6	0
54	MG	BB	3038	1/1	0.95	0.23	152,152,152,152	0
54	MG	BB	3001	1/1	0.95	0.07	29,29,29,29	0
54	MG	DB	3016	1/1	0.95	0.07	25,25,25,25	0
54	MG	AA	1636	1/1	0.95	0.06	93,93,93,93	0
54	MG	BB	3095	1/1	0.95	0.11	81,81,81,81	0
54	MG	DB	3081	1/1	0.95	0.11	19,19,19,19	0
54	MG	DB	3083	1/1	0.95	0.17	83,83,83,83	0
54	MG	DB	3089	1/1	0.95	0.19	61,61,61,61	0
54	MG	DB	3024	1/1	0.95	0.14	45,45,45,45	0
54	MG	BB	3048	1/1	0.95	0.10	7,7,7,7	0
54	MG	BB	3099	1/1	0.95	0.16	56,56,56,56	0
54	MG	AA	1618	1/1	0.95	0.13	93,93,93,93	0
54	MG	DB	3109	1/1	0.95	0.09	83,83,83,83	0
54	MG	BB	3050	1/1	0.95	0.10	33,33,33,33	0
55	LLL	AA	1661	31/31	0.95	0.21	21,21,21,21	0
54	MG	BB	3110	1/1	0.95	0.09	40,40,40,40	0
54	MG	BB	3020	1/1	0.95	0.09	36,36,36,36	0
54	MG	DB	3036	1/1	0.95	0.08	20,20,20,20	0
56	ZN	B4	101	1/1	0.95	0.09	64,64,64,64	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	BB	3022	1/1	0.95	0.29	37,37,37,37	0
54	MG	BB	3047	1/1	0.96	0.13	116,116,116,116	0
54	MG	DB	3050	1/1	0.96	0.14	123,123,123,123	0
54	MG	BB	3009	1/1	0.96	0.14	96,96,96,96	0
54	MG	BB	3002	1/1	0.96	0.08	30,30,30,30	0
54	MG	DB	3054	1/1	0.96	0.06	29,29,29,29	0
54	MG	BB	3086	1/1	0.96	0.17	18,18,18,18	0
54	MG	BB	3034	1/1	0.96	0.24	59,59,59,59	0
54	MG	CA	1661	1/1	0.96	0.10	48,48,48,48	0
54	MG	BB	3051	1/1	0.96	0.18	65,65,65,65	0
54	MG	AA	1607	1/1	0.96	0.07	42,42,42,42	0
54	MG	BB	3054	1/1	0.96	0.14	46,46,46,46	0
54	MG	DB	3063	1/1	0.96	0.06	19,19,19,19	0
54	MG	DB	3008	1/1	0.96	0.14	17,17,17,17	0
54	MG	CA	1626	1/1	0.96	0.23	41,41,41,41	1
54	MG	DB	3068	1/1	0.96	0.17	22,22,22,22	0
54	MG	BB	3036	1/1	0.96	0.13	62,62,62,62	0
54	MG	BB	3014	1/1	0.96	0.13	58,58,58,58	0
54	MG	DB	3017	1/1	0.96	0.10	5,5,5,5	0
54	MG	AA	1603	1/1	0.96	0.10	14,14,14,14	0
54	MG	CA	1633	1/1	0.96	0.14	50,50,50,50	0
54	MG	DB	3085	1/1	0.96	0.13	49,49,49,49	0
54	MG	CA	1634	1/1	0.96	0.10	23,23,23,23	0
54	MG	DB	3090	1/1	0.96	0.31	64,64,64,64	0
54	MG	DB	3092	1/1	0.96	0.15	56,56,56,56	0
54	MG	BB	3103	1/1	0.96	0.09	20,20,20,20	0
54	MG	DB	3095	1/1	0.96	0.12	88,88,88,88	0
