



Full wwPDB EM Validation Report ⓘ

Nov 20, 2022 – 12:29 PM EST

PDB ID : 3JBO
EMDB ID : EMD-6452
Title : Cryo-electron microscopy reconstruction of the Plasmodium falciparum 80S ribosome bound to P/E-tRNA
Authors : Sun, M.; Li, W.; Blomqvist, K.; Das, S.; Hashem, Y.; Dvorin, J.D.; Frank, J.
Deposited on : 2015-09-16
Resolution : 5.80 Å (reported)
Based on initial models : 3J7A, 3J79

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

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

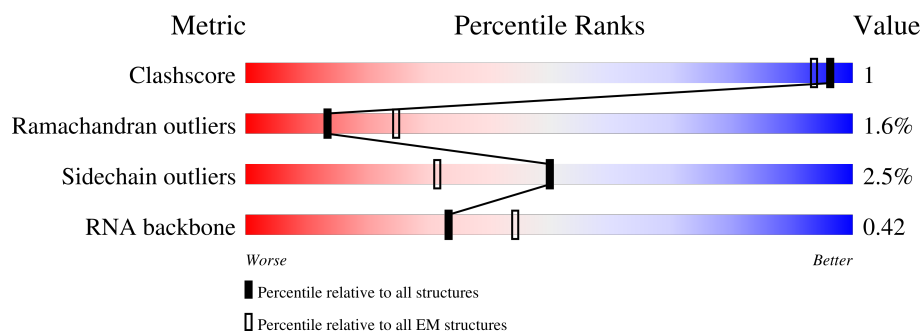
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

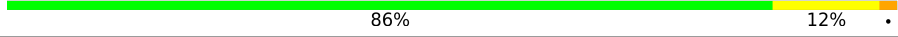
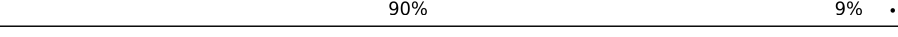
The reported resolution of this entry is 5.80 Å.

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






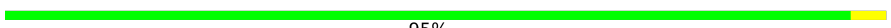









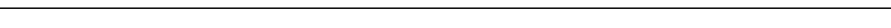

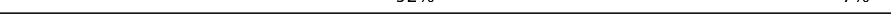


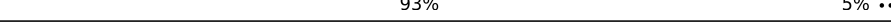

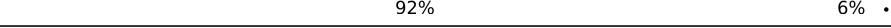



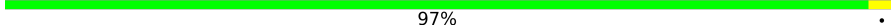
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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

Mol	Chain	Length	Quality of chain
1	A	1608	 32% 45% 20% •
2	7	75	 17% 49% 32% •
3	Q	144	 86% 12% •
4	S	128	 85% 12% •
5	T	48	 90% 8% •
6	M	138	 90% 9% •
7	U	149	 92% 7% ••


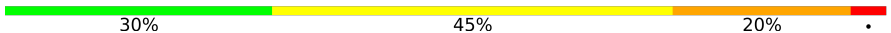
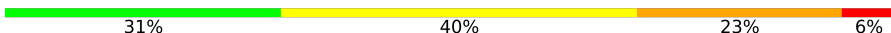


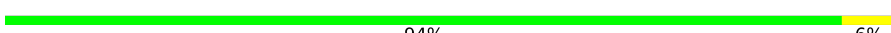











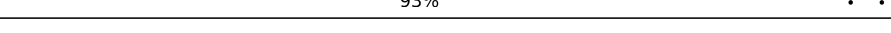



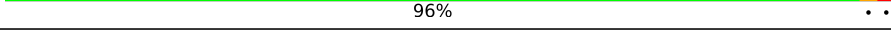

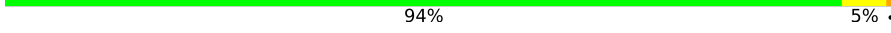

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Mol	Chain	Length	Quality of chain
8	V	156	 83% 9% • 6%
9	E	185	 91% 8% •
10	X	103	 83% 9% • 7%
11	G	224	 95% •
12	W	108	 81% 7% 12%
13	R	114	 82% • 14%
14	I	189	 87% 7% • 5%
15	O	79	 87% 13%
16	Y	154	 86% 14%
17	Z	72	 97% •
18	1	120	 88% 12% •
19	2	68	 54% 6% 40%
20	C	195	 95% 5% •
21	3	95	 87% 12% •
22	4	76	 92% 7% •
23	5	65	 77% 12% 11%
24	6	43	 86% 9% 5%
25	B	210	 93% 5% ••
26	D	209	 70% • 25%
27	F	257	 92% 6% •
28	H	214	 88% 7% 5%
29	K	129	 90% 9% •
30	J	188	 91% 9%
31	N	98	 97% •
32	P	127	 89% 9% •


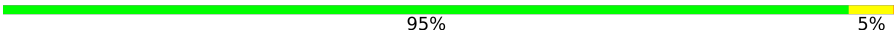




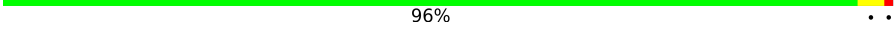


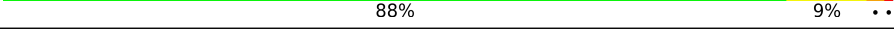


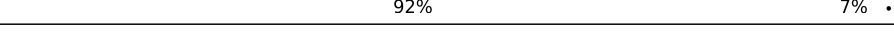
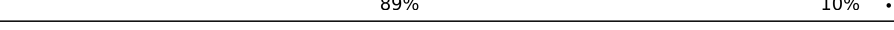


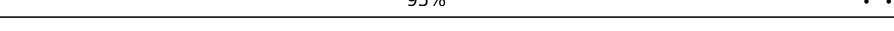




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Mol	Chain	Length	Quality of chain
33	L	214	
34	AA	3192	
35	AC	151	
36	AB	118	
37	AL	211	
38	A0	62	
39	AO	147	
40	Ai	95	
41	A2	118	
42	A4	66	
43	A6	98	
44	A7	102	
45	A1	145	
46	AN	146	
47	A8	125	
48	A9	103	
49	Aa	106	
50	Ab	105	
51	Ad	76	
52	Ae	50	
53	Af	51	
54	AP	204	
55	Ah	85	
56	AI	213	
57	Ac	89	

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Mol	Chain	Length	Quality of chain
58	AK	201	 90% 8% .
59	AM	132	 95% 5% .
60	AS	186	 87% 8% 5%
61	AQ	205	 79% 10% . 8%
62	AR	289	 79% 6% . 13%
63	AW	170	 91% 8% ..
64	AY	101	 96% . .
65	AT	181	 89% 9% .
66	AZ	121	 88% 11% .
67	A3	119	 88% 9% ..
68	A5	223	 89% 9% .
69	AD	247	 89% 9% .
70	AE	380	 92% 7% .
71	AF	390	 89% 10% .
72	AG	159	 68% 9% . 22%
73	AU	180	 88% 10% .
74	AH	185	 95% . .
75	AV	155	 90% 9% .
76	Ag	37	 76% 19% 5%
77	AX	97	 92% 7% .
78	AJ	244	 86% . . 9%

2 Entry composition

There are 78 unique types of molecules in this entry. The entry contains 193017 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1608	Total	C	N	O	P	0	0
			34207	15346	6106	11169	1586		

- Molecule 2 is a RNA chain called P/E-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	7	75	Total	C	N	O	P	0	0
			1598	713	290	521	74		

- Molecule 3 is a protein called 40S ribosomal protein uS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	Q	144	Total	C	N	O	S	0	0
			1129	712	222	193	2		

- Molecule 4 is a protein called 40S ribosomal protein uS13.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	S	128	Total	C	N	O	S	0	0
			1047	657	205	181	4		

- Molecule 5 is a protein called 40S ribosomal protein uS14.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	T	48	Total	C	N	O	S	0	0
			405	252	85	64	4		

- Molecule 6 is a protein called 40S ribosomal protein uS9.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	M	138	Total	C	N	O	S	0	0
			1099	704	200	194	1		

- Molecule 7 is a protein called 40S ribosomal protein uS15.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	U	149	Total	C	N	O	S	0	0
			1202	769	220	210	3		

- Molecule 8 is a protein called 40S ribosomal protein uS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	V	146	Total	C	N	O	S	0	0
			1206	772	227	200	7		

- Molecule 9 is a protein called 40S ribosomal protein uS4.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	E	185	Total	C	N	O	S	0	0
			1515	962	290	261	2		

- Molecule 10 is a protein called 40S ribosomal protein uS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	X	96	Total	C	N	O	S	0	0
			777	497	137	139	4		

- Molecule 11 is a protein called 40S ribosomal protein uS5.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	G	224	Total	C	N	O	S	0	0
			1758	1132	307	310	9		

- Molecule 12 is a protein called 40S ribosomal protein eS17.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	W	95	Total	C	N	O	S	0	0
			786	498	149	136	3		

- Molecule 13 is a protein called 40S ribosomal protein eS12.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	R	98	Total	C	N	O	S	0	0
			747	474	123	146	4		

- Molecule 14 is a protein called 40S ribosomal protein uS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	I	180	Total	C	N	O	S	0	0
			1424	893	263	258	10		

- Molecule 15 is a protein called 40S ribosomal protein eS10.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	79	Total	C	N	O	S	0	0
			687	450	116	119	2		

- Molecule 16 is a protein called 40S ribosomal protein eS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	Y	154	Total	C	N	O	S	0	0
			1267	811	239	215	2		

- Molecule 17 is a protein called 40S ribosomal protein eS21.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Z	72	Total	C	N	O	S	0	0
			557	346	102	105	4		

- Molecule 18 is a protein called 40S ribosomal protein eS24.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	1	120	Total	C	N	O	S	0	0
			986	632	189	163	2		

- Molecule 19 is a protein called 40S ribosomal protein eS25.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	2	41	Total	C	N	O	0	0
			321	208	56	57		

- Molecule 20 is a protein called 40S ribosomal protein uS2.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	C	195	Total	C	N	O	S	0	0
			1539	990	266	274	9		

- Molecule 21 is a protein called 40S ribosomal protein eS26.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	3	95	Total	C	N	O	S	0	0
			782	478	169	129	6		

- Molecule 22 is a protein called 40S ribosomal protein eS27.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	4	76	Total	C	N	O	S	0	0
			586	368	102	107	9		

- Molecule 23 is a protein called 40S ribosomal protein eS28.

Mol	Chain	Residues	Atoms				AltConf	Trace
23	5	58	Total	C	N	O	0	0
			458	285	93	80		

- Molecule 24 is a protein called 40S ribosomal protein eS30.

Mol	Chain	Residues	Atoms				AltConf	Trace
24	6	43	Total	C	N	O	0	0
			346	213	75	58		

- Molecule 25 is a protein called 40S ribosomal protein eS1.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	B	210	Total	C	N	O	S	0	0
			1714	1097	301	304	12		

- Molecule 26 is a protein called 40S ribosomal protein uS3.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	D	157	Total	C	N	O	S	0	0
			1229	782	225	215	7		

- Molecule 27 is a protein called 40S ribosomal protein eS4.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	F	257	Total	C	N	O	S	0	0
			2062	1320	377	357	8		

- Molecule 28 is a protein called 40S ribosomal protein eS6.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	H	204	Total	C	N	O	S	0	0
			1648	1045	313	284	6		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
H	158	ILE	-	INSERTION	UNP Q8IDR9
H	195	ASP	GLU	CONFLICT	UNP Q8IDR9

- Molecule 29 is a protein called 40S ribosomal protein uS8.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	K	129	Total	C	N	O	S	0	0
			1037	665	189	178	5		

- Molecule 30 is a protein called 40S ribosomal protein eS7.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	J	188	Total	C	N	O	S	0	0
			1529	982	264	279	4		

- Molecule 31 is a protein called 40S ribosomal protein uS10.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	N	98	Total	C	N	O	S	0	0
			772	484	135	148	5		

- Molecule 32 is a protein called 40S ribosomal protein uS11.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	P	127	Total	C	N	O	S	0	0
			954	591	184	176	3		

- Molecule 33 is a protein called 40S ribosomal protein eS8.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	L	171	Total	C	N	O	S	0	0
			1383	872	264	243	4		

- Molecule 34 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	AA	3192	Total	C	N	O	P	0	0
			67862	30436	12049	22217	3160		

- Molecule 35 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	AC	151	Total	C	N	O	P	0	0
			3215	1444	589	1034	148		

- Molecule 36 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	AB	118	Total	C	N	O	P	0	0
			2522	1128	461	816	117		

- Molecule 37 is a protein called 60S ribosomal protein eL13.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	AL	211	Total	C	N	O	S	0	0
			1757	1116	346	291	4		

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AL	19	HIS	ARG	CONFLICT	UNP Q8IAX6
AL	20	ARG	HIS	CONFLICT	UNP Q8IAX6
AL	201	CYS	ARG	CONFLICT	UNP Q8IAX6

- Molecule 38 is a protein called 60S ribosomal protein eL24.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	A0	62	Total	C	N	O	S	0	0
			522	336	97	88	1		

- Molecule 39 is a protein called 60S ribosomal protein uL15.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	AO	147	Total	C	N	O	S	0	0
			1172	747	232	189	4		

- Molecule 40 is a protein called 60S ribosomal protein eL44.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	Ai	95	Total	C	N	O	S	0	0
			779	490	152	128	9		

- Molecule 41 is a protein called 60S ribosomal protein eL28.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	A2	104	Total	C	N	O	S	0	0
			831	529	151	148	3		

- Molecule 42 is a protein called 60S ribosomal protein eL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	A4	66	Total	C	N	O	S	0	0
			555	347	116	90	2		

- Molecule 43 is a protein called 60S ribosomal protein eL30.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	A6	98	Total	C	N	O	S	0	0
			741	462	132	140	7		

- Molecule 44 is a protein called 60S ribosomal protein eL31.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	A7	96	Total	C	N	O	S	0	0
			794	508	151	130	5		

- Molecule 45 is a protein called 60S ribosomal protein eL27.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	A1	140	Total	C	N	O	S	0	0
			1134	736	204	191	3		

- Molecule 46 is a protein called 60S ribosomal protein eL14.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	AN	146	Total	C	N	O	S	0	0
			1202	781	210	205	6		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AN	?	-	LYS	DELETION	UNP Q8ILE8

- Molecule 47 is a protein called 60S ribosomal protein eL32.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	A8	125	Total	C	N	O	S	0	0
			1037	660	206	164	7		

- Molecule 48 is a protein called 60S ribosomal protein eL33.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	A9	103	Total	C	N	O	S	0	0
			845	543	163	136	3		

- Molecule 49 is a protein called 60S ribosomal protein eL34.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Aa	106	Total	C	N	O	S	0	0
			859	530	184	139	6		

- Molecule 50 is a protein called 60S ribosomal protein eL36.

Mol	Chain	Residues	Atoms				AltConf	Trace
50	Ab	95	Total	C	N	O	0	0
			757	477	150	130		

- Molecule 51 is a protein called 60S ribosomal protein eL38.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Ad	72	Total	C	N	O	S	0	0
			604	395	107	100	2		

- Molecule 52 is a protein called 60S ribosomal protein eL39.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Ae	43	Total	C	N	O	S	0	0
			388	243	92	52	1		

- Molecule 53 is a protein called 60S ribosomal protein eL40.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	Af	51	Total	C	N	O	S	0	0
			414	255	87	67	5		

- Molecule 54 is a protein called 60S ribosomal protein eL15.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	AP	204	Total	C	N	O	S	0	0
			1697	1075	351	267	4		

- Molecule 55 is a protein called 60S ribosomal protein eL43.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Ah	85	Total	C	N	O	S	0	0
			659	417	127	108	7		

- Molecule 56 is a protein called 60S ribosomal protein eL6.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	AI	207	Total	C	N	O	S	0	0
			1685	1096	298	286	5		

- Molecule 57 is a protein called 60S ribosomal protein eL37.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Ac	89	Total	C	N	O	S	0	0
			710	441	150	114	5		

- Molecule 58 is a protein called 60S ribosomal protein uL13.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	AK	201	Total	C	N	O	S	0	0
			1660	1064	311	277	8		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AK	109	ALA	TYR	CONFLICT	UNP Q8IJZ7

- Molecule 59 is a protein called 60S ribosomal protein uL14.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	AM	132	Total	C	N	O	S	0	0
			996	631	179	178	8		

- Molecule 60 is a protein called 60S ribosomal protein eL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	AS	186	Total	C	N	O	S	0	0
			1503	958	299	241	5		

- Molecule 61 is a protein called 60S ribosomal protein uL16.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	AQ	189	Total	C	N	O	S	0	0
			1545	984	291	262	8		

- Molecule 62 is a protein called 60S ribosomal protein uL18.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	AR	252	Total	C	N	O	S	0	0
			2050	1300	385	359	6		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AR	?	-	LYS	DELETION	UNP Q8ILL3

- Molecule 63 is a protein called 60S ribosomal protein uL22.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	AW	170	Total	C	N	O	S	0	0
			1319	824	266	222	7		

- Molecule 64 is a protein called 60S ribosomal protein uL23.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	AY	101	Total	C	N	O	S	0	0
			797	502	144	145	6		

- Molecule 65 is a protein called 60S ribosomal protein eL19.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	AT	181	Total	C	N	O	S	0	0
			1509	952	309	244	4		

- Molecule 66 is a protein called 60S ribosomal protein uL24.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	AZ	121	Total	C	N	O	S	0	0
			1001	626	206	166	3		

- Molecule 67 is a protein called 60S ribosomal protein uL29.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	A3	119	Total	C	N	O	S	0	0
			995	635	194	164	2		

- Molecule 68 is a protein called 60S ribosomal protein uL30.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	A5	223	Total	C	N	O	S	0	0
			1879	1211	357	306	5		

- Molecule 69 is a protein called 60S ribosomal protein uL2.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	AD	247	Total	C	N	O	S	0	0
			1867	1166	374	318	9		

- Molecule 70 is a protein called 60S ribosomal protein uL3.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	AE	380	Total	C	N	O	S	0	0
			3062	1948	575	522	17		

- Molecule 71 is a protein called 60S ribosomal protein uL4.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	AF	390	Total	C	N	O	S	0	0
			3095	1962	594	528	11		

- Molecule 72 is a protein called 60S ribosomal protein uL5.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	AG	124	Total	C	N	O	S	0	0
			1011	636	197	172	6		

- Molecule 73 is a protein called 60S ribosomal protein eL20.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	AU	180	Total	C	N	O	S	0	0
			1497	946	289	255	7		

- Molecule 74 is a protein called 60S ribosomal protein uL6.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	AH	185	Total	C	N	O	S	0	0
			1476	950	264	256	6		

- Molecule 75 is a protein called 60S ribosomal protein eL21.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	AV	155	Total	C	N	O	S	0	0
			1276	814	241	215	6		

- Molecule 76 is a protein called 60S ribosomal protein eL41.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Ag	37	Total	C	N	O	S	0	0
			343	210	86	45	2		

- Molecule 77 is a protein called 60S ribosomal protein eL22.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	AX	97	Total	C	N	O	S	0	0
			825	548	135	140	2		

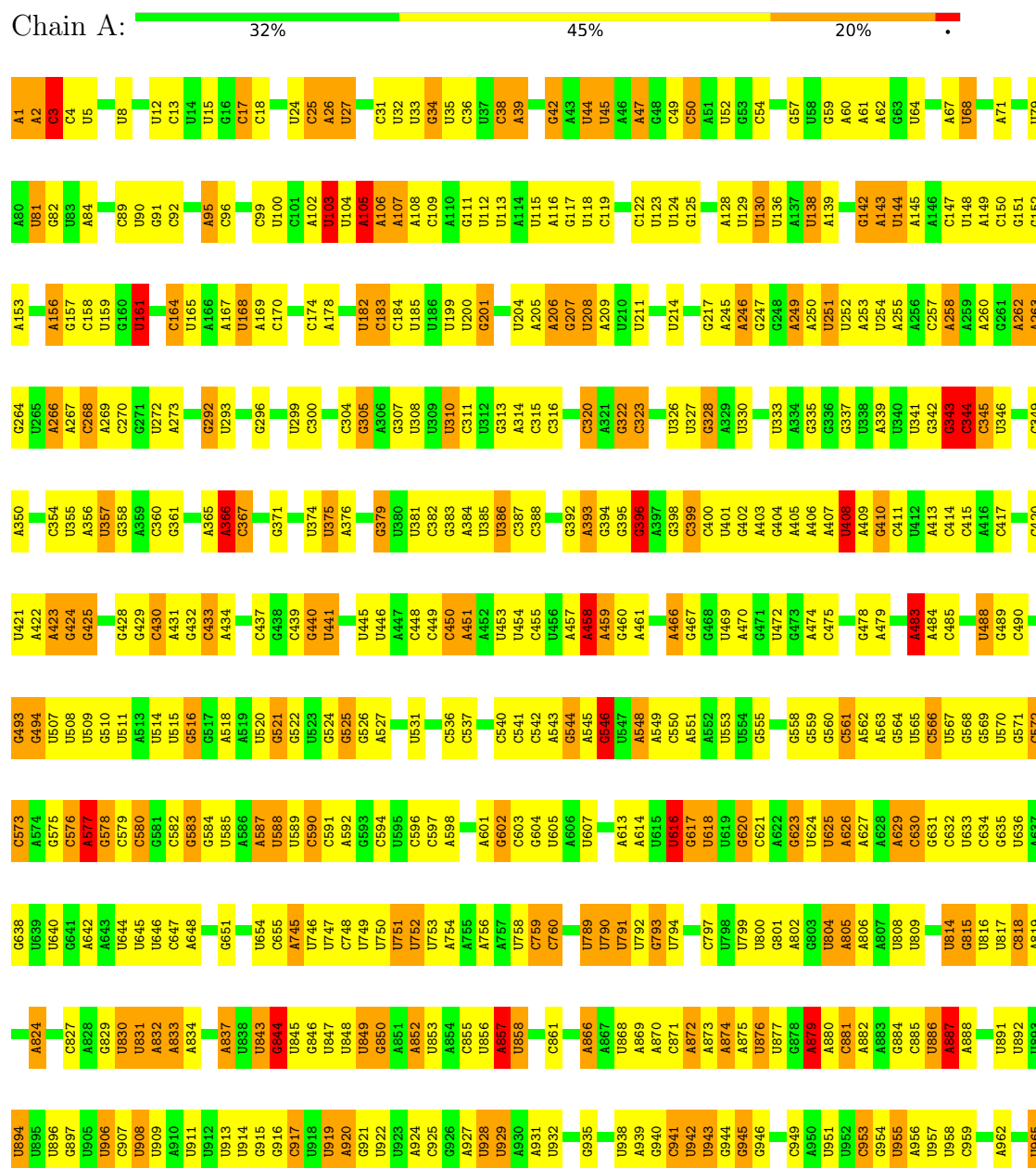
- Molecule 78 is a protein called 60S ribosomal protein eL8.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	AJ	222	Total	C	N	O	S	0	0
			1813	1174	323	309	7		

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. 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. 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: 18S ribosomal RNA



C966	U1008	U1100	C1206	U1275	A1376	U1450	U1661	A1730	U1829	U1891	U1954	C2052
A967	U1029	G1101	U1207	C1278	U1377	G1451	C1664	C1731	C1830	U1892	G1955	U2053
G968	C1030	C1102	G1208	C1279	C1380	G1452	G1665	A1732	G1831	C1893	C2054	A2054
A969	C1031	C1103	G1209	G1280	G1381	G1453	G1666	G1733	U1832	A1894	G1959	A2055
G970	A1035	G1104	G1210	G1281	G1382	G1454	A1667	U1735	G1833	U1895	G1960	C2056
G971	C1038	G1105	G1211	U1282	G1383	G1455	A1668	A1741	U1834	C1896	U1961	A2057
U972	C1039	C1106	C1212	U1283	U1384	G1456	A1669	A1742	U1835	A1897	A1962	A2058
A973	G1041	U1107	G1215	U1284	U1385	G1457	C1672	C1743	G1836	G1898	U1963	G2059
A974	G1042	A1108	G1219	A1285	A1388	G1458	C1673	U1745	G1837	A1899	U1964	G2060
A976	G1044	G1109	U1219	U1286	A1389	A1459	A1673	A1746	G1838	U1900	A1965	U2061
U977	C1045	G1110	G1220	U1287	G1390	C1461	G1674	U1747	U1839	U1901	U1966	U2062
U978	C1046	U1111	G1221	U1288	U1391	A1462	G1675	G1748	U1841	G1902	G1967	C2063
U979	U1051	G1112	C1222	G1289	U1392	C1463	U1676	C1749	A1842	G1903	U1972	C2064
C980	A1052	G1116	G1223	A1290	C1392	U1464	C1677	C1750	G1843	C1904	U1973	C2065
U981	A1053	A1117	C1224	U1291	U1403	A1604	U1678	C1751	A1844	U1905	U1974	A2066
A982	G1054	U1118	A1225	U1292	U1404	C1605	U1679	U1752	U1845	A1906	U1975	G2067
G983	G1055	G1119	G1226	C1293	U1405	U1606	U1680	U1753	U1846	A1907	G1976	G2068
A984	G1056	G1123	G1227	A1294	U1406	U1607	A1681	A1754	A1847	C1908	G1977	G2069
U985	A1057	G1124	C1228	U1295	U1407	G1608	A1682	C1755	U1848	U1909	C1978	C2070
G986	G1058	U1125	G1229	C1296	U1408	C1609	U1683	U1756	U1849	A1910	A1979	G2071
U987	U1059	U1126	A1230	U1297	U1409	C1610	U1684	U1757	G1850	C1911	A1980	A2072
U988	G1060	C1166	G1231	C1298	U1410	C1611	U1685	U1758	C1851	G1912	A1981	A2073
C989	A1061	C1169	A1232	G1299	G1411	G1612	C1686	U1759	A1852	U1913	U1982	C2074
U990	A1062	C1170	A1233	G1300	U1412	U1623	C1687	C1760	A1853	C1914	U2004	C2075
G991	G1063	C1171	C1236	G1301	U1413	U1624	C1688	C1761	U1854	C1915	U2005	C2076
A993	A1064	U1172	A1239	G1302	U1414	C1625	G1689	U1762	U1855	C1916	U2006	C2077
G994	G1066	C1173	A1240	A1303	U1415	U1626	A1692	C1763	A1856	C1917	U2007	G2078
A995	A1067	A1174	A1241	A1304	U1416	G1627	U1693	G1764	U1857	U1918	U2008	G2079
C996	C1068	G1175	G1242	C1306	U1417	U1628	C1697	U1765	U1858	G1919	C2009	A2080
C1000	C1069	U1176	G1243	U1307	U1418	A1630	U1698	C1766	G1859	C1920	U2010	U2087
A1001	A1070	A1177	G1247	C1308	C1419	G1631	U1701	U1767	U1860	C1921	G2011	U2090
A1002	G1071	C1178	A1248	A1309	U1420	C1635	C1702	A1768	C1862	U1922	G2012	
G1003	A1072	C1179	C1249	U1310	U1421	A1636	U1703	A1800	U1863	U1923	A2013	
U1004	U1073	U1180	G1250	U1311	U1422	U1637	G1704	A1801	U1864	U1924	A2014	
G1005	C1075	A1181	G1251	G1312	A1423	U1638	C1705	G1802	G1865	U1927	C2018	
G1006	C1076	A1182	C1252	G1313	U1424	U1639	A1706	G1803	A1866	C1928	C2019	
G1007	G1077	U1183	G1253	U1314	C1425	G1639	C1707	C1804	A1867	C1929	G2020	
A1008	U1078	A1185	G1254	U1315	U1426	U1640	U1708	U1809	C1868	U1930	U2021	
A1009	C1079	G1186	G1255	U1316	A1427	G1641	C1709	U1810	G1869	A1932	A2022	
A1010	G1080	G1187	G1256	A1317	U1428	U1642	C1713	U1811	A1870	C1933	U2025	
G1011	U1081	A1188	C1257	G1318	C1429	U1643	U1714	A1812	G1871	G1934	C2026	
C1012	A1082	A1189	C1258	A1320	U1432	U1644	U1715	U1813	A1872	U1935	C2027	
A1013	U1086	U1190	C1259	C1321	A1433	U1645	C1716	C1814	A1873	C1936	U2028	
U1014	U1087	C1191	A1261	A1322	U1434	A1646	U1717	U1815	G1876	C1937	A2029	
U1015	A1088	A1192	C1262	U1362	U1435	A1647	U1718	U1816	C1877	C1938	G2030	
U1016	G1089	A1193	C1263	U1363	U1436	U1648	C1719	U1817	C1878	G1939	U2031	
G1017	A1090	A1194	A1264	G1364	U1437	A1650	U1719	A1818	C1881	U1940	U2032	
U1018	C1090	G1195	G1265	G1365	C1440	C1651	G1720	U1819	U1882	C1941	U2033	
C1019	A1091	U1196	G1266	A1366	U1441	A1652	A1721	C1820	A1883	U1944	U2034	
U1020	C1092	C1197	G1267	U1367	U1442	A1653	U1722	A1821	A1884	C1945	A2042	
A1021	U1093	U1198	G1268	G1368	U1443	G1654	U1723	U1822	G1885	U1946	U2043	
A1022	A1094	U1199	G1269	G1369	U1444	G1655	U1724	U1823	C1886	A1947	A2044	
A1023	A1095	U1200	G1270	U1370	U1445	A1656	A1725	A1824	C1887	U1948	A2045	
A1024	A1096	G1201	G1271	U1373	U1446	A1657	U1726	U1825	A1888	C1949	G2046	
U1025	C1097	U1202	A1272	G1374	U1447	G1658	U1727	A1826	U1889	U1950	U2047	
A1026	U1098	U1204	G1273	A1375	U1448	U1659	U1728	U1827	G1890	U1951	A2048	
C1027	A1099	U1205	C1274		U1449	U1660	A1729	A1828	A1890	U1953	G2051	

• Molecule 2: P/E-tRNA

Chain 7:  17% 49% 32%

C1	G2	C3	G4	G5	G6	G7	U8	G9	G12	C13	G14	G15	C16	C17	G18	G19	C20	A21	G22	C23	U24	C25	G26	U27	C28	G29	G30	G31	C32	C33	C34	A35	U36	A37	A38	C39	C40	C41	G42	A43	A44	G45	G46	U47	C48	G49	U50	C51	G52	G53	U54	U55	C56	A59	U60	C61	C62
----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



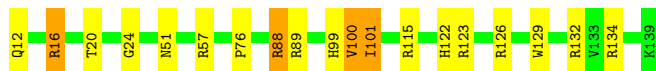
- Molecule 3: 40S ribosomal protein uS12

Chain Q: 86% 12% .



- Molecule 4: 40S ribosomal protein uS13

Chain S: 85% 12% .



- Molecule 5: 40S ribosomal protein uS14

Chain T: 90% 8% .



- Molecule 6: 40S ribosomal protein uS9

Chain M: 90% 9% .



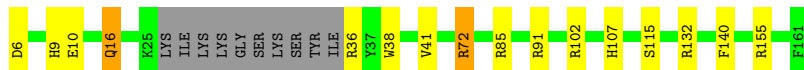
- Molecule 7: 40S ribosomal protein uS15

Chain U: 92% 7% ..



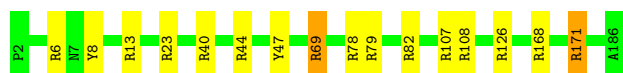
- Molecule 8: 40S ribosomal protein uS17

Chain V: 83% 9% 6%

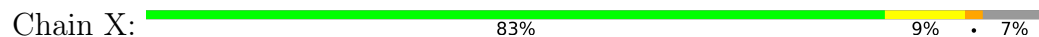


- Molecule 9: 40S ribosomal protein uS4

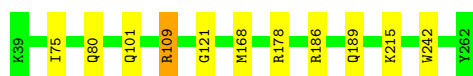
Chain E: 91% 8% .



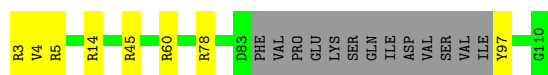
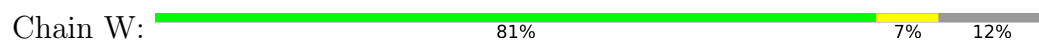
- Molecule 10: 40S ribosomal protein uS19



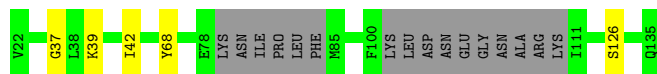
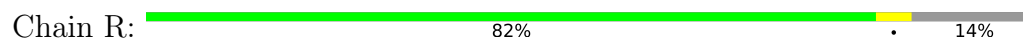
- Molecule 11: 40S ribosomal protein uS5



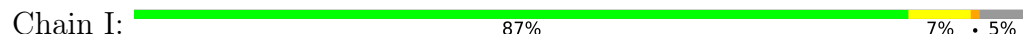
- Molecule 12: 40S ribosomal protein eS17



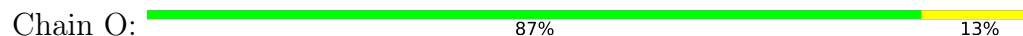
- Molecule 13: 40S ribosomal protein eS12



- Molecule 14: 40S ribosomal protein uS7



- Molecule 15: 40S ribosomal protein eS10



- Molecule 16: 40S ribosomal protein eS19





- Molecule 17: 40S ribosomal protein eS21

Chain Z: 97% .



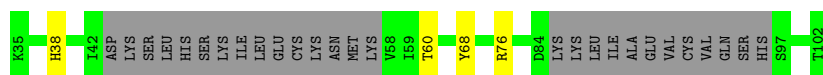
- Molecule 18: 40S ribosomal protein eS24

Chain 1: 88% 12% .



- Molecule 19: 40S ribosomal protein eS25

Chain 2: 54% 6% 40% .



- Molecule 20: 40S ribosomal protein uS2

Chain C: 95% 5% .



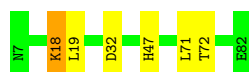
- Molecule 21: 40S ribosomal protein eS26

Chain 3: 87% 12% .



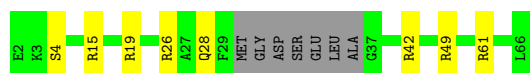
- Molecule 22: 40S ribosomal protein eS27

Chain 4: 92% 7% .



- Molecule 23: 40S ribosomal protein eS28

Chain 5: 77% 12% 11% .



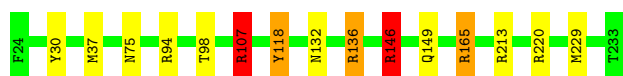
- Molecule 24: 40S ribosomal protein eS30

Chain 6: 86% 9% 5%



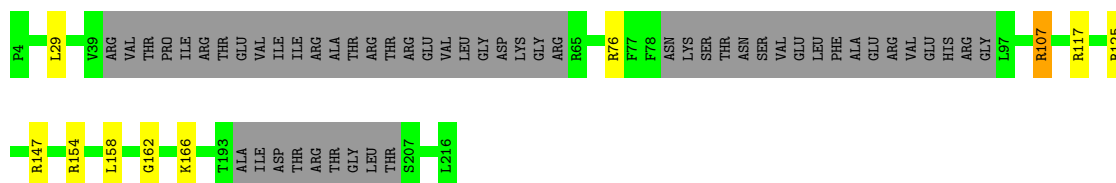
- Molecule 25: 40S ribosomal protein eS1

Chain B: 93% 5% ..



- Molecule 26: 40S ribosomal protein uS3

Chain D: 70% 25% .



- Molecule 27: 40S ribosomal protein eS4

Chain F: 92% 6% .



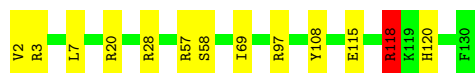
- Molecule 28: 40S ribosomal protein eS6

Chain H: 88% 7% 5%



- Molecule 29: 40S ribosomal protein uS8

Chain K: 90% 9% .



- Molecule 30: 40S ribosomal protein eS7

Topic	Number of Publications
A3	3
V4	4
Q5	5
P13	13
S31	31
K58	58
K67	67
P68	68
Y69	69
Y72	72
R78	78
A96	96
K97	97
R98	98
I112	112
Y123	123
L127	127
S132	132
R140	140
R149	149
R181	181
P190	190

- Chain N: 97%

- Chain P: 89% 9%

Topic	Number of Publications
E25	1
F41	4
B50	4
B55	4
B66	3
D67	6
E68	4
M75	1
R98	4
R121	3
R128	4
D131	7
R141	7
R146	10
R147	9
G148	10
R149	9
R150	10
L151	10

- Chain L:  71% 8% 20%

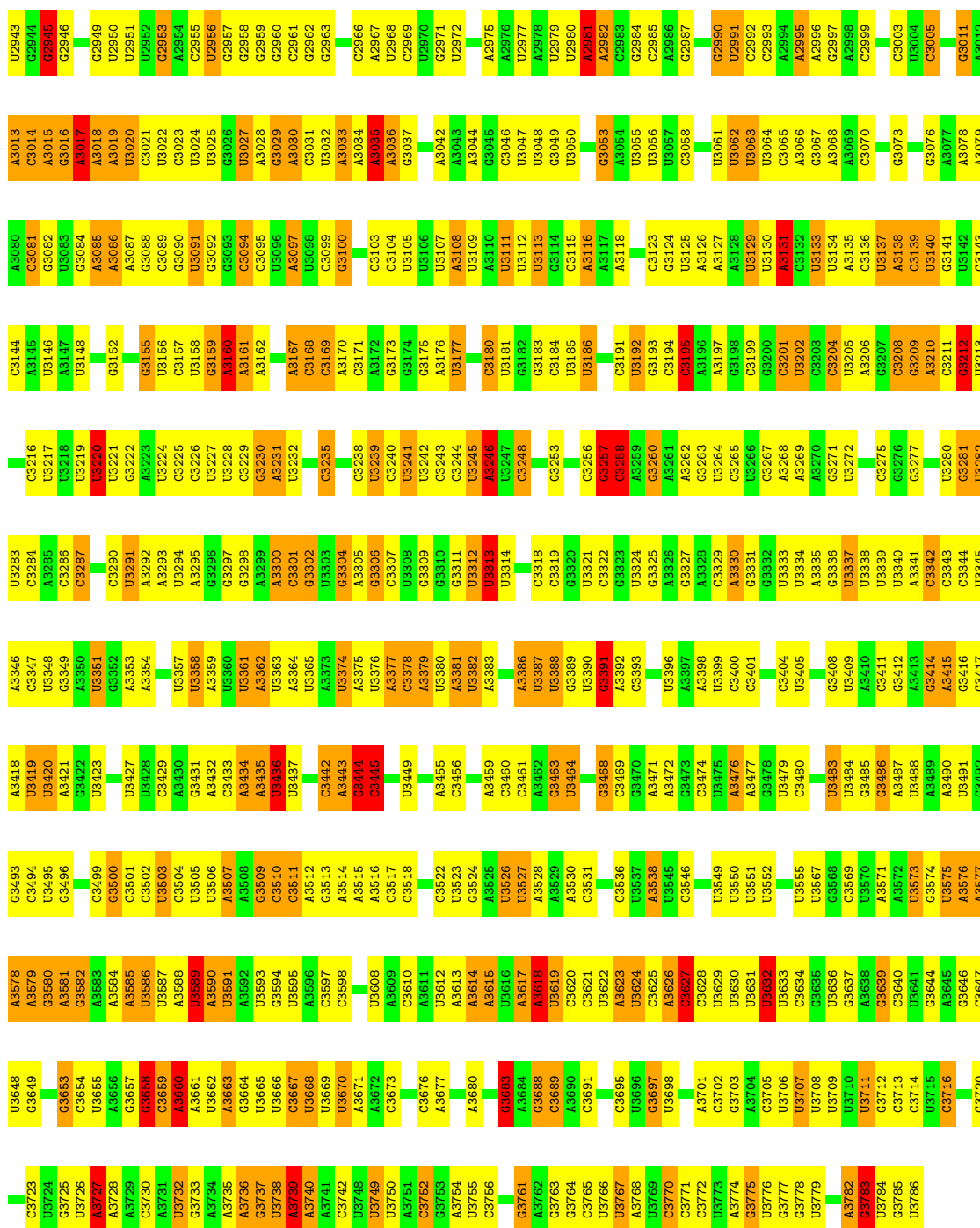
THR	R5
THR	
LYS	R8
THR	
TYR	R12
GLY	
VAL	R25
ILE	R26
LYS	Y27
LYS	E28
	L29
I162	G30
	R31
F176	
R210	R47
	G48
D213	R49
LYS	
K216	R56
R217	S64
N218	
	F70
	R77
	R92
	T120
	LEU
	GLY
	LYS
	LYS
	LYS
	LYS
	GLU
	LYS
	LYS
	GLU
	GLU
	ASP
	ASN
	GLU
	GLU
	GLU
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	ASN
	GLU
	ALA
	ALA
	LYS
	ASP
	GLU

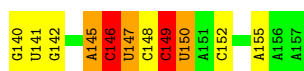
- Chain AA:  30% 45% 20% .