54	MG	DB	3027	1/1	0.96	0.17	28,28,28,28	0
54	MG	BB	3107	1/1	0.96	0.08	30,30,30,30	0
54	MG	DB	3104	1/1	0.96	0.19	71,71,71,71	0
54	MG	BB	3041	1/1	0.96	0.15	8,8,8,8	0
54	MG	DB	3032	1/1	0.96	0.09	51,51,51,51	0
54	MG	BB	3071	1/1	0.96	0.09	89,89,89,89	0
54	MG	AA	1612	1/1	0.96	0.12	88,88,88,88	0
54	MG	CA	1607	1/1	0.96	0.07	83,83,83,83	0
54	MG	CA	1608	1/1	0.96	0.09	139,139,139,139	0
54	MG	BB	3077	1/1	0.96	0.07	83,83,83,83	0
54	MG	CA	1610	1/1	0.96	0.07	75,75,75,75	0
54	MG	BB	3029	1/1	0.96	0.11	17,17,17,17	0
54	MG	DB	3039	1/1	0.97	0.08	69,69,69,69	0
54	MG	CA	1648	1/1	0.97	0.19	14,14,14,14	0
54	MG	AA	1617	1/1	0.97	0.12	100,100,100,100	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	DB	3046	1/1	0.97	0.07	11,11,11,11	0
54	MG	AA	1621	1/1	0.97	0.17	26,26,26,26	0
54	MG	AA	1605	1/1	0.97	0.09	47,47,47,47	0
54	MG	AA	1642	1/1	0.97	0.12	41,41,41,41	0
54	MG	CA	1656	1/1	0.97	0.05	11,11,11,11	0
54	MG	BB	3074	1/1	0.97	0.14	13,13,13,13	0
54	MG	CA	1611	1/1	0.97	0.06	57,57,57,57	0
54	MG	BB	3075	1/1	0.97	0.16	29,29,29,29	0
54	MG	BB	3039	1/1	0.97	0.07	5,5,5,5	0
54	MG	BB	3021	1/1	0.97	0.10	51,51,51,51	0
54	MG	AA	1652	1/1	0.97	0.08	90,90,90,90	0
54	MG	DB	3062	1/1	0.97	0.04	67,67,67,67	0
54	MG	DB	3001	1/1	0.97	0.09	6,6,6,6	0
54	MG	BB	3023	1/1	0.97	0.20	11,11,11,11	0
54	MG	DB	3065	1/1	0.97	0.06	45,45,45,45	0
54	MG	BB	3044	1/1	0.97	0.08	52,52,52,52	0
54	MG	DB	3067	1/1	0.97	0.13	16,16,16,16	0
54	MG	DB	3007	1/1	0.97	0.11	13,13,13,13	0
54	MG	AA	1653	1/1	0.97	0.18	87,87,87,87	0
54	MG	DB	3011	1/1	0.97	0.27	33,33,33,33	0
54	MG	BB	3005	1/1	0.97	0.19	20,20,20,20	0
54	MG	BB	3091	1/1	0.97	0.10	37,37,37,37	0
54	MG	AA	1643	1/1	0.97	0.03	29,29,29,29	0
54	MG	BB	3028	1/1	0.97	0.15	61,61,61,61	0
54	MG	DB	3018	1/1	0.97	0.10	22,22,22,22	0
54	MG	AA	1633	1/1	0.97	0.03	48,48,48,48	0
54	MG	BB	3052	1/1	0.97	0.08	36,36,36,36	0
54	MG	DB	3023	1/1	0.97	0.10	17,17,17,17	0
54	MG	CA	1630	1/1	0.97	0.28	52,52,52,52	0
54	MG	DB	3025	1/1	0.97	0.17	42,42,42,42	0
54	MG	AA	1634	1/1	0.97	0.07	67,67,67,67	0
54	MG	DB	3102	1/1	0.97	0.09	22,22,22,22	0