G10	A74	G137	A200	G256
A11	U75	C138	G201	G267
U12	G76	A139	C202	G268
G13	A77	A140	G205	A269
U14	U78	A141		G270
U15	U79	C142	A206	G271
A16	C80	C143	A207	U272
G17	C81	U144	U208	G273
G18	U82	U145	G209	G276
A19	U83	U146	C210	U277
G20	U84	G147	U211	G278
G21	A85	G148	U212	G281
G22	G86	A149	C213	G282
A23	U87	C150	C214	U283
A24	A88	G151	C215	G284
A25	A89	G152	C216	G289
A26	C90	A153	A217	U290
U27	C91	A154	U218	G291
C28	G92	U155	A219	U292
C29	C93	U156	G220	G293
G30	G94	U157	A221	G294
C31	G97	U158	U225	G297
G32		C159	A226	A299
G33	G98	U162	A227	C300
A34	A99		A228	U301
A35	A100	G163	A229	G302
U36	C101	A164	C230	A303
U37	U101	U165	G231	U304
U38	G104	A166	C232	A305
A39	G105	U167	C233	C306
A40	A106	A168	C234	G307
G41	C107	U169	A303	U308
C42	C108	C170	U235	G309
A43	A109	U171	A306	U310
U44	G110	C172	A237	G311
A45	C111	A173	G238	A312
U46	U112	U174	U239	U313
A47	C113	G175	U240	A314
A48	G116	U178	C241	C315
U49		C117	U243	A316
C54	G118	G179	U244	U317
	G119	C180	U245	U318
G55	U120	A181	U247	A319
G56	U121	U182		U320
A57	U122	U183	A247	C321
A58	A123	U184	U250	A322
G59	U124	A185	U251	U323
A60	C125	A186	U254	A324
A61		U189		A325
A62	C126	C255	C329	
U63	U127	G190		A256
G64	U128	A191	U257	U330
A65	C129	G192	U258	A331
A66	G130	C193	C259	A332
U69	U131	A194	G260	C333
	U132	A195	A261	G72
A70	U133	A196	A262	
A71	G134	G197	U263	U336
C72	A135	U198	G264	C337
U73	U136	C199	U265	



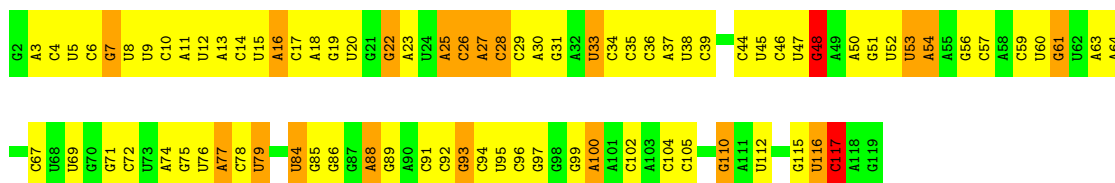
G3747	G2801	G2676	A2602	G2540	C2462	G2389	U2144	G2068	U1963	C1852	A1787	C1720	A1636	G1562	G1476
G2802	A2803	A2679	U2603	C2541	U2463	U2390	A2145	C2069	G1964	C1853	C1788	C1721	G1637	U1563	A1476
G2804	A2805	A2680	G2604	G2542	G2464	U2391	A2146	U2070	U1965	U1854	U1789	C1722	G1641	G1564	A1479
U2805	A2606	A2681	G2465	G2543	G2465	A2392	A2147	U2071	A1966	U1855	U1790	C1723	G1642	G1565	A1481
U2806	U2607	U2682	C2472	A2544	A2473	A2393	A2148	G2072	G1967	U1856	U1791	G1724	U1643	A1567	
U2807	G2608	A2683	A2474	G2545	A2473	U2395	A2149	C2074	A1968	A1857	U1792	C1725	U1644	A1568	A1486
U2808	U2611	G2684	C2474	A2547	C2474	C2396	A2153		U1971	C1861	U1794	U1727	U1645	C1569	U1487
A2809	U2614	G2685	U2477	A2548	U2477	C2401	A2154	C2080	U1974	C1865	A1797	C1728	U1646	U1570	U1493
A2810	C2615	G2686	G2478	A2549	U2478	U2402	G2157	U2081	U1974	C1866	A1798	A1729	U1647	C1571	
G2811	G2618	G2687	U2479	C2550	G2480	G2403	U2158	C2082	A1975	U1867	U1799	A1730	U1648	U1572	U1496
G2812	G2618	G2688	A2481	A2552	A2481	A2404	U2159	U2083	A1976	U1868	U1800	A1731	G1649	C1573	U1497
U2813		G2689		U2553			G2160	U2084	U1977	G1869	G1801	A1732	U1650	C1574	U1498
U2814	U2621	A2690		G2554		G2408	G2161	C2089	U1978	G1870			C1651	C1575	U1499
G2815	C2622	G2691	U2484	A2555	U2484	G2409		U2090	U1978	A1871	C1804	G1735	C1654	U1576	G1502
U2816	G2623	G2692	C2485	C2556	U2485	A2410	G2166	U2091	G1980	A1872	U1805	A1736	U1655	G1583	A1503
U2817	C2624	G2693	U2486	U2557	U2486	C2411	G2167	G2092	U1981	U1873	C1806	A1737	U1656	A1504	U1504
U2818	G2625	G2694	G2487	C2558	G2487		A2168	U2093	A1989	C1874	C1807	C1739	U1657	U1505	U1505
U2819	A2626	G2695	G2488	U2559	C2488	G2414	A2169	A2094	A1990		U1808	A1740	U1658	C1586	U1507
A2820	C2627	G2696	G2489	C2560	C2489	G2415	U2170	U2095	U1991	U1879	U1809	G1741	A1659	U1588	
G2821	U2627	G2697		U2561			U2171	G2096	U1994	A1880	U1810	G1742	U1660	G1589	U1510
U2822	G2628	C2698	C2495	C2562	C2495	A2419	C2172	A2097	U1994	C1881	A1811	U1743	U1661	G1592	U1511
G2823	U2629	G2699	U2496	A2563	U2496	U2420	G2173	G2098	G1995	U1882	C1812	U1744	C1665	G1593	A1512
A2824	C2630	A2654	U2497	A2564	U2497	C2421	G2174	C2099	G1996	C1883	A1813	G1745	A1666	A1594	U1513
U2825	C2631	G2702	U2498	G2565	U2498	C2422	C2175		G1997	C1884	U1814		A1667	G1595	U1514
C2826	U2703	U2704	G2499	G2566	G2499	G2423	A2176	A2102	A1998	C1885	A1815	U1748	G1668	A1596	A1515
G2827	C2635	G2705	A2500	U2567	A2500	A2424		C2103	A1999	U1886	A1816	U1749	U1669	G1597	U1516
			U2502		U2502	U2426	G2182	A2104	G2000	C1887	C1817	U1750	U1672	U1597	U1517
A2832	C2639	G2708	G2427	C2570	G2427	G2427	C2185	A2105	G2002	A1888	U1819	C1752	A1673	G1599	A1518
U2833	U2640	U2709	C2505	C2571	C2505	U2428	C2186	C2107	G2003	U1892	U1820	U1753	G1674	C1600	G1519
A2834	C2643	U2710	A2506	A2572	A2506	U2429	U2187	A2108	U2004	G1893	U1821		C1675	A1601	
G2835	U2644	U2711	C2507	A2573	A2507	U2430	U2188	A2109	G2008	U1894	A1822	G1756	C1676	A1602	U1524
G2837	C2647	A2712	C2508	A2574	C2508	U2433	A2189	C2110	A2009	U1895	A1823	C1757	G1677	C1603	G1525
U2838		U2713	U2509	G2575	U2509	U2434	A2190	C2111	G2010	C1896	A1824	C1758	U1678	U1604	G1526
G2839	U2510	U2714	U2510	C2577	U2510	A2435	C2191	G2112	C2010	G1897	C1825	A1759	U1679	A1605	U1527
G2840	A2650	C2715	G2514	C2578	A2650	A2436	U2192	C2113	U2018	U1898	U1826	U1760	C1680	U1606	
A2846	C2651	U2716	A2515	U2579	A2515	A2437	U2193	U2115	U2013	U1899	U1827	U1761	U1681	U1607	U1533
U2847	C2652		C2516	C2580	A2516	A2438	G2202	U2116	C2014	G1900	U1828	U1762	U1682	C1608	U1534
U2848	C2653	U2720	U2518	G2581		A2439	G2203	C2116	C2015	A1901	A1833	U1763	A1683	U1536	G1535
U2915	G2654	U2721	U2519	U2582	U2519	U2440	G2204	A2117	U2016	A1902	G1834	U1764	A1684	U1537	U1536
G2916	G2655	G2722	C2520	C2583	C2520	U2441	U2205	G2118	U2017	C1903	G1835	U1765	G1685	G1613	
G2917	A2656	C2723	A2521	U2584	A2521		U2206	C2121	A2018	U1904	U1836	U1766	A1688	U1539	U1538
U2918	G2657	C2724	U2522	U2585	A2522	A2444	G2207	U2122	A2020	A1905	U1837	U1767	A1689	U1617	U1539
A2919	C2658	U2725	U2523	C2586	U2523	U2445	G2208	C2123	A2021	U1906	U1838	U1768	A1690	G1618	G1540
	U2660	U2726	C2524	A2588	C2524	U2446	G2209	C2124	A2022	U1908	U1839	G1770	A1691	U1619	
G2928	A2661	U2727	A2525	U2589	A2525	U2449	U2210	A2125	U1909	U1909	C1840	A1771	C1692	C1544	
A2932	G2662	U2729	G2528	U2590	G2662	G2450	C2211		G2030	C1910	U1841	G1772	U1693	A1624	U1549
G2933	U2665	G2730	A2529	U2591	A2529	A2451	G2215	A2132	C2033	A1913	U1842	G1773	U1694	G1625	U1550
U2934	C2666		C2530	G2592	G2530	A2452	G2216	C2133	G2034	A1914	U1843	U1774	G1695	C1626	C1551
U2935	C2667	C2734	G2533	U2594	A2533	A2453	A2217	C2136	G2035	G2034	C1844	U1779	A1695	C1627	
G2938	G2668	U2737	C2536	C2595	C2536	C2456	G2218	C2137	C2036	U1957	C1845	G1780	U1703	U1628	U1552
C2939	G2669	U2738	A2537	U2596	A2537	C2457	A2219	U2138	U2037	U1958	A1846	A1781	A1704	G1629	G1553
U2940	C2670	U2739	G2538	C2597	A2538	A2458	U2220	C2139	U2038	G1959	C1847	U1782	A1705	A1630	G1554
G2941	U2671	G2744	C2539	U2597	A2539	C2459	U2221	U2140	U2039	U1960	U1848	G1783	A1706	A1631	A1555
G2942	U2672	U2746	C2540	C2600	A2540	A2460	U2222	U2141	G2040	U1961	U1849	U1784	G1712	G1632	G1556
	C2601		G2539	C2601	G2539	A2461	U2388	U2143	U2041	U1962	A1851	A1786		U1633	U1560





- Molecule 36: 5S ribosomal RNA

Chain AB: 30% 53% 16%



- Molecule 37: 60S ribosomal protein eL13

Chain AL: 87% 13%



- Molecule 38: 60S ribosomal protein eL24

Chain A0: 94% 6%



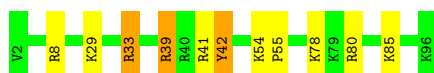
- Molecule 39: 60S ribosomal protein uL15

Chain AO: 90% 10%



- Molecule 40: 60S ribosomal protein eL44

Chain Ai: 88% 8%




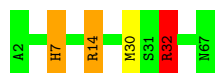
- Molecule 41: 60S ribosomal protein eL28

Chain A2: 81% 8% 12%



- Molecule 42: 60S ribosomal protein eL29

Chain A4:  94% . . .




- Molecule 43: 60S ribosomal protein eL30

Chain A6:  94% . .



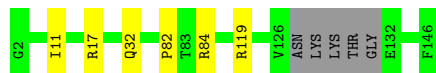
- Molecule 44: 60S ribosomal protein eL31

Chain A7:  87% 6% • 6%



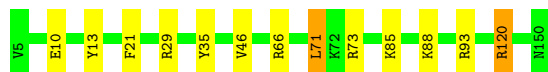
- Molecule 45: 60S ribosomal protein eL27

Chain A1:  92% . .



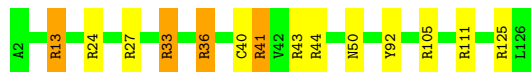
- Molecule 46: 60S ribosomal protein eL14

Chain AN:  91% 8% .




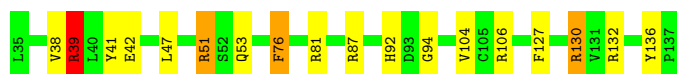
- Molecule 47: 60S ribosomal protein eL32

Chain A8:  89% 8% .



- Molecule 48: 60S ribosomal protein eL33

Chain A9:  83% 14% . .




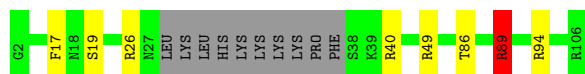
- Molecule 49: 60S ribosomal protein eL34

Chain Aa:  93% . .




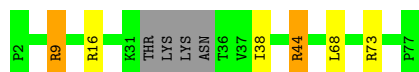
- Molecule 50: 60S ribosomal protein eL36

Chain Ab:  83% 7% . 10%



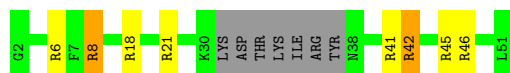
- Molecule 51: 60S ribosomal protein eL38

Chain Ad:  87% 5% . 5%



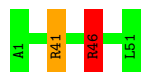
- Molecule 52: 60S ribosomal protein eL39

Chain Ae:  70% 12% . 14%




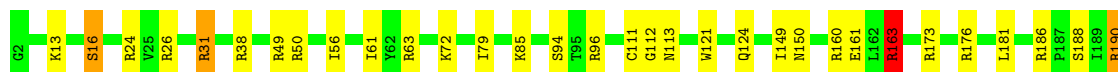
- Molecule 53: 60S ribosomal protein eL40

Chain Af:  96% . .



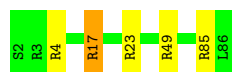
- Molecule 54: 60S ribosomal protein eL15

Chain AP:  82% 16% .



- Molecule 55: 60S ribosomal protein eL43

Chain Ah:  94% 5% .




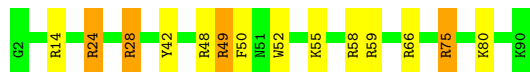
- Molecule 56: 60S ribosomal protein eL6

Chain AI:  91% 6% ..



- Molecule 57: 60S ribosomal protein eL37

Chain Ac:  84% 11% .



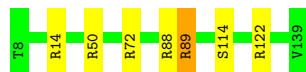
- Molecule 58: 60S ribosomal protein uL13

Chain AK:  90% 8% .




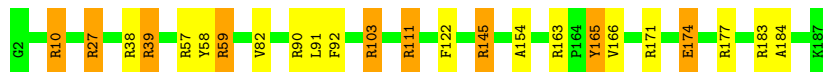
- Molecule 59: 60S ribosomal protein uL14

Chain AM:  95% 5% .




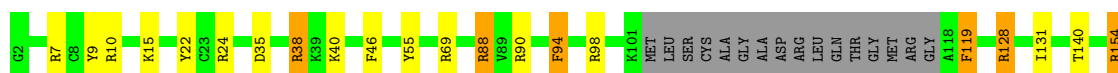
- Molecule 60: 60S ribosomal protein eL18

Chain AS:  87% 8% 5%




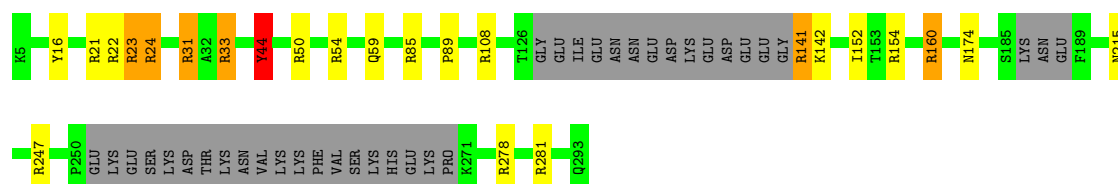
- Molecule 61: 60S ribosomal protein uL16

Chain AQ:  79% 10% . 8%



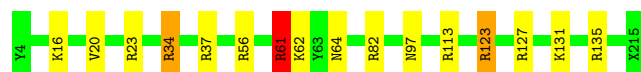
- Molecule 62: 60S ribosomal protein uL18

Chain AR:  79% 6% . 13%



- Molecule 63: 60S ribosomal protein uL22

Chain AW: 91% 8% ..



- Molecule 64: 60S ribosomal protein uL23

Chain AY: 96% ..



- Molecule 65: 60S ribosomal protein eL19

Chain AT: 89% 9% .



- Molecule 66: 60S ribosomal protein uL24

Chain AZ: 88% 11% .



- Molecule 67: 60S ribosomal protein uL29

Chain A3: 88% 9% ..



- Molecule 68: 60S ribosomal protein uL30

Chain A5: 89% 9% .



- Molecule 69: 60S ribosomal protein uL2

Chain AD:  89% 9% .



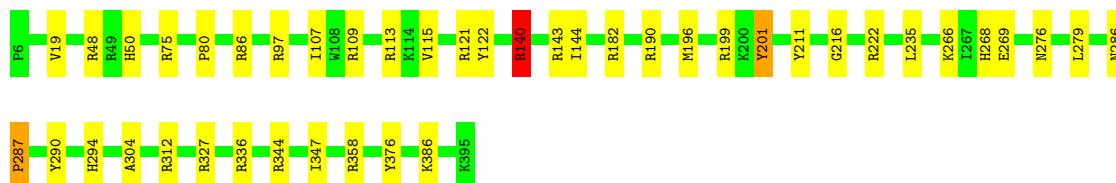
- Molecule 70: 60S ribosomal protein uL3

Chain AE:  92% 7% .



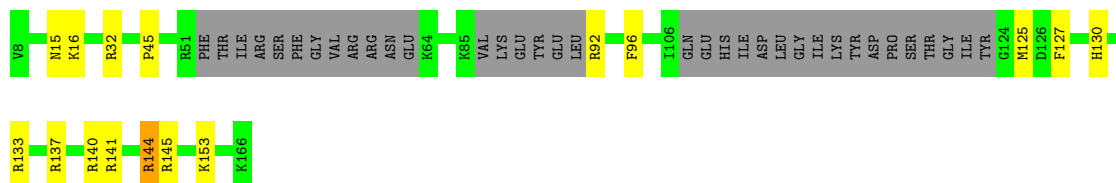
- Molecule 71: 60S ribosomal protein uL4

Chain AF:  89% 10% .



- Molecule 72: 60S ribosomal protein uL5

Chain AG:  68% 9% 22% .



- Molecule 73: 60S ribosomal protein eL20

Chain AU:  88% 10% .



- Molecule 74: 60S ribosomal protein uL6

Chain AH:  95% . .

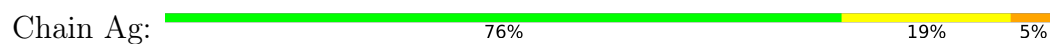


- Molecule 75: 60S ribosomal protein eL21

Chain AV:  90% 9% .



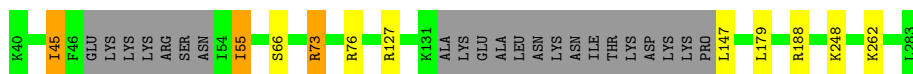
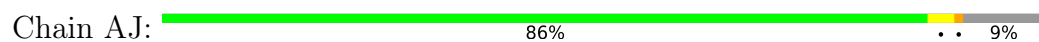
- Molecule 76: 60S ribosomal protein eL41



- Molecule 77: 60S ribosomal protein eL22



- Molecule 78: 60S ribosomal protein eL8



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	22793	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Each micrograph	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	30120	Depositor
Image detector	GATAN K2 (4k x 4k)	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	1.10	7/38275 (0.0%)	1.52	877/59596 (1.5%)
2	7	1.15	0/1785	1.70	63/2782 (2.3%)
3	Q	0.72	0/1149	1.13	11/1532 (0.7%)
4	S	0.65	0/1063	1.17	10/1425 (0.7%)
5	T	0.79	0/412	1.14	5/544 (0.9%)
6	M	0.71	0/1114	1.14	9/1487 (0.6%)
7	U	0.68	0/1223	1.10	10/1634 (0.6%)
8	V	0.73	0/1233	1.12	10/1645 (0.6%)
9	E	0.71	0/1539	1.12	14/2055 (0.7%)
10	X	0.70	0/788	1.18	7/1050 (0.7%)
11	G	0.69	0/1800	1.00	5/2429 (0.2%)
12	W	0.71	0/793	1.13	4/1053 (0.4%)
13	R	0.73	0/755	1.02	2/1013 (0.2%)
14	I	0.71	0/1443	1.06	7/1936 (0.4%)
15	O	0.74	0/706	1.08	8/950 (0.8%)
16	Y	0.70	0/1295	1.17	15/1742 (0.9%)
17	Z	0.70	0/565	0.97	1/758 (0.1%)
18	1	0.73	0/999	1.26	13/1321 (1.0%)
19	2	0.78	0/324	0.92	0/435
20	C	0.68	0/1570	1.06	7/2129 (0.3%)
21	3	0.73	0/794	1.26	13/1055 (1.2%)
22	4	0.67	0/597	0.98	0/801
23	5	0.76	0/459	1.20	6/606 (1.0%)
24	6	0.75	0/349	1.23	4/458 (0.9%)
25	B	0.67	0/1738	1.05	8/2321 (0.3%)
26	D	0.76	0/1241	1.09	6/1652 (0.4%)
27	F	0.68	0/2098	1.11	12/2819 (0.4%)
28	H	0.69	0/1665	1.08	9/2210 (0.4%)
29	K	0.71	0/1054	1.12	8/1411 (0.6%)
30	J	0.69	0/1545	1.03	5/2064 (0.2%)
31	N	0.69	0/780	1.10	2/1053 (0.2%)
32	P	0.69	0/966	1.21	12/1295 (0.9%)
33	L	0.72	0/1407	1.12	15/1879 (0.8%)
34	AA	1.23	16/75922 (0.0%)	1.52	1781/118216 (1.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	AC	1.12	0/3599	1.55	91/5603 (1.6%)
36	AB	1.13	2/2823 (0.1%)	1.48	71/4400 (1.6%)
37	AL	0.69	0/1789	1.15	13/2381 (0.5%)
38	A0	0.76	0/534	1.16	3/711 (0.4%)
39	AO	0.68	0/1199	1.17	10/1597 (0.6%)
40	Ai	0.69	0/789	1.17	9/1032 (0.9%)
41	A2	0.74	0/840	0.98	4/1114 (0.4%)
42	A4	0.68	0/564	1.00	2/737 (0.3%)
43	A6	0.70	0/749	1.06	4/1001 (0.4%)
44	A7	0.71	0/806	1.20	8/1073 (0.7%)
45	A1	0.69	0/1151	1.00	5/1531 (0.3%)
46	AN	0.71	0/1218	1.11	7/1621 (0.4%)
47	A8	0.72	0/1054	1.28	15/1399 (1.1%)
48	A9	0.71	0/865	1.22	12/1160 (1.0%)
49	Aa	0.68	0/872	1.20	7/1161 (0.6%)
50	Ab	0.72	0/763	1.06	3/1008 (0.3%)
51	Ad	0.72	0/612	1.15	5/812 (0.6%)
52	Ae	0.77	0/396	1.45	8/521 (1.5%)
53	Af	0.68	0/419	1.19	4/556 (0.7%)
54	AP	0.72	0/1735	1.22	16/2320 (0.7%)
55	Ah	0.68	0/668	1.16	6/887 (0.7%)
56	AI	0.67	0/1708	1.03	7/2274 (0.3%)
57	Ac	0.74	0/723	1.24	10/951 (1.1%)
58	AK	0.70	0/1690	1.08	9/2260 (0.4%)
59	AM	0.68	0/1012	1.10	9/1363 (0.7%)
60	AS	0.71	0/1531	1.22	18/2040 (0.9%)
61	AQ	0.74	0/1580	1.21	21/2113 (1.0%)
62	AR	0.71	0/2079	1.17	18/2777 (0.6%)
63	AW	0.71	0/1244	1.15	10/1663 (0.6%)
64	AY	0.67	0/806	0.97	2/1074 (0.2%)
65	AT	0.69	0/1525	1.18	20/2016 (1.0%)
66	AZ	0.70	0/1013	1.24	14/1339 (1.0%)
67	A3	0.69	0/1005	1.18	11/1329 (0.8%)
68	A5	0.71	0/1917	1.18	22/2562 (0.9%)
69	AD	0.68	0/1902	1.16	17/2544 (0.7%)
70	AE	0.68	0/3130	1.12	21/4195 (0.5%)
71	AF	0.70	0/3145	1.10	19/4205 (0.5%)
72	AG	0.75	0/1021	1.16	7/1349 (0.5%)
73	AU	0.71	0/1527	1.18	15/2043 (0.7%)
74	AH	0.67	0/1501	1.08	6/2025 (0.3%)
75	AV	0.69	0/1301	1.10	9/1732 (0.5%)
76	Ag	0.82	0/348	1.50	10/448 (2.2%)
77	AX	0.72	0/842	1.14	8/1125 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
78	AJ	0.84	1/1840 (0.1%)	0.99	5/2456 (0.2%)
All	All	1.01	26/207281 (0.0%)	1.39	3550/303864 (1.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	141
2	7	1	5
3	Q	0	4
5	T	0	1
6	M	0	2
7	U	0	1
8	V	0	3
9	E	0	3
10	X	0	2
12	W	0	3
14	I	0	3
16	Y	0	2
18	1	0	3
19	2	0	1
21	3	0	2
23	5	0	1
24	6	0	4
25	B	1	4
27	F	0	4
28	H	0	4
29	K	0	1
32	P	0	5
33	L	0	2
34	AA	1	328
35	AC	0	13
36	AB	0	8
37	AL	0	7
38	A0	0	1
39	AO	0	1
40	Ai	0	3
41	A2	2	0
42	A4	0	5
43	A6	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
44	A7	0	1
46	AN	0	3
47	A8	0	3
48	A9	0	3
49	Aa	0	2
50	Ab	0	3
51	Ad	0	2
52	Ae	0	2
53	Af	0	2
54	AP	0	7
55	Ah	0	1
56	AI	0	2
57	Ac	0	3
58	AK	0	8
60	AS	0	9
61	AQ	0	6
62	AR	0	7
63	AW	0	4
64	AY	0	1
65	AT	0	3
66	AZ	0	4
67	A3	0	1
68	A5	0	5
69	AD	0	4
70	AE	0	6
71	AF	0	10
72	AG	0	3
73	AU	0	5
74	AH	0	2
75	AV	0	6
76	Ag	0	3
77	AX	0	1
78	AJ	0	2
All	All	5	692

All (26) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	AA	2915	U	C2-N3	70.80	1.87	1.37
34	AA	2915	U	C4-C5	67.04	2.03	1.43
34	AA	2915	U	N1-C2	60.98	1.93	1.38
34	AA	2915	U	N1-C6	57.12	1.89	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	AA	2915	U	N3-C4	56.47	1.89	1.38
34	AA	2915	U	C5-C6	37.45	1.67	1.34
78	AJ	55	ILE	CG1-CD1	20.87	2.94	1.50
34	AA	1202	C	O3'-P	-6.28	1.53	1.61
34	AA	3346	A	N9-C4	-6.17	1.34	1.37
1	A	1831	G	P-O5'	-6.13	1.53	1.59
36	AB	28	C	P-O5'	-6.03	1.53	1.59
34	AA	644	G	O3'-P	-5.92	1.54	1.61
34	AA	3586	U	O3'-P	-5.64	1.54	1.61
34	AA	3585	A	O3'-P	-5.58	1.54	1.61
36	AB	5	U	O3'-P	-5.56	1.54	1.61
1	A	1819	U	C5'-C4'	5.51	1.57	1.51
1	A	1826	A	O3'-P	-5.43	1.54	1.61
1	A	337	G	O3'-P	-5.40	1.54	1.61
34	AA	2932	A	C5'-C4'	5.40	1.57	1.51
1	A	249	A	O3'-P	-5.39	1.54	1.61
34	AA	3015	A	C5'-C4'	5.36	1.57	1.51
1	A	1827	U	P-O5'	-5.24	1.54	1.59
34	AA	1576	U	P-O5'	-5.23	1.54	1.59
34	AA	2932	A	C4'-C3'	5.10	1.58	1.53
34	AA	3683	G	C5'-C4'	5.01	1.57	1.51
1	A	320	C	C5'-C4'	5.01	1.57	1.51

All (3550) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	181	C	P-O3'-C3'	14.44	137.03	119.70
1	A	981	U	P-O3'-C3'	14.26	136.81	119.70
1	A	844	G	P-O3'-C3'	13.99	136.49	119.70
1	A	1912	C	P-O3'-C3'	13.97	136.47	119.70
34	AA	1202	C	P-O3'-C3'	13.95	136.44	119.70
1	A	1300	G	P-O3'-C3'	13.73	136.18	119.70
34	AA	2810	A	P-O3'-C3'	13.30	135.66	119.70
34	AA	581	C	P-O3'-C3'	13.14	135.46	119.70
34	AA	2219	A	P-O3'-C3'	12.94	135.22	119.70
1	A	249	A	P-O3'-C3'	12.79	135.05	119.70
1	A	1056	G	P-O3'-C3'	12.78	135.04	119.70
1	A	1381	C	P-O3'-C3'	12.53	134.74	119.70
1	A	789	U	P-O3'-C3'	12.51	134.72	119.70
34	AA	257	U	P-O3'-C3'	12.44	134.63	119.70
1	A	1897	A	P-O3'-C3'	12.43	134.61	119.70
34	AA	2915	U	C2-N3-C4	-12.42	119.55	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2563	A	P-O3'-C3'	12.42	134.60	119.70
1	A	1865	G	P-O3'-C3'	12.39	134.57	119.70
34	AA	674	U	P-O3'-C3'	12.38	134.56	119.70
34	AA	3019	A	P-O3'-C3'	12.38	134.56	119.70
18	1	115	ARG	NE-CZ-NH1	12.35	126.48	120.30
34	AA	1101	A	P-O3'-C3'	12.35	134.52	119.70
47	A8	41	ARG	NE-CZ-NH2	12.28	126.44	120.30
34	AA	270	U	P-O3'-C3'	12.23	134.38	119.70
34	AA	1989	A	P-O3'-C3'	12.10	134.22	119.70
18	1	106	ARG	NE-CZ-NH2	12.08	126.34	120.30
34	AA	3754	A	O4'-C1'-N9	12.01	117.81	108.20
27	F	108	ARG	NE-CZ-NH1	12.00	126.30	120.30
34	AA	580	A	P-O3'-C3'	11.97	134.06	119.70
7	U	55	ARG	NE-CZ-NH2	11.83	126.21	120.30
34	AA	764	G	P-O3'-C3'	11.81	133.87	119.70
1	A	544	G	P-O3'-C3'	11.75	133.80	119.70
34	AA	1224	A	P-O3'-C3'	11.71	133.75	119.70
35	AC	37	A	P-O3'-C3'	11.68	133.71	119.70
35	AC	35	A	P-O3'-C3'	11.60	133.62	119.70
2	7	55	U	P-O3'-C3'	11.51	133.51	119.70
2	7	53	G	P-O3'-C3'	11.50	133.50	119.70
34	AA	1217	U	P-O3'-C3'	11.41	133.39	119.70
34	AA	579	C	P-O3'-C3'	11.37	133.34	119.70
35	AC	67	G	O4'-C1'-N9	11.30	117.24	108.20
52	Ae	45	ARG	NE-CZ-NH2	-11.06	114.77	120.30
34	AA	3688	G	P-O3'-C3'	11.05	132.97	119.70
34	AA	500	A	P-O3'-C3'	11.05	132.96	119.70
34	AA	697	A	P-O3'-C3'	11.02	132.93	119.70
34	AA	702	U	O4'-C1'-N1	10.97	116.97	108.20
34	AA	803	A	O4'-C1'-N9	10.80	116.84	108.20
1	A	1448	U	P-O3'-C3'	10.79	132.65	119.70
34	AA	3140	U	P-O3'-C3'	10.76	132.61	119.70
1	A	1448	U	O4'-C1'-N1	10.76	116.81	108.20
34	AA	3658	G	P-O3'-C3'	10.71	132.56	119.70
73	AU	171	ARG	NE-CZ-NH1	10.58	125.59	120.30
1	A	1788	U	O4'-C1'-N1	10.56	116.64	108.20
1	A	1455	C	P-O3'-C3'	10.54	132.35	119.70
66	AZ	12	ARG	NE-CZ-NH2	-10.50	115.05	120.30
1	A	1857	U	O4'-C1'-N1	10.47	116.57	108.20
1	A	1251	G	O4'-C1'-N9	10.45	116.56	108.20
34	AA	1881	C	P-O3'-C3'	10.35	132.12	119.70
34	AA	1873	U	P-O3'-C3'	10.35	132.11	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1278	A	O4'-C1'-N9	10.31	116.45	108.20
34	AA	2727	U	O4'-C1'-N1	10.27	116.41	108.20
34	AA	218	U	P-O3'-C3'	10.26	132.02	119.70
34	AA	621	C	P-O3'-C3'	10.20	131.94	119.70
1	A	246	A	P-O3'-C3'	10.14	131.87	119.70
34	AA	121	U	P-O3'-C3'	10.13	131.85	119.70
34	AA	698	G	P-O3'-C3'	10.11	131.83	119.70
34	AA	3476	A	P-O3'-C3'	10.10	131.82	119.70
1	A	1375	C	O4'-C1'-N1	10.08	116.26	108.20
4	S	132	ARG	NE-CZ-NH1	10.03	125.31	120.30
1	A	1818	A	O4'-C1'-N9	10.02	116.21	108.20
34	AA	1574	C	O4'-C1'-N1	10.01	116.21	108.20
61	AQ	88	ARG	NE-CZ-NH2	-9.92	115.34	120.30
34	AA	715	U	P-O3'-C3'	9.91	131.59	119.70
34	AA	811	A	P-O3'-C3'	9.91	131.59	119.70
34	AA	859	C	P-O3'-C3'	9.89	131.56	119.70
34	AA	1035	G	P-O3'-C3'	9.87	131.54	119.70
34	AA	2822	U	P-O3'-C3'	9.84	131.51	119.70
1	A	525	G	P-O3'-C3'	9.84	131.50	119.70
1	A	1198	U	O4'-C1'-N1	9.84	116.07	108.20
36	AB	28	C	P-O5'-C5'	9.83	136.63	120.90
1	A	1979	C	O4'-C1'-N1	9.76	116.01	108.20
59	AM	122	ARG	NE-CZ-NH1	9.73	125.16	120.30
34	AA	594	C	C2-N1-C1'	9.70	129.47	118.80
1	A	1976	G	P-O3'-C3'	9.69	131.33	119.70
34	AA	1574	C	P-O3'-C3'	9.68	131.32	119.70
34	AA	597	A	P-O3'-C3'	9.68	131.31	119.70
46	AN	120	ARG	NE-CZ-NH1	9.68	125.14	120.30
34	AA	2394	C	P-O3'-C3'	9.67	131.31	119.70
8	V	102	ARG	NE-CZ-NH2	-9.63	115.48	120.30
34	AA	1435	G	P-O3'-C3'	9.63	131.26	119.70
34	AA	3617	A	O4'-C1'-N9	9.61	115.89	108.20
34	AA	858	C	P-O3'-C3'	9.61	131.24	119.70
34	AA	205	G	P-O3'-C3'	9.59	131.21	119.70
52	Ae	45	ARG	NE-CZ-NH1	9.58	125.09	120.30
34	AA	1503	A	P-O3'-C3'	9.58	131.19	119.70
10	X	47	ARG	NE-CZ-NH2	9.56	125.08	120.30
34	AA	3027	U	P-O3'-C3'	9.55	131.16	119.70
34	AA	3195	C	O4'-C1'-N1	9.53	115.83	108.20
34	AA	289	A	P-O3'-C3'	9.52	131.12	119.70
53	Af	41	ARG	NE-CZ-NH2	-9.51	115.54	120.30
34	AA	2095	U	P-O3'-C3'	9.51	131.11	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	101	C	O4'-C1'-N1	9.49	115.79	108.20
1	A	1414	A	P-O3'-C3'	9.45	131.04	119.70
1	A	1908	A	O4'-C1'-N9	9.43	115.74	108.20
62	AR	44	TYR	CB-CG-CD2	-9.38	115.37	121.00
1	A	1818	A	C1'-O4'-C4'	-9.34	102.42	109.90
37	AL	69	ARG	NE-CZ-NH1	9.34	124.97	120.30
62	AR	44	TYR	CB-CG-CD1	9.34	126.61	121.00
1	A	1691	G	P-O3'-C3'	9.34	130.90	119.70
34	AA	721	U	P-O3'-C3'	9.33	130.90	119.70
1	A	1295	A	O4'-C1'-N9	9.33	115.66	108.20
34	AA	607	A	P-O3'-C3'	9.31	130.87	119.70
34	AA	162	U	P-O3'-C3'	9.30	130.86	119.70
34	AA	2393	A	O4'-C1'-N9	9.30	115.64	108.20
34	AA	504	A	P-O3'-C3'	9.28	130.84	119.70
34	AA	1904	U	P-O3'-C3'	9.26	130.81	119.70
34	AA	620	U	P-O3'-C3'	9.23	130.78	119.70
75	AV	6	ARG	NE-CZ-NH1	9.20	124.90	120.30
27	F	49	ARG	NE-CZ-NH1	9.19	124.89	120.30
2	7	61	C	P-O3'-C3'	9.17	130.71	119.70
1	A	752	U	P-O3'-C3'	9.15	130.68	119.70
34	AA	2577	C	O4'-C1'-N1	9.15	115.52	108.20
34	AA	1805	U	P-O3'-C3'	9.14	130.67	119.70
34	AA	3020	U	O4'-C1'-N1	9.13	115.50	108.20
37	AL	69	ARG	NE-CZ-NH2	-9.13	115.73	120.30
1	A	973	G	O4'-C1'-N9	9.10	115.48	108.20
34	AA	200	A	O4'-C1'-N9	9.09	115.47	108.20
34	AA	754	A	O4'-C1'-N9	9.09	115.47	108.20
60	AS	90	ARG	NE-CZ-NH2	-9.08	115.76	120.30
1	A	2053	U	P-O3'-C3'	9.07	130.58	119.70
54	AP	38	ARG	NE-CZ-NH2	9.06	124.83	120.30
35	AC	134	G	P-O3'-C3'	9.03	130.54	119.70
35	AC	145	A	P-O3'-C3'	9.03	130.54	119.70
34	AA	337	A	P-O3'-C3'	9.03	130.54	119.70
34	AA	228	A	O4'-C1'-N9	9.03	115.42	108.20
73	AU	122	ARG	NE-CZ-NH2	9.03	124.81	120.30
1	A	423	A	P-O3'-C3'	9.01	130.51	119.70
1	A	2071	U	P-O3'-C3'	8.99	130.49	119.70
34	AA	2816	U	P-O3'-C3'	8.99	130.49	119.70
34	AA	1999	A	P-O3'-C3'	8.98	130.47	119.70
1	A	818	C	O4'-C1'-N1	8.96	115.37	108.20
34	AA	2685	C	O4'-C1'-N1	8.96	115.37	108.20
36	AB	27	A	O3'-P-O5'	-8.96	86.98	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	353	G	P-O3'-C3'	8.95	130.44	119.70
56	AI	48	ARG	NE-CZ-NH1	8.92	124.76	120.30
1	A	647	C	C2-N1-C1'	8.91	128.60	118.80
34	AA	62	A	P-O3'-C3'	8.90	130.39	119.70
9	E	23	ARG	NE-CZ-NH2	-8.88	115.86	120.30
16	Y	124	ARG	NE-CZ-NH2	8.86	124.73	120.30
34	AA	61	A	P-O3'-C3'	8.86	130.33	119.70
6	M	83	ARG	NE-CZ-NH1	8.85	124.72	120.30
1	A	818	C	P-O3'-C3'	8.84	130.31	119.70
1	A	1636	A	O4'-C1'-N9	8.84	115.28	108.20
34	AA	3660	A	P-O3'-C3'	8.82	130.28	119.70
34	AA	2216	G	N1-C6-O6	8.81	125.18	119.90
1	A	1070	A	P-O3'-C3'	8.80	130.26	119.70
1	A	1870	A	P-O3'-C3'	8.80	130.27	119.70
1	A	424	G	C5-C6-O6	-8.79	123.33	128.60
34	AA	138	C	P-O3'-C3'	8.79	130.25	119.70
34	AA	501	U	P-O3'-C3'	8.78	130.24	119.70
34	AA	215	C	P-O3'-C3'	8.76	130.22	119.70
34	AA	771	U	O4'-C1'-N1	8.75	115.20	108.20
34	AA	3577	A	P-O3'-C3'	8.72	130.16	119.70
71	AF	86	ARG	NE-CZ-NH2	8.71	124.66	120.30
34	AA	823	U	O4'-C1'-N1	8.71	115.17	108.20
71	AF	75	ARG	NE-CZ-NH1	8.70	124.65	120.30
44	A7	39	ARG	NE-CZ-NH2	-8.69	115.95	120.30
34	AA	1840	C	O4'-C1'-N1	8.69	115.15	108.20
34	AA	2915	U	N1-C2-N3	8.68	120.11	114.90
39	AO	21	ARG	NE-CZ-NH2	8.68	124.64	120.30
34	AA	673	U	O4'-C1'-N1	8.68	115.14	108.20
34	AA	1230	A	O4'-C1'-N9	8.67	115.14	108.20
34	AA	3663	A	P-O3'-C3'	8.67	130.11	119.70
4	S	134	ARG	NE-CZ-NH1	8.67	124.64	120.30
34	AA	2696	G	P-O3'-C3'	8.67	130.10	119.70
34	AA	1996	C	P-O3'-C3'	8.67	130.10	119.70
75	AV	13	ARG	NE-CZ-NH2	8.67	124.63	120.30
34	AA	702	U	C2-N1-C1'	8.66	128.09	117.70
34	AA	3085	A	P-O3'-C3'	8.65	130.08	119.70
1	A	1294	A	P-O3'-C3'	8.64	130.07	119.70
39	AO	127	ARG	NE-CZ-NH2	-8.64	115.98	120.30
34	AA	900	G	P-O5'-C5'	8.60	134.67	120.90
34	AA	3361	U	P-O3'-C3'	8.60	130.02	119.70
67	A3	105	ARG	NE-CZ-NH1	-8.60	116.00	120.30
34	AA	2550	C	O4'-C1'-N1	8.59	115.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2917	C	C6-N1-C2	-8.59	116.86	120.30
2	7	22	G	C5-C6-O6	-8.57	123.46	128.60
34	AA	1204	A	P-O3'-C3'	8.55	129.96	119.70
69	AD	163	ARG	NE-CZ-NH2	8.54	124.57	120.30
69	AD	30	ARG	NE-CZ-NH1	8.54	124.57	120.30
35	AC	100	A	P-O3'-C3'	8.54	129.94	119.70
1	A	25	C	P-O3'-C3'	8.53	129.94	119.70
34	AA	1480	G	C5-C6-O6	-8.53	123.48	128.60
34	AA	315	C	O4'-C1'-N1	8.53	115.02	108.20
55	Ah	4	ARG	NE-CZ-NH1	8.52	124.56	120.30
34	AA	2216	G	C5-C6-O6	-8.50	123.50	128.60
34	AA	416	G	O4'-C1'-N9	8.49	115.00	108.20
1	A	970	G	O4'-C1'-N9	8.49	114.99	108.20
21	3	6	ARG	NE-CZ-NH2	8.48	124.54	120.30
1	A	206	A	P-O3'-C3'	8.47	129.87	119.70
9	E	107	ARG	NE-CZ-NH1	8.47	124.54	120.30
1	A	156	A	P-O3'-C3'	8.47	129.86	119.70
62	AR	33	ARG	NE-CZ-NH1	8.46	124.53	120.30
34	AA	10	G	P-O3'-C3'	8.46	129.85	119.70
68	A5	86	ARG	NE-CZ-NH1	8.46	124.53	120.30
47	A8	44	ARG	NE-CZ-NH2	-8.45	116.07	120.30
34	AA	1605	A	P-O3'-C3'	8.45	129.84	119.70
34	AA	2932	A	P-O3'-C3'	8.44	129.83	119.70
43	A6	26	TYR	CB-CG-CD1	8.43	126.06	121.00
18	1	91	ARG	NE-CZ-NH1	-8.43	116.08	120.30
34	AA	1881	C	O4'-C1'-N1	8.43	114.94	108.20
69	AD	174	ARG	NE-CZ-NH1	8.42	124.51	120.30
1	A	872	A	P-O3'-C3'	8.41	129.79	119.70
67	A3	105	ARG	NE-CZ-NH2	8.40	124.50	120.30
43	A6	26	TYR	CB-CG-CD2	-8.39	115.97	121.00
34	AA	1197	U	P-O3'-C3'	8.38	129.75	119.70
1	A	253	A	O4'-C1'-N9	8.37	114.90	108.20
29	K	57	ARG	NE-CZ-NH2	-8.37	116.11	120.30
34	AA	1154	C	O4'-C1'-N1	8.37	114.90	108.20
1	A	1799	A	O4'-C1'-N9	8.37	114.89	108.20
1	A	857	A	O4'-C1'-N9	8.36	114.89	108.20
35	AC	54	C	P-O3'-C3'	8.36	129.73	119.70
34	AA	2997	G	C5-C6-O6	-8.35	123.59	128.60
47	A8	44	ARG	NE-CZ-NH1	8.35	124.47	120.30
65	AT	87	ARG	NE-CZ-NH2	-8.34	116.13	120.30
47	A8	24	ARG	NE-CZ-NH1	8.33	124.46	120.30
65	AT	37	ARG	NE-CZ-NH1	-8.32	116.14	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	AE	24	ARG	NE-CZ-NH1	8.32	124.46	120.30
34	AA	150	C	O4'-C1'-N1	8.32	114.85	108.20
77	AX	121	ARG	NE-CZ-NH2	8.32	124.46	120.30
34	AA	116	A	O4'-C1'-N9	8.31	114.85	108.20
34	AA	136	U	O4'-C1'-N1	8.30	114.84	108.20
47	A8	27	ARG	NE-CZ-NH1	8.30	124.45	120.30
1	A	320	C	O4'-C1'-N1	8.30	114.84	108.20
1	A	573	C	O4'-C1'-N1	8.29	114.83	108.20
2	7	22	G	N1-C6-O6	8.27	124.86	119.90
71	AF	86	ARG	NE-CZ-NH1	-8.27	116.17	120.30
1	A	1262	C	O4'-C1'-N1	8.27	114.81	108.20
1	A	31	C	O4'-C1'-N1	8.26	114.81	108.20
34	AA	255	C	P-O5'-C5'	8.25	134.09	120.90
62	AR	278	ARG	NE-CZ-NH2	-8.24	116.18	120.30
1	A	832	A	P-O3'-C3'	8.23	129.57	119.70
34	AA	2574	A	O4'-C1'-N9	8.22	114.78	108.20
34	AA	830	U	O4'-C1'-N1	8.21	114.77	108.20
25	B	220	ARG	NE-CZ-NH2	8.21	124.40	120.30
62	AR	54	ARG	NE-CZ-NH1	8.21	124.41	120.30
1	A	885	C	O4'-C1'-N1	8.20	114.76	108.20
34	AA	3342	C	O4'-C1'-N1	8.20	114.76	108.20
9	E	126	ARG	NE-CZ-NH1	8.20	124.40	120.30
34	AA	2004	U	O4'-C1'-N1	8.20	114.76	108.20
34	AA	255	C	O4'-C1'-N1	8.19	114.75	108.20
34	AA	101	C	C2-N1-C1'	8.18	127.80	118.80
67	A3	55	ARG	NE-CZ-NH1	8.18	124.39	120.30
34	AA	2934	A	O4'-C1'-N9	8.18	114.74	108.20
1	A	817	U	O4'-C1'-N1	8.17	114.74	108.20
68	A5	169	ARG	NE-CZ-NH1	8.17	124.39	120.30
34	AA	2801	C	O4'-C1'-N1	8.17	114.73	108.20
34	AA	1073	G	O4'-C1'-N9	8.16	114.73	108.20
34	AA	2172	C	O4'-C1'-N1	8.15	114.72	108.20
34	AA	1705	A	P-O3'-C3'	8.14	129.47	119.70
34	AA	3291	U	P-O3'-C3'	8.14	129.47	119.70
1	A	170	C	O4'-C1'-N1	8.13	114.71	108.20
34	AA	136	U	C2-N1-C1'	8.13	127.45	117.70
34	AA	2734	C	O4'-C1'-N1	8.13	114.70	108.20
1	A	1209	G	C5-C6-O6	-8.11	123.73	128.60
34	AA	3161	A	P-O3'-C3'	8.08	129.40	119.70
65	AT	8	ARG	NE-CZ-NH1	8.08	124.34	120.30
40	Ai	42	TYR	CB-CG-CD1	-8.07	116.16	121.00
1	A	977	U	O4'-C1'-N1	8.07	114.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	745	C	O4'-C1'-N1	8.07	114.65	108.20
34	AA	1216	C	O4'-C1'-N1	8.07	114.65	108.20
34	AA	870	C	O4'-C1'-N1	8.06	114.65	108.20
34	AA	1905	C	O4'-C1'-N1	8.06	114.65	108.20
34	AA	646	A	P-O5'-C5'	8.05	133.78	120.90
34	AA	799	A	O4'-C1'-N9	8.03	114.63	108.20
44	A7	45	ARG	NE-CZ-NH1	8.03	124.31	120.30
1	A	1409	U	O4'-C1'-N1	8.03	114.62	108.20
32	P	141	ARG	NE-CZ-NH2	8.03	124.31	120.30
2	7	69	C	P-O3'-C3'	8.02	129.33	119.70
34	AA	1720	C	O4'-C1'-N1	8.02	114.61	108.20
34	AA	3044	A	O4'-C1'-N9	8.02	114.61	108.20
69	AD	119	ARG	NE-CZ-NH2	-8.01	116.30	120.30
39	AO	59	ARG	NE-CZ-NH1	-8.00	116.30	120.30
37	AL	99	ARG	NE-CZ-NH1	7.99	124.30	120.30
47	A8	33	ARG	NE-CZ-NH1	7.99	124.30	120.30
34	AA	1681	C	O4'-C1'-N1	7.99	114.59	108.20
34	AA	3511	C	O4'-C1'-N1	7.99	114.59	108.20
2	7	56	C	O4'-C1'-N1	7.99	114.59	108.20
76	Ag	39	ARG	NE-CZ-NH2	7.98	124.29	120.30
1	A	25	C	O4'-C1'-N1	7.98	114.58	108.20
66	AZ	26	ARG	NE-CZ-NH1	7.98	124.29	120.30
2	7	61	C	O4'-C1'-N1	7.98	114.58	108.20
67	A3	116	ARG	NE-CZ-NH1	7.97	124.29	120.30
34	AA	596	A	P-O3'-C3'	7.97	129.27	119.70
77	AX	134	TYR	CB-CG-CD2	-7.96	116.22	121.00
34	AA	3621	C	O4'-C1'-N1	7.96	114.57	108.20
59	AM	89	ARG	NE-CZ-NH1	7.96	124.28	120.30
34	AA	643	G	C5-C6-O6	-7.95	123.83	128.60
44	A7	73	ARG	NE-CZ-NH1	7.94	124.27	120.30
39	AO	12	ARG	NE-CZ-NH1	7.94	124.27	120.30
34	AA	25	A	O4'-C1'-N9	7.93	114.54	108.20
34	AA	650	U	O4'-C1'-N1	7.93	114.54	108.20
1	A	1069	C	O4'-C1'-N1	7.92	114.54	108.20
34	AA	65	A	P-O3'-C3'	7.92	129.21	119.70
60	AS	103	ARG	NE-CZ-NH1	7.92	124.26	120.30
27	F	161	ARG	NE-CZ-NH2	-7.91	116.34	120.30
1	A	251	U	O4'-C1'-N1	7.90	114.52	108.20
47	A8	36	ARG	NE-CZ-NH2	7.90	124.25	120.30
34	AA	703	U	P-O3'-C3'	7.90	129.18	119.70
34	AA	963	C	O4'-C1'-N1	7.89	114.52	108.20
34	AA	3067	G	O4'-C1'-N9	7.89	114.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	AW	123	ARG	NE-CZ-NH2	-7.89	116.36	120.30
48	A9	51	ARG	NE-CZ-NH1	7.89	124.25	120.30
71	AF	140	ARG	NE-CZ-NH2	-7.89	116.36	120.30
34	AA	2821	C	O4'-C1'-N1	7.88	114.51	108.20
34	AA	239	U	O4'-C1'-N1	7.88	114.50	108.20
34	AA	213	C	O4'-C1'-N1	7.88	114.50	108.20
56	AI	102	ARG	NE-CZ-NH1	-7.88	116.36	120.30
1	A	1934	C	P-O3'-C3'	7.87	129.15	119.70
60	AS	27	ARG	NE-CZ-NH2	-7.87	116.36	120.30
34	AA	3587	U	P-O3'-C3'	7.87	129.14	119.70
34	AA	769	U	O4'-C1'-N1	7.87	114.49	108.20
34	AA	3494	C	O4'-C1'-N1	7.86	114.49	108.20
61	AQ	24	ARG	NE-CZ-NH2	7.86	124.23	120.30
34	AA	949	A	O4'-C1'-N9	7.86	114.48	108.20
75	AV	101	ARG	NE-CZ-NH2	-7.86	116.37	120.30
34	AA	621	C	O4'-C1'-N1	7.85	114.48	108.20
34	AA	2676	C	O4'-C1'-N1	7.85	114.48	108.20
34	AA	2501	A	O4'-C1'-N9	7.85	114.48	108.20
18	1	91	ARG	NE-CZ-NH2	7.84	124.22	120.30
45	A1	17	ARG	NE-CZ-NH2	7.83	124.22	120.30
34	AA	3647	C	O4'-C1'-N1	7.83	114.46	108.20
34	AA	1000	C	O4'-C1'-N1	7.82	114.46	108.20
34	AA	2956	U	O4'-C1'-N1	7.82	114.46	108.20
56	AI	102	ARG	NE-CZ-NH2	7.82	124.21	120.30
1	A	102	A	P-O3'-C3'	7.82	129.08	119.70
1	A	979	C	O4'-C1'-N1	7.82	114.45	108.20
73	AU	154	ARG	NE-CZ-NH1	7.81	124.21	120.30
66	AZ	11	ARG	NE-CZ-NH1	-7.81	116.39	120.30
34	AA	1269	C	O4'-C1'-N1	7.80	114.44	108.20
40	Ai	33	ARG	NE-CZ-NH1	7.80	124.20	120.30
1	A	1911	A	O4'-C1'-N9	7.80	114.44	108.20
34	AA	3723	C	O4'-C1'-N1	7.80	114.44	108.20
71	AF	48	ARG	NE-CZ-NH2	7.80	124.20	120.30
34	AA	3199	C	O4'-C1'-N1	7.79	114.44	108.20
34	AA	3507	A	O4'-C1'-N9	7.79	114.44	108.20
34	AA	414	C	O4'-C1'-N1	7.79	114.44	108.20
34	AA	2885	A	O4'-C1'-N9	7.79	114.43	108.20
34	AA	184	U	P-O3'-C3'	7.79	129.05	119.70
69	AD	40	TYR	CB-CG-CD2	-7.79	116.33	121.00
1	A	1012	C	O4'-C1'-N1	7.79	114.43	108.20
34	AA	2682	C	O4'-C1'-N1	7.79	114.43	108.20
52	Ae	46	ARG	NE-CZ-NH1	-7.79	116.41	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3081	C	O4'-C1'-N1	7.78	114.42	108.20
34	AA	683	A	P-O3'-C3'	7.77	129.03	119.70
34	AA	2945	G	O4'-C1'-N9	7.77	114.42	108.20
1	A	161	U	O4'-C1'-N1	7.77	114.42	108.20
69	AD	40	TYR	CB-CG-CD1	7.77	125.66	121.00
35	AC	101	A	O4'-C1'-N9	7.76	114.41	108.20
55	Ah	17	ARG	NE-CZ-NH1	7.75	124.17	120.30
34	AA	1990	A	P-O3'-C3'	7.75	129.00	119.70
34	AA	3627	C	O4'-C1'-N1	7.75	114.40	108.20
34	AA	2136	C	O4'-C1'-N1	7.74	114.39	108.20
4	S	88	ARG	NE-CZ-NH2	7.73	124.17	120.30
10	X	81	ARG	NE-CZ-NH2	-7.73	116.43	120.30
73	AU	144	ARG	NE-CZ-NH2	7.73	124.17	120.30
1	A	315	C	O4'-C1'-N1	7.73	114.38	108.20
1	A	1886	C	O4'-C1'-N1	7.72	114.38	108.20
34	AA	3230	G	P-O3'-C3'	7.71	128.96	119.70
1	A	1030	C	O4'-C1'-N1	7.70	114.36	108.20
1	A	1824	A	O4'-C1'-N9	7.70	114.36	108.20
34	AA	3014	C	O4'-C1'-N1	7.69	114.35	108.20
47	A8	105	ARG	NE-CZ-NH1	7.69	124.14	120.30
10	X	42	ARG	NE-CZ-NH1	7.69	124.14	120.30
1	A	1441	C	O4'-C1'-N1	7.69	114.35	108.20
18	1	20	ARG	NE-CZ-NH2	7.68	124.14	120.30
72	AG	32	ARG	NE-CZ-NH2	-7.68	116.46	120.30
34	AA	3095	C	O4'-C1'-N1	7.68	114.34	108.20
1	A	1061	A	O4'-C1'-N9	7.67	114.34	108.20
34	AA	451	C	O4'-C1'-N1	7.67	114.34	108.20
34	AA	2107	C	O4'-C1'-N1	7.67	114.34	108.20
34	AA	2622	C	O4'-C1'-N1	7.67	114.33	108.20
49	Aa	8	ARG	NE-CZ-NH1	7.67	124.13	120.30
34	AA	1739	C	O4'-C1'-N1	7.67	114.33	108.20
34	AA	3443	A	O4'-C1'-N9	7.67	114.33	108.20
1	A	360	C	O4'-C1'-N1	7.66	114.33	108.20
34	AA	1568	C	O4'-C1'-N1	7.66	114.33	108.20
34	AA	3456	C	O4'-C1'-N1	7.66	114.33	108.20
74	AH	167	ARG	NE-CZ-NH1	-7.66	116.47	120.30
34	AA	3400	C	O4'-C1'-N1	7.66	114.33	108.20
77	AX	134	TYR	CB-CG-CD1	7.66	125.59	121.00
34	AA	1480	G	O4'-C1'-N9	7.65	114.32	108.20
1	A	833	A	O4'-C1'-N9	7.64	114.31	108.20
34	AA	2191	C	O4'-C1'-N1	7.64	114.31	108.20
34	AA	1722	C	O4'-C1'-N1	7.63	114.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	7	74	C	O4'-C1'-N1	7.63	114.30	108.20
26	D	125	ARG	NE-CZ-NH2	-7.63	116.48	120.30
30	J	123	TYR	CB-CG-CD2	-7.63	116.42	121.00
35	AC	120	C	O4'-C1'-N1	7.63	114.30	108.20
34	AA	1572	U	O4'-C1'-N1	7.62	114.30	108.20
34	AA	3180	C	O4'-C1'-N1	7.62	114.30	108.20
35	AC	49	C	O4'-C1'-N1	7.62	114.30	108.20
18	1	120	ARG	NE-CZ-NH2	-7.62	116.49	120.30
26	D	154	ARG	NE-CZ-NH2	7.62	124.11	120.30
34	AA	3107	U	P-O3'-C3'	7.61	128.83	119.70
34	AA	2698	C	O4'-C1'-N1	7.61	114.28	108.20
1	A	316	C	O4'-C1'-N1	7.61	114.28	108.20
34	AA	3736	A	O4'-C1'-N9	7.61	114.28	108.20
1	A	1785	C	O4'-C1'-N1	7.60	114.28	108.20
34	AA	2553	U	O4'-C1'-N1	7.60	114.28	108.20
1	A	1865	G	O4'-C1'-N9	7.60	114.28	108.20
34	AA	2955	C	O4'-C1'-N1	7.60	114.28	108.20
34	AA	2558	C	O4'-C1'-N1	7.59	114.27	108.20
34	AA	3099	C	O4'-C1'-N1	7.59	114.27	108.20
39	AO	59	ARG	NE-CZ-NH2	7.59	124.10	120.30
43	A6	56	ARG	NE-CZ-NH2	7.59	124.09	120.30
62	AR	23	ARG	NE-CZ-NH2	-7.59	116.51	120.30
8	V	132	ARG	NE-CZ-NH2	-7.58	116.51	120.30
34	AA	2957	G	O4'-C1'-N9	7.58	114.27	108.20
1	A	1440	C	O4'-C1'-N1	7.58	114.26	108.20
34	AA	159	C	O4'-C1'-N1	7.58	114.26	108.20
34	AA	1166	C	O4'-C1'-N1	7.58	114.26	108.20
37	AL	22	ARG	NE-CZ-NH2	7.58	124.09	120.30
34	AA	3235	C	O4'-C1'-N1	7.58	114.26	108.20
1	A	1298	C	O4'-C1'-N1	7.57	114.26	108.20
10	X	42	ARG	NE-CZ-NH2	-7.57	116.51	120.30
36	AB	59	C	O4'-C1'-N1	7.57	114.26	108.20
58	AK	81	ARG	NE-CZ-NH2	7.57	124.08	120.30
1	A	1945	C	O4'-C1'-N1	7.57	114.25	108.20
14	I	195	ARG	NE-CZ-NH1	7.57	124.08	120.30
1	A	1659	U	P-O3'-C3'	7.56	128.77	119.70
34	AA	1440	C	O4'-C1'-N1	7.56	114.25	108.20
34	AA	32	C	O4'-C1'-N1	7.56	114.25	108.20
44	A7	33	TYR	CB-CG-CD2	-7.56	116.47	121.00
65	AT	37	ARG	NE-CZ-NH2	7.56	124.08	120.30
1	A	2051	C	O4'-C1'-N1	7.55	114.24	108.20
34	AA	80	C	O4'-C1'-N1	7.55	114.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1292	U	P-O3'-C3'	7.54	128.75	119.70
1	A	760	C	O4'-C1'-N1	7.54	114.23	108.20
1	A	1419	C	O4'-C1'-N1	7.54	114.23	108.20
34	AA	3282	U	O4'-C1'-N1	7.54	114.23	108.20
59	AM	14	ARG	NE-CZ-NH1	7.53	124.06	120.30
1	A	831	U	P-O3'-C3'	7.53	128.73	119.70
1	A	385	U	O4'-C1'-N1	7.53	114.22	108.20
34	AA	111	C	O4'-C1'-N1	7.53	114.22	108.20
34	AA	609	C	O4'-C1'-N1	7.53	114.22	108.20
34	AA	3017	A	P-O3'-C3'	7.53	128.73	119.70
76	Ag	16	ARG	NE-CZ-NH1	7.53	124.06	120.30
1	A	793	G	O4'-C1'-N9	7.52	114.22	108.20
34	AA	1018	C	O4'-C1'-N1	7.52	114.22	108.20
34	AA	3483	U	O4'-C1'-N1	7.52	114.22	108.20
1	A	536	C	O4'-C1'-N1	7.52	114.21	108.20
15	O	65	TYR	CB-CG-CD2	-7.52	116.49	121.00
34	AA	171	C	O4'-C1'-N1	7.51	114.21	108.20
60	AS	57	ARG	NE-CZ-NH2	7.50	124.05	120.30
7	U	114	ARG	NE-CZ-NH1	7.50	124.05	120.30
34	AA	2572	A	O4'-C1'-N9	7.50	114.20	108.20
34	AA	3401	C	O4'-C1'-N1	7.49	114.19	108.20
65	AT	102	ARG	NE-CZ-NH1	7.49	124.05	120.30
34	AA	2577	C	C2-N1-C1'	7.49	127.04	118.80
34	AA	3067	G	C1'-O4'-C4'	-7.49	103.91	109.90
34	AA	3691	C	O4'-C1'-N1	7.49	114.19	108.20
1	A	1687	C	O4'-C1'-N1	7.49	114.19	108.20
1	A	566	C	O4'-C1'-N1	7.49	114.19	108.20
16	Y	107	ARG	NE-CZ-NH1	7.49	124.04	120.30
34	AA	1845	C	O4'-C1'-N1	7.49	114.19	108.20
46	AN	66	ARG	NE-CZ-NH1	7.48	124.04	120.30
1	A	759	C	O4'-C1'-N1	7.48	114.18	108.20
34	AA	122	A	O4'-C1'-N9	7.48	114.18	108.20
1	A	109	C	O4'-C1'-N1	7.47	114.18	108.20
34	AA	1076	C	O4'-C1'-N1	7.47	114.18	108.20
36	AB	102	C	O4'-C1'-N1	7.47	114.18	108.20
69	AD	9	ARG	NE-CZ-NH1	7.47	124.04	120.30
54	AP	195	ARG	NE-CZ-NH2	7.47	124.03	120.30
1	A	485	C	O4'-C1'-N1	7.47	114.17	108.20
66	AZ	45	ARG	NE-CZ-NH1	7.47	124.03	120.30
16	Y	145	ARG	NE-CZ-NH1	7.46	124.03	120.30
2	7	31	G	C2'-C3'-O3'	7.46	125.91	109.50
8	V	155	ARG	NE-CZ-NH1	7.46	124.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	AB	67	C	O4'-C1'-N1	7.46	114.17	108.20
70	AE	21	ARG	NE-CZ-NH1	7.46	124.03	120.30
34	AA	432	A	P-O3'-C3'	7.46	128.65	119.70
49	Aa	67	ARG	NE-CZ-NH2	-7.46	116.57	120.30
1	A	2033	U	O4'-C1'-N1	7.45	114.16	108.20
10	X	47	ARG	NE-CZ-NH1	-7.45	116.58	120.30
34	AA	590	C	O4'-C1'-N1	7.45	114.16	108.20
1	A	1257	C	O4'-C1'-N1	7.45	114.16	108.20
23	5	15	ARG	NE-CZ-NH1	-7.45	116.58	120.30
34	AA	361	G	O4'-C1'-N9	7.45	114.16	108.20
69	AD	54	ARG	NE-CZ-NH1	7.45	124.02	120.30
1	A	932	U	O4'-C1'-N1	7.45	114.16	108.20
31	N	54	ARG	NE-CZ-NH1	7.45	124.02	120.30
1	A	1907	A	C4'-C3'-C2'	-7.44	95.16	102.60
1	A	974	A	O4'-C1'-N9	7.44	114.15	108.20
34	AA	1457	G	P-O3'-C3'	7.44	128.63	119.70
1	A	1716	C	O4'-C1'-N1	7.44	114.15	108.20
3	Q	18	ARG	NE-CZ-NH1	7.43	124.02	120.30
69	AD	200	ARG	NE-CZ-NH2	7.43	124.02	120.30
34	AA	866	C	O4'-C1'-N1	7.42	114.14	108.20
34	AA	3714	C	O4'-C1'-N1	7.42	114.14	108.20
63	AW	127	ARG	NE-CZ-NH2	7.42	124.01	120.30
1	A	1091	C	O4'-C1'-N1	7.42	114.14	108.20
34	AA	2883	U	P-O3'-C3'	7.42	128.60	119.70
35	AC	146	C	O4'-C1'-N1	7.41	114.13	108.20
1	A	119	C	O4'-C1'-N1	7.41	114.13	108.20
34	AA	3518	C	O4'-C1'-N1	7.41	114.13	108.20
1	A	357	U	P-O3'-C3'	7.41	128.59	119.70
1	A	424	G	N1-C6-O6	7.40	124.34	119.90
16	Y	66	ARG	NE-CZ-NH1	-7.40	116.60	120.30
1	A	647	C	C6-N1-C1'	-7.40	111.92	120.80
34	AA	449	A	O4'-C1'-N9	7.40	114.12	108.20
68	A5	68	ARG	NE-CZ-NH1	7.40	124.00	120.30
57	Ac	75	ARG	NE-CZ-NH1	7.40	124.00	120.30
34	AA	1325	C	O4'-C1'-N1	7.40	114.12	108.20
36	AB	88	A	P-O3'-C3'	7.40	128.57	119.70
1	A	920	A	O4'-C1'-N9	7.39	114.11	108.20
1	A	1706	A	O4'-C1'-N9	7.39	114.11	108.20
34	AA	1680	C	O4'-C1'-N1	7.39	114.11	108.20
34	AA	3244	C	O4'-C1'-N1	7.39	114.11	108.20
34	AA	3258	C	O4'-C1'-N1	7.38	114.11	108.20
34	AA	1013	U	O4'-C1'-N1	7.38	114.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1852	C	O4'-C1'-N1	7.38	114.10	108.20
68	A5	173	ARG	NE-CZ-NH1	-7.38	116.61	120.30
1	A	184	C	O4'-C1'-N1	7.37	114.10	108.20
14	I	62	ARG	NE-CZ-NH2	7.37	123.98	120.30
34	AA	2969	C	O4'-C1'-N1	7.36	114.09	108.20
34	AA	1502	G	O4'-C1'-N9	7.36	114.09	108.20
20	C	101	ARG	NE-CZ-NH2	7.36	123.98	120.30
34	AA	1823	C	O4'-C1'-N1	7.36	114.08	108.20
1	A	894	U	O4'-C1'-N1	7.35	114.08	108.20
34	AA	3618	A	O4'-C1'-N9	7.35	114.08	108.20
1	A	843	U	O4'-C1'-N1	7.35	114.08	108.20
2	7	66	C	O4'-C1'-N1	7.35	114.08	108.20
23	5	15	ARG	NE-CZ-NH2	7.35	123.97	120.30
34	AA	3243	C	O4'-C1'-N1	7.35	114.08	108.20
34	AA	3191	C	O4'-C1'-N1	7.34	114.07	108.20
34	AA	1572	U	C2-N1-C1'	7.33	126.50	117.70
68	A5	202	TYR	CB-CG-CD1	-7.33	116.60	121.00
69	AD	6	ARG	NE-CZ-NH1	7.33	123.96	120.30
1	A	251	U	C1'-O4'-C4'	-7.32	104.04	109.90
68	A5	238	ARG	NE-CZ-NH2	-7.32	116.64	120.30
1	A	99	C	O4'-C1'-N1	7.32	114.05	108.20
1	A	415	C	O4'-C1'-N1	7.32	114.05	108.20
34	AA	3300	A	P-O3'-C3'	7.32	128.48	119.70
58	AK	48	ARG	NE-CZ-NH1	7.32	123.96	120.30
32	P	41	PHE	CB-CG-CD2	-7.31	115.68	120.80
34	AA	3013	A	O4'-C1'-N9	7.31	114.05	108.20
54	AP	163	ARG	NE-CZ-NH1	7.31	123.95	120.30
25	B	107	ARG	NE-CZ-NH1	7.31	123.95	120.30
34	AA	2004	U	C2-N1-C1'	7.31	126.47	117.70
1	A	1832	U	P-O3'-C3'	7.30	128.47	119.70
1	A	1079	C	O4'-C1'-N1	7.30	114.04	108.20
51	Ad	9	ARG	NE-CZ-NH2	-7.30	116.65	120.30
10	X	43	ARG	NE-CZ-NH2	7.30	123.95	120.30
1	A	2	A	P-O3'-C3'	7.30	128.46	119.70