54	MG	BB	3032	1/1	0.97	0.21	49,49,49,49	0
54	MG	DB	3105	1/1	0.97	0.08	30,30,30,30	0
54	MG	BB	3056	1/1	0.97	0.06	31,31,31,31	0
54	MG	DB	3108	1/1	0.97	0.10	5,5,5,5	0
54	MG	AA	1616	1/1	0.97	0.06	42,42,42,42	0
54	MG	BB	3058	1/1	0.97	0.09	11,11,11,11	0
54	MG	DB	3111	1/1	0.97	0.18	32,32,32,32	0
54	MG	CA	1640	1/1	0.97	0.08	5,5,5,5	0
54	MG	AA	1628	1/1	0.97	0.12	59,59,59,59	0
54	MG	CA	1603	1/1	0.97	0.09	29,29,29,29	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	CA	1604	1/1	0.97	0.27	16,16,16,16	0
54	MG	CA	1605	1/1	0.97	0.12	18,18,18,18	0
54	MG	CA	1647	1/1	0.97	0.07	65,65,65,65	0
54	MG	CA	1644	1/1	0.98	0.07	68,68,68,68	0
54	MG	CA	1645	1/1	0.98	0.10	66,66,66,66	0
54	MG	BB	3062	1/1	0.98	0.05	27,27,27,27	0
54	MG	DB	3040	1/1	0.98	0.09	18,18,18,18	0
54	MG	DB	3041	1/1	0.98	0.08	34,34,34,34	0
54	MG	BB	3082	1/1	0.98	0.19	5,5,5,5	0
54	MG	DB	3044	1/1	0.98	0.07	21,21,21,21	0
54	MG	BB	3083	1/1	0.98	0.21	28,28,28,28	0
54	MG	BB	3084	1/1	0.98	0.20	77,77,77,77	0
54	MG	DB	3047	1/1	0.98	0.11	19,19,19,19	0
54	MG	DB	3049	1/1	0.98	0.07	9,9,9,9	0
54	MG	BB	3063	1/1	0.98	0.14	28,28,28,28	0
54	MG	DB	3051	1/1	0.98	0.20	32,32,32,32	0
54	MG	BB	3087	1/1	0.98	0.22	114,114,114,114	0
54	MG	CA	1653	1/1	0.98	0.04	51,51,51,51	0
54	MG	BB	3064	1/1	0.98	0.08	37,37,37,37	0
54	MG	CA	1612	1/1	0.98	0.07	72,72,72,72	0
54	MG	CA	1613	1/1	0.98	0.11	40,40,40,40	0
54	MG	BB	3089	1/1	0.98	0.19	25,25,25,25	0
54	MG	BB	3090	1/1	0.98	0.10	91,91,91,91	0
54	MG	AA	1610	1/1	0.98	0.06	62,62,62,62	0
54	MG	CA	1617	1/1	0.98	0.08	5,5,5,5	0
54	MG	CA	1618	1/1	0.98	0.12	30,30,30,30	0
54	MG	BB	3066	1/1	0.98	0.15	25,25,25,25	0
54	MG	DB	3002	1/1	0.98	0.08	6,6,6,6	0
54	MG	AA	1640	1/1	0.98	0.09	56,56,56,56	0
54	MG	DB	3005	1/1	0.98	0.16	45,45,45,45	0
54	MG	BB	3094	1/1	0.98	0.13	47,47,47,47	0
54	MG	CA	1622	1/1	0.98	0.10	18,18,18,18	0
54	MG	DB	3069	1/1	0.98	0.20	14,14,14,14	0
54	MG	DB	3070	1/1	0.98	0.10	38,38,38,38	0
54	MG	DB	3071	1/1	0.98	0.05	37,37,37,37	0
54	MG	BB	3069	1/1	0.98	0.14	10,10,10,10	0
54	MG	DB	3073	1/1	0.98	0.21	67,67,67,67	0