36	AB	35	C	O4'-C1'-N1	7.30	114.04	108.20
1	A	458	A	O4'-C1'-N9	7.30	114.04	108.20
1	A	655	C	O4'-C1'-N1	7.30	114.04	108.20
34	AA	959	C	O4'-C1'-N1	7.29	114.04	108.20
14	I	51	ARG	NE-CZ-NH1	7.29	123.95	120.30
29	K	57	ARG	NE-CZ-NH1	7.29	123.95	120.30
34	AA	876	C	O4'-C1'-N1	7.29	114.03	108.20
44	A7	39	ARG	NE-CZ-NH1	7.29	123.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	AU	35	ARG	NE-CZ-NH2	7.29	123.95	120.30
9	E	108	ARG	NE-CZ-NH1	7.29	123.94	120.30
34	AA	3307	C	O4'-C1'-N1	7.29	114.03	108.20
1	A	420	C	O4'-C1'-N1	7.29	114.03	108.20
40	Ai	39	ARG	NE-CZ-NH2	-7.29	116.66	120.30
34	AA	268	C	O4'-C1'-N1	7.29	114.03	108.20
40	Ai	41	ARG	NE-CZ-NH2	-7.29	116.66	120.30
1	A	382	C	O4'-C1'-N1	7.28	114.03	108.20
34	AA	2459	C	O4'-C1'-N1	7.28	114.03	108.20
34	AA	3381	A	P-O3'-C3'	7.28	128.44	119.70
1	A	1936	C	O4'-C1'-N1	7.28	114.03	108.20
1	A	1978	A	O4'-C1'-N9	7.28	114.03	108.20
34	AA	2695	A	P-O5'-C5'	7.28	132.55	120.90
34	AA	1870	G	O4'-C1'-N9	7.28	114.02	108.20
34	AA	588	C	O4'-C1'-N1	7.28	114.02	108.20
34	AA	1106	A	O4'-C1'-N9	7.28	114.02	108.20
34	AA	2933	C	O4'-C1'-N1	7.28	114.02	108.20
1	A	1793	C	O4'-C1'-N1	7.27	114.02	108.20
34	AA	2425	C	O4'-C1'-N1	7.27	114.02	108.20
46	AN	13	TYR	CB-CG-CD1	-7.27	116.64	121.00
65	AT	8	ARG	NE-CZ-NH2	-7.27	116.66	120.30
68	A5	56	ARG	NE-CZ-NH2	-7.27	116.66	120.30
34	AA	3433	C	O4'-C1'-N1	7.27	114.02	108.20
1	A	367	C	O4'-C1'-N1	7.27	114.02	108.20
34	AA	3263	G	O4'-C1'-N9	7.27	114.01	108.20
1	A	1819	U	O4'-C1'-N1	7.26	114.01	108.20
1	A	2009	C	O4'-C1'-N1	7.26	114.01	108.20
1	A	634	C	O4'-C1'-N1	7.26	114.01	108.20
36	AB	78	C	O4'-C1'-N1	7.26	114.01	108.20
34	AA	3752	C	O4'-C1'-N1	7.26	114.01	108.20
34	AA	172	C	O4'-C1'-N1	7.26	114.01	108.20
34	AA	3654	C	O4'-C1'-N1	7.26	114.01	108.20
1	A	1370	U	O4'-C1'-N1	7.25	114.00	108.20
34	AA	3711	U	P-O3'-C3'	7.25	128.41	119.70
34	AA	3502	C	O4'-C1'-N1	7.25	114.00	108.20
34	AA	1618	C	O4'-C1'-N1	7.25	114.00	108.20
34	AA	336	U	O4'-C1'-N1	7.24	114.00	108.20
1	A	1917	C	O4'-C1'-N1	7.24	113.99	108.20
36	AB	29	C	O4'-C1'-N1	7.24	113.99	108.20
1	A	1794	C	O4'-C1'-N1	7.24	113.99	108.20
34	AA	278	C	O4'-C1'-N1	7.24	113.99	108.20
34	AA	594	C	C6-N1-C1'	-7.24	112.11	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3756	C	O4'-C1'-N1	7.24	113.99	108.20
66	AZ	27	ARG	NE-CZ-NH1	7.24	123.92	120.30
34	AA	1280	G	O4'-C1'-N9	7.23	113.99	108.20
34	AA	2421	C	O4'-C1'-N1	7.23	113.98	108.20
1	A	437	C	O4'-C1'-N1	7.23	113.98	108.20
1	A	1718	C	O4'-C1'-N1	7.22	113.98	108.20
34	AA	1244	G	O4'-C1'-N9	7.22	113.98	108.20
34	AA	3137	U	P-O3'-C3'	7.22	128.36	119.70
1	A	1267	C	O4'-C1'-N1	7.22	113.97	108.20
34	AA	732	C	O4'-C1'-N1	7.21	113.97	108.20
63	AW	34	ARG	NE-CZ-NH2	-7.21	116.69	120.30
34	AA	28	C	O4'-C1'-N1	7.21	113.97	108.20
61	AQ	90	ARG	NE-CZ-NH2	-7.21	116.69	120.30
1	A	1719	U	O4'-C1'-N1	7.21	113.97	108.20
34	AA	137	G	O4'-C1'-N9	7.21	113.97	108.20
30	J	78	ARG	NE-CZ-NH2	7.20	123.90	120.30
1	A	1182	A	P-O3'-C3'	7.20	128.34	119.70
6	M	50	TYR	CB-CG-CD1	-7.20	116.68	121.00
34	AA	504	A	N1-C6-N6	-7.20	114.28	118.60
62	AR	50	ARG	NE-CZ-NH1	7.20	123.90	120.30
34	AA	2528	C	O4'-C1'-N1	7.20	113.96	108.20
34	AA	1057	C	O4'-C1'-N1	7.20	113.96	108.20
34	AA	2993	C	O4'-C1'-N1	7.20	113.96	108.20
36	AB	36	C	O4'-C1'-N1	7.20	113.96	108.20
34	AA	672	C	O4'-C1'-N1	7.19	113.95	108.20
30	J	123	TYR	CB-CG-CD1	7.19	125.32	121.00
34	AA	138	C	O4'-C1'-N1	7.19	113.95	108.20
1	A	1224	C	O4'-C1'-N1	7.19	113.95	108.20
34	AA	803	A	P-O3'-C3'	7.19	128.33	119.70
34	AA	3770	C	O4'-C1'-N1	7.19	113.95	108.20
40	Ai	42	TYR	CB-CG-CD2	7.19	125.31	121.00
34	AA	93	C	O4'-C1'-N1	7.19	113.95	108.20
31	N	78	ARG	NE-CZ-NH2	7.18	123.89	120.30
70	AE	234	ARG	NE-CZ-NH2	7.18	123.89	120.30
35	AC	128	C	O4'-C1'-N1	7.18	113.95	108.20
61	AQ	162	ARG	NE-CZ-NH1	7.18	123.89	120.30
1	A	808	U	O4'-C1'-N1	7.18	113.94	108.20
34	AA	2623	C	O4'-C1'-N1	7.18	113.94	108.20
34	AA	1991	U	O4'-C1'-N1	7.18	113.94	108.20
34	AA	2630	C	O4'-C1'-N1	7.18	113.94	108.20
58	AK	133	ARG	NE-CZ-NH1	7.17	123.89	120.30
34	AA	511	C	O4'-C1'-N1	7.17	113.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	973	G	C1'-O4'-C4'	-7.17	104.17	109.90
1	A	1306	C	O4'-C1'-N1	7.17	113.93	108.20
75	AV	13	ARG	NE-CZ-NH1	-7.16	116.72	120.30
35	AC	118	C	O4'-C1'-N1	7.16	113.93	108.20
1	A	748	C	O4'-C1'-N1	7.16	113.93	108.20
37	AL	198	ARG	NE-CZ-NH2	7.16	123.88	120.30
73	AU	124	ARG	NE-CZ-NH2	7.16	123.88	120.30
34	AA	1155	C	O4'-C1'-N1	7.16	113.93	108.20
34	AA	284	C	O4'-C1'-N1	7.15	113.92	108.20
1	A	396	G	O4'-C1'-N9	7.15	113.92	108.20
34	AA	101	C	C6-N1-C1'	-7.15	112.22	120.80
1	A	414	C	O4'-C1'-N1	7.15	113.92	108.20
34	AA	1758	C	O4'-C1'-N1	7.15	113.92	108.20
1	A	1835	U	O4'-C1'-N1	7.15	113.92	108.20
1	A	1707	C	O4'-C1'-N1	7.15	113.92	108.20
1	A	1839	G	O4'-C1'-N9	7.15	113.92	108.20
34	AA	2123	C	O4'-C1'-N1	7.14	113.92	108.20
74	AH	123	ARG	NE-CZ-NH1	-7.14	116.73	120.30
1	A	36	C	O4'-C1'-N1	7.14	113.92	108.20
34	AA	2103	C	O4'-C1'-N1	7.14	113.91	108.20
34	AA	193	C	O4'-C1'-N1	7.14	113.91	108.20
1	A	408	U	O4'-C1'-N1	7.14	113.91	108.20
1	A	483	A	O4'-C1'-N9	7.14	113.91	108.20
34	AA	202	C	O4'-C1'-N1	7.14	113.91	108.20
34	AA	922	C	O4'-C1'-N1	7.14	113.91	108.20
34	AA	3461	C	O4'-C1'-N1	7.14	113.91	108.20
34	AA	3522	C	O4'-C1'-N1	7.14	113.91	108.20
2	7	23	C	O4'-C1'-N1	7.13	113.91	108.20
34	AA	1994	U	O4'-C1'-N1	7.13	113.91	108.20
34	AA	3628	C	O4'-C1'-N1	7.13	113.90	108.20
45	A1	119	ARG	NE-CZ-NH2	-7.12	116.74	120.30
65	AT	63	ARG	NE-CZ-NH1	7.12	123.86	120.30
61	AQ	88	ARG	NE-CZ-NH1	7.12	123.86	120.30
34	AA	589	C	O4'-C1'-N1	7.12	113.89	108.20
1	A	621	C	O4'-C1'-N1	7.12	113.89	108.20
1	A	1169	C	O4'-C1'-N1	7.12	113.89	108.20
18	1	106	ARG	NE-CZ-NH1	-7.11	116.74	120.30
34	AA	1757	C	O4'-C1'-N1	7.11	113.89	108.20
28	H	74	ARG	NE-CZ-NH1	7.11	123.86	120.30
34	AA	1175	C	O4'-C1'-N1	7.11	113.89	108.20
34	AA	2727	U	C2-N1-C1'	7.11	126.23	117.70
39	AO	104	ARG	NE-CZ-NH1	7.11	123.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	A5	255	ARG	NE-CZ-NH2	-7.11	116.75	120.30
1	A	122	C	O4'-C1'-N1	7.11	113.89	108.20
67	A3	50	ARG	NE-CZ-NH1	7.11	123.86	120.30
34	AA	1506	C	O4'-C1'-N1	7.11	113.89	108.20
2	7	44	A	O4'-C1'-N9	7.11	113.88	108.20
34	AA	1283	C	O4'-C1'-N1	7.11	113.88	108.20
35	AC	138	U	P-O3'-C3'	7.11	128.23	119.70
35	AC	32	C	O4'-C1'-N1	7.10	113.88	108.20
1	A	345	C	O4'-C1'-N1	7.10	113.88	108.20
6	M	112	ARG	NE-CZ-NH2	-7.10	116.75	120.30
1	A	1651	C	O4'-C1'-N1	7.09	113.88	108.20
34	AA	491	C	O4'-C1'-N1	7.09	113.88	108.20
1	A	1296	C	O4'-C1'-N1	7.09	113.87	108.20
15	O	23	TYR	CB-CG-CD1	-7.09	116.74	121.00
36	AB	26	C	O4'-C1'-N1	7.09	113.87	108.20
36	AB	34	C	O4'-C1'-N1	7.09	113.87	108.20
1	A	590	C	O4'-C1'-N1	7.08	113.87	108.20
34	AA	926	G	O4'-C1'-N9	7.08	113.87	108.20
1	A	919	U	O4'-C1'-N1	7.08	113.86	108.20
34	AA	3312	U	O4'-C1'-N1	7.08	113.87	108.20
77	AX	117	ARG	NE-CZ-NH2	7.08	123.84	120.30
3	Q	23	ARG	NE-CZ-NH1	7.08	123.84	120.30
34	AA	719	C	O4'-C1'-N1	7.08	113.86	108.20
67	A3	113	PHE	CB-CG-CD2	7.08	125.75	120.80
51	Ad	73	ARG	NE-CZ-NH2	-7.07	116.76	120.30
75	AV	101	ARG	NE-CZ-NH1	7.07	123.83	120.30
34	AA	1573	C	O4'-C1'-N1	7.07	113.85	108.20
34	AA	2036	C	O4'-C1'-N1	7.07	113.86	108.20
35	AC	105	U	O4'-C1'-N1	7.07	113.86	108.20
1	A	2026	C	O4'-C1'-N1	7.07	113.85	108.20
58	AK	136	ARG	NE-CZ-NH1	7.07	123.83	120.30
28	H	156	TYR	CB-CG-CD1	-7.06	116.76	121.00
34	AA	234	C	O4'-C1'-N1	7.06	113.85	108.20
34	AA	1480	G	N1-C6-O6	7.06	124.14	119.90
34	AA	3620	C	O4'-C1'-N1	7.06	113.85	108.20
68	A5	116	ARG	NE-CZ-NH1	-7.06	116.77	120.30
1	A	1873	A	N1-C6-N6	7.05	122.83	118.60
34	AA	107	C	O4'-C1'-N1	7.05	113.84	108.20
34	AA	2647	C	O4'-C1'-N1	7.05	113.84	108.20
34	AA	3617	A	P-O3'-C3'	7.05	128.16	119.70
1	A	449	C	O4'-C1'-N1	7.05	113.84	108.20
1	A	1686	C	O4'-C1'-N1	7.05	113.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	AJ	55	ILE	CB-CG1-CD1	7.05	133.63	113.90
34	AA	624	C	O4'-C1'-N1	7.04	113.84	108.20
34	AA	1794	U	O4'-C1'-N1	7.04	113.83	108.20
34	AA	954	G	O4'-C1'-N9	7.04	113.83	108.20
34	AA	2713	C	O4'-C1'-N1	7.04	113.83	108.20
1	A	874	A	P-O3'-C3'	7.04	128.14	119.70
34	AA	1456	C	O4'-C1'-N1	7.04	113.83	108.20
34	AA	2175	C	O4'-C1'-N1	7.04	113.83	108.20
36	AB	93	G	C5-C6-O6	-7.04	124.38	128.60
34	AA	2591	U	O4'-C1'-N1	7.03	113.82	108.20
1	A	871	C	O4'-C1'-N1	7.03	113.82	108.20
34	AA	2626	C	O4'-C1'-N1	7.03	113.82	108.20
34	AA	1676	C	O4'-C1'-N1	7.02	113.82	108.20
1	A	919	U	P-O3'-C3'	7.02	128.12	119.70
1	A	1452	C	O4'-C1'-N1	7.02	113.81	108.20
69	AD	242	ARG	NE-CZ-NH2	7.02	123.81	120.30
16	Y	15	ARG	NE-CZ-NH1	-7.02	116.79	120.30
34	AA	3526	U	O4'-C1'-N1	7.01	113.81	108.20
65	AT	109	ARG	NE-CZ-NH1	-7.01	116.79	120.30
1	A	2018	C	O4'-C1'-N1	7.01	113.81	108.20
34	AA	1086	C	O4'-C1'-N1	7.01	113.81	108.20
60	AS	90	ARG	NE-CZ-NH1	7.01	123.80	120.30
1	A	632	C	O4'-C1'-N1	7.01	113.81	108.20
35	AC	39	C	O4'-C1'-N1	7.00	113.80	108.20
1	A	894	U	P-O3'-C3'	-7.00	111.30	119.70
34	AA	143	C	O4'-C1'-N1	7.00	113.80	108.20
35	AC	15	C	O4'-C1'-N1	7.00	113.80	108.20
35	AC	100	A	O4'-C1'-N9	7.00	113.80	108.20
34	AA	2185	C	O4'-C1'-N1	7.00	113.80	108.20
1	A	475	C	O4'-C1'-N1	6.99	113.79	108.20
13	R	68	TYR	CB-CG-CD1	-6.99	116.80	121.00
34	AA	607	A	N1-C6-N6	6.99	122.79	118.60
34	AA	1431	A	O4'-C1'-N9	6.99	113.79	108.20
35	AC	33	C	O4'-C1'-N1	6.99	113.79	108.20
1	A	18	C	O4'-C1'-N1	6.98	113.79	108.20
34	AA	2991	U	O4'-C1'-N1	6.98	113.79	108.20
26	D	147	ARG	NE-CZ-NH2	-6.98	116.81	120.30
34	AA	2597	C	O4'-C1'-N1	6.98	113.79	108.20
34	AA	2574	A	C1'-O4'-C4'	-6.98	104.32	109.90
3	Q	13	ARG	NE-CZ-NH1	-6.98	116.81	120.30
34	AA	3414	G	P-O3'-C3'	6.97	128.07	119.70
34	AA	3257	G	C5-C6-O6	-6.97	124.42	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	300	C	O4'-C1'-N1	6.97	113.78	108.20
1	A	879	A	O4'-C1'-N9	6.97	113.78	108.20
32	P	41	PHE	CB-CG-CD1	6.97	125.68	120.80
34	AA	830	U	C2-N1-C1'	6.97	126.06	117.70
34	AA	42	C	O4'-C1'-N1	6.97	113.77	108.20
34	AA	3021	C	O4'-C1'-N1	6.96	113.77	108.20
48	A9	39	ARG	NE-CZ-NH1	6.96	123.78	120.30
48	A9	87	ARG	NE-CZ-NH1	6.96	123.78	120.30
1	A	827	C	O4'-C1'-N1	6.96	113.77	108.20
34	AA	982	C	O4'-C1'-N1	6.96	113.77	108.20
71	AF	336	ARG	NE-CZ-NH1	6.95	123.78	120.30
52	Ae	41	ARG	NE-CZ-NH1	6.95	123.77	120.30
1	A	1319	G	O4'-C1'-N9	6.95	113.76	108.20
34	AA	1788	C	O4'-C1'-N1	6.94	113.75	108.20
1	A	917	C	O4'-C1'-N1	6.94	113.75	108.20
1	A	1209	G	O4'-C1'-N9	6.94	113.75	108.20
20	C	35	ARG	NE-CZ-NH2	6.94	123.77	120.30
34	AA	347	C	O4'-C1'-N1	6.94	113.75	108.20
1	A	150	C	O4'-C1'-N1	6.94	113.75	108.20
34	AA	1424	C	O4'-C1'-N1	6.94	113.75	108.20
36	AB	17	C	O4'-C1'-N1	6.93	113.75	108.20
34	AA	2394	C	O4'-C1'-N1	6.93	113.75	108.20
1	A	1100	U	P-O3'-C3'	6.93	128.01	119.70
37	AL	197	ARG	NE-CZ-NH1	-6.93	116.84	120.30
34	AA	2658	C	O4'-C1'-N1	6.92	113.74	108.20
34	AA	801	U	O4'-C1'-N1	6.92	113.74	108.20
1	A	1432	G	P-O3'-C3'	6.92	128.00	119.70
35	AC	148	C	O4'-C1'-N1	6.92	113.74	108.20
1	A	1220	C	O4'-C1'-N1	6.92	113.73	108.20
34	AA	237	A	O4'-C1'-N9	6.92	113.73	108.20
34	AA	525	U	O4'-C1'-N1	6.92	113.73	108.20
34	AA	2002	G	O4'-C1'-N9	6.92	113.73	108.20
71	AF	312	ARG	NE-CZ-NH2	-6.92	116.84	120.30
1	A	1090	C	O4'-C1'-N1	6.92	113.73	108.20
1	A	439	C	O4'-C1'-N1	6.91	113.73	108.20
34	AA	779	U	O4'-C1'-N1	6.91	113.73	108.20
34	AA	2116	C	O4'-C1'-N1	6.91	113.73	108.20
34	AA	3575	U	O4'-C1'-N1	6.91	113.73	108.20
34	AA	2485	C	O4'-C1'-N1	6.91	113.72	108.20
34	AA	1321	A	O4'-C1'-N9	6.90	113.72	108.20
34	AA	888	A	O4'-C1'-N9	6.90	113.72	108.20
34	AA	2125	A	O4'-C1'-N9	6.90	113.72	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	AC	10	C	O4'-C1'-N1	6.90	113.72	108.20
34	AA	952	U	O4'-C1'-N1	6.90	113.72	108.20
34	AA	3241	U	O4'-C1'-N1	6.90	113.72	108.20
34	AA	702	U	C6-N1-C1'	-6.90	111.54	121.20
34	AA	775	C	O4'-C1'-N1	6.90	113.72	108.20
2	7	47	U	O4'-C1'-N1	6.89	113.71	108.20
61	AQ	7	ARG	NE-CZ-NH1	6.89	123.75	120.30
39	AO	67	ARG	NE-CZ-NH1	6.89	123.75	120.30
1	A	1404	U	O4'-C1'-N1	6.89	113.71	108.20
34	AA	1979	C	O4'-C1'-N1	6.88	113.71	108.20
1	A	1461	C	O4'-C1'-N1	6.88	113.71	108.20
34	AA	722	G	C5-C6-O6	-6.88	124.47	128.60
34	AA	3005	C	O4'-C1'-N1	6.88	113.70	108.20
34	AA	1160	C	O4'-C1'-N1	6.87	113.70	108.20
34	AA	233	C	O4'-C1'-N1	6.87	113.70	108.20
34	AA	3053	G	O4'-C1'-N9	6.87	113.70	108.20
34	AA	2422	C	O4'-C1'-N1	6.87	113.69	108.20
1	A	1019	C	O4'-C1'-N1	6.87	113.69	108.20
34	AA	3318	C	O4'-C1'-N1	6.87	113.69	108.20
55	Ah	4	ARG	NE-CZ-NH2	-6.87	116.87	120.30
1	A	49	C	O4'-C1'-N1	6.86	113.69	108.20
34	AA	2495	C	O4'-C1'-N1	6.86	113.68	108.20
1	A	1249	C	O4'-C1'-N1	6.85	113.68	108.20
1	A	1380	C	O4'-C1'-N1	6.85	113.68	108.20
9	E	23	ARG	NE-CZ-NH1	6.85	123.73	120.30
54	AP	160	ARG	NE-CZ-NH1	6.85	123.73	120.30
34	AA	3782	A	P-O3'-C3'	6.85	127.92	119.70
68	A5	231	ARG	NE-CZ-NH2	6.85	123.72	120.30
34	AA	1303	C	O4'-C1'-N1	6.84	113.67	108.20
65	AT	169	ARG	NE-CZ-NH1	6.84	123.72	120.30
34	AA	320	C	O4'-C1'-N1	6.84	113.67	108.20
34	AA	574	G	O4'-C1'-N9	6.84	113.67	108.20
76	Ag	39	ARG	NE-CZ-NH1	-6.84	116.88	120.30
34	AA	532	C	O4'-C1'-N1	6.84	113.67	108.20
34	AA	3322	C	O4'-C1'-N1	6.84	113.67	108.20
34	AA	3659	C	O4'-C1'-N1	6.84	113.67	108.20
15	O	65	TYR	CB-CG-CD1	6.84	125.10	121.00
44	A7	80	ARG	NE-CZ-NH1	6.84	123.72	120.30
34	AA	3129	U	P-O3'-C3'	6.83	127.90	119.70
34	AA	69	U	O4'-C1'-N1	6.83	113.67	108.20
34	AA	142	C	O4'-C1'-N1	6.83	113.67	108.20
34	AA	1665	C	O4'-C1'-N1	6.83	113.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2437	A	O4'-C1'-N9	6.83	113.66	108.20
34	AA	2918	C	O4'-C1'-N1	6.83	113.66	108.20
34	AA	3337	U	O4'-C1'-N1	6.83	113.66	108.20
1	A	1946	C	O4'-C1'-N1	6.83	113.66	108.20
35	AC	104	C	O4'-C1'-N1	6.83	113.66	108.20
34	AA	3016	G	O4'-C1'-N9	6.83	113.66	108.20
34	AA	1904	U	C4'-C3'-C2'	-6.82	95.78	102.60
34	AA	2074	C	O4'-C1'-N1	6.82	113.66	108.20
1	A	270	C	O4'-C1'-N1	6.82	113.66	108.20
1	A	1732	G	O4'-C1'-N9	6.82	113.66	108.20
34	AA	1537	G	P-O5'-C5'	6.82	131.82	120.90
34	AA	930	C	O4'-C1'-N1	6.82	113.66	108.20
1	A	1609	C	O4'-C1'-N1	6.82	113.65	108.20
34	AA	821	C	O4'-C1'-N1	6.81	113.65	108.20
34	AA	990	U	O4'-C1'-N1	6.81	113.65	108.20
34	AA	857	C	O4'-C1'-N1	6.81	113.64	108.20
34	AA	2401	C	O4'-C1'-N1	6.81	113.64	108.20
68	A5	160	ARG	NE-CZ-NH1	-6.81	116.90	120.30
18	1	120	ARG	NE-CZ-NH1	6.80	123.70	120.30
34	AA	1281	C	O4'-C1'-N1	6.80	113.64	108.20
1	A	1731	C	O4'-C1'-N1	6.80	113.64	108.20
34	AA	3673	C	O4'-C1'-N1	6.80	113.64	108.20
34	AA	2033	C	P-O3'-C3'	6.80	127.86	119.70
34	AA	3192	U	O4'-C1'-N1	6.80	113.64	108.20
1	A	400	C	O4'-C1'-N1	6.80	113.64	108.20
32	P	149	ARG	NE-CZ-NH1	-6.79	116.90	120.30
34	AA	3713	C	O4'-C1'-N1	6.79	113.63	108.20
34	AA	1726	C	O4'-C1'-N1	6.79	113.63	108.20
69	AD	119	ARG	NE-CZ-NH1	6.79	123.69	120.30
2	7	31	G	O4'-C1'-N9	6.79	113.63	108.20
34	AA	2932	A	O4'-C1'-N9	6.79	113.63	108.20
72	AG	137	ARG	NE-CZ-NH2	6.79	123.69	120.30
1	A	1909	C	O4'-C1'-N1	6.78	113.63	108.20
2	7	34	C	O4'-C1'-N1	6.78	113.63	108.20
34	AA	329	C	O4'-C1'-N1	6.78	113.63	108.20
62	AR	281	ARG	NE-CZ-NH1	-6.78	116.91	120.30
52	Ae	42	ARG	NE-CZ-NH1	6.78	123.69	120.30
34	AA	109	A	P-O3'-C3'	6.77	127.83	119.70
1	A	118	U	O4'-C1'-N1	6.77	113.62	108.20
34	AA	2999	C	O4'-C1'-N1	6.77	113.62	108.20
34	AA	1474	A	O4'-C1'-N9	6.77	113.62	108.20
34	AA	2577	C	C6-N1-C1'	-6.77	112.68	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	AC	127	C	O4'-C1'-N1	6.77	113.61	108.20
34	AA	685	U	C2-N1-C1'	6.77	125.82	117.70
34	AA	1654	C	O4'-C1'-N1	6.77	113.61	108.20
3	Q	13	ARG	NE-CZ-NH2	6.76	123.68	120.30
34	AA	3501	C	O4'-C1'-N1	6.76	113.61	108.20
34	AA	90	C	O4'-C1'-N1	6.76	113.61	108.20
39	AO	26	ARG	NE-CZ-NH1	6.76	123.68	120.30
34	AA	2015	C	O4'-C1'-N1	6.76	113.61	108.20
34	AA	1037	C	O4'-C1'-N1	6.76	113.61	108.20
34	AA	2039	U	P-O3'-C3'	6.76	127.81	119.70
34	AA	2215	G	P-O3'-C3'	6.76	127.81	119.70
34	AA	81	C	O4'-C1'-N1	6.75	113.60	108.20
34	AA	1656	G	O4'-C1'-N9	6.75	113.60	108.20
34	AA	2700	C	O4'-C1'-N1	6.75	113.60	108.20
34	AA	3265	C	O4'-C1'-N1	6.75	113.60	108.20
48	A9	76	PHE	CB-CG-CD1	6.75	125.53	120.80
34	AA	2655	C	O4'-C1'-N1	6.75	113.60	108.20
1	A	1830	C	O4'-C1'-N1	6.75	113.60	108.20
1	A	2076	C	O4'-C1'-N1	6.75	113.60	108.20
9	E	79	ARG	NE-CZ-NH2	6.75	123.67	120.30
1	A	647	C	O4'-C1'-N1	6.74	113.59	108.20
33	L	8	ARG	NE-CZ-NH1	6.74	123.67	120.30
36	AB	93	G	O4'-C1'-N9	6.74	113.59	108.20
34	AA	3469	C	O4'-C1'-N1	6.74	113.59	108.20
1	A	1950	C	O4'-C1'-N1	6.74	113.59	108.20
42	A4	32	ARG	NE-CZ-NH2	6.74	123.67	120.30
34	AA	3658	G	C5-C6-O6	-6.74	124.56	128.60
35	AC	61	C	O4'-C1'-N1	6.74	113.59	108.20
1	A	754	A	O4'-C1'-N9	6.74	113.59	108.20
29	K	118	ARG	NE-CZ-NH1	6.73	123.67	120.30
34	AA	1704	U	O4'-C1'-N1	6.73	113.59	108.20
34	AA	155	U	O4'-C1'-N1	6.73	113.58	108.20
73	AU	171	ARG	NE-CZ-NH2	-6.73	116.94	120.30
34	AA	712	C	O4'-C1'-N1	6.73	113.58	108.20
34	AA	1343	U	O4'-C1'-N1	6.73	113.58	108.20
34	AA	916	U	O4'-C1'-N1	6.73	113.58	108.20
34	AA	1202	C	O4'-C1'-N1	6.73	113.58	108.20
39	AO	127	ARG	NE-CZ-NH1	6.72	123.66	120.30
1	A	1075	C	O4'-C1'-N1	6.72	113.58	108.20
1	A	1812	A	O4'-C1'-N9	6.72	113.58	108.20
34	AA	2624	C	O4'-C1'-N1	6.72	113.58	108.20
34	AA	3775	G	O4'-C1'-N9	6.72	113.58	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	AS	171	ARG	NE-CZ-NH1	6.72	123.66	120.30
65	AT	61	ARG	NE-CZ-NH1	6.72	123.66	120.30
1	A	1179	C	O4'-C1'-N1	6.72	113.57	108.20
47	A8	36	ARG	NE-CZ-NH1	-6.72	116.94	120.30
1	A	311	C	O4'-C1'-N1	6.71	113.57	108.20
6	M	50	TYR	CB-CG-CD2	6.71	125.03	121.00
16	Y	145	ARG	NE-CZ-NH2	-6.71	116.94	120.30
34	AA	2215	G	C5-C6-O6	-6.71	124.57	128.60
34	AA	2961	C	O4'-C1'-N1	6.71	113.57	108.20
34	AA	1461	C	O4'-C1'-N1	6.71	113.57	108.20
34	AA	753	C	O4'-C1'-N1	6.71	113.57	108.20
34	AA	1866	C	O4'-C1'-N1	6.71	113.57	108.20
1	A	89	C	C6-N1-C2	-6.71	117.62	120.30
2	7	49	G	C5-C6-O6	-6.71	124.58	128.60
34	AA	1415	A	O4'-C1'-N9	6.71	113.56	108.20
1	A	2031	C	O4'-C1'-N1	6.71	113.56	108.20
34	AA	3089	C	O4'-C1'-N1	6.71	113.56	108.20
68	A5	116	ARG	NE-CZ-NH2	6.71	123.65	120.30
1	A	1004	U	O4'-C1'-N1	6.70	113.56	108.20
34	AA	3613	A	O4'-C1'-N9	6.70	113.56	108.20
48	A9	76	PHE	CB-CG-CD2	-6.70	116.11	120.80
34	AA	113	C	O4'-C1'-N1	6.70	113.56	108.20
1	A	411	C	O4'-C1'-N1	6.70	113.56	108.20
34	AA	2571	C	O4'-C1'-N1	6.70	113.56	108.20
65	AT	143	ARG	NE-CZ-NH2	-6.69	116.95	120.30
1	A	257	C	O4'-C1'-N1	6.69	113.55	108.20
1	A	1097	C	O4'-C1'-N1	6.69	113.55	108.20
34	AA	1678	C	O4'-C1'-N1	6.69	113.55	108.20
34	AA	421	C	O4'-C1'-N1	6.69	113.55	108.20
34	AA	2694	A	O4'-C1'-N9	6.69	113.55	108.20
76	Ag	37	ARG	NE-CZ-NH2	-6.69	116.95	120.30
1	A	107	A	P-O3'-C3'	6.69	127.72	119.70
34	AA	701	C	O4'-C1'-N1	6.69	113.55	108.20
34	AA	2671	C	O4'-C1'-N1	6.69	113.55	108.20
34	AA	2883	U	O4'-C1'-N1	6.69	113.55	108.20
34	AA	3434	A	O4'-C1'-N9	6.69	113.55	108.20
34	AA	860	A	P-O5'-C5'	6.68	131.59	120.90
34	AA	1247	C	O4'-C1'-N1	6.68	113.55	108.20
34	AA	2457	C	O4'-C1'-N1	6.68	113.55	108.20
1	A	1403	U	O4'-C1'-N1	6.68	113.55	108.20
68	A5	79	ARG	NE-CZ-NH1	6.68	123.64	120.30
34	AA	1436	A	O4'-C1'-N9	6.68	113.54	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	AZ	12	ARG	NE-CZ-NH1	6.68	123.64	120.30
33	L	31	ARG	NE-CZ-NH1	6.68	123.64	120.30
34	AA	3115	C	O4'-C1'-N1	6.68	113.54	108.20
34	AA	521	U	P-O3'-C3'	6.68	127.71	119.70
34	AA	2033	C	O4'-C1'-N1	6.68	113.54	108.20
34	AA	1827	C	O4'-C1'-N1	6.67	113.54	108.20
34	AA	1721	C	O4'-C1'-N1	6.67	113.53	108.20
34	AA	3702	C	O4'-C1'-N1	6.67	113.53	108.20
54	AP	96	ARG	NE-CZ-NH1	6.67	123.63	120.30
18	1	8	ARG	NE-CZ-NH1	6.67	123.63	120.30
70	AE	280	TYR	CB-CG-CD2	-6.67	117.00	121.00
76	Ag	37	ARG	NE-CZ-NH1	6.67	123.63	120.30
34	AA	3536	C	O4'-C1'-N1	6.66	113.53	108.20
34	AA	2631	C	O4'-C1'-N1	6.66	113.53	108.20
1	A	1749	C	O4'-C1'-N1	6.66	113.53	108.20
1	A	1292	U	O4'-C1'-N1	6.66	113.53	108.20
54	AP	31	ARG	NE-CZ-NH1	6.66	123.63	120.30
1	A	949	C	O4'-C1'-N1	6.65	113.52	108.20
1	A	1709	C	O4'-C1'-N1	6.65	113.52	108.20
36	AB	105	C	O4'-C1'-N1	6.65	113.52	108.20
1	A	541	C	O4'-C1'-N1	6.65	113.52	108.20
54	AP	49	ARG	NE-CZ-NH2	-6.65	116.98	120.30
34	AA	2699	C	O4'-C1'-N1	6.65	113.52	108.20
34	AA	3427	U	O4'-C1'-N1	6.64	113.52	108.20
34	AA	438	U	O4'-C1'-N1	6.64	113.51	108.20
34	AA	1430	A	O4'-C1'-N9	6.64	113.51	108.20
34	AA	1481	A	O4'-C1'-N9	6.64	113.51	108.20
35	AC	67	G	P-O3'-C3'	6.64	127.67	119.70
1	A	1263	C	O4'-C1'-N1	6.64	113.51	108.20
34	AA	364	C	O4'-C1'-N1	6.64	113.51	108.20
71	AF	344	ARG	NE-CZ-NH1	6.64	123.62	120.30
1	A	379	G	C5-C6-O6	-6.63	124.62	128.60
34	AA	3411	C	O4'-C1'-N1	6.63	113.51	108.20
35	AC	126	C	O4'-C1'-N1	6.63	113.51	108.20
36	AB	92	C	O4'-C1'-N1	6.63	113.51	108.20
1	A	1381	C	O4'-C1'-N1	6.63	113.50	108.20
34	AA	1539	U	O4'-C1'-N1	6.63	113.50	108.20
35	AC	108	A	N1-C6-N6	-6.63	114.62	118.60
34	AA	685	U	C6-N1-C1'	-6.63	111.92	121.20
1	A	1455	C	O4'-C1'-N1	6.63	113.50	108.20
34	AA	2013	U	O3'-P-O5'	-6.63	91.41	104.00
34	AA	87	U	O4'-C1'-N1	6.62	113.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2027	C	O4'-C1'-N1	6.62	113.50	108.20
1	A	1912	C	O4'-C1'-N1	6.62	113.50	108.20
2	7	1	C	O4'-C1'-N1	6.62	113.50	108.20
27	F	54	TYR	CB-CG-CD1	-6.62	117.03	121.00
34	AA	2488	C	O4'-C1'-N1	6.62	113.50	108.20
74	AH	123	ARG	NE-CZ-NH2	6.62	123.61	120.30
34	AA	1572	U	C6-N1-C1'	-6.62	111.94	121.20
34	AA	2824	A	N1-C6-N6	6.62	122.57	118.60
34	AA	3429	C	O4'-C1'-N1	6.62	113.49	108.20
1	A	989	C	O4'-C1'-N1	6.62	113.49	108.20
1	A	1429	C	O4'-C1'-N1	6.62	113.49	108.20
1	A	1463	C	O4'-C1'-N1	6.62	113.49	108.20
37	AL	103	ARG	NE-CZ-NH1	6.62	123.61	120.30
34	AA	2804	C	O4'-C1'-N1	6.61	113.49	108.20
34	AA	544	C	O4'-C1'-N1	6.61	113.49	108.20
1	A	1791	C	O4'-C1'-N1	6.61	113.49	108.20
34	AA	1139	C	O4'-C1'-N1	6.61	113.49	108.20
34	AA	3344	C	O4'-C1'-N1	6.61	113.49	108.20
1	A	451	A	C5'-C4'-O4'	6.61	117.03	109.10
34	AA	124	U	O4'-C1'-N1	6.61	113.49	108.20
54	AP	16	SER	N-CA-CB	6.61	120.41	110.50
1	A	174	C	O4'-C1'-N1	6.60	113.48	108.20
1	A	354	C	O4'-C1'-N1	6.60	113.48	108.20
1	A	548	A	P-O3'-C3'	-6.60	111.78	119.70
1	A	1787	U	O4'-C1'-N1	6.60	113.48	108.20
34	AA	3290	C	O4'-C1'-N1	6.60	113.48	108.20
34	AA	300	C	O4'-C1'-N1	6.60	113.48	108.20
34	AA	971	U	O4'-C1'-N1	6.59	113.48	108.20
34	AA	3186	U	O4'-C1'-N1	6.59	113.48	108.20
34	AA	365	C	O4'-C1'-N1	6.59	113.47	108.20
34	AA	3177	U	O4'-C1'-N1	6.59	113.47	108.20
49	Aa	66	ARG	NE-CZ-NH1	-6.59	117.00	120.30
1	A	448	C	O4'-C1'-N1	6.59	113.47	108.20
34	AA	38	U	O4'-C1'-N1	6.59	113.47	108.20
54	AP	31	ARG	NE-CZ-NH2	-6.59	117.00	120.30
34	AA	3590	A	P-O3'-C3'	6.59	127.60	119.70
1	A	2087	U	O4'-C1'-N1	6.58	113.47	108.20
34	AA	1038	U	O4'-C1'-N1	6.58	113.46	108.20
34	AA	809	A	P-O3'-C3'	6.58	127.59	119.70
34	AA	3306	G	O4'-C1'-N9	6.58	113.46	108.20
1	A	42	G	O4'-C1'-N9	6.58	113.46	108.20
2	7	39	C	O4'-C1'-N1	6.58	113.46	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	583	U	O4'-C1'-N1	6.58	113.46	108.20
34	AA	3390	U	O4'-C1'-N1	6.58	113.46	108.20
1	A	1713	C	O4'-C1'-N1	6.57	113.46	108.20
34	AA	2489	C	O4'-C1'-N1	6.57	113.46	108.20
61	AQ	181	TYR	CB-CG-CD2	-6.57	117.06	121.00
1	A	588	U	O4'-C1'-N1	6.57	113.46	108.20
1	A	1781	C	O4'-C1'-N1	6.57	113.46	108.20
34	AA	2168	A	N1-C6-N6	-6.57	114.66	118.60
36	AB	72	C	O4'-C1'-N1	6.57	113.46	108.20
47	A8	13	ARG	NE-CZ-NH2	-6.57	117.02	120.30
34	AA	273	C	P-O3'-C3'	-6.57	111.82	119.70
34	AA	1818	C	O4'-C1'-N1	6.57	113.45	108.20
1	A	1788	U	C2-N1-C1'	6.57	125.58	117.70
34	AA	125	C	O4'-C1'-N1	6.57	113.45	108.20
1	A	214	U	O4'-C1'-N1	6.57	113.45	108.20
24	6	33	ARG	NE-CZ-NH2	6.57	123.58	120.30
34	AA	259	G	O4'-C1'-N9	6.57	113.45	108.20
34	AA	3765	C	O4'-C1'-N1	6.57	113.45	108.20
1	A	1375	C	C2-N1-C1'	6.56	126.02	118.80
34	AA	1797	A	O4'-C1'-N9	6.56	113.45	108.20
34	AA	3065	C	O4'-C1'-N1	6.56	113.45	108.20
34	AA	2083	U	P-O3'-C3'	6.56	127.57	119.70
34	AA	505	A	P-O3'-C3'	6.56	127.57	119.70
41	A2	14	ARG	NE-CZ-NH1	6.56	123.58	120.30
1	A	1031	C	O4'-C1'-N1	6.56	113.45	108.20
34	AA	3031	C	O4'-C1'-N1	6.55	113.44	108.20
34	AA	992	C	O4'-C1'-N1	6.55	113.44	108.20
34	AA	66	A	O4'-C1'-N9	6.55	113.44	108.20
12	W	3	ARG	NE-CZ-NH1	6.55	123.58	120.30
34	AA	1751	C	O4'-C1'-N1	6.55	113.44	108.20
1	A	1370	U	C1'-O4'-C4'	-6.55	104.66	109.90
1	A	1930	A	O4'-C1'-N9	6.55	113.44	108.20
71	AF	358	ARG	NE-CZ-NH1	6.55	123.57	120.30
34	AA	334	U	O4'-C1'-N1	6.55	113.44	108.20
34	AA	3201	C	O4'-C1'-N1	6.55	113.44	108.20
1	A	4	C	O4'-C1'-N1	6.54	113.44	108.20
1	A	13	C	O4'-C1'-N1	6.54	113.44	108.20
34	AA	136	U	C6-N1-C1'	-6.54	112.04	121.20
1	A	540	C	O4'-C1'-N1	6.54	113.43	108.20
34	AA	883	C	O4'-C1'-N1	6.54	113.43	108.20
34	AA	2601	C	O4'-C1'-N1	6.54	113.43	108.20
1	A	1645	C	O4'-C1'-N1	6.54	113.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	587	C	O4'-C1'-N1	6.54	113.43	108.20
77	AX	105	TYR	CB-CG-CD1	-6.53	117.08	121.00
78	AJ	73	ARG	NE-CZ-NH1	6.53	123.56	120.30
34	AA	277	U	O4'-C1'-N1	6.53	113.42	108.20
57	Ac	14	ARG	NE-CZ-NH2	6.53	123.56	120.30
34	AA	3581	A	O4'-C1'-N9	6.53	113.42	108.20
1	A	594	C	O4'-C1'-N1	6.52	113.42	108.20
2	7	53	G	O4'-C1'-N9	6.52	113.42	108.20
34	AA	3168	C	O4'-C1'-N1	6.52	113.42	108.20
1	A	1804	C	O4'-C1'-N1	6.52	113.42	108.20
34	AA	181	C	O4'-C1'-N1	6.52	113.42	108.20
67	A3	64	ARG	NE-CZ-NH1	6.52	123.56	120.30
35	AC	28	G	O4'-C1'-N9	6.52	113.42	108.20
1	A	1377	U	O4'-C1'-N1	6.52	113.41	108.20
18	1	115	ARG	NE-CZ-NH2	-6.52	117.04	120.30
34	AA	1425	C	O4'-C1'-N1	6.52	113.42	108.20
34	AA	2137	C	O4'-C1'-N1	6.52	113.41	108.20
66	AZ	11	ARG	NE-CZ-NH2	6.52	123.56	120.30
68	A5	154	ARG	NE-CZ-NH1	6.52	123.56	120.30
47	A8	125	ARG	NE-CZ-NH1	6.51	123.56	120.30
1	A	106	A	O4'-C1'-N9	6.51	113.41	108.20
1	A	2064	C	O4'-C1'-N1	6.51	113.41	108.20
21	3	89	ARG	NE-CZ-NH2	-6.51	117.04	120.30
34	AA	674	U	O4'-C1'-N1	6.51	113.41	108.20
1	A	1702	C	C2-N1-C1'	6.51	125.96	118.80
34	AA	2826	C	O4'-C1'-N1	6.51	113.41	108.20
34	AA	691	C	O4'-C1'-N1	6.51	113.41	108.20
9	E	40	ARG	NE-CZ-NH1	6.51	123.55	120.30
1	A	855	C	O4'-C1'-N1	6.50	113.40	108.20
1	A	455	C	O4'-C1'-N1	6.50	113.40	108.20
34	AA	699	U	O4'-C1'-N1	6.50	113.40	108.20
34	AA	3231	A	P-O3'-C3'	-6.50	111.90	119.70
34	AA	714	C	O4'-C1'-N1	6.50	113.40	108.20
34	AA	1200	C	O4'-C1'-N1	6.50	113.40	108.20
34	AA	3419	U	O4'-C1'-N1	6.50	113.40	108.20
1	A	866	A	O4'-C1'-N9	6.50	113.40	108.20
57	Ac	49	ARG	NE-CZ-NH1	6.50	123.55	120.30
1	A	144	U	O4'-C1'-N1	6.50	113.40	108.20
1	A	1222	C	O4'-C1'-N1	6.50	113.40	108.20
1	A	941	C	O4'-C1'-N1	6.49	113.39	108.20
27	F	113	ARG	NE-CZ-NH1	6.49	123.55	120.30
36	AB	39	C	O4'-C1'-N1	6.49	113.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1425	C	O4'-C1'-N1	6.49	113.39	108.20
34	AA	501	U	O4'-C1'-N1	6.49	113.39	108.20
34	AA	3460	C	O4'-C1'-N1	6.49	113.39	108.20
34	AA	595	U	O4'-C1'-N1	6.49	113.39	108.20
34	AA	2096	G	O4'-C1'-N9	6.49	113.39	108.20
36	AB	4	C	O4'-C1'-N1	6.49	113.39	108.20
57	Ac	66	ARG	NE-CZ-NH1	6.49	123.55	120.30
34	AA	3526	U	C1'-O4'-C4'	-6.49	104.71	109.90
34	AA	904	G	P-O3'-C3'	6.49	127.48	119.70
62	AR	278	ARG	NE-CZ-NH1	6.48	123.54	120.30
1	A	953	C	O4'-C1'-N1	6.48	113.39	108.20
34	AA	2524	C	O4'-C1'-N1	6.48	113.39	108.20
1	A	1278	C	O4'-C1'-N1	6.48	113.39	108.20
34	AA	129	C	O4'-C1'-N1	6.48	113.38	108.20
1	A	161	U	C2-N1-C1'	6.48	125.47	117.70
34	AA	3730	C	O4'-C1'-N1	6.48	113.38	108.20
35	AC	152	C	O4'-C1'-N1	6.48	113.38	108.20
34	AA	1661	U	O4'-C1'-N1	6.48	113.38	108.20
34	AA	1969	A	O4'-C1'-N9	6.48	113.38	108.20
34	AA	964	G	O4'-C1'-N9	6.47	113.38	108.20
34	AA	1112	C	O4'-C1'-N1	6.47	113.38	108.20
53	Af	41	ARG	NE-CZ-NH1	6.47	123.54	120.30
57	Ac	28	ARG	NE-CZ-NH1	6.47	123.54	120.30
69	AD	190	ARG	NE-CZ-NH1	6.47	123.54	120.30
34	AA	1571	C	O4'-C1'-N1	6.47	113.38	108.20
34	AA	2643	C	O4'-C1'-N1	6.47	113.38	108.20
34	AA	875	C	O4'-C1'-N1	6.47	113.38	108.20
34	AA	987	U	O4'-C1'-N1	6.47	113.38	108.20
34	AA	2148	U	O4'-C1'-N1	6.47	113.38	108.20
34	AA	2695	A	O4'-C1'-N9	6.47	113.38	108.20
34	AA	2938	C	O4'-C1'-N1	6.47	113.38	108.20
34	AA	3676	C	O4'-C1'-N1	6.47	113.38	108.20
57	Ac	48	ARG	NE-CZ-NH1	6.47	123.53	120.30
34	AA	3703	G	O4'-C1'-N9	6.47	113.37	108.20
33	L	12	ARG	NE-CZ-NH2	6.47	123.53	120.30
34	AA	711	C	O4'-C1'-N1	6.47	113.37	108.20
34	AA	1806	C	O4'-C1'-N1	6.47	113.37	108.20
34	AA	2935	U	O4'-C1'-N1	6.47	113.37	108.20
34	AA	126	C	O4'-C1'-N1	6.46	113.37	108.20
35	AC	57	A	O4'-C1'-N9	6.46	113.37	108.20
34	AA	3319	C	O4'-C1'-N1	6.46	113.37	108.20
1	A	814	U	O4'-C1'-N1	6.46	113.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1961	U	O4'-C1'-N1	6.46	113.37	108.20
1	A	1228	C	O4'-C1'-N1	6.46	113.36	108.20
34	AA	1627	C	O4'-C1'-N1	6.45	113.36	108.20
63	AW	82	ARG	NE-CZ-NH1	6.45	123.53	120.30
75	AV	84	ARG	NE-CZ-NH1	-6.45	117.07	120.30
1	A	1409	U	C2-N1-C1'	6.45	125.44	117.70
2	7	42	G	O4'-C1'-N9	6.45	113.36	108.20
34	AA	3058	C	O4'-C1'-N1	6.45	113.36	108.20
1	A	1790	C	O4'-C1'-N1	6.45	113.36	108.20
34	AA	291	A	O4'-C1'-N9	6.45	113.36	108.20
34	AA	999	G	O4'-C1'-N9	6.45	113.36	108.20
1	A	790	U	P-O3'-C3'	6.45	127.44	119.70
28	H	156	TYR	CB-CG-CD2	6.45	124.87	121.00
61	AQ	90	ARG	NE-CZ-NH1	6.45	123.52	120.30
34	AA	3257	G	N1-C6-O6	6.44	123.77	119.90
1	A	1624	U	O4'-C1'-N1	6.44	113.35	108.20
34	AA	1176	C	O4'-C1'-N1	6.44	113.35	108.20
34	AA	1538	U	O4'-C1'-N1	6.44	113.36	108.20
34	AA	1601	A	O4'-C1'-N9	6.44	113.35	108.20
34	AA	3240	C	O4'-C1'-N1	6.44	113.35	108.20
34	AA	3248	C	O4'-C1'-N1	6.44	113.35	108.20
1	A	850	G	O4'-C1'-N9	6.44	113.35	108.20
1	A	909	U	O4'-C1'-N1	6.44	113.35	108.20
1	A	1206	C	O4'-C1'-N1	6.44	113.35	108.20
1	A	3	C	O4'-C1'-N1	6.44	113.35	108.20
34	AA	322	C	O4'-C1'-N1	6.44	113.35	108.20
34	AA	865	G	O4'-C1'-N9	6.44	113.35	108.20
1	A	537	C	O4'-C1'-N1	6.44	113.35	108.20
36	AB	117	C	C6-N1-C2	-6.44	117.72	120.30
1	A	1645	C	C2-N1-C1'	6.43	125.88	118.80
1	A	2071	U	O4'-C1'-N1	6.43	113.35	108.20
34	AA	581	C	O4'-C1'-N1	6.43	113.35	108.20
34	AA	2747	G	O4'-C1'-N9	6.43	113.35	108.20
35	AC	91	A	O4'-C1'-N9	6.43	113.35	108.20
34	AA	388	C	O4'-C1'-N1	6.43	113.35	108.20
34	AA	2615	C	O4'-C1'-N1	6.43	113.35	108.20
1	A	15	U	O4'-C1'-N1	6.43	113.34	108.20
34	AA	1130	U	O4'-C1'-N1	6.43	113.34	108.20
73	AU	145	ARG	NE-CZ-NH1	6.43	123.51	120.30
61	AQ	184	TYR	CB-CG-CD1	-6.43	117.14	121.00
34	AA	888	A	P-O3'-C3'	6.43	127.41	119.70
1	A	1862	C	O4'-C1'-N1	6.42	113.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	108	C	O4'-C1'-N1	6.42	113.34	108.20
34	AA	306	C	O4'-C1'-N1	6.42	113.34	108.20
34	AA	796	C	O4'-C1'-N1	6.42	113.34	108.20
34	AA	2508	C	O4'-C1'-N1	6.42	113.34	108.20
71	AF	182	ARG	NE-CZ-NH1	6.42	123.51	120.30
35	AC	86	C	O4'-C1'-N1	6.42	113.33	108.20
34	AA	682	A	O4'-C1'-N9	6.42	113.33	108.20
29	K	28	ARG	NE-CZ-NH1	6.41	123.50	120.30
60	AS	10	ARG	NE-CZ-NH1	6.41	123.50	120.30
62	AR	23	ARG	NE-CZ-NH1	6.41	123.50	120.30
72	AG	32	ARG	NE-CZ-NH1	6.41	123.50	120.30
1	A	553	U	O4'-C1'-N1	6.41	113.32	108.20
34	AA	670	U	O4'-C1'-N1	6.41	113.32	108.20
34	AA	1752	C	O4'-C1'-N1	6.41	113.32	108.20
53	Af	46	ARG	NE-CZ-NH2	6.41	123.50	120.30
34	AA	1493	U	O4'-C1'-N1	6.40	113.32	108.20
34	AA	2886	A	P-O3'-C3'	6.40	127.39	119.70
1	A	1818	A	P-O3'-C3'	6.40	127.38	119.70
34	AA	413	C	O4'-C1'-N1	6.40	113.32	108.20
62	AR	22	ARG	NE-CZ-NH1	6.40	123.50	120.30
1	A	1786	U	O4'-C1'-N1	6.40	113.32	108.20
34	AA	595	U	C5'-C4'-O4'	6.40	116.78	109.10
34	AA	1996	C	O4'-C1'-N1	6.40	113.32	108.20
34	AA	3351	U	O4'-C1'-N1	6.40	113.32	108.20
34	AA	216	C	O4'-C1'-N1	6.40	113.32	108.20
1	A	579	C	O4'-C1'-N1	6.40	113.32	108.20
34	AA	2111	C	O4'-C1'-N1	6.40	113.32	108.20
1	A	399	C	O4'-C1'-N1	6.39	113.32	108.20
1	A	1625	C	O4'-C1'-N1	6.39	113.32	108.20
34	AA	2392	A	O4'-C1'-N9	6.39	113.32	108.20
72	AG	145	ARG	NE-CZ-NH2	6.39	123.50	120.30
1	A	1	A	P-O3'-C3'	6.39	127.37	119.70
34	AA	3624	U	P-O3'-C3'	6.39	127.37	119.70
34	AA	3634	C	O4'-C1'-N1	6.39	113.31	108.20
1	A	1076	C	O4'-C1'-N1	6.39	113.31	108.20
33	L	12	ARG	NE-CZ-NH1	-6.39	117.10	120.30
46	AN	13	TYR	CB-CG-CD2	6.39	124.83	121.00
36	AB	93	G	N1-C6-O6	6.39	123.73	119.90
1	A	1745	U	O4'-C1'-N1	6.38	113.31	108.20
1	A	1889	G	O4'-C1'-N9	6.38	113.31	108.20
1	A	1444	C	O4'-C1'-N1	6.38	113.31	108.20
34	AA	639	C	O4'-C1'-N1	6.38	113.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2444	C	O4'-C1'-N1	6.38	113.31	108.20
34	AA	3697	G	O4'-C1'-N9	6.38	113.30	108.20
1	A	1029	U	O4'-C1'-N1	6.38	113.30	108.20
7	U	58	TYR	CB-CG-CD2	-6.38	117.17	121.00
34	AA	1825	C	O4'-C1'-N1	6.38	113.30	108.20
34	AA	1887	G	O4'-C1'-N9	6.38	113.30	108.20
73	AU	155	ARG	NE-CZ-NH1	6.38	123.49	120.30
33	L	217	ARG	NE-CZ-NH2	6.38	123.49	120.30
1	A	546	G	O4'-C1'-N9	6.37	113.30	108.20
34	AA	3284	C	O4'-C1'-N1	6.37	113.30	108.20
62	AR	108	ARG	NE-CZ-NH2	-6.37	117.11	120.30
1	A	2053	U	O4'-C1'-N1	6.37	113.29	108.20
2	7	25	C	O4'-C1'-N1	6.37	113.29	108.20
34	AA	1534	U	P-O3'-C3'	6.37	127.34	119.70
67	A3	83	ARG	NE-CZ-NH1	6.37	123.48	120.30
1	A	1735	U	O4'-C1'-N1	6.37	113.29	108.20
1	A	1916	C	O4'-C1'-N1	6.37	113.29	108.20
34	AA	29	C	O4'-C1'-N1	6.37	113.29	108.20
34	AA	3286	C	O4'-C1'-N1	6.37	113.29	108.20
34	AA	3598	C	O4'-C1'-N1	6.37	113.29	108.20
1	A	603	C	O4'-C1'-N1	6.36	113.29	108.20
34	AA	3169	C	O4'-C1'-N1	6.36	113.29	108.20
1	A	1392	C	O4'-C1'-N1	6.36	113.29	108.20
34	AA	260	G	O4'-C1'-N9	6.36	113.29	108.20
1	A	32	U	O4'-C1'-N1	6.36	113.29	108.20
34	AA	1896	C	O4'-C1'-N1	6.36	113.29	108.20
34	AA	3405	U	O4'-C1'-N1	6.36	113.28	108.20
35	AC	125	U	O4'-C1'-N1	6.36	113.29	108.20
61	AQ	154	ARG	NE-CZ-NH1	6.36	123.48	120.30
34	AA	3029	G	O4'-C1'-N9	6.36	113.28	108.20
1	A	1106	C	O4'-C1'-N1	6.35	113.28	108.20
1	A	1313	G	O4'-C1'-N9	6.35	113.28	108.20
2	7	71	C	O4'-C1'-N1	6.35	113.28	108.20
34	AA	1290	C	O4'-C1'-N1	6.35	113.28	108.20
34	AA	3125	U	O4'-C1'-N1	6.35	113.28	108.20
34	AA	1299	G	O4'-C1'-N9	6.35	113.28	108.20
34	AA	3216	C	O4'-C1'-N1	6.35	113.28	108.20
34	AA	1172	C	O4'-C1'-N1	6.35	113.28	108.20
2	7	3	C	O4'-C1'-N1	6.34	113.28	108.20
34	AA	858	C	O4'-C1'-N1	6.34	113.28	108.20
34	AA	2737	C	O4'-C1'-N1	6.34	113.27	108.20
34	AA	3479	U	O4'-C1'-N1	6.34	113.27	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1246	C	O4'-C1'-N1	6.34	113.27	108.20
34	AA	1728	C	O4'-C1'-N1	6.34	113.27	108.20
1	A	1937	C	O4'-C1'-N1	6.34	113.27	108.20
34	AA	2041	U	P-O5'-C5'	6.33	131.03	120.90
1	A	1821	A	O4'-C1'-N9	6.33	113.27	108.20
34	AA	200	A	N1-C6-N6	6.33	122.40	118.60
34	AA	3783	G	O4'-C1'-N9	6.33	113.27	108.20
36	AB	91	C	O4'-C1'-N1	6.33	113.27	108.20
21	3	62	PHE	CB-CG-CD1	-6.33	116.37	120.80
34	AA	493	C	O4'-C1'-N1	6.33	113.26	108.20
34	AA	1550	A	O4'-C1'-N9	6.33	113.26	108.20
35	AC	121	C	O4'-C1'-N1	6.33	113.26	108.20
1	A	130	U	O4'-C1'-N1	6.33	113.26	108.20
1	A	1209	G	N1-C6-O6	6.33	123.70	119.90
1	A	1701	G	P-O3'-C3'	-6.33	112.11	119.70
34	AA	23	C	O4'-C1'-N1	6.33	113.26	108.20
34	AA	3144	C	O4'-C1'-N1	6.33	113.26	108.20
58	AK	73	ARG	NE-CZ-NH1	6.33	123.46	120.30
4	S	57	ARG	NE-CZ-NH1	6.32	123.46	120.30
34	AA	2652	C	O4'-C1'-N1	6.32	113.26	108.20
37	AL	42	ARG	NE-CZ-NH1	6.32	123.46	120.30
6	M	136	ARG	NE-CZ-NH1	6.32	123.46	120.30
34	AA	3382	U	O4'-C1'-N1	6.32	113.26	108.20
20	C	201	PHE	CB-CG-CD1	-6.32	116.38	120.80
35	AC	94	C	O4'-C1'-N1	6.32	113.26	108.20
54	AP	26	ARG	NE-CZ-NH1	6.32	123.46	120.30
34	AA	1020	C	O4'-C1'-N1	6.32	113.25	108.20
1	A	585	U	O4'-C1'-N1	6.32	113.25	108.20
34	AA	907	C	O4'-C1'-N1	6.32	113.25	108.20
41	A2	14	ARG	NE-CZ-NH2	-6.32	117.14	120.30
1	A	1726	U	O4'-C1'-N1	6.31	113.25	108.20
8	V	72	ARG	NE-CZ-NH1	6.31	123.46	120.30
42	A4	14	ARG	NE-CZ-NH1	6.31	123.46	120.30
11	G	186	ARG	NE-CZ-NH2	-6.31	117.14	120.30
59	AM	50	ARG	NE-CZ-NH1	6.31	123.46	120.30
34	AA	733	C	O4'-C1'-N1	6.31	113.25	108.20
36	AB	116	U	O4'-C1'-N1	6.31	113.25	108.20
2	7	13	C	O4'-C1'-N1	6.30	113.24	108.20
34	AA	1095	U	O4'-C1'-N1	6.30	113.24	108.20
34	AA	2089	C	O4'-C1'-N1	6.30	113.24	108.20
34	AA	2562	U	O4'-C1'-N1	6.30	113.24	108.20
1	A	1310	C	O4'-C1'-N1	6.30	113.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	H	186	ARG	NE-CZ-NH1	6.30	123.45	120.30
34	AA	944	U	O4'-C1'-N1	6.30	113.24	108.20
34	AA	3181	U	O4'-C1'-N1	6.30	113.24	108.20
35	AC	111	U	O4'-C1'-N1	6.30	113.24	108.20
39	AO	67	ARG	NE-CZ-NH2	-6.30	117.15	120.30
34	AA	86	G	O4'-C1'-N9	6.30	113.24	108.20
1	A	1044	C	O4'-C1'-N1	6.30	113.24	108.20
3	Q	107	PHE	CB-CG-CD1	6.30	125.21	120.80
34	AA	1847	C	O4'-C1'-N1	6.30	113.24	108.20
34	AA	2816	U	O4'-C1'-N1	6.29	113.23	108.20
5	T	17	ARG	NE-CZ-NH2	-6.29	117.15	120.30
34	AA	210	C	O4'-C1'-N1	6.29	113.23	108.20
36	AB	104	C	O4'-C1'-N1	6.29	113.23	108.20
34	AA	3408	G	O4'-C1'-N9	6.29	113.23	108.20
70	AE	156	ARG	NE-CZ-NH1	6.29	123.44	120.30
1	A	1708	G	O4'-C1'-N9	6.29	113.23	108.20
34	AA	272	U	O4'-C1'-N1	6.29	113.23	108.20
34	AA	817	U	O4'-C1'-N1	6.29	113.23	108.20
34	AA	3116	A	O4'-C1'-N9	6.29	113.23	108.20
1	A	178	A	O4'-C1'-N9	6.28	113.23	108.20
34	AA	681	U	C5'-C4'-C3'	-6.28	105.95	116.00
34	AA	1256	U	O4'-C1'-N1	6.28	113.23	108.20
34	AA	2590	U	C2-N1-C1'	6.28	125.24	117.70
2	7	55	U	O4'-C1'-N1	6.28	113.22	108.20
34	AA	1126	U	O4'-C1'-N1	6.28	113.22	108.20
34	AA	3329	C	O4'-C1'-N1	6.28	113.22	108.20
34	AA	3695	C	O4'-C1'-N1	6.28	113.22	108.20
1	A	1963	U	O4'-C1'-N1	6.28	113.22	108.20
1	A	356	A	O4'-C1'-N9	6.28	113.22	108.20
2	7	31	G	O4'-C4'-C3'	-6.28	97.72	104.00
1	A	2019	C	O4'-C1'-N1	6.28	113.22	108.20
2	7	4	G	N1-C6-O6	6.28	123.67	119.90
34	AA	3238	C	O4'-C1'-N1	6.28	113.22	108.20
60	AS	92	PHE	CB-CG-CD1	6.27	125.19	120.80
72	AG	144	ARG	NE-CZ-NH1	6.27	123.44	120.30
1	A	388	C	O4'-C1'-N1	6.27	113.22	108.20
35	AC	149	C	O4'-C1'-N1	6.27	113.22	108.20
21	3	62	PHE	CB-CG-CD2	6.27	125.19	120.80
36	AB	28	C	O4'-C1'-N1	6.27	113.22	108.20
7	U	127	ARG	NE-CZ-NH1	6.27	123.43	120.30
33	L	210	ARG	NE-CZ-NH2	6.27	123.43	120.30
34	AA	3086	A	O4'-C1'-N9	6.27	113.21	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	AB	52	U	O4'-C1'-N1	6.27	113.21	108.20
27	F	54	TYR	CB-CG-CD2	6.26	124.76	121.00
34	AA	548	U	O4'-C1'-N1	6.26	113.21	108.20
34	AA	2099	C	O4'-C1'-N1	6.26	113.21	108.20
23	5	49	ARG	NE-CZ-NH1	6.26	123.43	120.30
1	A	1231	G	C5-C6-O6	-6.26	124.84	128.60
34	AA	996	C	O4'-C1'-N1	6.26	113.21	108.20
34	AA	2530	C	O4'-C1'-N1	6.26	113.21	108.20
34	AA	1560	U	O4'-C1'-N1	6.26	113.21	108.20
2	7	32	C	O4'-C1'-N1	6.26	113.20	108.20
1	A	1949	C	O4'-C1'-N1	6.25	113.20	108.20
34	AA	706	U	O4'-C1'-N1	6.25	113.20	108.20
60	AS	58	TYR	CB-CG-CD2	6.25	124.75	121.00
62	AR	108	ARG	NE-CZ-NH1	6.25	123.43	120.30
36	AB	117	C	O4'-C1'-N1	6.25	113.20	108.20
34	AA	720	U	O4'-C1'-N1	6.25	113.20	108.20
34	AA	3047	U	O4'-C1'-N1	6.25	113.20	108.20
54	AP	24	ARG	NE-CZ-NH2	6.25	123.43	120.30
1	A	268	C	O4'-C1'-N1	6.25	113.20	108.20
34	AA	3133	U	O4'-C1'-N1	6.25	113.20	108.20
65	AT	116	ARG	NE-CZ-NH1	6.24	123.42	120.30
34	AA	1692	C	O4'-C1'-N1	6.24	113.19	108.20
34	AA	354	C	O4'-C1'-N1	6.24	113.19	108.20
34	AA	3399	U	O4'-C1'-N1	6.24	113.19	108.20
35	AC	84	G	O4'-C1'-N9	6.24	113.19	108.20
34	AA	1971	U	O4'-C1'-N1	6.24	113.19	108.20
34	AA	3280	U	O4'-C1'-N1	6.24	113.19	108.20
34	AA	3527	U	O4'-C1'-N1	6.24	113.19	108.20
34	AA	594	C	O4'-C1'-N1	6.24	113.19	108.20
61	AQ	184	TYR	CB-CG-CD2	6.24	124.74	121.00
34	AA	705	C	O4'-C1'-N1	6.23	113.19	108.20
34	AA	2727	U	C6-N1-C1'	-6.23	112.47	121.20
1	A	430	C	O4'-C1'-N1	6.23	113.19	108.20
2	7	31	G	C4'-C3'-C2'	6.23	108.83	102.60
67	A3	91	ARG	NE-CZ-NH1	6.23	123.42	120.30
34	AA	1058	U	O4'-C1'-N1	6.23	113.18	108.20
1	A	1201	G	O4'-C1'-N9	6.23	113.18	108.20
52	Ae	21	ARG	NE-CZ-NH1	6.23	123.41	120.30
73	AU	49	ARG	NE-CZ-NH1	6.23	123.41	120.30
34	AA	3111	U	O4'-C1'-N1	6.22	113.18	108.20
36	AB	44	C	O4'-C1'-N1	6.22	113.18	108.20
34	AA	361	G	C5-C6-O6	-6.22	124.87	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1157	U	O4'-C1'-N1	6.22	113.18	108.20
34	AA	3517	C	O4'-C1'-N1	6.22	113.17	108.20
1	A	1921	C	O4'-C1'-N1	6.22	113.17	108.20
2	7	40	C	O4'-C1'-N1	6.22	113.17	108.20
1	A	1390	U	O4'-C1'-N1	6.22	113.17	108.20
26	D	125	ARG	NE-CZ-NH1	6.22	123.41	120.30
34	AA	1567	A	O4'-C1'-N9	6.22	113.17	108.20
1	A	92	C	O4'-C1'-N1	6.21	113.17	108.20
34	AA	1561	C	O4'-C1'-N1	6.21	113.17	108.20
1	A	1922	C	O4'-C1'-N1	6.21	113.17	108.20
34	AA	2992	C	O4'-C1'-N1	6.21	113.17	108.20
1	A	1418	C	O4'-C1'-N1	6.21	113.17	108.20
34	AA	2541	C	P-O3'-C3'	6.21	127.14	119.70
34	AA	1556	G	C5-C6-O6	-6.20	124.88	128.60
34	AA	2092	G	C5-C6-O6	-6.20	124.88	128.60
1	A	375	U	O4'-C1'-N1	6.20	113.16	108.20
34	AA	3784	U	O4'-C1'-N1	6.20	113.16	108.20
65	AT	87	ARG	NE-CZ-NH1	6.20	123.40	120.30
1	A	1442	U	C5'-C4'-C3'	-6.20	106.08	116.00
1	A	1102	C	O4'-C1'-N1	6.20	113.16	108.20
1	A	1797	C	O4'-C1'-N1	6.20	113.16	108.20
36	AB	15	U	O4'-C1'-N1	6.20	113.16	108.20
1	A	33	U	O4'-C1'-N1	6.19	113.16	108.20
1	A	355	U	O4'-C1'-N1	6.19	113.15	108.20
34	AA	861	C	O4'-C1'-N1	6.19	113.15	108.20
1	A	1166	C	O4'-C1'-N1	6.19	113.15	108.20
21	3	38	ARG	NE-CZ-NH1	6.19	123.39	120.30
48	A9	81	ARG	NE-CZ-NH1	6.19	123.39	120.30
1	A	490	C	O4'-C1'-N1	6.19	113.15	108.20
34	AA	1284	C	O4'-C1'-N1	6.19	113.15	108.20
34	AA	1957	U	O4'-C1'-N1	6.19	113.15	108.20
55	Ah	23	ARG	NE-CZ-NH1	6.19	123.39	120.30
34	AA	59	G	C5-C6-O6	-6.19	124.89	128.60
34	AA	175	G	O4'-C1'-N9	6.19	113.15	108.20
34	AA	362	U	O4'-C1'-N1	6.19	113.15	108.20
34	AA	1466	C	O4'-C1'-N1	6.19	113.15	108.20
34	AA	1689	U	O4'-C1'-N1	6.19	113.15	108.20
1	A	344	C	O4'-C1'-N1	6.19	113.15	108.20
34	AA	2462	C	O4'-C1'-N1	6.19	113.15	108.20
1	A	1980	A	P-O3'-C3'	6.18	127.12	119.70
34	AA	3067	G	C5'-C4'-O4'	6.18	116.52	109.10
1	A	401	U	O4'-C1'-N1	6.18	113.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3213	U	O4'-C1'-N1	6.18	113.15	108.20
34	AA	3362	A	O4'-C1'-N9	6.18	113.15	108.20
34	AA	3468	G	C5-C6-O6	-6.18	124.89	128.60
34	AA	3480	C	O4'-C1'-N1	6.18	113.15	108.20
27	F	108	ARG	NE-CZ-NH2	-6.18	117.21	120.30
1	A	1025	U	O4'-C1'-N1	6.18	113.14	108.20
34	AA	350	A	O4'-C1'-N9	6.18	113.14	108.20
34	AA	2071	U	O4'-C1'-N1	6.18	113.14	108.20
34	AA	78	U	O4'-C1'-N1	6.17	113.14	108.20
34	AA	3391	G	O4'-C1'-N9	6.17	113.14	108.20
1	A	54	C	O4'-C1'-N1	6.17	113.14	108.20
34	AA	2548	A	P-O3'-C3'	6.17	127.11	119.70
1	A	1677	C	O4'-C1'-N1	6.17	113.14	108.20
34	AA	1798	A	O4'-C1'-N9	6.17	113.14	108.20
34	AA	610	U	O4'-C1'-N1	6.17	113.14	108.20
34	AA	2827	C	O4'-C1'-N1	6.17	113.14	108.20
34	AA	3023	C	O4'-C1'-N1	6.17	113.13	108.20
34	AA	3056	U	O4'-C1'-N1	6.17	113.14	108.20
71	AF	182	ARG	NE-CZ-NH2	-6.17	117.22	120.30
34	AA	1657	U	O4'-C1'-N1	6.16	113.13	108.20
50	Ab	26	ARG	NE-CZ-NH2	6.16	123.38	120.30
34	AA	1265	C	O4'-C1'-N1	6.16	113.13	108.20
34	AA	2083	U	O4'-C1'-N1	6.16	113.13	108.20
34	AA	2560	C	O4'-C1'-N1	6.16	113.13	108.20
34	AA	3025	U	O4'-C1'-N1	6.16	113.13	108.20
34	AA	3220	U	O4'-C1'-N1	6.16	113.13	108.20
1	A	2004	U	O4'-C1'-N1	6.16	113.13	108.20
34	AA	1646	C	O4'-C1'-N1	6.16	113.13	108.20
1	A	597	C	O4'-C1'-N1	6.16	113.13	108.20
34	AA	970	C	O4'-C1'-N1	6.16	113.12	108.20
34	AA	3167	A	O4'-C1'-N9	6.16	113.13	108.20
1	A	1843	G	O4'-C1'-N9	6.16	113.12	108.20
3	Q	107	PHE	CB-CG-CD2	-6.16	116.49	120.80
34	AA	3275	C	O4'-C1'-N1	6.16	113.12	108.20
40	Ai	41	ARG	NE-CZ-NH1	6.16	123.38	120.30
34	AA	348	C	O4'-C1'-N1	6.15	113.12	108.20
34	AA	2951	U	O4'-C1'-N1	6.15	113.12	108.20
70	AE	280	TYR	CB-CG-CD1	6.15	124.69	121.00
71	AF	140	ARG	NE-CZ-NH1	6.15	123.38	120.30
34	AA	2997	G	N1-C6-O6	6.15	123.59	119.90
2	7	65	C	O4'-C1'-N1	6.14	113.12	108.20
34	AA	3640	C	O4'-C1'-N1	6.14	113.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	AC	51	C	O4'-C1'-N1	6.14	113.11	108.20
44	A7	33	TYR	CB-CG-CD1	6.14	124.69	121.00
34	AA	899	A	C1'-O4'-C4'	-6.14	104.98	109.90
34	AA	3357	U	O4'-C1'-N1	6.14	113.11	108.20
34	AA	3419	U	C1'-O4'-C4'	-6.14	104.99	109.90
34	AA	2621	U	O4'-C1'-N1	6.14	113.11	108.20
34	AA	2985	C	O4'-C1'-N1	6.14	113.11	108.20
34	AA	3546	C	O4'-C1'-N1	6.14	113.11	108.20
36	AB	94	C	O4'-C1'-N1	6.14	113.11	108.20
26	D	147	ARG	NE-CZ-NH1	6.14	123.37	120.30
34	AA	1100	A	O4'-C1'-N9	6.14	113.11	108.20
34	AA	1978	U	O4'-C1'-N1	6.14	113.11	108.20
34	AA	2884	G	O4'-C1'-N9	6.14	113.11	108.20
34	AA	3343	C	O4'-C1'-N1	6.14	113.11	108.20
65	AT	73	ARG	NE-CZ-NH1	6.14	123.37	120.30
1	A	1275	U	O4'-C1'-N1	6.13	113.11	108.20
1	A	323	C	O4'-C1'-N1	6.13	113.11	108.20
34	AA	976	G	O4'-C1'-N9	6.13	113.11	108.20
34	AA	1462	C	O4'-C1'-N1	6.13	113.11	108.20
63	AW	34	ARG	NE-CZ-NH1	6.13	123.37	120.30
34	AA	761	U	O4'-C1'-N1	6.13	113.10	108.20
1	A	1178	C	O4'-C1'-N1	6.13	113.10	108.20
1	A	2079	C	O4'-C1'-N1	6.13	113.10	108.20
34	AA	1807	C	O4'-C1'-N1	6.13	113.10	108.20
1	A	1893	C	O4'-C1'-N1	6.12	113.10	108.20
34	AA	3003	C	O4'-C1'-N1	6.12	113.10	108.20
25	B	165	ARG	NE-CZ-NH1	6.12	123.36	120.30
34	AA	934	G	N1-C6-O6	6.12	123.57	119.90
34	AA	2202	G	O4'-C1'-N9	6.12	113.09	108.20
63	AW	61	ARG	NE-CZ-NH2	-6.12	117.24	120.30
35	AC	96	U	O4'-C1'-N1	6.12	113.09	108.20
1	A	576	C	O4'-C1'-N1	6.11	113.09	108.20
1	A	1103	C	O4'-C1'-N1	6.11	113.09	108.20
25	B	107	ARG	NE-CZ-NH2	-6.11	117.24	120.30
34	AA	3208	C	O4'-C1'-N1	6.11	113.09	108.20
53	Af	46	ARG	NE-CZ-NH1	-6.11	117.24	120.30
61	AQ	69	ARG	NE-CZ-NH1	6.11	123.36	120.30
34	AA	117	C	O4'-C1'-N1	6.11	113.09	108.20
34	AA	1102	U	O4'-C1'-N1	6.11	113.09	108.20
34	AA	832	U	O4'-C1'-N1	6.11	113.09	108.20
34	AA	2720	C	O4'-C1'-N1	6.11	113.09	108.20
60	AS	92	PHE	CB-CG-CD2	-6.11	116.52	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	136	U	O4'-C1'-N1	6.11	113.09	108.20
34	AA	2414	G	O4'-C1'-N9	6.11	113.09	108.20
1	A	1365	G	O4'-C1'-N9	6.11	113.08	108.20
2	7	45	G	O4'-C1'-N9	6.11	113.08	108.20
4	S	89	ARG	NE-CZ-NH2	6.10	123.35	120.30
1	A	1109	G	P-O5'-C5'	6.10	130.66	120.90
1	A	1198	U	C2-N1-C1'	6.10	125.02	117.70
34	AA	312	A	P-O3'-C3'	-6.10	112.38	119.70
28	H	98	ARG	NE-CZ-NH1	6.10	123.35	120.30
1	A	1845	U	O4'-C1'-N1	6.10	113.08	108.20
34	AA	1538	U	C1'-O4'-C4'	-6.10	105.02	109.90
34	AA	3531	C	O4'-C1'-N1	6.09	113.08	108.20
47	A8	43	ARG	NE-CZ-NH1	6.09	123.35	120.30
48	A9	106	ARG	NE-CZ-NH1	6.09	123.35	120.30
33	L	77	ARG	NE-CZ-NH2	-6.09	117.25	120.30
34	AA	75	U	O4'-C1'-N1	6.09	113.07	108.20
34	AA	1849	U	O4'-C1'-N1	6.09	113.07	108.20
34	AA	2813	U	O4'-C1'-N1	6.09	113.07	108.20
1	A	349	C	O4'-C1'-N1	6.09	113.07	108.20
1	A	582	C	O4'-C1'-N1	6.09	113.07	108.20
34	AA	1898	U	O4'-C1'-N1	6.09	113.07	108.20
34	AA	1968	C	O4'-C1'-N1	6.09	113.07	108.20
34	AA	934	G	C5-C6-O6	-6.09	124.95	128.60
1	A	1900	U	O4'-C1'-N1	6.08	113.07	108.20
15	O	77	PHE	CB-CG-CD2	6.08	125.06	120.80
16	Y	15	ARG	NE-CZ-NH2	6.08	123.34	120.30
34	AA	256	A	O4'-C1'-N9	6.08	113.07	108.20
34	AA	3205	U	O4'-C1'-N1	6.08	113.07	108.20
34	AA	3705	C	O4'-C1'-N1	6.08	113.07	108.20
61	AQ	38	ARG	NE-CZ-NH1	6.08	123.34	120.30
1	A	1006	C	O4'-C1'-N1	6.08	113.07	108.20
5	T	17	ARG	NE-CZ-NH1	6.08	123.34	120.30
34	AA	648	U	O4'-C1'-N1	6.08	113.06	108.20
52	Ae	46	ARG	NE-CZ-NH2	6.08	123.34	120.30
16	Y	86	ARG	NE-CZ-NH1	6.08	123.34	120.30
1	A	1932	A	P-O3'-C3'	-6.08	112.41	119.70
34	AA	381	A	P-O3'-C3'	6.08	126.99	119.70
34	AA	2639	C	O4'-C1'-N1	6.08	113.06	108.20
34	AA	2463	U	O4'-C1'-N1	6.08	113.06	108.20
1	A	1605	C	O4'-C1'-N1	6.07	113.06	108.20
1	A	310	U	O4'-C1'-N1	6.07	113.06	108.20
1	A	1795	G	O4'-C1'-N9	6.07	113.06	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	7	62	C	C6-N1-C2	-6.07	117.87	120.30
70	AE	26	ARG	NE-CZ-NH1	6.07	123.34	120.30
34	AA	2205	U	O4'-C1'-N1	6.07	113.05	108.20
34	AA	1910	C	O4'-C1'-N1	6.07	113.05	108.20
34	AA	2586	C	O4'-C1'-N1	6.07	113.05	108.20
34	AA	2593	G	O4'-C1'-N9	6.07	113.05	108.20
59	AM	50	ARG	NE-CZ-NH2	-6.07	117.27	120.30
68	A5	173	ARG	NE-CZ-NH2	6.07	123.33	120.30
4	S	123	ARG	NE-CZ-NH2	6.06	123.33	120.30
1	A	994	G	C5-C6-O6	-6.06	124.96	128.60
1	A	1260	C	O4'-C1'-N1	6.06	113.05	108.20
34	AA	2080	C	O4'-C1'-N1	6.06	113.05	108.20
34	AA	127	U	O4'-C1'-N1	6.06	113.05	108.20
34	AA	514	C	O4'-C1'-N1	6.06	113.05	108.20
34	AA	3171	C	O4'-C1'-N1	6.06	113.05	108.20
51	Ad	44	ARG	NE-CZ-NH2	6.06	123.33	120.30
4	S	89	ARG	NE-CZ-NH1	-6.06	117.27	120.30
38	A0	57	ARG	NE-CZ-NH1	6.06	123.33	120.30
6	M	112	ARG	NE-CZ-NH1	6.06	123.33	120.30
23	5	61	ARG	NE-CZ-NH2	6.06	123.33	120.30
1	A	940	G	O4'-C1'-N9	6.06	113.05	108.20
29	K	3	ARG	NE-CZ-NH2	6.05	123.33	120.30
34	AA	740	U	O4'-C1'-N1	6.05	113.04	108.20
1	A	393	A	O4'-C1'-N9	6.05	113.04	108.20
16	Y	85	ARG	NE-CZ-NH1	6.05	123.33	120.30
34	AA	239	U	C2-N1-C1'	6.05	124.96	117.70
34	AA	1498	U	O4'-C1'-N1	6.05	113.04	108.20
34	AA	1750	U	P-O3'-C3'	6.05	126.96	119.70
13	R	68	TYR	CB-CG-CD2	6.05	124.63	121.00
34	AA	1049	C	O4'-C1'-N1	6.05	113.04	108.20
34	AA	1723	C	O4'-C1'-N1	6.05	113.04	108.20
20	C	190	ARG	NE-CZ-NH2	6.05	123.32	120.30
34	AA	3500	G	O4'-C1'-N9	6.05	113.04	108.20
34	AA	21	G	O4'-C1'-N9	6.04	113.04	108.20
34	AA	899	A	O4'-C1'-N9	6.04	113.03	108.20
1	A	916	G	O4'-C1'-N9	6.04	113.03	108.20
34	AA	1551	C	O4'-C1'-N1	6.04	113.03	108.20
35	AC	6	C	O4'-C1'-N1	6.04	113.03	108.20
56	AI	211	ARG	NE-CZ-NH1	-6.04	117.28	120.30
70	AE	345	ARG	NE-CZ-NH1	6.04	123.32	120.30
1	A	478	G	C5-C6-O6	-6.04	124.98	128.60
34	AA	73	U	O4'-C1'-N1	6.04	113.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	685	U	P-O3'-C3'	6.04	126.94	119.70
34	AA	2105	A	P-O3'-C3'	6.04	126.95	119.70
1	A	861	C	O4'-C1'-N1	6.04	113.03	108.20
34	AA	2139	C	O4'-C1'-N1	6.04	113.03	108.20
1	A	633	U	O4'-C1'-N1	6.04	113.03	108.20
34	AA	2186	C	O4'-C1'-N1	6.03	113.03	108.20
34	AA	3504	C	O4'-C1'-N1	6.03	113.03	108.20
34	AA	1426	C	O4'-C1'-N1	6.03	113.03	108.20