54	MG	DB	3009	1/1	0.98	0.17	18,18,18,18	0
54	MG	DB	3075	1/1	0.98	0.12	35,35,35,35	0
54	MG	DB	3076	1/1	0.98	0.14	104,104,104,104	0
54	MG	DB	3077	1/1	0.98	0.08	15,15,15,15	0
54	MG	DB	3079	1/1	0.98	0.12	34,34,34,34	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DB	3010	1/1	0.98	0.09	16,16,16,16	0
54	MG	BB	3096	1/1	0.98	0.15	67,67,67,67	0
54	MG	DB	3082	1/1	0.98	0.08	57,57,57,57	0
54	MG	DB	3012	1/1	0.98	0.09	12,12,12,12	0
54	MG	DB	3084	1/1	0.98	0.14	16,16,16,16	0
54	MG	BB	3070	1/1	0.98	0.19	59,59,59,59	0
54	MG	DB	3086	1/1	0.98	0.20	52,52,52,52	0
54	MG	DB	3088	1/1	0.98	0.16	46,46,46,46	0
54	MG	BB	3098	1/1	0.98	0.16	16,16,16,16	0
54	MG	BB	3007	1/1	0.98	0.07	53,53,53,53	0
54	MG	AA	1611	1/1	0.98	0.09	77,77,77,77	0
54	MG	BB	3101	1/1	0.98	0.05	5,5,5,5	0
54	MG	DB	3094	1/1	0.98	0.10	55,55,55,55	0
54	MG	DB	3019	1/1	0.98	0.06	5,5,5,5	0
54	MG	BB	3102	1/1	0.98	0.04	31,31,31,31	0
54	MG	DB	3099	1/1	0.98	0.20	5,5,5,5	0
54	MG	CA	1631	1/1	0.98	0.09	40,40,40,40	0
54	MG	CA	1632	1/1	0.98	0.08	18,18,18,18	0
54	MG	DB	3103	1/1	0.98	0.11	42,42,42,42	0
54	MG	AA	1604	1/1	0.98	0.09	19,19,19,19	0
54	MG	BB	3106	1/1	0.98	0.11	39,39,39,39	0
54	MG	BB	3055	1/1	0.98	0.19	53,53,53,53	0
54	MG	DB	3107	1/1	0.98	0.07	11,11,11,11	0
54	MG	BB	3046	1/1	0.98	0.08	64,64,64,64	0
54	MG	DB	3028	1/1	0.98	0.18	58,58,58,58	0
54	MG	CA	1637	1/1	0.98	0.07	92,92,92,92	0
54	MG	BB	3109	1/1	0.98	0.07	59,59,59,59	0
54	MG	DB	3031	1/1	0.98	0.07	24,24,24,24	0
54	MG	CA	1639	1/1	0.98	0.07	7,7,7,7	0
54	MG	AA	1638	1/1	0.98	0.07	20,20,20,20	0
54	MG	CA	1601	1/1	0.98	0.17	5,5,5,5	0
54	MG	BB	3012	1/1	0.98	0.09	53,53,53,53	0
54	MG	BB	3030	1/1	0.98	0.04	70,70,70,70	0
54	MG	DB	3087	1/1	0.99	0.15	75,75,75,75	0
54	MG	DB	3014	1/1	0.99	0.12	43,43,43,43	0
54	MG	BB	3025	1/1	0.99	0.06	42,42,42,42	0
54	MG	BB	3040	1/1	0.99	0.12	27,27,27,27	0
54	MG	DB	3091	1/1	0.99	0.14	5,5,5,5	0
54	MG	BB	3059	1/1	0.99	0.11	60,60,60,60	0
54	MG	BB	3085	1/1	0.99	0.11	43,43,43,43	0
54	MG	BB	3060	1/1	0.99	0.08	22,22,22,22	0
54	MG	BB	3073	1/1	0.99	0.23	38,38,38,38	0

Continued on next page...