2	7	68	C	O4'-C1'-N1	6.03	113.03	108.20
34	AA	652	A	P-O3'-C3'	6.03	126.94	119.70
34	AA	710	C	O4'-C1'-N1	6.03	113.02	108.20
34	AA	1304	C	O4'-C1'-N1	6.03	113.03	108.20
34	AA	3716	C	O4'-C1'-N1	6.03	113.02	108.20
1	A	145	A	O4'-C1'-N9	6.03	113.02	108.20
34	AA	1861	C	O4'-C1'-N1	6.03	113.02	108.20
34	AA	2690	A	O4'-C1'-N9	6.03	113.02	108.20
34	AA	686	U	O4'-C1'-N1	6.02	113.02	108.20
36	AB	28	C	C5'-C4'-C3'	6.02	125.64	116.00
34	AA	1009	C	O4'-C1'-N1	6.02	113.02	108.20
35	AC	25	C	O4'-C1'-N1	6.02	113.02	108.20
1	A	1905	C	O4'-C1'-N1	6.02	113.01	108.20
34	AA	921	C	O4'-C1'-N1	6.02	113.01	108.20
70	AE	331	ARG	NE-CZ-NH2	-6.02	117.29	120.30
32	P	149	ARG	NE-CZ-NH2	6.01	123.31	120.30
34	AA	2456	C	O4'-C1'-N1	6.01	113.01	108.20
36	AB	7	G	O4'-C1'-N9	6.01	113.01	108.20
1	A	1170	C	O4'-C1'-N1	6.01	113.01	108.20
70	AE	272	ARG	NE-CZ-NH1	-6.01	117.30	120.30
34	AA	317	U	P-O5'-C5'	6.01	130.51	120.90
34	AA	1448	C	O4'-C1'-N1	6.01	113.01	108.20
1	A	1935	G	O4'-C1'-N9	6.01	113.00	108.20
34	AA	715	U	O4'-C1'-N1	6.01	113.00	108.20
34	AA	1214	C	O4'-C1'-N1	6.00	113.00	108.20
27	F	161	ARG	NE-CZ-NH1	6.00	123.30	120.30
34	AA	3409	U	O4'-C1'-N1	6.00	113.00	108.20
67	A3	113	PHE	CB-CG-CD1	-6.00	116.60	120.80
34	AA	1779	A	O4'-C1'-N9	6.00	113.00	108.20
34	AA	2110	C	O4'-C1'-N1	6.00	113.00	108.20
34	AA	3610	C	O4'-C1'-N1	6.00	113.00	108.20
36	AB	6	C	O4'-C1'-N1	6.00	113.00	108.20
78	AJ	73	ARG	NE-CZ-NH2	-6.00	117.30	120.30
1	A	876	U	O4'-C1'-N1	6.00	113.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	C	201	PHE	CB-CG-CD2	6.00	125.00	120.80
34	AA	676	U	O4'-C1'-N1	6.00	113.00	108.20
34	AA	2070	U	P-O5'-C5'	6.00	130.50	120.90
34	AA	3442	C	O4'-C1'-N1	6.00	113.00	108.20
1	A	1669	C	O4'-C1'-N1	6.00	113.00	108.20
34	AA	1238	C	O4'-C1'-N1	6.00	113.00	108.20
34	AA	2557	U	O4'-C1'-N1	6.00	113.00	108.20
60	AS	38	ARG	NE-CZ-NH1	6.00	123.30	120.30
8	V	132	ARG	NE-CZ-NH1	5.99	123.30	120.30
34	AA	1308	A	O4'-C1'-N9	5.99	113.00	108.20
66	AZ	26	ARG	NE-CZ-NH2	-5.99	117.30	120.30
34	AA	79	U	O4'-C1'-N1	5.99	112.99	108.20
36	AB	14	C	O4'-C1'-N1	5.99	112.99	108.20
70	AE	19	ARG	NE-CZ-NH1	5.99	123.30	120.30
1	A	428	G	O4'-C1'-N9	5.99	112.99	108.20
34	AA	1497	U	P-O3'-C3'	5.99	126.89	119.70
66	AZ	15	ARG	NE-CZ-NH1	5.99	123.30	120.30
1	A	514	U	O4'-C1'-N1	5.99	112.99	108.20
1	A	1714	U	O4'-C1'-N1	5.99	112.99	108.20
34	AA	240	U	O4'-C1'-N1	5.99	112.99	108.20
34	AA	298	C	O4'-C1'-N1	5.99	112.99	108.20
34	AA	3184	C	O4'-C1'-N1	5.99	112.99	108.20
34	AA	1586	C	C6-N1-C2	-5.99	117.91	120.30
34	AA	1313	C	O4'-C1'-N1	5.99	112.99	108.20
34	AA	3777	G	O4'-C1'-N9	5.99	112.99	108.20
1	A	2062	U	O4'-C1'-N1	5.98	112.99	108.20
1	A	44	U	C5'-C4'-O4'	5.98	116.28	109.10
34	AA	180	C	O4'-C1'-N1	5.98	112.98	108.20
1	A	1642	U	O4'-C1'-N1	5.98	112.98	108.20
34	AA	1750	U	O4'-C1'-N1	5.98	112.98	108.20
34	AA	2069	C	O4'-C1'-N1	5.98	112.98	108.20
34	AA	2746	U	O4'-C1'-N1	5.98	112.98	108.20
34	AA	3148	U	O4'-C1'-N1	5.98	112.98	108.20
34	AA	3767	U	O4'-C1'-N1	5.98	112.98	108.20
35	AC	4	C	O4'-C1'-N1	5.98	112.98	108.20
34	AA	1017	U	O4'-C1'-N1	5.98	112.98	108.20
34	AA	3104	C	O4'-C1'-N1	5.98	112.98	108.20
34	AA	37	U	O4'-C1'-N1	5.98	112.98	108.20
34	AA	543	U	O4'-C1'-N1	5.98	112.98	108.20
1	A	580	C	O4'-C1'-N1	5.97	112.98	108.20
2	7	16	C	O4'-C1'-N1	5.97	112.98	108.20
1	A	32	U	P-O3'-C3'	-5.97	112.53	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2436	A	O4'-C1'-N9	5.97	112.98	108.20
60	AS	111	ARG	NE-CZ-NH2	-5.97	117.31	120.30
34	AA	1432	A	O4'-C1'-N9	5.97	112.98	108.20
34	AA	892	U	O4'-C1'-N1	5.97	112.97	108.20
34	AA	2578	C	O4'-C1'-N1	5.97	112.98	108.20
34	AA	1262	G	O4'-C1'-N9	5.97	112.97	108.20
1	A	797	C	O4'-C1'-N1	5.97	112.97	108.20
1	A	1051	U	O4'-C1'-N1	5.97	112.97	108.20
1	A	1215	G	O4'-C1'-N9	5.97	112.97	108.20
34	AA	3053	G	C5'-C4'-O4'	5.97	116.26	109.10
34	AA	3573	U	O4'-C1'-N1	5.97	112.97	108.20
1	A	1814	C	O4'-C1'-N1	5.96	112.97	108.20
34	AA	937	C	O4'-C1'-N1	5.96	112.97	108.20
34	AA	1337	G	O4'-C1'-N9	5.96	112.97	108.20
34	AA	1467	C	O4'-C1'-N1	5.96	112.97	108.20
34	AA	3523	U	O4'-C1'-N1	5.96	112.97	108.20
1	A	911	U	O4'-C1'-N1	5.96	112.97	108.20
1	A	2005	U	O4'-C1'-N1	5.96	112.97	108.20
2	7	49	G	N1-C6-O6	5.96	123.48	119.90
34	AA	467	U	O4'-C1'-N1	5.96	112.97	108.20
74	AH	70	ARG	NE-CZ-NH2	5.96	123.28	120.30
1	A	1635	C	C2-N1-C1'	5.96	125.35	118.80
1	A	996	C	O4'-C1'-N1	5.96	112.97	108.20
34	AA	2696	G	O4'-C1'-N9	5.96	112.97	108.20
54	AP	190	ARG	NE-CZ-NH1	5.96	123.28	120.30
34	AA	1005	C	O4'-C1'-N1	5.96	112.96	108.20
34	AA	1525	C	O4'-C1'-N1	5.96	112.96	108.20
32	P	66	ARG	NE-CZ-NH2	5.95	123.28	120.30
34	AA	2688	G	O4'-C1'-N9	5.95	112.96	108.20
48	A9	127	PHE	CB-CG-CD1	5.95	124.97	120.80
1	A	1924	U	O4'-C1'-N1	5.95	112.96	108.20
1	A	1288	U	O4'-C1'-N1	5.95	112.96	108.20
1	A	1903	U	O4'-C1'-N1	5.95	112.96	108.20
36	AB	16	A	O4'-C1'-N9	5.95	112.96	108.20
1	A	208	U	O4'-C1'-N1	5.95	112.96	108.20
1	A	981	U	O4'-C1'-N1	5.95	112.96	108.20
15	O	23	TYR	CB-CG-CD2	5.95	124.57	121.00
34	AA	2806	U	O4'-C1'-N1	5.95	112.96	108.20
34	AA	703	U	O4'-C1'-N1	5.94	112.95	108.20
34	AA	1027	G	C5-C6-O6	-5.94	125.03	128.60
34	AA	1792	U	O4'-C1'-N1	5.94	112.95	108.20
1	A	1975	U	O4'-C1'-N1	5.94	112.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	792	U	O4'-C1'-N1	5.94	112.95	108.20
34	AA	148	G	O4'-C1'-N9	5.94	112.95	108.20
34	AA	2941	G	O4'-C1'-N9	5.94	112.95	108.20
1	A	12	U	O4'-C1'-N1	5.94	112.95	108.20
1	A	881	C	O4'-C1'-N1	5.94	112.95	108.20
35	AC	36	C	O4'-C1'-N1	5.94	112.95	108.20
35	AC	68	C	O4'-C1'-N1	5.94	112.95	108.20
36	AB	60	U	O4'-C1'-N1	5.94	112.95	108.20
66	AZ	120	ARG	NE-CZ-NH1	5.94	123.27	120.30
34	AA	2215	G	N1-C6-O6	5.93	123.46	119.90
1	A	980	U	O4'-C1'-N1	5.93	112.95	108.20
34	AA	923	C	O4'-C1'-N1	5.93	112.95	108.20
34	AA	1507	U	O4'-C1'-N1	5.93	112.95	108.20
2	7	62	C	O4'-C1'-N1	5.93	112.94	108.20
1	A	1626	U	O4'-C1'-N1	5.93	112.94	108.20
34	AA	231	G	O4'-C1'-N9	5.93	112.94	108.20
34	AA	592	C	O4'-C1'-N1	5.93	112.94	108.20
34	AA	2118	G	C5-C6-O6	-5.93	125.04	128.60
34	AA	2538	C	O4'-C1'-N1	5.93	112.94	108.20
34	AA	3771	C	O4'-C1'-N1	5.93	112.94	108.20
34	AA	1053	U	O4'-C1'-N1	5.93	112.94	108.20
34	AA	1245	G	O4'-C1'-N9	5.93	112.94	108.20
34	AA	1260	C	O4'-C1'-N1	5.93	112.94	108.20
34	AA	2219	A	C2'-C3'-O3'	5.93	123.18	113.70
2	7	44	A	C5'-C4'-C3'	-5.92	106.52	116.00
60	AS	39	ARG	NE-CZ-NH1	5.92	123.26	120.30
1	A	50	C	O4'-C1'-N1	5.92	112.94	108.20
1	A	1193	A	O4'-C1'-N9	5.92	112.94	108.20
1	A	2049	G	O4'-C1'-N9	5.92	112.94	108.20
34	AA	773	A	O4'-C1'-N9	5.92	112.94	108.20
1	A	158	C	O4'-C1'-N1	5.92	112.94	108.20
34	AA	82	U	O4'-C1'-N1	5.92	112.94	108.20
34	AA	3569	C	O4'-C1'-N1	5.92	112.93	108.20
73	AU	183	ARG	NE-CZ-NH1	5.92	123.26	120.30
2	7	67	C	O4'-C1'-N1	5.92	112.93	108.20
5	T	44	ARG	NE-CZ-NH2	-5.92	117.34	120.30
34	AA	906	G	O4'-C1'-N9	5.92	112.93	108.20
44	A7	35	ARG	NE-CZ-NH1	5.92	123.26	120.30
1	A	868	U	O4'-C1'-N1	5.92	112.93	108.20
34	AA	1212	U	O4'-C1'-N1	5.92	112.93	108.20
34	AA	3528	A	O4'-C1'-N9	5.92	112.93	108.20
1	A	920	A	N1-C6-N6	-5.91	115.05	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	C	183	TYR	CB-CG-CD2	-5.91	117.45	121.00
1	A	161	U	C5'-C4'-O4'	5.91	116.19	109.10
1	A	1011	G	O4'-C1'-N9	5.91	112.93	108.20
34	AA	218	U	O4'-C1'-N1	5.91	112.93	108.20
34	AA	2817	U	O4'-C1'-N1	5.91	112.93	108.20
70	AE	241	ARG	NE-CZ-NH2	5.91	123.25	120.30
32	P	146	ARG	NE-CZ-NH2	5.91	123.25	120.30
33	L	56	ARG	NE-CZ-NH1	5.91	123.25	120.30
1	A	1059	U	O4'-C1'-N1	5.91	112.93	108.20
3	Q	20	ARG	NE-CZ-NH1	5.91	123.25	120.30
34	AA	293	U	O4'-C1'-N1	5.91	112.93	108.20
34	AA	684	G	C5-C6-O6	-5.91	125.06	128.60
34	AA	2627	U	O4'-C1'-N1	5.91	112.92	108.20
35	AC	11	U	O4'-C1'-N1	5.91	112.92	108.20
35	AC	100	A	C4'-C3'-C2'	-5.91	96.69	102.60
34	AA	3445	C	O4'-C1'-N1	5.90	112.92	108.20
34	AA	1612	U	O4'-C1'-N1	5.90	112.92	108.20
36	AB	47	U	O4'-C1'-N1	5.90	112.92	108.20
34	AA	340	U	O4'-C1'-N1	5.90	112.92	108.20
34	AA	359	A	P-O5'-C5'	5.90	130.34	120.90
49	Aa	4	ARG	NE-CZ-NH1	5.90	123.25	120.30
15	O	77	PHE	CB-CG-CD1	-5.90	116.67	120.80
34	AA	3706	U	O4'-C1'-N1	5.90	112.92	108.20
1	A	138	U	O4'-C1'-N1	5.90	112.92	108.20
1	A	1980	A	O4'-C1'-N9	5.90	112.92	108.20
34	AA	1236	U	O4'-C1'-N1	5.90	112.92	108.20
61	AQ	119	PHE	CB-CG-CD1	5.90	124.93	120.80
34	AA	972	G	O4'-C1'-N9	5.89	112.92	108.20
34	AA	1033	A	O4'-C1'-N9	5.89	112.92	108.20
34	AA	2608	G	O4'-C1'-N9	5.89	112.92	108.20
55	Ah	85	ARG	NE-CZ-NH1	5.89	123.25	120.30
68	A5	109	ARG	NE-CZ-NH2	5.89	123.25	120.30
34	AA	1497	U	O4'-C1'-N1	5.89	112.92	108.20
34	AA	1672	U	O4'-C1'-N1	5.89	112.91	108.20
34	AA	2209	C	O4'-C1'-N1	5.89	112.91	108.20
34	AA	3046	C	O4'-C1'-N1	5.89	112.91	108.20
34	AA	1298	A	O4'-C1'-N9	5.89	112.91	108.20
34	AA	1332	A	O4'-C1'-N9	5.89	112.91	108.20
34	AA	3256	C	O4'-C1'-N1	5.89	112.91	108.20
34	AA	2121	C	O4'-C1'-N1	5.89	112.91	108.20
21	3	95	ARG	NE-CZ-NH2	-5.88	117.36	120.30
34	AA	3608	U	O4'-C1'-N1	5.88	112.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	AU	35	ARG	NE-CZ-NH1	-5.88	117.36	120.30
1	A	314	A	O4'-C1'-N9	5.88	112.90	108.20
1	A	123	U	O4'-C1'-N1	5.88	112.90	108.20
34	AA	2635	C	O4'-C1'-N1	5.88	112.90	108.20
9	E	168	ARG	NE-CZ-NH1	5.88	123.24	120.30
34	AA	1826	U	O4'-C1'-N1	5.88	112.90	108.20
1	A	914	U	O4'-C1'-N1	5.88	112.90	108.20
34	AA	1556	G	N1-C6-O6	5.88	123.42	119.90
34	AA	2653	C	O4'-C1'-N1	5.88	112.90	108.20
34	AA	3739	A	O4'-C1'-N9	5.88	112.90	108.20
34	AA	1628	U	O4'-C1'-N1	5.87	112.90	108.20
1	A	654	U	O4'-C1'-N1	5.87	112.90	108.20
1	A	1931	C	O4'-C1'-N1	5.87	112.90	108.20
34	AA	282	U	O4'-C1'-N1	5.87	112.90	108.20
34	AA	914	G	O4'-C1'-N9	5.87	112.90	108.20
34	AA	2695	A	C5'-C4'-C3'	-5.87	106.61	116.00
34	AA	3221	U	O4'-C1'-N1	5.87	112.90	108.20
1	A	1302	G	O4'-C1'-N9	5.87	112.90	108.20
1	A	907	C	O4'-C1'-N1	5.87	112.89	108.20
34	AA	2446	U	O4'-C1'-N1	5.87	112.89	108.20
66	AZ	120	ARG	NE-CZ-NH2	-5.87	117.36	120.30
1	A	2069	G	O4'-C1'-N9	5.87	112.89	108.20
34	AA	372	G	N1-C6-O6	5.87	123.42	119.90
16	Y	66	ARG	NE-CZ-NH2	5.87	123.23	120.30
34	AA	254	U	O3'-P-O5'	-5.87	92.85	104.00
34	AA	1790	U	O4'-C1'-N1	5.87	112.89	108.20
34	AA	3495	U	O4'-C1'-N1	5.87	112.89	108.20
1	A	1698	U	O4'-C1'-N1	5.86	112.89	108.20
26	D	107	ARG	NE-CZ-NH1	5.86	123.23	120.30
34	AA	769	U	C1'-O4'-C4'	-5.86	105.21	109.90
1	A	542	C	O4'-C1'-N1	5.86	112.89	108.20
34	AA	3667	C	P-O3'-C3'	5.86	126.73	119.70
36	AB	12	U	O4'-C1'-N1	5.86	112.89	108.20
1	A	1269	U	O4'-C1'-N1	5.86	112.89	108.20
60	AS	58	TYR	CB-CG-CD1	-5.86	117.48	121.00
34	AA	372	G	C5-C6-O6	-5.86	125.08	128.60
34	AA	410	G	O4'-C1'-N9	5.86	112.89	108.20
34	AA	1895	U	O4'-C1'-N1	5.86	112.89	108.20
1	A	1299	G	O4'-C1'-N9	5.86	112.88	108.20
34	AA	205	G	O4'-C1'-N9	5.86	112.89	108.20
34	AA	1804	C	O4'-C1'-N1	5.86	112.89	108.20
71	AF	109	ARG	NE-CZ-NH2	5.86	123.23	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1974	U	O4'-C1'-N1	5.85	112.88	108.20
34	AA	618	U	O4'-C1'-N1	5.85	112.88	108.20
34	AA	2500	A	O4'-C1'-N9	5.85	112.88	108.20
36	AB	45	U	O4'-C1'-N1	5.85	112.88	108.20
34	AA	424	U	O4'-C1'-N1	5.85	112.88	108.20
34	AA	3136	C	O4'-C1'-N1	5.85	112.88	108.20
35	AC	133	G	O4'-C1'-N9	5.85	112.88	108.20
69	AD	163	ARG	NE-CZ-NH1	-5.85	117.37	120.30
3	Q	73	ARG	NE-CZ-NH2	5.85	123.22	120.30
34	AA	3503	U	O4'-C1'-N1	5.85	112.88	108.20
77	AX	101	ARG	NE-CZ-NH1	5.85	123.22	120.30
1	A	1118	U	O4'-C1'-N1	5.85	112.88	108.20
63	AW	123	ARG	NE-CZ-NH1	5.85	123.22	120.30
1	A	1018	U	O4'-C1'-N1	5.84	112.88	108.20
1	A	1191	C	O4'-C1'-N1	5.84	112.88	108.20
34	AA	34	A	O4'-C1'-N9	5.84	112.88	108.20
1	A	95	A	O4'-C1'-N9	5.84	112.87	108.20
34	AA	818	C	O4'-C1'-N1	5.84	112.87	108.20
34	AA	1119	G	O4'-C1'-N9	5.84	112.87	108.20
34	AA	3720	G	O4'-C1'-N9	5.84	112.87	108.20
1	A	1251	G	C4-N9-C1'	5.84	134.09	126.50
1	A	1831	G	C5-C6-O6	-5.84	125.10	128.60
34	AA	1113	C	O4'-C1'-N1	5.84	112.87	108.20
34	AA	3737	G	C5-C6-O6	-5.84	125.10	128.60
35	AC	63	A	O4'-C1'-N9	5.84	112.87	108.20
1	A	1027	C	O4'-C1'-N1	5.84	112.87	108.20
34	AA	15	U	O4'-C1'-N1	5.84	112.87	108.20
34	AA	1645	U	O4'-C1'-N1	5.84	112.87	108.20
9	E	44	ARG	NE-CZ-NH2	5.83	123.22	120.30
34	AA	3738	U	O4'-C1'-N1	5.83	112.87	108.20
1	A	1856	A	O4'-C1'-N9	5.83	112.86	108.20
34	AA	83	U	O4'-C1'-N1	5.83	112.86	108.20
34	AA	966	A	O4'-C1'-N9	5.83	112.87	108.20
34	AA	3170	A	O4'-C1'-N9	5.83	112.86	108.20
1	A	1813	U	O4'-C1'-N1	5.83	112.86	108.20
34	AA	1030	C	O4'-C1'-N1	5.83	112.86	108.20
62	AR	85	ARG	NE-CZ-NH2	5.83	123.21	120.30
71	AF	143	ARG	NE-CZ-NH1	5.83	123.21	120.30
1	A	386	U	O4'-C1'-N1	5.83	112.86	108.20
1	A	1644	U	O4'-C1'-N1	5.83	112.86	108.20
1	A	2084	G	O4'-C1'-N9	5.83	112.86	108.20
1	A	479	A	O4'-C1'-N9	5.82	112.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1293	C	O4'-C1'-N1	5.82	112.86	108.20
1	A	1878	C	O4'-C1'-N1	5.82	112.86	108.20
34	AA	2445	A	O4'-C1'-N9	5.82	112.86	108.20
34	AA	3134	U	O4'-C1'-N1	5.82	112.86	108.20
34	AA	1502	G	C5'-C4'-O4'	5.82	116.08	109.10
61	AQ	10	ARG	NE-CZ-NH1	5.82	123.21	120.30
34	AA	3435	A	P-O3'-C3'	5.82	126.68	119.70
1	A	1436	U	O4'-C1'-N1	5.82	112.85	108.20
34	AA	1433	U	O4'-C1'-N1	5.82	112.85	108.20
1	A	1	A	O4'-C1'-N9	5.82	112.85	108.20
16	Y	99	ARG	NE-CZ-NH1	-5.82	117.39	120.30
34	AA	2132	A	O4'-C1'-N9	5.82	112.85	108.20
34	AA	630	U	O4'-C1'-N1	5.81	112.85	108.20
1	A	749	U	O4'-C1'-N1	5.81	112.85	108.20
1	A	1796	C	O4'-C1'-N1	5.81	112.85	108.20
34	AA	3772	C	O4'-C1'-N1	5.81	112.85	108.20
11	G	186	ARG	NE-CZ-NH1	5.81	123.20	120.30
1	A	625	U	O4'-C1'-N1	5.81	112.85	108.20
34	AA	1651	C	O4'-C1'-N1	5.81	112.85	108.20
34	AA	2211	C	O4'-C1'-N1	5.81	112.85	108.20
35	AC	124	U	O4'-C1'-N1	5.81	112.85	108.20
34	AA	1874	C	O4'-C1'-N1	5.81	112.84	108.20
34	AA	3298	G	O4'-C1'-N9	5.81	112.84	108.20
1	A	1959	G	O4'-C1'-N9	5.80	112.84	108.20
34	AA	1068	C	O4'-C1'-N1	5.80	112.84	108.20
34	AA	1336	U	P-O3'-C3'	-5.80	112.73	119.70
34	AA	2210	U	O4'-C1'-N1	5.80	112.84	108.20
34	AA	3585	A	O4'-C1'-N9	5.80	112.84	108.20
34	AA	640	U	O4'-C1'-N1	5.80	112.84	108.20
34	AA	1339	U	O4'-C1'-N1	5.80	112.84	108.20
34	AA	3086	A	P-O3'-C3'	5.80	126.66	119.70
48	A9	127	PHE	CB-CG-CD2	-5.80	116.74	120.80
1	A	965	U	O4'-C1'-N1	5.80	112.84	108.20
51	Ad	9	ARG	NE-CZ-NH1	5.80	123.20	120.30
34	AA	1342	U	O4'-C1'-N1	5.80	112.84	108.20
34	AA	1544	C	O4'-C1'-N1	5.80	112.84	108.20
34	AA	2021	A	O4'-C1'-N9	5.80	112.84	108.20
34	AA	2104	C	O4'-C1'-N1	5.80	112.84	108.20
34	AA	3232	U	O4'-C1'-N1	5.80	112.84	108.20
27	F	235	TYR	CB-CG-CD1	-5.80	117.52	121.00
34	AA	178	U	O4'-C1'-N1	5.80	112.84	108.20
34	AA	2144	U	O4'-C1'-N1	5.80	112.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2505	C	O4'-C1'-N1	5.80	112.84	108.20
34	AA	502	U	O4'-C1'-N1	5.79	112.84	108.20
34	AA	2157	G	O4'-C1'-N9	5.79	112.84	108.20
76	Ag	12	ARG	NE-CZ-NH1	-5.79	117.40	120.30
1	A	887	A	N1-C6-N6	5.79	122.08	118.60
1	A	1058	G	C5-C6-O6	-5.79	125.12	128.60
14	I	88	PHE	CB-CG-CD1	5.79	124.86	120.80
34	AA	3281	G	O4'-C1'-N9	5.79	112.83	108.20
34	AA	3526	U	P-O3'-C3'	5.79	126.65	119.70
1	A	1321	C	O4'-C1'-N1	5.79	112.83	108.20
21	3	15	ARG	NE-CZ-NH1	5.79	123.20	120.30
34	AA	698	G	O4'-C1'-N9	5.79	112.83	108.20
1	A	983	G	C5'-C4'-O4'	5.79	116.05	109.10
32	P	66	ARG	NE-CZ-NH1	-5.79	117.41	120.30
34	AA	2502	U	O4'-C1'-N1	5.79	112.83	108.20
34	AA	3226	C	O4'-C1'-N1	5.79	112.83	108.20
34	AA	3314	U	O4'-C1'-N1	5.79	112.83	108.20
1	A	607	U	O4'-C1'-N1	5.78	112.83	108.20
1	A	758	U	O4'-C1'-N1	5.78	112.83	108.20
34	AA	263	U	O4'-C1'-N1	5.78	112.83	108.20
34	AA	1252	U	O4'-C1'-N1	5.78	112.83	108.20
1	A	461	A	O4'-C1'-N9	5.78	112.82	108.20
1	A	1923	U	O4'-C1'-N1	5.78	112.83	108.20
2	7	4	G	C5-C6-O6	-5.78	125.13	128.60
34	AA	1799	A	O4'-C1'-N9	5.78	112.82	108.20
34	AA	2939	C	O4'-C1'-N1	5.78	112.82	108.20
34	AA	3732	U	O4'-C1'-N1	5.78	112.82	108.20
71	AF	201	TYR	CB-CG-CD2	-5.78	117.53	121.00
1	A	2056	C	O4'-C1'-N1	5.78	112.82	108.20
12	W	14	ARG	NE-CZ-NH1	5.78	123.19	120.30
34	AA	420	U	O4'-C1'-N1	5.78	112.82	108.20
1	A	994	G	O4'-C1'-N9	5.78	112.82	108.20
34	AA	741	C	O4'-C1'-N1	5.78	112.82	108.20
34	AA	1442	C	O4'-C1'-N1	5.78	112.82	108.20
73	AU	93	ARG	NE-CZ-NH1	5.78	123.19	120.30
34	AA	1344	C	O4'-C1'-N1	5.77	112.82	108.20
34	AA	2689	G	O4'-C1'-N9	5.77	112.82	108.20
62	AR	281	ARG	NE-CZ-NH2	5.77	123.19	120.30
34	AA	1211	U	O4'-C1'-N1	5.77	112.82	108.20
1	A	1181	U	O4'-C1'-N1	5.77	112.82	108.20
34	AA	1510	U	O4'-C1'-N1	5.77	112.82	108.20
34	AA	3228	U	O4'-C1'-N1	5.77	112.81	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1654	G	O4'-C1'-N9	5.77	112.81	108.20
34	AA	868	U	O4'-C1'-N1	5.77	112.81	108.20
34	AA	1900	G	O4'-C1'-N9	5.77	112.81	108.20
28	H	183	ARG	NE-CZ-NH1	5.76	123.18	120.30
34	AA	892	U	P-O3'-C3'	-5.76	112.78	119.70
34	AA	2154	A	O4'-C1'-N9	5.76	112.81	108.20
34	AA	3622	U	O4'-C1'-N1	5.76	112.81	108.20
34	AA	1894	U	O4'-C1'-N1	5.76	112.81	108.20
34	AA	1007	U	O4'-C1'-N1	5.76	112.81	108.20
34	AA	3103	C	O4'-C1'-N1	5.76	112.81	108.20
34	AA	1117	U	O4'-C1'-N1	5.76	112.81	108.20
36	AB	77	A	O4'-C1'-N9	5.76	112.81	108.20
40	Ai	8	ARG	NE-CZ-NH1	5.76	123.18	120.30
1	A	1783	U	O4'-C1'-N1	5.76	112.81	108.20
16	Y	135	TYR	CB-CG-CD1	-5.76	117.55	121.00
34	AA	122	A	C5'-C4'-O4'	5.76	116.01	109.10
34	AA	2668	G	O4'-C1'-N9	5.76	112.81	108.20
74	AH	58	MET	CG-SD-CE	-5.76	90.99	100.20
1	A	747	U	P-O5'-C5'	5.75	130.11	120.90
34	AA	1109	U	O4'-C1'-N1	5.75	112.80	108.20
34	AA	1913	A	P-O3'-C3'	5.75	126.61	119.70
1	A	1098	U	O4'-C1'-N1	5.75	112.80	108.20
34	AA	546	C	O4'-C1'-N1	5.75	112.80	108.20
34	AA	1235	C	O4'-C1'-N1	5.75	112.80	108.20
34	AA	2982	A	O4'-C1'-N9	5.75	112.80	108.20
1	A	1015	U	O4'-C1'-N1	5.75	112.80	108.20
1	A	1857	U	C2-N1-C1'	5.75	124.60	117.70
1	A	1973	U	O4'-C1'-N1	5.75	112.80	108.20
34	AA	1183	U	O4'-C1'-N1	5.75	112.80	108.20
34	AA	3204	C	O4'-C1'-N1	5.75	112.80	108.20
40	Ai	80	ARG	NE-CZ-NH1	5.75	123.17	120.30
34	AA	771	U	C2-N1-C1'	5.75	124.60	117.70
34	AA	1158	G	C5-C6-O6	-5.75	125.15	128.60
34	AA	2072	U	O4'-C1'-N1	5.75	112.80	108.20
1	A	1881	G	C5-C6-O6	-5.75	125.15	128.60
16	Y	135	TYR	CB-CG-CD2	5.75	124.45	121.00
1	A	2063	U	O4'-C1'-N1	5.75	112.80	108.20
1	A	96	C	O4'-C1'-N1	5.74	112.80	108.20
1	A	1364	G	O4'-C1'-N9	5.74	112.80	108.20
34	AA	2744	G	O4'-C1'-N9	5.74	112.79	108.20
34	AA	3510	C	O4'-C1'-N1	5.74	112.79	108.20
1	A	478	G	N1-C6-O6	5.74	123.34	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	547	C	O4'-C1'-N1	5.74	112.79	108.20
34	AA	643	G	N1-C6-O6	5.74	123.34	119.90
35	AC	19	G	O4'-C1'-N9	5.74	112.79	108.20
36	AB	96	C	O4'-C1'-N1	5.74	112.79	108.20
34	AA	415	U	O4'-C1'-N1	5.74	112.79	108.20
34	AA	2835	G	O4'-C1'-N9	5.74	112.79	108.20
32	P	75	MET	CG-SD-CE	-5.74	91.02	100.20
34	AA	1416	U	O4'-C1'-N1	5.74	112.79	108.20
34	AA	2953	G	O4'-C1'-N9	5.74	112.79	108.20
1	A	1219	U	O4'-C1'-N1	5.73	112.79	108.20
1	A	1646	U	O4'-C1'-N1	5.73	112.79	108.20
34	AA	3013	A	C5'-C4'-O4'	5.73	115.98	109.10
34	AA	808	A	P-O3'-C3'	-5.73	112.82	119.70
34	AA	3324	U	O4'-C1'-N1	5.73	112.79	108.20
35	AC	80	C	O4'-C1'-N1	5.73	112.78	108.20
59	AM	122	ARG	NE-CZ-NH2	-5.73	117.44	120.30
1	A	8	U	O4'-C1'-N1	5.73	112.78	108.20
9	E	13	ARG	NE-CZ-NH2	5.73	123.16	120.30
34	AA	1516	G	O4'-C1'-N9	5.73	112.78	108.20
54	AP	205	ARG	NE-CZ-NH2	5.73	123.17	120.30
61	AQ	201	ARG	NE-CZ-NH1	5.73	123.16	120.30
66	AZ	45	ARG	NE-CZ-NH2	-5.73	117.44	120.30
1	A	38	C	O4'-C1'-N1	5.73	112.78	108.20
1	A	2057	A	O4'-C1'-N9	5.73	112.78	108.20
34	AA	315	C	C5'-C4'-O4'	5.73	115.97	109.10
34	AA	669	C	O4'-C1'-N1	5.73	112.78	108.20
1	A	81	U	P-O3'-C3'	5.73	126.57	119.70
5	T	38	ARG	NE-CZ-NH2	5.73	123.16	120.30
34	AA	627	U	O4'-C1'-N1	5.73	112.78	108.20
34	AA	739	G	O4'-C1'-N9	5.73	112.78	108.20
34	AA	3783	G	C5'-C4'-O4'	5.73	115.97	109.10
9	E	171	ARG	NE-CZ-NH2	5.72	123.16	120.30
34	AA	809	A	O4'-C1'-N9	5.72	112.78	108.20
34	AA	182	U	O4'-C1'-N1	5.72	112.78	108.20
1	A	450	C	O4'-C1'-N1	5.72	112.78	108.20
34	AA	36	U	O4'-C1'-N1	5.72	112.78	108.20
34	AA	864	U	O4'-C1'-N1	5.72	112.77	108.20
1	A	1073	U	O4'-C1'-N1	5.72	112.77	108.20
34	AA	2670	G	C5-C6-O6	-5.72	125.17	128.60
1	A	908	U	O4'-C1'-N1	5.71	112.77	108.20
34	AA	2133	C	O4'-C1'-N1	5.71	112.77	108.20
34	AA	2949	G	O4'-C1'-N9	5.71	112.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3763	G	C5-C6-O6	-5.71	125.17	128.60
35	AC	62	G	O4'-C1'-N9	5.71	112.77	108.20
34	AA	2919	A	O4'-C1'-N9	5.71	112.77	108.20
8	V	102	ARG	NE-CZ-NH1	5.71	123.16	120.30
34	AA	1266	U	O4'-C1'-N1	5.71	112.77	108.20
34	AA	3211	C	O4'-C1'-N1	5.71	112.77	108.20
70	AE	117	ARG	NE-CZ-NH2	5.71	123.16	120.30
77	AX	101	ARG	NE-CZ-NH2	-5.71	117.44	120.30
1	A	183	C	O4'-C1'-N1	5.71	112.77	108.20
1	A	429	G	O4'-C1'-N9	5.71	112.77	108.20
34	AA	2724	C	O4'-C1'-N1	5.71	112.77	108.20
35	AC	54	C	O4'-C1'-N1	5.71	112.77	108.20
34	AA	643	G	O4'-C1'-N9	5.71	112.77	108.20
1	A	1914	U	O4'-C1'-N1	5.71	112.77	108.20
34	AA	1302	G	O4'-C1'-N9	5.71	112.77	108.20
1	A	304	C	O4'-C1'-N1	5.71	112.76	108.20
1	A	1111	U	O4'-C1'-N1	5.70	112.76	108.20
1	A	1719	U	C2-N1-C1'	5.70	124.54	117.70
40	Ai	39	ARG	NE-CZ-NH1	5.70	123.15	120.30
34	AA	671	U	O4'-C1'-N1	5.70	112.76	108.20
1	A	199	U	O4'-C1'-N1	5.70	112.76	108.20
1	A	1851	C	O4'-C1'-N1	5.70	112.76	108.20
34	AA	1836	U	O4'-C1'-N1	5.70	112.76	108.20
34	AA	2579	U	O4'-C1'-N1	5.70	112.76	108.20
34	AA	3404	C	O4'-C1'-N1	5.70	112.76	108.20
5	T	44	ARG	NE-CZ-NH1	5.70	123.15	120.30
34	AA	576	U	O4'-C1'-N1	5.70	112.76	108.20
34	AA	1563	U	O4'-C1'-N1	5.70	112.76	108.20
64	AY	173	ARG	NE-CZ-NH2	-5.70	117.45	120.30
34	AA	1107	U	O4'-C1'-N1	5.70	112.76	108.20
1	A	1622	C	O4'-C1'-N1	5.70	112.76	108.20
1	A	2030	U	O4'-C1'-N1	5.70	112.76	108.20
34	AA	2887	U	O4'-C1'-N1	5.69	112.75	108.20
1	A	1628	A	O4'-C1'-N9	5.69	112.75	108.20
34	AA	1167	U	O4'-C1'-N1	5.69	112.75	108.20
34	AA	1573	C	C2-N1-C1'	5.69	125.06	118.80
34	AA	3644	G	O4'-C1'-N9	5.69	112.75	108.20
35	AC	102	U	P-O3'-C3'	-5.69	112.87	119.70
72	AG	92	ARG	NE-CZ-NH2	5.69	123.15	120.30
1	A	17	C	O4'-C1'-N1	5.69	112.75	108.20
34	AA	31	C	O4'-C1'-N1	5.69	112.75	108.20
34	AA	1329	U	O4'-C1'-N1	5.69	112.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2546	G	O4'-C1'-N9	5.69	112.75	108.20
34	AA	3503	U	P-O3'-C3'	5.69	126.53	119.70
1	A	804	U	O4'-C1'-N1	5.69	112.75	108.20
34	AA	431	G	C5-C6-O6	-5.69	125.19	128.60
34	AA	2888	U	O4'-C1'-N1	5.69	112.75	108.20
1	A	943	U	O4'-C1'-N1	5.69	112.75	108.20
1	A	1314	U	O4'-C1'-N1	5.69	112.75	108.20
2	7	25	C	C5'-C4'-O4'	-5.69	102.27	109.10
34	AA	1169	A	P-O3'-C3'	-5.69	112.88	119.70
1	A	1442	U	O4'-C1'-N1	5.68	112.75	108.20
1	A	376	A	O4'-C1'-N9	5.68	112.75	108.20
1	A	1056	G	O4'-C1'-N9	5.68	112.75	108.20
1	A	1391	U	O4'-C1'-N1	5.68	112.75	108.20
61	AQ	119	PHE	CB-CG-CD2	-5.68	116.82	120.80
1	A	745	A	P-O3'-C3'	5.68	126.52	119.70
34	AA	584	U	O4'-C1'-N1	5.68	112.75	108.20
34	AA	1208	G	P-O5'-C5'	5.68	129.99	120.90
34	AA	3055	U	O4'-C1'-N1	5.68	112.74	108.20
37	AL	41	ARG	NE-CZ-NH2	5.68	123.14	120.30
45	A1	84	ARG	NE-CZ-NH2	-5.68	117.46	120.30
1	A	1681	G	C5-C6-O6	-5.68	125.19	128.60
34	AA	2962	G	O4'-C1'-N9	5.68	112.74	108.20
9	E	82	ARG	NE-CZ-NH1	5.68	123.14	120.30
34	AA	1169	A	P-O5'-C5'	5.68	129.98	120.90
34	AA	3668	U	O4'-C1'-N1	5.67	112.74	108.20
34	AA	544	C	C2-N1-C1'	5.67	125.04	118.80
34	AA	3090	G	C5-C6-O6	-5.67	125.20	128.60
34	AA	1608	C	O4'-C1'-N1	5.67	112.74	108.20
34	AA	2449	U	O4'-C1'-N1	5.67	112.74	108.20
57	Ac	28	ARG	NE-CZ-NH2	-5.67	117.46	120.30
36	AB	86	G	O4'-C1'-N9	5.67	112.73	108.20
1	A	366	A	O4'-C1'-N9	5.67	112.73	108.20
1	A	630	C	O4'-C1'-N1	5.67	112.73	108.20
8	V	72	ARG	NE-CZ-NH2	-5.67	117.47	120.30
2	7	2	G	P-O3'-C3'	5.66	126.50	119.70
10	X	81	ARG	NE-CZ-NH1	5.66	123.13	120.30
1	A	995	A	O4'-C1'-N9	5.66	112.73	108.20
34	AA	3224	U	O4'-C1'-N1	5.66	112.73	108.20
34	AA	3304	G	O4'-C1'-N9	5.66	112.73	108.20
32	P	55	ARG	NE-CZ-NH2	5.66	123.13	120.30
34	AA	1606	U	O4'-C1'-N1	5.66	112.73	108.20
69	AD	227	ARG	NE-CZ-NH2	5.66	123.13	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	272	U	O4'-C1'-N1	5.66	112.73	108.20
1	A	596	C	O4'-C1'-N1	5.66	112.73	108.20
34	AA	737	G	C5-C6-O6	-5.66	125.20	128.60
14	I	88	PHE	CB-CG-CD2	-5.66	116.84	120.80
1	A	1702	C	C6-N1-C1'	-5.65	114.02	120.80
24	6	10	ARG	NE-CZ-NH1	5.65	123.13	120.30
34	AA	146	U	P-O3'-C3'	5.65	126.48	119.70
34	AA	2556	C	O4'-C1'-N1	5.65	112.72	108.20
34	AA	2603	U	O4'-C1'-N1	5.65	112.72	108.20
34	AA	3524	G	O4'-C1'-N9	5.65	112.72	108.20
34	AA	2182	G	O4'-C1'-N9	5.65	112.72	108.20
34	AA	3210	A	O4'-C1'-N9	5.65	112.72	108.20
1	A	1823	U	O4'-C1'-N1	5.65	112.72	108.20
57	Ac	59	ARG	NE-CZ-NH1	5.65	123.12	120.30
70	AE	169	ARG	NE-CZ-NH1	5.65	123.12	120.30
73	AU	93	ARG	NE-CZ-NH2	-5.65	117.47	120.30
1	A	115	U	O4'-C1'-N1	5.65	112.72	108.20
34	AA	953	U	O4'-C1'-N1	5.65	112.72	108.20
78	AJ	127	ARG	NE-CZ-NH1	5.65	123.12	120.30
1	A	572	C	O4'-C1'-N1	5.65	112.72	108.20
34	AA	2439	C	O4'-C1'-N1	5.65	112.72	108.20
1	A	1281	C	O4'-C1'-N1	5.64	112.72	108.20
6	M	136	ARG	NE-CZ-NH2	-5.64	117.48	120.30
11	G	109	ARG	NE-CZ-NH1	5.64	123.12	120.30
34	AA	3032	U	O4'-C1'-N1	5.64	112.72	108.20
34	AA	349	G	C5-C6-O6	-5.64	125.22	128.60
34	AA	613	C	O4'-C1'-N1	5.64	112.71	108.20
34	AA	1291	U	O4'-C1'-N1	5.64	112.71	108.20
34	AA	1674	G	O4'-C1'-N9	5.64	112.71	108.20
1	A	1187	A	P-O3'-C3'	5.64	126.47	119.70
1	A	1309	A	O4'-C1'-N9	5.64	112.71	108.20
34	AA	3212	G	C5-C6-O6	-5.64	125.22	128.60
34	AA	3786	U	O4'-C1'-N1	5.64	112.71	108.20
1	A	1864	U	O4'-C1'-N1	5.64	112.71	108.20
34	AA	3094	C	O4'-C1'-N1	5.64	112.71	108.20
34	AA	1570	U	O4'-C1'-N1	5.64	112.71	108.20
1	A	987	U	O4'-C1'-N1	5.64	112.71	108.20
34	AA	1075	U	O4'-C1'-N1	5.64	112.71	108.20
34	AA	3629	U	O4'-C1'-N1	5.64	112.71	108.20
35	AC	12	U	O4'-C1'-N1	5.64	112.71	108.20
34	AA	3109	U	O4'-C1'-N1	5.63	112.71	108.20
36	AB	99	G	C5-C6-O6	-5.63	125.22	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3386	A	O4'-C1'-N9	5.63	112.71	108.20
34	AA	458	A	O4'-C1'-N9	5.63	112.71	108.20
34	AA	636	U	O4'-C1'-N1	5.63	112.70	108.20
34	AA	49	U	O4'-C1'-N1	5.63	112.70	108.20
34	AA	92	G	O4'-C1'-N9	5.63	112.70	108.20
34	AA	383	U	O4'-C1'-N1	5.63	112.70	108.20
34	AA	1648	U	O4'-C1'-N1	5.63	112.70	108.20
1	A	460	G	O4'-C1'-N9	5.63	112.70	108.20
2	7	64	G	O4'-C1'-N9	5.63	112.70	108.20
34	AA	76	G	O4'-C1'-N9	5.63	112.70	108.20
34	AA	2450	G	C5-C6-O6	-5.63	125.22	128.60
34	AA	390	C	O4'-C1'-N1	5.63	112.70	108.20
45	A1	84	ARG	NE-CZ-NH1	5.63	123.11	120.30
1	A	805	A	P-O3'-C3'	5.62	126.45	119.70
1	A	379	G	N1-C6-O6	5.62	123.27	119.90
1	A	2054	A	O4'-C1'-N9	5.62	112.70	108.20
34	AA	3140	U	O4'-C1'-N1	5.62	112.70	108.20
34	AA	894	U	O4'-C1'-N1	5.62	112.70	108.20
34	AA	1104	U	O4'-C1'-N1	5.62	112.70	108.20
34	AA	1179	U	O4'-C1'-N1	5.62	112.70	108.20
34	AA	2218	C	C6-N1-C2	-5.62	118.05	120.30
1	A	103	U	C2'-C3'-O3'	5.62	122.69	113.70
34	AA	1287	A	O4'-C1'-N9	5.62	112.69	108.20
34	AA	2689	G	N1-C6-O6	5.62	123.27	119.90
1	A	993	A	O4'-C1'-N9	5.62	112.69	108.20
1	A	1069	C	C5'-C4'-O4'	5.62	115.84	109.10
1	A	1110	G	O4'-C1'-N9	5.62	112.69	108.20
1	A	1408	C	O4'-C1'-N1	5.62	112.69	108.20
4	S	123	ARG	NE-CZ-NH1	-5.62	117.49	120.30
34	AA	794	C	O4'-C1'-N1	5.62	112.69	108.20
34	AA	2697	A	O4'-C1'-N9	5.62	112.69	108.20
1	A	1873	A	C5-C6-N6	-5.61	119.21	123.70
12	W	97	TYR	CB-CG-CD1	-5.61	117.63	121.00
34	AA	513	U	O4'-C1'-N1	5.61	112.69	108.20
34	AA	1838	U	O4'-C1'-N1	5.61	112.69	108.20
34	AA	2550	C	C2-N1-C1'	5.61	124.97	118.80
34	AA	2570	C	O4'-C1'-N1	5.61	112.69	108.20
34	AA	981	U	O4'-C1'-N1	5.61	112.69	108.20
34	AA	1958	U	O4'-C1'-N1	5.61	112.69	108.20
1	A	1321	C	C5'-C4'-C3'	-5.61	107.02	116.00
34	AA	884	A	O4'-C1'-N9	5.61	112.69	108.20
49	Aa	67	ARG	NE-CZ-NH1	5.61	123.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	AC	145	A	C2'-C3'-O3'	5.61	122.67	113.70
62	AR	31	ARG	NE-CZ-NH1	5.61	123.11	120.30
1	A	111	G	O4'-C1'-N9	5.61	112.69	108.20
34	AA	2039	U	C5'-C4'-C3'	5.61	124.97	116.00
34	AA	3490	A	O4'-C1'-N9	5.61	112.69	108.20
1	A	1373	U	O4'-C1'-N1	5.61	112.68	108.20
2	7	48	C	O4'-C1'-N1	5.61	112.68	108.20
34	AA	707	U	O4'-C1'-N1	5.61	112.69	108.20
34	AA	2518	U	O4'-C1'-N1	5.61	112.68	108.20
34	AA	3050	U	O4'-C1'-N1	5.61	112.68	108.20
76	Ag	7	ARG	NE-CZ-NH1	5.61	123.10	120.30
34	AA	1538	U	P-O3'-C3'	5.60	126.42	119.70
34	AA	1600	C	P-O3'-C3'	-5.60	112.97	119.70
34	AA	2146	A	O4'-C1'-N9	5.60	112.68	108.20
1	A	913	U	O4'-C1'-N1	5.60	112.68	108.20
1	A	1172	U	O4'-C1'-N1	5.60	112.68	108.20
34	AA	2437	A	C1'-O4'-C4'	-5.60	105.42	109.90
34	AA	1233	A	O4'-C1'-N9	5.60	112.68	108.20
34	AA	1326	C	O4'-C1'-N1	5.60	112.68	108.20
36	AB	46	C	O4'-C1'-N1	5.60	112.68	108.20
72	AG	140	ARG	NE-CZ-NH1	5.60	123.10	120.30
7	U	55	ARG	NE-CZ-NH1	-5.60	117.50	120.30
34	AA	1728	C	C6-N1-C2	-5.60	118.06	120.30
34	AA	1753	U	O4'-C1'-N1	5.60	112.68	108.20
34	AA	2950	U	O4'-C1'-N1	5.60	112.68	108.20
1	A	1728	U	O4'-C1'-N1	5.60	112.68	108.20
34	AA	2479	U	O4'-C1'-N1	5.59	112.67	108.20
34	AA	3631	U	O4'-C1'-N1	5.59	112.68	108.20
3	Q	73	ARG	NE-CZ-NH1	-5.59	117.50	120.30
34	AA	25	A	C1'-O4'-C4'	-5.59	105.42	109.90
34	AA	73	U	C2-N1-C1'	5.59	124.41	117.70
1	A	466	A	N1-C6-N6	-5.59	115.25	118.60
1	A	591	C	O4'-C1'-N1	5.59	112.67	108.20
1	A	789	U	O4'-C1'-N1	5.59	112.67	108.20
1	A	1184	G	O4'-C1'-N9	5.59	112.67	108.20
21	3	51	ARG	NE-CZ-NH2	5.59	123.10	120.30
34	AA	98	G	C5-C6-O6	-5.59	125.25	128.60
34	AA	497	U	O4'-C1'-N1	5.59	112.67	108.20
1	A	578	G	O4'-C1'-N9	5.59	112.67	108.20
34	AA	389	U	O4'-C1'-N1	5.59	112.67	108.20
34	AA	2585	U	O4'-C1'-N1	5.59	112.67	108.20
1	A	1078	U	O4'-C1'-N1	5.59	112.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	W	5	ARG	NE-CZ-NH1	5.59	123.09	120.30
34	AA	1065	U	O4'-C1'-N1	5.59	112.67	108.20
34	AA	1273	G	P-O5'-C5'	5.59	129.84	120.90
1	A	630	C	C2-N1-C1'	5.59	124.95	118.80
34	AA	616	U	O4'-C1'-N1	5.59	112.67	108.20
34	AA	859	C	O4'-C1'-N1	5.59	112.67	108.20
34	AA	2146	A	C1'-O4'-C4'	-5.59	105.43	109.90
34	AA	2818	U	O4'-C1'-N1	5.59	112.67	108.20
34	AA	1161	C	O4'-C1'-N1	5.58	112.67	108.20
28	H	85	ARG	NE-CZ-NH2	5.58	123.09	120.30
34	AA	3491	U	O4'-C1'-N1	5.58	112.67	108.20
37	AL	197	ARG	NE-CZ-NH2	5.58	123.09	120.30
34	AA	403	U	O4'-C1'-N1	5.58	112.67	108.20
34	AA	859	C	C6-N1-C2	-5.58	118.07	120.30
34	AA	1834	C	O4'-C1'-N1	5.58	112.67	108.20
49	Aa	86	ARG	NE-CZ-NH1	5.58	123.09	120.30
1	A	844	G	P-O5'-C5'	5.58	129.83	120.90
34	AA	55	G	C5'-C4'-O4'	5.58	115.80	109.10
1	A	750	U	O4'-C1'-N1	5.58	112.66	108.20
34	AA	3280	U	C5'-C4'-O4'	5.58	115.79	109.10
34	AA	3374	U	O4'-C1'-N1	5.58	112.66	108.20
68	A5	56	ARG	NE-CZ-NH1	5.58	123.09	120.30
34	AA	270	U	C2'-C3'-O3'	5.58	122.62	113.70
34	AA	2140	U	O4'-C1'-N1	5.58	112.66	108.20
34	AA	3417	G	P-O3'-C3'	-5.58	113.01	119.70
34	AA	2701	U	O4'-C1'-N1	5.58	112.66	108.20
34	AA	3070	C	O4'-C1'-N1	5.58	112.66	108.20
34	AA	3202	U	O4'-C1'-N1	5.58	112.66	108.20
34	AA	3514	A	O4'-C1'-N9	5.58	112.66	108.20
34	AA	446	G	O4'-C1'-N9	5.57	112.66	108.20
34	AA	3619	U	O4'-C1'-N1	5.57	112.66	108.20
48	A9	130	ARG	NE-CZ-NH1	5.57	123.09	120.30
68	A5	202	TYR	CB-CG-CD2	5.57	124.34	121.00
1	A	100	U	O4'-C1'-N1	5.57	112.66	108.20
1	A	1087	U	O4'-C1'-N1	5.57	112.66	108.20
1	A	1198	U	C3'-C2'-C1'	-5.57	97.04	101.50
34	AA	133	U	O4'-C1'-N1	5.57	112.66	108.20
34	AA	431	G	N1-C6-O6	5.57	123.24	119.90
34	AA	1527	U	O4'-C1'-N1	5.57	112.66	108.20
35	AC	97	C	O4'-C1'-N1	5.57	112.66	108.20
71	AF	48	ARG	NE-CZ-NH1	-5.57	117.52	120.30
1	A	929	U	O4'-C1'-N1	5.57	112.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	986	U	O4'-C1'-N1	5.57	112.66	108.20
34	AA	1814	U	O4'-C1'-N1	5.57	112.65	108.20
34	AA	2484	U	O4'-C1'-N1	5.57	112.66	108.20
59	AM	72	ARG	NE-CZ-NH1	5.57	123.08	120.30
1	A	1295	A	C4'-C3'-C2'	-5.57	97.03	102.60
34	AA	1885	G	O4'-C1'-N9	5.57	112.65	108.20
34	AA	2837	G	C5-C6-O6	-5.57	125.26	128.60
1	A	1734	G	O4'-C1'-N9	5.56	112.65	108.20
2	7	4	G	O4'-C1'-N9	5.56	112.65	108.20
1	A	1063	G	O4'-C1'-N9	5.56	112.65	108.20
34	AA	197	G	O4'-C1'-N9	5.56	112.65	108.20
34	AA	696	C	O4'-C1'-N1	5.56	112.65	108.20
34	AA	1780	G	P-O5'-C5'	5.56	129.80	120.90
34	AA	767	U	O4'-C1'-N1	5.56	112.65	108.20
34	AA	1712	G	O4'-C1'-N9	5.56	112.65	108.20
25	B	213	ARG	NE-CZ-NH1	5.56	123.08	120.30
34	AA	2708	C	O4'-C1'-N1	5.56	112.65	108.20
46	AN	93	ARG	NE-CZ-NH1	5.56	123.08	120.30
34	AA	1745	G	C5-C6-O6	-5.56	125.27	128.60
34	AA	3775	G	C5'-C4'-O4'	5.56	115.77	109.10
34	AA	1742	G	O4'-C1'-N9	5.56	112.64	108.20
1	A	1065	C	O4'-C1'-N1	5.55	112.64	108.20
14	I	86	TYR	CB-CG-CD2	-5.55	117.67	121.00
34	AA	717	G	P-O3'-C3'	-5.55	113.03	119.70
34	AA	3195	C	C6-N1-C1'	-5.55	114.13	120.80
35	AC	83	U	O4'-C1'-N1	5.55	112.64	108.20
1	A	551	A	O4'-C1'-N9	5.55	112.64	108.20
34	AA	1960	U	O4'-C1'-N1	5.55	112.64	108.20
34	AA	3272	U	O4'-C1'-N1	5.55	112.64	108.20
34	AA	3364	A	O4'-C1'-N9	5.55	112.64	108.20
38	A0	37	PHE	CB-CG-CD1	-5.55	116.91	120.80
1	A	1311	U	O4'-C1'-N1	5.55	112.64	108.20
34	AA	1315	C	O4'-C1'-N1	5.55	112.64	108.20
34	AA	1617	A	O4'-C1'-N9	5.55	112.64	108.20
34	AA	3761	G	O4'-C1'-N9	5.55	112.64	108.20
34	AA	2679	A	N1-C6-N6	-5.55	115.27	118.60
34	AA	2689	G	C5-C6-O6	-5.55	125.27	128.60
34	AA	3113	U	O4'-C1'-N1	5.55	112.64	108.20
34	AA	1839	U	O4'-C1'-N1	5.55	112.64	108.20
34	AA	3595	U	O4'-C1'-N1	5.55	112.64	108.20
1	A	994	G	N1-C6-O6	5.54	123.23	119.90
34	AA	2738	U	O4'-C1'-N1	5.54	112.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3376	U	O4'-C1'-N1	5.54	112.64	108.20
1	A	258	A	O4'-C1'-N9	5.54	112.63	108.20
1	A	555	G	O4'-C1'-N9	5.54	112.63	108.20
1	A	992	G	O4'-C1'-N9	5.54	112.63	108.20
2	7	5	G	O4'-C1'-N9	5.54	112.63	108.20
16	Y	160	ARG	NE-CZ-NH2	5.54	123.07	120.30
34	AA	879	U	O4'-C1'-N1	5.54	112.63	108.20
34	AA	1324	U	P-O3'-C3'	-5.54	113.05	119.70
34	AA	1469	U	O4'-C1'-N1	5.54	112.63	108.20
34	AA	3260	G	O4'-C1'-N9	5.54	112.63	108.20
34	AA	1220	U	O4'-C1'-N1	5.54	112.63	108.20
34	AA	2082	C	O4'-C1'-N1	5.54	112.63	108.20
34	AA	3183	G	O4'-C1'-N9	5.54	112.63	108.20
34	AA	3358	U	P-O3'-C3'	5.54	126.35	119.70
1	A	1929	C	O4'-C1'-N1	5.54	112.63	108.20
14	I	46	ARG	NE-CZ-NH2	5.54	123.07	120.30
34	AA	728	C	O4'-C1'-N1	5.53	112.63	108.20
34	AA	1727	U	O4'-C1'-N1	5.53	112.63	108.20
34	AA	3496	G	C5-C6-O6	-5.53	125.28	128.60
34	AA	2480	G	C5'-C4'-O4'	5.53	115.74	109.10
34	AA	3365	U	O4'-C1'-N1	5.53	112.63	108.20
1	A	747	U	O4'-C1'-N1	5.53	112.62	108.20
34	AA	1631	A	O4'-C1'-N9	5.53	112.62	108.20
34	AA	3264	U	O4'-C1'-N1	5.53	112.62	108.20
34	AA	3347	C	O4'-C1'-N1	5.53	112.62	108.20
34	AA	1811	A	O4'-C1'-N9	5.53	112.62	108.20
34	AA	3217	U	P-O3'-C3'	5.53	126.33	119.70
58	AK	60	ARG	NE-CZ-NH1	5.53	123.06	120.30
1	A	1086	U	O4'-C1'-N1	5.53	112.62	108.20
34	AA	214	C	O4'-C1'-N1	5.53	112.62	108.20
34	AA	517	U	O4'-C1'-N1	5.53	112.62	108.20
34	AA	1275	G	O4'-C1'-N9	5.53	112.62	108.20
52	Ae	6	ARG	NE-CZ-NH1	5.53	123.06	120.30
34	AA	3630	U	O4'-C1'-N1	5.52	112.62	108.20
1	A	39	A	O4'-C1'-N9	5.52	112.62	108.20
1	A	1638	U	O4'-C1'-N1	5.52	112.62	108.20
1	A	1906	U	O4'-C1'-N1	5.52	112.62	108.20
34	AA	831	U	O4'-C1'-N1	5.52	112.62	108.20
34	AA	1125	A	O4'-C1'-N9	5.52	112.62	108.20
1	A	1273	G	O4'-C1'-N9	5.52	112.62	108.20
1	A	1716	C	P-O3'-C3'	5.52	126.33	119.70
34	AA	810	U	O4'-C1'-N1	5.52	112.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3637	G	O4'-C1'-N9	5.52	112.62	108.20
34	AA	2441	U	O4'-C1'-N1	5.52	112.62	108.20
34	AA	2716	U	O4'-C1'-N1	5.52	112.62	108.20
34	AA	167	U	O4'-C1'-N1	5.52	112.61	108.20
34	AA	351	U	O4'-C1'-N1	5.52	112.61	108.20
34	AA	3740	A	O4'-C1'-N9	5.52	112.61	108.20
34	AA	2725	U	O4'-C1'-N1	5.52	112.61	108.20
1	A	404	G	C5-C6-O6	-5.51	125.29	128.60
34	AA	3232	U	C5'-C4'-O4'	5.51	115.72	109.10
34	AA	120	U	O4'-C1'-N1	5.51	112.61	108.20
34	AA	1884	G	P-O3'-C3'	5.51	126.31	119.70
65	AT	135	ARG	NE-CZ-NH1	5.51	123.06	120.30
35	AC	65	A	P-O3'-C3'	-5.51	113.09	119.70
24	6	29	ARG	NE-CZ-NH1	5.51	123.06	120.30
34	AA	1066	U	O4'-C1'-N1	5.51	112.61	108.20
34	AA	1586	C	O4'-C1'-N1	5.51	112.61	108.20
1	A	469	U	O4'-C1'-N1	5.51	112.61	108.20
34	AA	1156	U	O4'-C1'-N1	5.51	112.61	108.20
1	A	1820	C	O4'-C1'-N1	5.51	112.61	108.20
34	AA	1031	G	N3-C2-N2	5.51	123.75	119.90
34	AA	1437	U	O4'-C1'-N1	5.50	112.60	108.20
34	AA	3474	C	O4'-C1'-N1	5.50	112.60	108.20
1	A	2075	C	O4'-C1'-N1	5.50	112.60	108.20
34	AA	1869	G	N1-C6-O6	5.50	123.20	119.90
34	AA	2089	C	P-O3'-C3'	5.50	126.30	119.70
1	A	211	U	O4'-C1'-N1	5.50	112.60	108.20
1	A	1316	U	O4'-C1'-N1	5.50	112.60	108.20
34	AA	3552	U	O4'-C1'-N1	5.50	112.60	108.20
34	AA	3581	A	C1'-O4'-C4'	-5.50	105.50	109.90
65	AT	103	ARG	NE-CZ-NH1	5.50	123.05	120.30
75	AV	84	ARG	NE-CZ-NH2	5.50	123.05	120.30
1	A	887	A	O4'-C1'-N9	5.50	112.60	108.20
34	AA	637	U	O4'-C1'-N1	5.50	112.60	108.20
34	AA	1027	G	N1-C6-O6	5.50	123.20	119.90
1	A	337	G	N1-C6-O6	5.50	123.20	119.90
1	A	620	G	C5-C6-O6	-5.50	125.30	128.60
33	L	70	PHE	CB-CG-CD1	5.50	124.65	120.80
34	AA	130	G	N1-C6-O6	5.50	123.20	119.90
34	AA	265	U	O4'-C1'-N1	5.50	112.60	108.20
34	AA	873	U	O4'-C1'-N1	5.50	112.60	108.20
34	AA	1285	U	O4'-C1'-N1	5.50	112.60	108.20
34	AA	1305	U	O4'-C1'-N1	5.50	112.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3388	U	O4'-C1'-N1	5.50	112.60	108.20
36	AB	5	U	O4'-C1'-N1	5.50	112.60	108.20
2	7	6	G	O4'-C1'-N9	5.50	112.60	108.20
34	AA	1061	U	O4'-C1'-N1	5.50	112.60	108.20
1	A	2070	G	O4'-C1'-N9	5.50	112.60	108.20
34	AA	1977	U	O4'-C1'-N1	5.50	112.60	108.20
2	7	28	C	O4'-C1'-N1	5.49	112.59	108.20
34	AA	220	G	O4'-C1'-N9	5.49	112.59	108.20
34	AA	1903	C	C2-N1-C1'	5.49	124.84	118.80
34	AA	2659	C	O4'-C1'-N1	5.49	112.59	108.20
34	AA	3551	U	O4'-C1'-N1	5.49	112.59	108.20
70	AE	366	ARG	NE-CZ-NH1	5.49	123.05	120.30
1	A	337	G	C5-C6-O6	-5.49	125.31	128.60
34	AA	3378	C	O4'-C1'-N1	5.49	112.59	108.20
34	AA	891	C	O4'-C1'-N1	5.49	112.59	108.20
34	AA	1050	C	O4'-C1'-N1	5.49	112.59	108.20
34	AA	3393	C	O4'-C1'-N1	5.49	112.59	108.20
71	AF	211	TYR	CB-CG-CD1	-5.49	117.70	121.00
1	A	1729	A	P-O5'-C5'	-5.49	112.12	120.90
34	AA	1259	G	C5-C6-O6	-5.49	125.31	128.60
34	AA	1666	A	O4'-C1'-N9	5.49	112.59	108.20
34	AA	2666	A	O4'-C1'-N9	5.49	112.59	108.20
1	A	570	U	O4'-C1'-N1	5.49	112.59	108.20
1	A	1279	G	O4'-C1'-N9	5.49	112.59	108.20
20	C	84	ARG	NE-CZ-NH1	5.49	123.04	120.30
34	AA	2984	G	O4'-C1'-N9	5.49	112.59	108.20
1	A	1635	C	C5'-C4'-O4'	5.48	115.68	109.10
36	AB	61	G	O4'-C1'-N9	5.48	112.59	108.20
1	A	333	U	O4'-C1'-N1	5.48	112.59	108.20
4	S	16	ARG	NE-CZ-NH1	5.48	123.04	120.30
23	5	19	ARG	NE-CZ-NH1	5.48	123.04	120.30
50	Ab	49	ARG	NE-CZ-NH2	5.48	123.04	120.30
1	A	313	G	O4'-C1'-N9	5.48	112.58	108.20
1	A	1448	U	C2-N1-C1'	5.48	124.28	117.70
1	A	1661	U	O4'-C1'-N1	5.48	112.58	108.20
1	A	1944	U	O4'-C1'-N1	5.48	112.58	108.20
34	AA	3197	A	O4'-C1'-N9	5.48	112.58	108.20
51	Ad	73	ARG	NE-CZ-NH1	5.48	123.04	120.30
70	AE	58	ARG	NE-CZ-NH1	-5.48	117.56	120.30
2	7	36	U	O4'-C1'-N1	5.48	112.58	108.20
34	AA	2727	U	C1'-O4'-C4'	-5.48	105.52	109.90
34	AA	3131	A	O4'-C1'-N9	5.48	112.58	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	AL	191	ARG	NE-CZ-NH2	5.48	123.04	120.30
1	A	955	U	O4'-C1'-N1	5.48	112.58	108.20
1	A	1251	G	C8-N9-C1'	-5.48	119.88	127.00
1	A	1841	U	O4'-C1'-N1	5.48	112.58	108.20
3	Q	19	ARG	NE-CZ-NH2	5.48	123.04	120.30
34	AA	98	G	N1-C6-O6	5.48	123.19	119.90
34	AA	169	U	O4'-C1'-N1	5.48	112.58	108.20
34	AA	3313	U	O4'-C1'-N1	5.48	112.58	108.20
36	AB	95	U	O4'-C1'-N1	5.48	112.58	108.20
1	A	1212	C	O4'-C1'-N1	5.48	112.58	108.20
34	AA	833	G	P-O5'-C5'	5.48	129.66	120.90
34	AA	1725	U	O4'-C1'-N1	5.48	112.58	108.20
1	A	346	U	O4'-C1'-N1	5.47	112.58	108.20
34	AA	378	U	O4'-C1'-N1	5.47	112.58	108.20
34	AA	2001	U	O4'-C1'-N1	5.47	112.58	108.20
1	A	26	A	C4'-C3'-C2'	-5.47	97.13	102.60
34	AA	1174	C	O4'-C1'-N1	5.47	112.58	108.20
34	AA	2420	U	O4'-C1'-N1	5.47	112.58	108.20
34	AA	2583	C	O4'-C1'-N1	5.47	112.58	108.20
34	AA	2977	U	O4'-C1'-N1	5.47	112.58	108.20
34	AA	3339	U	O4'-C1'-N1	5.47	112.58	108.20
34	AA	3689	C	C6-N1-C2	-5.47	118.11	120.30
57	Ac	24	ARG	NE-CZ-NH2	5.47	123.03	120.30
1	A	1816	U	C5'-C4'-O4'	5.47	115.66	109.10
55	Ah	49	ARG	NE-CZ-NH2	5.47	123.03	120.30
34	AA	490	U	O4'-C1'-N1	5.47	112.57	108.20
34	AA	2832	A	O4'-C1'-N9	5.47	112.57	108.20
34	AA	3185	U	O4'-C1'-N1	5.47	112.57	108.20
34	AA	3423	U	O4'-C1'-N1	5.47	112.57	108.20
47	A8	111	ARG	NE-CZ-NH2	5.47	123.03	120.30
1	A	832	A	O4'-C1'-N9	5.46	112.57	108.20
34	AA	119	G	O4'-C1'-N9	5.46	112.57	108.20
34	AA	1435	G	O4'-C1'-N9	5.46	112.57	108.20
34	AA	3065	C	C2-N1-C1'	5.46	124.81	118.80
66	AZ	74	ARG	NE-CZ-NH1	5.46	123.03	120.30
1	A	322	G	O4'-C1'-N9	5.46	112.57	108.20
1	A	1207	U	O4'-C1'-N1	5.46	112.57	108.20
15	O	63	ARG	NE-CZ-NH2	-5.46	117.57	120.30
45	A1	119	ARG	NE-CZ-NH1	5.46	123.03	120.30
34	AA	3763	G	O4'-C1'-N9	5.46	112.57	108.20
1	A	1868	C	O4'-C1'-N1	5.46	112.57	108.20
34	AA	41	G	O4'-C1'-N9	5.46	112.57	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2822	U	O4'-C1'-N1	5.46	112.57	108.20
34	AA	3377	A	O4'-C1'-N9	5.46	112.57	108.20
35	AC	147	U	O4'-C1'-N1	5.46	112.57	108.20
61	AQ	9	TYR	CB-CG-CD2	-5.46	117.72	121.00
1	A	1861	U	O4'-C1'-N1	5.46	112.56	108.20
34	AA	1879	U	O4'-C1'-N1	5.46	112.56	108.20
34	AA	3157	C	O4'-C1'-N1	5.46	112.56	108.20
34	AA	1853	C	O4'-C1'-N1	5.45	112.56	108.20
34	AA	1868	U	O4'-C1'-N1	5.45	112.56	108.20
34	AA	3302	G	N1-C6-O6	5.45	123.17	119.90
34	AA	3632	U	O4'-C1'-N1	5.45	112.56	108.20
1	A	305	G	O4'-C1'-N9	5.45	112.56	108.20
21	3	93	ARG	NE-CZ-NH2	5.45	123.02	120.30
34	AA	210	C	P-O3'-C3'	5.45	126.24	119.70
34	AA	423	U	O4'-C1'-N1	5.45	112.56	108.20
34	AA	660	U	O4'-C1'-N1	5.45	112.56	108.20
1	A	884	G	C5-C6-O6	-5.45	125.33	128.60
34	AA	2138	U	O4'-C1'-N1	5.45	112.56	108.20
34	AA	3509	G	O4'-C1'-N9	5.45	112.56	108.20
34	AA	3589	U	O4'-C1'-N1	5.44	112.55	108.20
1	A	1443	G	O4'-C1'-N9	5.44	112.55	108.20
1	A	1863	U	C5'-C4'-O4'	5.44	115.63	109.10
18	1	116	ARG	NE-CZ-NH1	5.44	123.02	120.30
34	AA	1867	U	O4'-C1'-N1	5.44	112.55	108.20
34	AA	3574	G	O4'-C1'-N9	5.44	112.55	108.20
1	A	1384	U	O4'-C1'-N1	5.44	112.55	108.20
34	AA	1060	G	O4'-C1'-N9	5.44	112.55	108.20
34	AA	1583	G	O4'-C1'-N9	5.44	112.55	108.20
34	AA	2510	U	O4'-C1'-N1	5.44	112.55	108.20
34	AA	2728	G	N1-C6-O6	5.44	123.16	119.90
34	AA	799	A	P-O3'-C3'	5.44	126.23	119.70
37	AL	103	ARG	NE-CZ-NH2	-5.44	117.58	120.30
34	AA	3287	C	O4'-C1'-N1	5.44	112.55	108.20
34	AA	807	U	O4'-C1'-N1	5.43	112.55	108.20
34	AA	2979	U	O4'-C1'-N1	5.43	112.55	108.20
34	AA	49	U	P-O3'-C3'	5.43	126.22	119.70
34	AA	128	U	O4'-C1'-N1	5.43	112.55	108.20
37	AL	190	ARG	NE-CZ-NH1	5.43	123.02	120.30
8	V	140	PHE	CB-CG-CD1	5.43	124.60	120.80
34	AA	2629	U	O4'-C1'-N1	5.43	112.55	108.20
34	AA	1865	C	O4'-C1'-N1	5.43	112.54	108.20
34	AA	1897	G	O4'-C1'-N9	5.43	112.54	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3333	U	O4'-C1'-N1	5.43	112.54	108.20
34	AA	1028	G	O4'-C1'-N9	5.43	112.54	108.20
1	A	507	U	O4'-C1'-N1	5.43	112.54	108.20
1	A	985	U	O4'-C1'-N1	5.43	112.54	108.20
1	A	1226	A	O4'-C1'-N9	5.43	112.54	108.20
34	AA	3485	G	O4'-C1'-N9	5.43	112.54	108.20
1	A	925	C	O4'-C1'-N1	5.42	112.54	108.20
34	AA	2542	G	O4'-C1'-N9	5.42	112.54	108.20
35	AC	55	A	P-O5'-C5'	-5.42	112.22	120.90
35	AC	77	U	O4'-C1'-N1	5.42	112.54	108.20
1	A	957	U	O4'-C1'-N1	5.42	112.53	108.20
2	7	64	G	C5-C6-O6	-5.42	125.35	128.60
34	AA	1042	C	O4'-C1'-N1	5.42	112.53	108.20
34	AA	2166	G	O4'-C1'-N9	5.42	112.53	108.20
68	A5	60	TYR	CB-CG-CD2	-5.42	117.75	121.00
34	AA	911	U	O4'-C1'-N1	5.42	112.53	108.20
34	AA	1279	U	P-O5'-C5'	5.42	129.56	120.90
34	AA	3129	U	O4'-C1'-N1	5.42	112.53	108.20
76	Ag	12	ARG	NE-CZ-NH2	5.42	123.01	120.30
1	A	472	U	O4'-C1'-N1	5.41	112.53	108.20
34	AA	309	G	O4'-C1'-N9	5.41	112.53	108.20
35	AC	74	A	O4'-C1'-N9	5.41	112.53	108.20
1	A	1704	G	O4'-C1'-N9	5.41	112.53	108.20
1	A	2042	A	N1-C6-N6	5.41	121.85	118.60
34	AA	48	A	P-O3'-C3'	-5.41	113.21	119.70
34	AA	1997	G	O4'-C1'-N9	5.41	112.53	108.20
34	AA	2410	A	O4'-C1'-N9	5.41	112.53	108.20
35	AC	42	U	O4'-C1'-N1	5.41	112.53	108.20
1	A	117	G	C5-C6-O6	-5.41	125.36	128.60
34	AA	232	C	O4'-C1'-N1	5.41	112.53	108.20
34	AA	254	U	O4'-C1'-N1	5.41	112.53	108.20
34	AA	965	A	O4'-C1'-N9	5.41	112.53	108.20
34	AA	3755	U	O4'-C1'-N1	5.41	112.53	108.20
35	AC	129	U	O4'-C1'-N1	5.41	112.53	108.20
1	A	1747	U	O4'-C1'-N1	5.41	112.53	108.20
1	A	1895	U	O4'-C1'-N1	5.41	112.52	108.20
1	A	2010	U	O4'-C1'-N1	5.41	112.53	108.20
34	AA	856	C	O4'-C1'-N1	5.41	112.52	108.20
34	AA	2388	U	O4'-C1'-N1	5.41	112.52	108.20
2	7	64	G	N1-C6-O6	5.40	123.14	119.90
34	AA	540	C	O4'-C1'-N1	5.40	112.52	108.20
75	AV	71	ARG	NE-CZ-NH1	5.40	123.00	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	524	G	O4'-C1'-N9	5.40	112.52	108.20
1	A	858	U	O4'-C1'-N1	5.40	112.52	108.20
34	AA	1008	U	O4'-C1'-N1	5.40	112.52	108.20
34	AA	3468	G	O4'-C1'-N9	5.40	112.52	108.20
34	AA	3670	U	O4'-C1'-N1	5.40	112.52	108.20
2	7	60	U	O4'-C1'-N1	5.40	112.52	108.20
57	Ac	58	ARG	NE-CZ-NH1	5.40	123.00	120.30
34	AA	1191	G	C5-C6-O6	-5.40	125.36	128.60
34	AA	1251	U	O4'-C1'-N1	5.40	112.52	108.20
34	AA	2802	U	O4'-C1'-N1	5.40	112.52	108.20
34	AA	3431	G	O4'-C1'-N9	5.40	112.52	108.20
1	A	433	C	O4'-C1'-N1	5.40	112.52	108.20
35	AC	141	U	O4'-C1'-N1	5.40	112.52	108.20
1	A	848	U	O4'-C1'-N1	5.39	112.52	108.20
34	AA	225	U	O4'-C1'-N1	5.39	112.52	108.20
34	AA	492	U	O4'-C1'-N1	5.39	112.51	108.20
34	AA	979	G	O4'-C1'-N9	5.39	112.51	108.20
34	AA	2814	U	O4'-C1'-N1	5.39	112.51	108.20
34	AA	3022	U	O4'-C1'-N1	5.39	112.51	108.20
77	AX	105	TYR	CB-CG-CD2	5.39	124.23	121.00
34	AA	2426	U	O4'-C1'-N1	5.39	112.51	108.20
66	AZ	65	ARG	NE-CZ-NH1	5.39	123.00	120.30
70	AE	237	ARG	NE-CZ-NH1	5.39	123.00	120.30
1	A	152	G	O4'-C1'-N9	5.39	112.51	108.20
1	A	616	U	O4'-C1'-N1	5.39	112.51	108.20
1	A	1893	C	C2-N1-C1'	5.39	124.73	118.80
34	AA	119	G	C5-C6-O6	-5.39	125.37	128.60
34	AA	901	U	O4'-C1'-N1	5.39	112.51	108.20
34	AA	1809	U	O4'-C1'-N1	5.39	112.51	108.20
34	AA	2095	U	O4'-C1'-N1	5.39	112.51	108.20
34	AA	2942	G	O4'-C1'-N9	5.39	112.51	108.20
34	AA	3550	U	O4'-C1'-N1	5.39	112.51	108.20
35	AC	89	U	O4'-C1'-N1	5.39	112.51	108.20
36	AB	33	U	O4'-C1'-N1	5.39	112.51	108.20
36	AB	57	C	O4'-C1'-N1	5.39	112.51	108.20
34	AA	215	C	C2'-C3'-O3'	5.39	122.32	113.70
1	A	112	U	O4'-C1'-N1	5.39	112.51	108.20
1	A	1308	C	O4'-C1'-N1	5.39	112.51	108.20
34	AA	1021	G	O4'-C1'-N9	5.39	112.51	108.20
34	AA	2010	C	O4'-C1'-N1	5.39	112.51	108.20
1	A	847	U	O4'-C1'-N1	5.38	112.51	108.20
34	AA	361	G	N1-C6-O6	5.38	123.13	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1517	U	O4'-C1'-N1	5.38	112.51	108.20
34	AA	3666	U	O4'-C1'-N1	5.38	112.51	108.20
65	AT	162	ARG	NE-CZ-NH1	5.38	122.99	120.30
6	M	69	ARG	NE-CZ-NH1	5.38	122.99	120.30
34	AA	542	A	C5'-C4'-O4'	5.38	115.56	109.10
34	AA	681	U	O4'-C1'-N1	5.38	112.50	108.20
34	AA	2509	U	O4'-C1'-N1	5.38	112.50	108.20
34	AA	3194	C	O4'-C1'-N1	5.38	112.50	108.20
54	AP	173	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	A	1629	G	O4'-C1'-N9	5.38	112.50	108.20
1	A	1802	G	C5'-C4'-O4'	5.38	115.55	109.10
34	AA	1744	U	O4'-C1'-N1	5.38	112.50	108.20
59	AM	88	ARG	NE-CZ-NH1	5.38	122.99	120.30
34	AA	2533	G	O4'-C1'-N9	5.38	112.50	108.20
34	AA	2972	U	O4'-C1'-N1	5.38	112.50	108.20
1	A	824	A	O4'-C1'-N9	5.37	112.50	108.20
1	A	1254	G	O4'-C1'-N9	5.37	112.50	108.20
1	A	1645	C	C6-N1-C1'	-5.37	114.35	120.80
1	A	1697	C	O4'-C1'-N1	5.37	112.50	108.20
1	A	1947	U	O4'-C1'-N1	5.37	112.50	108.20
34	AA	385	G	O4'-C1'-N9	5.37	112.50	108.20
1	A	52	U	O4'-C1'-N1	5.37	112.50	108.20
1	A	381	U	O4'-C1'-N1	5.37	112.50	108.20
29	K	108	TYR	CB-CG-CD2	-5.37	117.78	121.00
34	AA	1974	U	O4'-C1'-N1	5.37	112.50	108.20
34	AA	2917	C	P-O5'-C5'	-5.37	112.31	120.90
34	AA	3670	U	P-O3'-C3'	5.37	126.15	119.70
1	A	982	A	O4'-C1'-N9	5.37	112.50	108.20
34	AA	3387	U	O4'-C1'-N1	5.37	112.50	108.20
1	A	1052	A	O4'-C1'-N9	5.37	112.50	108.20
34	AA	2388	U	P-O3'-C3'	5.37	126.14	119.70
74	AH	167	ARG	NE-CZ-NH2	5.37	122.98	120.30
34	AA	2081	U	O4'-C1'-N1	5.37	112.49	108.20
34	AA	1213	U	O4'-C1'-N1	5.37	112.49	108.20
34	AA	2188	U	O4'-C1'-N1	5.37	112.49	108.20
27	F	77	ARG	NE-CZ-NH1	5.36	122.98	120.30
1	A	1702	C	O4'-C1'-N1	5.36	112.49	108.20
33	L	31	ARG	NE-CZ-NH2	-5.36	117.62	120.30
34	AA	3363	U	C5'-C4'-C3'	-5.36	107.42	116.00
34	AA	3567	U	O4'-C1'-N1	5.36	112.49	108.20
1	A	1801	A	O4'-C1'-N9	5.36	112.49	108.20
1	A	2014	A	O4'-C1'-N9	5.36	112.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1535	G	O4'-C1'-N9	5.36	112.49	108.20
34	AA	2932	A	N1-C6-N6	-5.36	115.38	118.60
34	AA	3302	G	C5-C6-O6	-5.36	125.38	128.60
34	AA	104	G	O4'-C1'-N9	5.36	112.49	108.20
1	A	1877	C	O4'-C1'-N1	5.36	112.49	108.20
34	AA	1773	U	O4'-C1'-N1	5.36	112.49	108.20
34	AA	3379	A	P-O5'-C5'	5.36	129.47	120.90
34	AA	3506	U	P-O5'-C5'	-5.36	112.33	120.90
35	AC	108	A	O4'-C1'-N9	5.36	112.48	108.20
49	Aa	66	ARG	NE-CZ-NH2	5.36	122.98	120.30
60	AS	145	ARG	NE-CZ-NH2	5.36	122.98	120.30
1	A	2008	U	O4'-C1'-N1	5.36	112.48	108.20
34	AA	3099	C	P-O3'-C3'	-5.36	113.27	119.70
34	AA	3735	A	O4'-C1'-N9	5.36	112.48	108.20
1	A	651	G	O4'-C1'-N9	5.35	112.48	108.20
1	A	1014	U	O4'-C1'-N1	5.35	112.48	108.20
1	A	2032	U	O4'-C1'-N1	5.35	112.48	108.20
34	AA	572	U	O4'-C1'-N1	5.35	112.48	108.20
34	AA	1800	U	O4'-C1'-N1	5.35	112.48	108.20
34	AA	2549	A	O4'-C1'-N9	5.35	112.48	108.20
34	AA	2604	G	C5-C6-O6	-5.35	125.39	128.60
35	AC	71	U	O4'-C1'-N1	5.35	112.48	108.20
35	AC	139	A	O4'-C1'-N9	5.35	112.48	108.20
46	AN	29	ARG	NE-CZ-NH1	5.35	122.98	120.30