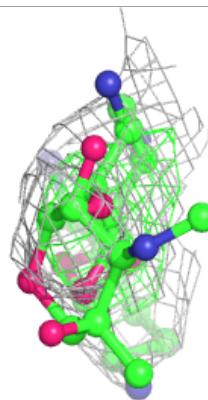
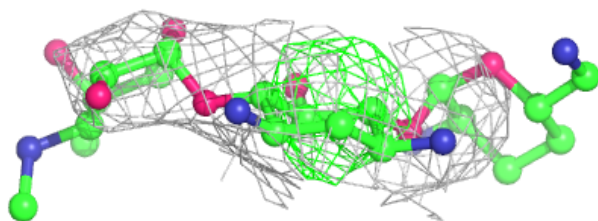
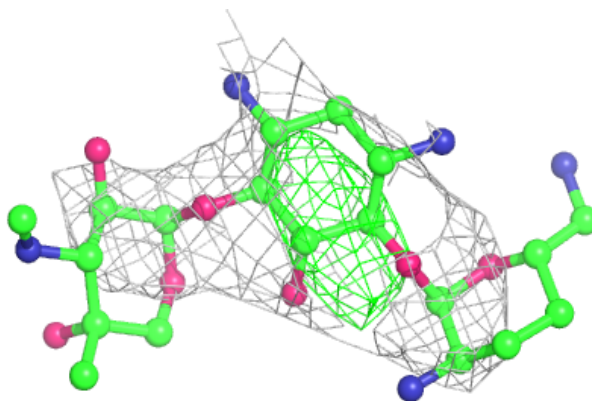
Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DB	3096	1/1	0.99	0.16	20,20,20,20	0
54	MG	DB	3043	1/1	0.99	0.08	32,32,32,32	0
54	MG	DB	3098	1/1	0.99	0.17	28,28,28,28	0
54	MG	DB	3021	1/1	0.99	0.08	51,51,51,51	0
54	MG	BB	3006	1/1	0.99	0.08	20,20,20,20	0
54	MG	DB	3101	1/1	0.99	0.25	25,25,25,25	0
54	MG	AA	1609	1/1	0.99	0.11	5,5,5,5	0
54	MG	BB	3104	1/1	0.99	0.16	28,28,28,28	0
54	MG	DB	3048	1/1	0.99	0.08	34,34,34,34	0
54	MG	BB	3105	1/1	0.99	0.05	60,60,60,60	0
54	MG	DB	3004	1/1	0.99	0.13	69,69,69,69	0
54	MG	BB	3076	1/1	0.99	0.06	20,20,20,20	0
54	MG	BB	3015	1/1	0.99	0.08	42,42,42,42	0
54	MG	DB	3078	1/1	0.99	0.08	32,32,32,32	0
54	MG	BB	3016	1/1	0.99	0.13	91,91,91,91	0
54	MG	CA	1650	1/1	0.99	0.07	33,33,33,33	0
54	MG	BB	3045	1/1	0.99	0.04	38,38,38,38	0
54	MG	DB	3056	1/1	0.99	0.12	12,12,12,12	0
54	MG	BB	3011	1/1	0.99	0.21	29,29,29,29	0
54	MG	AA	1629	1/1	0.99	0.05	26,26,26,26	0
54	MG	CA	1602	1/1	0.99	0.12	11,11,11,11	0
54	MG	CA	1655	1/1	0.99	0.07	25,25,25,25	0
54	MG	BB	3068	1/1	1.00	0.05	61,61,61,61	0

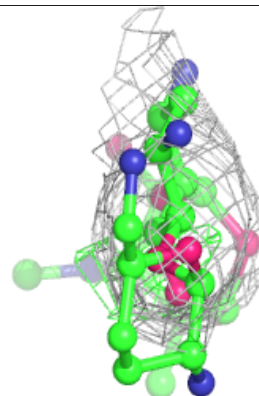
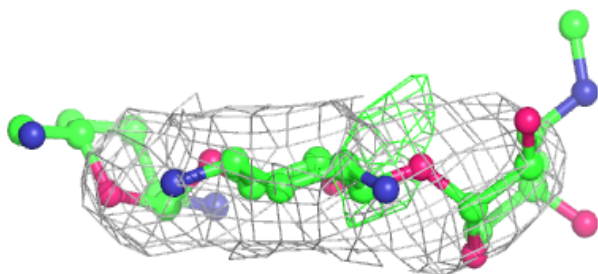
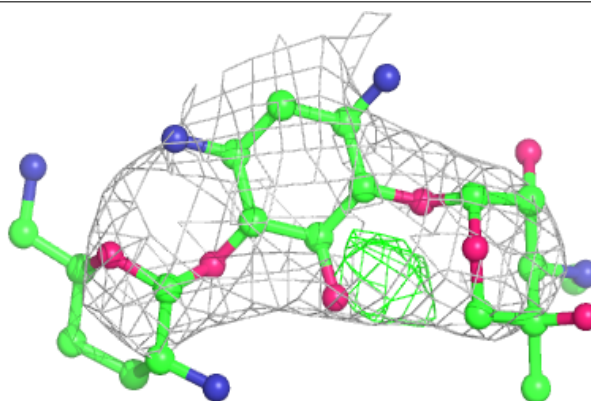
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around LLL DB 3112:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

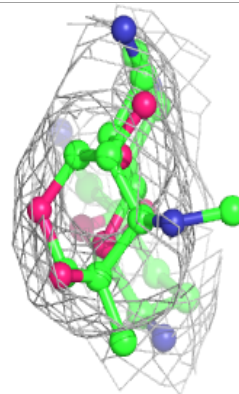
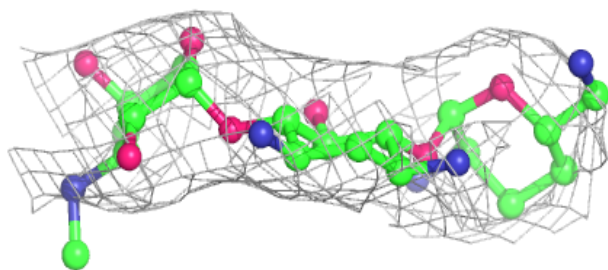
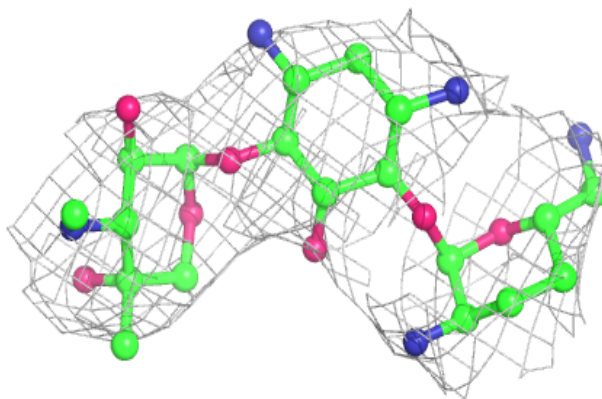
**Electron density around LLL BB 3111:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

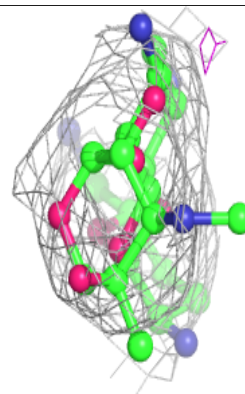
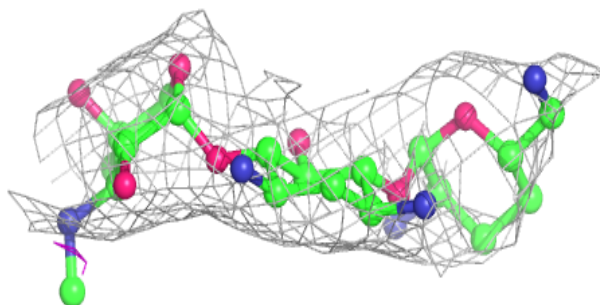
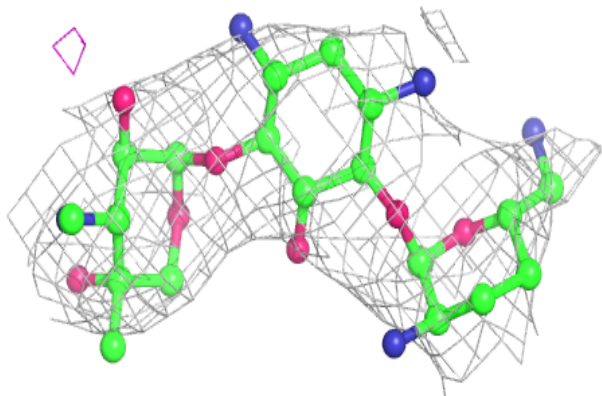


Electron density around LLL CA 1662:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around LLL AA 1661:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.