1	A	618	U	O4'-C1'-N1	5.35	112.48	108.20
1	A	2006	U	O4'-C1'-N1	5.35	112.48	108.20
1	A	164	C	O4'-C1'-N1	5.35	112.48	108.20
1	A	299	U	O4'-C1'-N1	5.35	112.48	108.20
1	A	421	U	O4'-C1'-N1	5.35	112.48	108.20
34	AA	954	G	C5'-C4'-O4'	5.35	115.52	109.10
34	AA	1533	U	O4'-C1'-N1	5.35	112.48	108.20
34	AA	2038	U	O4'-C1'-N1	5.35	112.48	108.20
34	AA	3396	U	O4'-C1'-N1	5.35	112.48	108.20
34	AA	3697	G	P-O5'-C5'	5.35	129.46	120.90
36	AB	8	U	O4'-C1'-N1	5.35	112.48	108.20
36	AB	85	G	O4'-C1'-N9	5.35	112.48	108.20
34	AA	3112	U	O4'-C1'-N1	5.35	112.48	108.20
61	AQ	176	PHE	CB-CG-CD2	5.35	124.54	120.80
1	A	204	U	O4'-C1'-N1	5.34	112.47	108.20
34	AA	434	C	O4'-C1'-N1	5.34	112.47	108.20
34	AA	2723	G	C5-C6-O6	-5.34	125.39	128.60
34	AA	2810	A	C2'-C3'-O3'	5.34	122.25	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1000	C	O4'-C1'-N1	5.34	112.47	108.20
34	AA	3785	G	O4'-C1'-N9	5.34	112.47	108.20
1	A	1041	G	O4'-C1'-N9	5.34	112.47	108.20
2	7	30	G	C5-C6-O6	-5.34	125.39	128.60
25	B	136	ARG	NE-CZ-NH2	5.34	122.97	120.30
34	AA	54	C	O4'-C1'-N1	5.34	112.47	108.20
1	A	1038	C	O4'-C1'-N1	5.34	112.47	108.20
34	AA	1189	G	O4'-C1'-N9	5.34	112.47	108.20
34	AA	1511	U	O4'-C1'-N1	5.34	112.47	108.20
34	AA	3342	C	C2-N1-C1'	5.34	124.67	118.80
35	AC	22	U	O4'-C1'-N1	5.34	112.47	108.20
54	AP	63	ARG	NE-CZ-NH2	-5.34	117.63	120.30
34	AA	580	A	C5'-C4'-C3'	5.34	124.54	116.00
34	AA	1427	U	O4'-C1'-N1	5.34	112.47	108.20
73	AU	178	ARG	NE-CZ-NH2	5.34	122.97	120.30
16	Y	99	ARG	NE-CZ-NH2	5.34	122.97	120.30
34	AA	2824	A	C5-C6-N6	-5.34	119.43	123.70
36	AB	110	G	O4'-C1'-N9	5.34	112.47	108.20
34	AA	367	U	O4'-C1'-N1	5.33	112.47	108.20
38	A0	37	PHE	CB-CG-CD2	5.33	124.53	120.80
1	A	1649	C	O4'-C1'-N1	5.33	112.47	108.20
30	J	140	ARG	NE-CZ-NH2	5.33	122.97	120.30
34	AA	1480	G	C4-N9-C1'	5.33	133.43	126.50
34	AA	2959	G	O4'-C1'-N9	5.33	112.47	108.20
34	AA	2990	G	O4'-C1'-N9	5.33	112.47	108.20
28	H	197	ARG	NE-CZ-NH1	5.33	122.97	120.30
34	AA	494	U	O4'-C1'-N1	5.33	112.47	108.20
34	AA	1088	C	O4'-C1'-N1	5.33	112.47	108.20
34	AA	2595	G	O4'-C1'-N9	5.33	112.47	108.20
1	A	1441	C	P-O5'-C5'	5.33	129.43	120.90
1	A	624	U	O4'-C1'-N1	5.33	112.46	108.20
1	A	1184	G	C5-C6-O6	-5.33	125.40	128.60
34	AA	2474	C	O4'-C1'-N1	5.33	112.46	108.20
34	AA	3311	G	O4'-C1'-N9	5.33	112.46	108.20
34	AA	3331	G	O4'-C1'-N9	5.33	112.46	108.20
34	AA	684	G	O4'-C1'-N9	5.33	112.46	108.20
34	AA	1292	U	O4'-C1'-N1	5.33	112.46	108.20
1	A	374	U	O4'-C1'-N1	5.33	112.46	108.20
1	A	1464	U	O4'-C1'-N1	5.33	112.46	108.20
34	AA	208	U	O4'-C1'-N1	5.33	112.46	108.20
34	AA	1309	U	O4'-C1'-N1	5.33	112.46	108.20
34	AA	1780	G	C5-C6-O6	-5.33	125.41	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1919	G	O4'-C1'-N9	5.32	112.46	108.20
34	AA	869	A	O4'-C1'-N9	5.32	112.46	108.20
34	AA	1257	A	O4'-C1'-N9	5.32	112.46	108.20
34	AA	1603	C	O4'-C1'-N1	5.32	112.46	108.20
34	AA	97	U	O4'-C1'-N1	5.32	112.46	108.20
36	AB	20	U	O4'-C1'-N1	5.32	112.46	108.20
1	A	1231	G	N1-C6-O6	5.32	123.09	119.90
1	A	1231	G	O4'-C1'-N9	5.32	112.46	108.20
1	A	1242	G	O4'-C1'-N9	5.32	112.46	108.20
34	AA	54	C	P-O5'-C5'	5.32	129.41	120.90
34	AA	170	U	O4'-C1'-N1	5.32	112.46	108.20
34	AA	2092	G	N1-C6-O6	5.32	123.09	119.90
1	A	1675	G	O4'-C1'-N9	5.32	112.45	108.20
68	A5	231	ARG	NE-CZ-NH1	-5.32	117.64	120.30
1	A	1227	G	O4'-C1'-N9	5.32	112.45	108.20
1	A	1788	U	C6-N1-C1'	-5.32	113.75	121.20
1	A	2007	U	O4'-C1'-N1	5.32	112.45	108.20
34	AA	2520	C	O4'-C1'-N1	5.32	112.45	108.20
36	AB	22	G	O4'-C1'-N9	5.32	112.45	108.20
1	A	387	C	O4'-C1'-N1	5.32	112.45	108.20
1	A	1434	U	O4'-C1'-N1	5.32	112.45	108.20
34	AA	1452	U	O4'-C1'-N1	5.32	112.45	108.20
34	AA	3392	A	O4'-C1'-N9	5.32	112.45	108.20
1	A	1383	U	O4'-C1'-N1	5.31	112.45	108.20
1	A	441	U	O4'-C1'-N1	5.31	112.45	108.20
1	A	493	G	O4'-C1'-N9	5.31	112.45	108.20
34	AA	236	U	O4'-C1'-N1	5.31	112.45	108.20
34	AA	1658	G	P-O3'-C3'	5.31	126.08	119.70
1	A	2059	G	O4'-C1'-N9	5.31	112.45	108.20
34	AA	2068	G	O4'-C1'-N9	5.31	112.45	108.20
34	AA	3420	U	O4'-C1'-N1	5.31	112.45	108.20
1	A	1966	U	O4'-C1'-N1	5.31	112.45	108.20
48	A9	132	ARG	NE-CZ-NH2	5.31	122.95	120.30
34	AA	1064	U	O4'-C1'-N1	5.31	112.45	108.20
34	AA	3219	U	O4'-C1'-N1	5.31	112.45	108.20
34	AA	3764	G	O4'-C1'-N9	5.31	112.45	108.20
36	AB	53	U	O4'-C1'-N1	5.31	112.45	108.20
36	AB	112	U	O4'-C1'-N1	5.31	112.44	108.20
50	Ab	89	ARG	NE-CZ-NH1	5.31	122.95	120.30
2	7	38	A	O4'-C1'-N9	5.31	112.44	108.20
34	AA	580	A	O4'-C1'-N9	5.31	112.44	108.20
34	AA	1271	A	O4'-C1'-N9	5.31	112.44	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	1769	U	O4'-C1'-N1	5.31	112.44	108.20
1	A	167	A	P-O3'-C3'	5.30	126.07	119.70
1	A	1685	U	O4'-C1'-N1	5.30	112.44	108.20
34	AA	595	U	C2-N1-C1'	5.30	124.07	117.70
34	AA	622	U	O4'-C1'-N1	5.30	112.44	108.20
34	AA	1602	A	P-O3'-C3'	5.30	126.07	119.70
34	AA	3213	U	P-O3'-C3'	-5.30	113.33	119.70
34	AA	3239	U	O4'-C1'-N1	5.30	112.44	108.20
1	A	1604	A	O4'-C1'-N9	5.30	112.44	108.20
34	AA	659	U	O4'-C1'-N1	5.30	112.44	108.20
34	AA	942	C	O4'-C1'-N1	5.30	112.44	108.20
36	AB	19	G	O4'-C1'-N9	5.30	112.44	108.20
69	AD	12	ARG	NE-CZ-NH1	5.30	122.95	120.30
1	A	1375	C	C6-N1-C1'	-5.30	114.44	120.80
34	AA	1575	C	C6-N1-C2	-5.30	118.18	120.30
34	AA	1597	U	O4'-C1'-N1	5.30	112.44	108.20
34	AA	1892	G	O4'-C1'-N9	5.30	112.44	108.20
34	AA	3348	U	O4'-C1'-N1	5.30	112.44	108.20
35	AC	155	A	N1-C6-N6	5.30	121.78	118.60
1	A	544	G	O4'-C1'-N9	5.30	112.44	108.20
1	A	892	U	O4'-C1'-N1	5.30	112.44	108.20
34	AA	205	G	C5-C6-O6	-5.30	125.42	128.60
34	AA	1619	U	O4'-C1'-N1	5.30	112.44	108.20
1	A	623	G	O4'-C1'-N9	5.29	112.44	108.20
1	A	1691	G	O4'-C1'-N9	5.29	112.44	108.20
11	G	178	ARG	NE-CZ-NH2	5.29	122.95	120.30
34	AA	1480	G	C8-N9-C1'	-5.29	120.12	127.00
34	AA	3445	C	C5'-C4'-O4'	5.29	115.45	109.10
34	AA	3689	C	O4'-C1'-N1	5.29	112.44	108.20
65	AT	143	ARG	NE-CZ-NH1	5.29	122.95	120.30
1	A	978	U	O4'-C1'-N1	5.29	112.43	108.20
34	AA	1420	C	O4'-C1'-N1	5.29	112.43	108.20
1	A	201	G	O4'-C1'-N9	5.29	112.43	108.20
1	A	1933	C	O4'-C1'-N1	5.29	112.43	108.20
34	AA	932	U	O4'-C1'-N1	5.29	112.43	108.20
34	AA	1553	U	O4'-C1'-N1	5.29	112.43	108.20
1	A	1405	U	O4'-C1'-N1	5.29	112.43	108.20
34	AA	2562	U	C5'-C4'-O4'	5.29	115.44	109.10
34	AA	3766	U	O4'-C1'-N1	5.29	112.43	108.20
1	A	142	G	O4'-C1'-N9	5.29	112.43	108.20
1	A	1187	A	O4'-C1'-N9	5.29	112.43	108.20
34	AA	3159	G	O4'-C1'-N9	5.29	112.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3653	G	O4'-C1'-N9	5.29	112.43	108.20
70	AE	10	ARG	NE-CZ-NH1	5.29	122.94	120.30
76	Ag	35	ARG	NE-CZ-NH1	5.29	122.94	120.30
34	AA	721	U	O4'-C1'-N1	5.28	112.43	108.20
1	A	371	G	C5'-C4'-C3'	-5.28	107.55	116.00
1	A	2085	G	O4'-C1'-N9	5.28	112.43	108.20
34	AA	439	U	O4'-C1'-N1	5.28	112.43	108.20
1	A	398	G	O4'-C1'-N9	5.28	112.42	108.20
35	AC	145	A	C5'-C4'-O4'	5.28	115.44	109.10
1	A	1069	C	C2-N1-C1'	5.28	124.61	118.80
34	AA	1526	G	O4'-C1'-N9	5.28	112.42	108.20
1	A	2053	U	C2-N1-C1'	5.28	124.03	117.70
34	AA	59	G	N1-C6-O6	5.28	123.07	119.90
34	AA	656	U	O4'-C1'-N1	5.28	112.42	108.20
34	AA	3334	U	O4'-C1'-N1	5.28	112.42	108.20
1	A	951	U	O4'-C1'-N1	5.28	112.42	108.20
34	AA	2958	G	O4'-C1'-N9	5.28	112.42	108.20
34	AA	3063	U	O4'-C1'-N1	5.28	112.42	108.20
34	AA	3139	C	C2-N1-C1'	5.28	124.60	118.80
34	AA	1785	U	O4'-C1'-N1	5.27	112.42	108.20
63	AW	56	ARG	NE-CZ-NH2	-5.27	117.66	120.30
1	A	1640	U	O4'-C1'-N1	5.27	112.42	108.20
34	AA	2396	C	O4'-C1'-N1	5.27	112.42	108.20
35	AC	115	C	O4'-C1'-N1	5.27	112.42	108.20
8	V	36	ARG	NE-CZ-NH2	5.27	122.94	120.30
34	AA	544	C	C6-N1-C1'	-5.27	114.47	120.80
35	AC	67	G	C1'-O4'-C4'	-5.27	105.68	109.90
1	A	91	G	O4'-C1'-N9	5.27	112.42	108.20
1	A	2011	G	O4'-C1'-N9	5.27	112.42	108.20
34	AA	830	U	C6-N1-C1'	-5.27	113.82	121.20
34	AA	2981	A	O4'-C1'-N9	5.27	112.42	108.20
33	L	70	PHE	CB-CG-CD2	-5.27	117.11	120.80
34	AA	2547	U	O4'-C1'-N1	5.27	112.42	108.20
34	AA	2640	U	O4'-C1'-N1	5.27	112.41	108.20
36	AB	54	A	O4'-C1'-N9	5.27	112.41	108.20
1	A	604	G	C5-C6-O6	-5.27	125.44	128.60
1	A	1368	G	O4'-C1'-N9	5.27	112.41	108.20
34	AA	1141	G	O4'-C1'-N9	5.27	112.41	108.20
1	A	1017	G	O4'-C1'-N9	5.26	112.41	108.20
34	AA	1647	U	O4'-C1'-N1	5.26	112.41	108.20
35	AC	64	U	O4'-C1'-N1	5.26	112.41	108.20
34	AA	450	A	O4'-C1'-N9	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	634	U	O4'-C1'-N1	5.26	112.41	108.20
1	A	2070	G	C5-C6-O6	-5.26	125.44	128.60
34	AA	2805	U	O4'-C1'-N1	5.26	112.41	108.20
34	AA	3708	U	O4'-C1'-N1	5.26	112.41	108.20
1	A	395	G	O4'-C1'-N9	5.26	112.41	108.20
1	A	815	G	O4'-C1'-N9	5.26	112.41	108.20
1	A	1300	G	C5-C6-O6	-5.26	125.44	128.60
34	AA	2604	G	O4'-C1'-N9	5.26	112.41	108.20
34	AA	3742	C	O4'-C1'-N1	5.26	112.41	108.20
34	AA	3749	U	O4'-C1'-N1	5.26	112.41	108.20
35	AC	5	A	O4'-C1'-N9	5.26	112.41	108.20
62	AR	247	ARG	NE-CZ-NH1	5.26	122.93	120.30
68	A5	255	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	A	307	G	C5-C6-O6	-5.26	125.45	128.60
34	AA	2567	U	O4'-C1'-N1	5.26	112.41	108.20
34	AA	2955	C	P-O5'-C5'	5.26	129.31	120.90
35	AC	150	U	O4'-C1'-N1	5.26	112.41	108.20
34	AA	1317	C	O4'-C1'-N1	5.25	112.40	108.20
34	AA	1816	G	O4'-C1'-N9	5.25	112.40	108.20
75	AV	131	ARG	NE-CZ-NH1	5.25	122.93	120.30
2	7	62	C	P-O5'-C5'	5.25	129.31	120.90
34	AA	2040	G	N1-C6-O6	5.25	123.05	119.90
41	A2	112	TYR	CB-CG-CD1	-5.25	117.85	121.00
1	A	511	U	O4'-C1'-N1	5.25	112.40	108.20
34	AA	416	G	C1'-O4'-C4'	-5.25	105.70	109.90
34	AA	1630	A	P-O3'-C3'	-5.25	113.40	119.70
69	AD	30	ARG	NE-CZ-NH2	-5.25	117.67	120.30
1	A	1961	U	O4'-C1'-N1	5.25	112.40	108.20
34	AA	1089	U	O4'-C1'-N1	5.25	112.40	108.20
35	AC	18	U	O4'-C1'-N1	5.25	112.40	108.20
1	A	516	G	O4'-C1'-N9	5.25	112.40	108.20
1	A	1362	U	O4'-C1'-N1	5.25	112.40	108.20
34	AA	1764	U	O4'-C1'-N1	5.25	112.40	108.20
33	L	77	ARG	NE-CZ-NH1	5.25	122.92	120.30
34	AA	353	G	C2'-C3'-O3'	5.25	122.09	113.70
34	AA	1962	U	O4'-C1'-N1	5.25	112.40	108.20
34	AA	2728	G	C5-C6-O6	-5.25	125.45	128.60
1	A	976	A	O4'-C1'-N9	5.25	112.40	108.20
1	A	1462	A	P-O3'-C3'	-5.25	113.41	119.70
34	AA	575	U	O4'-C1'-N1	5.25	112.40	108.20
34	AA	882	G	O4'-C1'-N9	5.25	112.40	108.20
34	AA	909	U	O4'-C1'-N1	5.25	112.40	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	200	U	O4'-C1'-N1	5.24	112.39	108.20
1	A	494	G	O4'-C1'-N9	5.24	112.39	108.20
1	A	1016	U	O4'-C1'-N1	5.24	112.39	108.20
34	AA	77	A	O4'-C1'-N9	5.24	112.39	108.20
34	AA	2472	C	O4'-C1'-N1	5.24	112.39	108.20
1	A	1891	U	P-O3'-C3'	5.24	125.99	119.70
1	A	2055	A	O4'-C1'-N9	5.24	112.39	108.20
7	U	76	ARG	NE-CZ-NH2	-5.24	117.68	120.30
34	AA	281	G	O4'-C1'-N9	5.24	112.39	108.20
34	AA	1856	U	O4'-C1'-N1	5.24	112.39	108.20
34	AA	2037	U	O4'-C1'-N1	5.24	112.39	108.20
34	AA	3327	G	O4'-C1'-N9	5.24	112.39	108.20
1	A	577	A	C4'-C3'-C2'	-5.24	97.36	102.60
60	AS	165	TYR	CB-CG-CD1	-5.24	117.86	121.00
34	AA	797	A	O4'-C1'-N9	5.24	112.39	108.20
34	AA	1634	G	O4'-C1'-N9	5.24	112.39	108.20
36	AB	75	G	O4'-C1'-N9	5.24	112.39	108.20
1	A	1223	G	C5-C6-O6	-5.24	125.46	128.60
34	AA	1022	U	O4'-C1'-N1	5.24	112.39	108.20
34	AA	3585	A	P-O3'-C3'	5.24	125.98	119.70
70	AE	237	ARG	NE-CZ-NH2	-5.24	117.68	120.30
1	A	972	U	O4'-C1'-N1	5.23	112.39	108.20
34	AA	189	U	O4'-C1'-N1	5.23	112.39	108.20
34	AA	1496	U	O4'-C1'-N1	5.23	112.39	108.20
34	AA	2104	C	C6-N1-C2	-5.23	118.21	120.30
34	AA	2656	A	O4'-C1'-N9	5.23	112.39	108.20
1	A	1236	U	O4'-C1'-N1	5.23	112.38	108.20
8	V	140	PHE	CB-CG-CD2	-5.23	117.14	120.80
34	AA	960	A	O4'-C1'-N9	5.23	112.39	108.20
34	AA	1015	A	O4'-C1'-N9	5.23	112.39	108.20
34	AA	3538	A	O4'-C1'-N9	5.23	112.38	108.20
34	AA	3727	A	O4'-C1'-N9	5.23	112.38	108.20
1	A	636	U	O4'-C1'-N1	5.23	112.38	108.20
1	A	1370	U	C2-N1-C1'	5.23	123.97	117.70
34	AA	1589	G	O4'-C1'-N9	5.23	112.38	108.20
34	AA	2611	U	C5'-C4'-O4'	5.23	115.37	109.10
34	AA	3701	A	O4'-C1'-N9	5.23	112.38	108.20
68	A5	160	ARG	NE-CZ-NH2	5.23	122.91	120.30
34	AA	659	U	C5'-C4'-O4'	5.23	115.37	109.10
1	A	117	G	N1-C6-O6	5.22	123.03	119.90
34	AA	1218	C	O4'-C1'-N1	5.22	112.38	108.20
34	AA	2995	A	P-O3'-C3'	5.22	125.97	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	AW	61	ARG	NE-CZ-NH1	5.22	122.91	120.30
78	AJ	76	ARG	NE-CZ-NH2	5.22	122.91	120.30
1	A	1412	U	O4'-C1'-N1	5.22	112.38	108.20
1	A	1652	A	O4'-C1'-N9	5.22	112.38	108.20
11	G	109	ARG	NE-CZ-NH2	-5.22	117.69	120.30
34	AA	1254	G	C5-C6-O6	-5.22	125.47	128.60
60	AS	163	ARG	NE-CZ-NH2	-5.22	117.69	120.30
34	AA	1554	G	P-O3'-C3'	5.22	125.97	119.70
1	A	34	G	O4'-C1'-N9	5.22	112.38	108.20
1	A	417	C	O4'-C1'-N1	5.22	112.38	108.20
2	7	33	U	O4'-C1'-N1	5.22	112.38	108.20
34	AA	831	U	C5'-C4'-O4'	5.22	115.36	109.10
34	AA	1763	G	N1-C6-O6	5.22	123.03	119.90
1	A	266	A	O4'-C1'-N9	5.22	112.37	108.20
1	A	1817	U	O4'-C1'-N1	5.22	112.37	108.20
35	AC	59	U	O4'-C1'-N1	5.22	112.37	108.20
34	AA	231	G	C5'-C4'-O4'	5.21	115.36	109.10
34	AA	3614	A	O4'-C1'-N9	5.21	112.37	108.20
76	Ag	16	ARG	NE-CZ-NH2	-5.21	117.69	120.30
1	A	1081	U	C5'-C4'-O4'	5.21	115.36	109.10
34	AA	3078	A	N1-C6-N6	-5.21	115.47	118.60
33	L	176	PHE	CB-CG-CD2	5.21	124.45	120.80
34	AA	230	G	O4'-C1'-N9	5.21	112.37	108.20
1	A	1918	U	O4'-C1'-N1	5.21	112.37	108.20
34	AA	1288	C	O4'-C1'-N1	5.21	112.37	108.20
34	AA	2811	A	O4'-C1'-N9	5.21	112.37	108.20
34	AA	3267	C	O4'-C1'-N1	5.21	112.37	108.20
1	A	613	A	O4'-C1'-N9	5.21	112.36	108.20
1	A	886	U	O4'-C1'-N1	5.21	112.36	108.20
1	A	968	G	C5-C6-O6	-5.21	125.48	128.60
1	A	1854	U	P-O3'-C3'	5.21	125.95	119.70
34	AA	1193	G	O4'-C1'-N9	5.21	112.36	108.20
1	A	1729	A	C5'-C4'-O4'	5.21	115.35	109.10
35	AC	67	G	C3'-C2'-C1'	-5.21	97.34	101.50
1	A	569	G	O4'-C1'-N9	5.20	112.36	108.20
34	AA	1455	C	O4'-C1'-N1	5.20	112.36	108.20
34	AA	3444	G	O4'-C1'-N9	5.20	112.36	108.20
65	AT	59	ARG	NE-CZ-NH1	5.20	122.90	120.30
1	A	1211	G	O4'-C1'-N9	5.20	112.36	108.20
25	B	118	TYR	CB-CG-CD2	-5.20	117.88	121.00
1	A	881	C	C5'-C4'-O4'	5.20	115.34	109.10
1	A	439	C	P-O3'-C3'	5.20	125.94	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1058	G	N1-C6-O6	5.20	123.02	119.90
34	AA	2478	G	O4'-C1'-N9	5.20	112.36	108.20
34	AA	2807	U	O4'-C1'-N1	5.20	112.36	108.20
1	A	124	U	O4'-C1'-N1	5.20	112.36	108.20
1	A	510	G	O4'-C1'-N9	5.20	112.36	108.20
29	K	20	ARG	NE-CZ-NH1	5.20	122.90	120.30
1	A	488	U	O4'-C1'-N1	5.20	112.36	108.20
1	A	1305	A	P-O3'-C3'	5.20	125.94	119.70
2	7	46	G	O4'-C1'-N9	5.20	112.36	108.20
34	AA	3649	G	O4'-C1'-N9	5.20	112.36	108.20
71	AF	312	ARG	NE-CZ-NH1	5.20	122.90	120.30
1	A	89	C	O4'-C1'-N1	5.19	112.36	108.20
1	A	1080	G	O4'-C1'-N9	5.19	112.36	108.20
34	AA	1311	U	O4'-C1'-N1	5.19	112.36	108.20
9	E	6	ARG	NE-CZ-NH1	5.19	122.90	120.30
34	AA	59	G	O4'-C1'-N9	5.19	112.36	108.20
34	AA	247	A	N1-C6-N6	5.19	121.72	118.60
34	AA	1026	G	N1-C6-O6	5.19	123.02	119.90
1	A	27	U	O4'-C1'-N1	5.19	112.35	108.20
1	A	751	U	O4'-C1'-N1	5.19	112.35	108.20
1	A	1606	U	O4'-C1'-N1	5.19	112.35	108.20
34	AA	22	G	O4'-C1'-N9	5.19	112.35	108.20
34	AA	722	G	N1-C6-O6	5.19	123.01	119.90
34	AA	1706	A	O4'-C1'-N9	5.19	112.35	108.20
34	AA	1833	G	O4'-C1'-N9	5.19	112.35	108.20
34	AA	2662	G	O4'-C1'-N9	5.19	112.35	108.20
1	A	52	U	C5'-C4'-O4'	5.19	115.33	109.10
23	5	42	ARG	NE-CZ-NH1	5.19	122.89	120.30
34	AA	27	U	O4'-C1'-N1	5.19	112.35	108.20
34	AA	792	U	C1'-O4'-C4'	-5.19	105.75	109.90
34	AA	2556	C	C5'-C4'-O4'	5.19	115.33	109.10
34	AA	2709	U	O4'-C1'-N1	5.19	112.35	108.20
34	AA	3330	A	O4'-C1'-N9	5.19	112.35	108.20
58	AK	124	ARG	NE-CZ-NH2	5.19	122.89	120.30
34	AA	1327	C	O4'-C1'-N1	5.19	112.35	108.20
1	A	1180	U	O4'-C1'-N1	5.18	112.35	108.20
34	AA	2745	G	O4'-C1'-N9	5.18	112.35	108.20
35	AC	38	G	C5'-C4'-C3'	-5.18	107.70	116.00
1	A	269	A	O4'-C1'-N9	5.18	112.34	108.20
34	AA	1908	U	O4'-C1'-N1	5.18	112.34	108.20
56	AI	170	ARG	NE-CZ-NH2	5.18	122.89	120.30
1	A	1171	U	O4'-C1'-N1	5.18	112.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1928	A	C5'-C4'-O4'	5.18	115.32	109.10
32	P	98	ARG	NE-CZ-NH1	5.18	122.89	120.30
34	AA	422	G	O4'-C1'-N9	5.18	112.34	108.20
1	A	1798	G	C5-C6-O6	-5.18	125.49	128.60
1	A	1885	G	O4'-C1'-N9	5.18	112.34	108.20
34	AA	3018	A	O4'-C1'-N9	5.18	112.34	108.20
34	AA	577	U	O4'-C1'-N1	5.18	112.34	108.20
34	AA	2158	U	O4'-C1'-N1	5.18	112.34	108.20
1	A	2025	U	O4'-C1'-N1	5.18	112.34	108.20
34	AA	812	U	C1'-O4'-C4'	-5.18	105.76	109.90
34	AA	2034	G	O4'-C1'-N9	5.18	112.34	108.20
34	AA	2594	U	O4'-C1'-N1	5.18	112.34	108.20
34	AA	2884	G	P-O3'-C3'	-5.18	113.49	119.70
34	AA	3206	A	O4'-C1'-N9	5.18	112.34	108.20
34	AA	1576	U	O4'-C1'-N1	5.17	112.34	108.20
1	A	1101	G	O4'-C1'-N9	5.17	112.34	108.20
1	A	1831	G	N1-C6-O6	5.17	123.00	119.90
34	AA	524	U	O4'-C1'-N1	5.17	112.34	108.20
34	AA	1694	G	C5-C6-O6	-5.17	125.50	128.60
1	A	1920	C	O4'-C1'-N1	5.17	112.34	108.20
18	1	94	ARG	NE-CZ-NH1	5.17	122.89	120.30
34	AA	3291	U	O4'-C1'-N1	5.17	112.34	108.20
56	AI	221	PHE	CB-CG-CD2	5.17	124.42	120.80
34	AA	1259	G	N1-C6-O6	5.17	123.00	119.90
36	AB	37	A	O4'-C1'-N9	5.17	112.33	108.20
1	A	1205	U	O4'-C1'-N1	5.17	112.33	108.20
34	AA	1031	G	N1-C2-N2	-5.17	111.55	116.20
34	AA	1515	A	O4'-C1'-N9	5.17	112.33	108.20
34	AA	1907	A	O4'-C1'-N9	5.17	112.33	108.20
34	AA	2019	A	O4'-C1'-N9	5.17	112.33	108.20
34	AA	2187	G	N3-C2-N2	5.17	123.52	119.90
34	AA	2465	G	O4'-C1'-N9	5.17	112.33	108.20
36	AB	31	G	O4'-C1'-N9	5.17	112.33	108.20
34	AA	436	G	O4'-C1'-N9	5.17	112.33	108.20
34	AA	3633	U	O4'-C1'-N1	5.17	112.33	108.20
1	A	45	U	O4'-C1'-N1	5.16	112.33	108.20
1	A	876	U	C1'-O4'-C4'	-5.16	105.77	109.90
1	A	2022	A	O4'-C1'-N9	5.16	112.33	108.20
2	7	32	C	P-O5'-C5'	5.16	129.16	120.90
7	U	3	ARG	NE-CZ-NH1	5.16	122.88	120.30
34	AA	495	U	O4'-C1'-N1	5.16	112.33	108.20
34	AA	2943	U	O4'-C1'-N1	5.16	112.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	3156	U	O4'-C1'-N1	5.16	112.33	108.20
34	AA	3737	G	N1-C6-O6	5.16	123.00	119.90
1	A	886	U	P-O3'-C3'	5.16	125.89	119.70
7	U	124	ARG	NE-CZ-NH1	-5.16	117.72	120.30
34	AA	535	U	O4'-C1'-N1	5.16	112.33	108.20
34	AA	1423	G	O4'-C1'-N9	5.16	112.33	108.20
34	AA	3301	C	P-O3'-C3'	-5.16	113.51	119.70
34	AA	3709	U	O4'-C1'-N1	5.16	112.33	108.20
48	A9	41	TYR	CB-CG-CD1	-5.16	117.90	121.00
34	AA	1006	G	O4'-C1'-N9	5.16	112.33	108.20
34	AA	1279	U	O4'-C1'-N1	5.16	112.33	108.20
34	AA	2022	A	O4'-C1'-N9	5.16	112.33	108.20
35	AC	67	G	C4'-C3'-C2'	-5.16	97.44	102.60
36	AB	79	U	O4'-C1'-N1	5.16	112.32	108.20
34	AA	190	G	C5-C6-O6	-5.15	125.51	128.60
1	A	644	U	O4'-C1'-N1	5.15	112.32	108.20
1	A	946	G	O4'-C1'-N9	5.15	112.32	108.20
34	AA	3591	U	O4'-C1'-N1	5.15	112.32	108.20
35	AC	110	G	O4'-C1'-N9	5.15	112.32	108.20
36	AB	76	U	O4'-C1'-N1	5.15	112.32	108.20
34	AA	2529	G	O4'-C1'-N9	5.15	112.32	108.20
47	A8	27	ARG	NH1-CZ-NH2	-5.15	113.73	119.40
1	A	293	U	O4'-C1'-N1	5.15	112.32	108.20
21	3	82	ARG	NE-CZ-NH1	5.15	122.87	120.30
36	AB	23	A	O4'-C1'-N9	5.15	112.32	108.20
1	A	897	G	O4'-C1'-N9	5.15	112.32	108.20
1	A	1462	A	O4'-C1'-N9	5.15	112.32	108.20
1	A	1881	G	N1-C6-O6	5.15	122.99	119.90
2	7	50	U	O4'-C1'-N1	5.15	112.32	108.20
34	AA	652	A	C2'-C3'-O3'	5.15	121.94	113.70
34	AA	3434	A	C1'-O4'-C4'	-5.15	105.78	109.90
35	AC	92	A	O4'-C1'-N9	5.15	112.32	108.20
1	A	1274	C	O4'-C1'-N1	5.15	112.32	108.20
34	AA	12	U	O4'-C1'-N1	5.15	112.32	108.20
34	AA	2519	U	O4'-C1'-N1	5.14	112.31	108.20
34	AA	3065	C	C6-N1-C1'	-5.14	114.63	120.80
34	AA	3648	U	O4'-C1'-N1	5.14	112.31	108.20
60	AS	59	ARG	NE-CZ-NH2	-5.14	117.73	120.30
61	AQ	46	PHE	CB-CG-CD2	5.14	124.40	120.80
1	A	296	G	O4'-C1'-N9	5.14	112.31	108.20
34	AA	1538	U	C5'-C4'-O4'	5.14	115.27	109.10
34	AA	3340	U	O4'-C1'-N1	5.14	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	AC	74	A	C5'-C4'-C3'	-5.14	107.78	116.00
1	A	959	C	O4'-C1'-N1	5.14	112.31	108.20
33	L	176	PHE	CB-CG-CD1	-5.14	117.20	120.80
34	AA	164	A	O4'-C1'-N9	5.14	112.31	108.20
36	AB	84	U	O4'-C1'-N1	5.14	112.31	108.20
70	AE	58	ARG	NE-CZ-NH2	5.14	122.87	120.30
1	A	935	G	O4'-C1'-N9	5.14	112.31	108.20
9	E	78	ARG	NE-CZ-NH2	5.14	122.87	120.30
2	7	35	A	O4'-C1'-N9	5.14	112.31	108.20
3	Q	16	ARG	NE-CZ-NH2	5.14	122.87	120.30
34	AA	722	G	O4'-C1'-N9	5.14	112.31	108.20
34	AA	1069	G	N3-C2-N2	5.14	123.50	119.90
34	AA	1331	A	N1-C6-N6	5.14	121.68	118.60
34	AA	3048	U	O4'-C1'-N1	5.14	112.31	108.20
34	AA	3313	U	C5'-C4'-O4'	5.14	115.26	109.10
1	A	24	U	O4'-C1'-N1	5.13	112.31	108.20
30	J	98	ARG	NE-CZ-NH1	5.13	122.87	120.30
33	L	49	ARG	NE-CZ-NH2	-5.13	117.73	120.30
58	AK	84	ARG	NE-CZ-NH2	5.13	122.87	120.30
1	A	1658	G	P-O3'-C3'	-5.13	113.54	119.70
34	AA	533	A	O4'-C1'-N9	5.13	112.31	108.20
6	M	124	ARG	NE-CZ-NH2	5.13	122.87	120.30
34	AA	628	U	O4'-C1'-N1	5.13	112.31	108.20
34	AA	635	U	O4'-C1'-N1	5.13	112.31	108.20
34	AA	687	G	O4'-C1'-N9	5.13	112.31	108.20
2	7	51	C	O4'-C1'-N1	5.13	112.30	108.20
34	AA	1732	A	O4'-C1'-N9	5.13	112.30	108.20
17	Z	59	ARG	NE-CZ-NH1	5.13	122.86	120.30
34	AA	166	U	O4'-C1'-N1	5.13	112.30	108.20
34	AA	267	U	O4'-C1'-N1	5.13	112.30	108.20
65	AT	70	ARG	NE-CZ-NH1	5.13	122.86	120.30
1	A	68	U	O4'-C1'-N1	5.13	112.30	108.20
1	A	891	U	O4'-C1'-N1	5.13	112.30	108.20
1	A	1681	G	O4'-C1'-N9	5.13	112.30	108.20
34	AA	673	U	C1'-O4'-C4'	-5.13	105.80	109.90
34	AA	828	G	N1-C6-O6	5.13	122.98	119.90
34	AA	1082	G	O4'-C1'-N9	5.13	112.30	108.20
34	AA	1331	A	O4'-C1'-N9	5.13	112.30	108.20
34	AA	1805	U	C2'-C3'-O3'	5.13	121.90	113.70
34	AA	2168	A	C5-C6-N6	5.13	127.80	123.70
34	AA	2971	G	O4'-C1'-N9	5.13	112.30	108.20
34	AA	227	A	O4'-C1'-N9	5.12	112.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	105	A	P-O3'-C3'	5.12	125.85	119.70
1	A	799	U	O4'-C1'-N1	5.12	112.30	108.20
1	A	1631	G	O4'-C1'-N9	5.12	112.30	108.20
34	AA	271	G	O4'-C1'-N9	5.12	112.30	108.20
34	AA	938	U	O4'-C1'-N1	5.12	112.30	108.20
34	AA	1869	G	C5-C6-O6	-5.12	125.53	128.60
1	A	571	G	O4'-C1'-N9	5.12	112.30	108.20
1	A	1321	C	C5'-C4'-O4'	5.12	115.25	109.10
1	A	1809	G	O4'-C1'-N9	5.12	112.30	108.20
34	AA	2837	G	N1-C6-O6	5.12	122.97	119.90
1	A	1307	U	O4'-C1'-N1	5.12	112.30	108.20
1	A	1631	G	P-O3'-C3'	-5.12	113.56	119.70
1	A	1980	A	C4'-C3'-C2'	-5.12	97.48	102.60
34	AA	33	G	C5'-C4'-C3'	-5.12	107.81	116.00
34	AA	1096	G	O4'-C1'-N9	5.12	112.30	108.20
34	AA	2721	U	O4'-C1'-N1	5.12	112.30	108.20
34	AA	2728	G	O4'-C1'-N9	5.12	112.30	108.20
34	AA	3576	A	O4'-C1'-N9	5.12	112.30	108.20
1	A	817	U	C2-N1-C1'	5.12	123.84	117.70
34	AA	1641	G	O4'-C1'-N9	5.12	112.29	108.20
1	A	531	U	O4'-C1'-N1	5.12	112.29	108.20
21	3	89	ARG	NE-CZ-NH1	5.12	122.86	120.30
34	AA	131	U	O4'-C1'-N1	5.12	112.29	108.20
34	AA	1513	U	O4'-C1'-N1	5.12	112.29	108.20
34	AA	3464	U	O4'-C1'-N1	5.12	112.29	108.20
1	A	837	A	C5'-C4'-C3'	5.11	124.18	116.00
34	AA	2618	G	C5'-C4'-O4'	5.11	115.23	109.10
34	AA	3064	U	P-O3'-C3'	-5.11	113.56	119.70
1	A	1410	G	O4'-C1'-N9	5.11	112.29	108.20
34	AA	1540	G	C3'-C2'-C1'	-5.11	97.41	101.50
34	AA	2723	G	N1-C6-O6	5.11	122.97	119.90
1	A	1239	A	O4'-C1'-N9	5.11	112.29	108.20
34	AA	1537	G	P-O3'-C3'	-5.11	113.57	119.70
34	AA	2644	U	O4'-C1'-N1	5.11	112.29	108.20
34	AA	3750	U	O4'-C1'-N1	5.11	112.29	108.20
1	A	605	U	O4'-C1'-N1	5.11	112.29	108.20
1	A	1679	G	O4'-C1'-N9	5.11	112.29	108.20
59	AM	88	ARG	NE-CZ-NH2	-5.11	117.75	120.30
1	A	849	U	O4'-C1'-N1	5.11	112.29	108.20
1	A	1184	G	N1-C6-O6	5.11	122.96	119.90
1	A	1664	G	C5-C6-O6	-5.11	125.54	128.60
1	A	1818	A	C5'-C4'-O4'	5.11	115.23	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	2220	U	O4'-C1'-N1	5.11	112.29	108.20
34	AA	2916	C	C6-N1-C2	-5.11	118.26	120.30
1	A	1381	C	C2'-C3'-O3'	5.11	121.87	113.70
34	AA	591	G	O4'-C1'-N9	5.11	112.28	108.20
34	AA	1683	A	O4'-C1'-N9	5.11	112.28	108.20
34	AA	3437	U	O4'-C1'-N1	5.11	112.28	108.20
1	A	185	U	O4'-C1'-N1	5.10	112.28	108.20
71	AF	222	ARG	NE-CZ-NH1	5.10	122.85	120.30
34	AA	1655	U	O4'-C1'-N1	5.10	112.28	108.20
34	AA	2173	G	O4'-C1'-N9	5.10	112.28	108.20
34	AA	2582	U	O4'-C1'-N1	5.10	112.28	108.20
34	AA	3776	U	O4'-C1'-N1	5.10	112.28	108.20
41	A2	54	SER	C-N-CA	5.10	134.46	121.70
34	AA	1808	U	O4'-C1'-N1	5.10	112.28	108.20
34	AA	2143	U	O4'-C1'-N1	5.10	112.28	108.20
34	AA	2704	U	O4'-C1'-N1	5.10	112.28	108.20
1	A	640	U	O4'-C1'-N1	5.10	112.28	108.20
36	AB	99	G	N1-C6-O6	5.10	122.96	119.90
34	AA	941	G	C5'-C4'-C3'	5.10	124.16	116.00
34	AA	2984	G	C5-C6-O6	-5.10	125.54	128.60
1	A	425	G	C5-C6-O6	-5.10	125.54	128.60
1	A	394	G	O4'-C1'-N9	5.09	112.28	108.20
1	A	830	U	O4'-C1'-N1	5.09	112.28	108.20
1	A	1108	A	P-O3'-C3'	5.09	125.81	119.70
1	A	1976	G	C5'-C4'-C3'	-5.09	107.85	116.00
24	6	37	ARG	NE-CZ-NH1	5.09	122.85	120.30
25	B	146	ARG	NE-CZ-NH1	5.09	122.85	120.30
34	AA	1449	G	O4'-C1'-N9	5.09	112.28	108.20
34	AA	2434	U	C5'-C4'-O4'	5.09	115.21	109.10
34	AA	2486	U	O4'-C1'-N1	5.09	112.28	108.20
34	AA	3345	U	O4'-C1'-N1	5.09	112.28	108.20
61	AQ	128	ARG	NE-CZ-NH1	5.09	122.85	120.30
1	A	1720	G	O4'-C1'-N9	5.09	112.27	108.20
34	AA	1324	U	O4'-C1'-N1	5.09	112.28	108.20
34	AA	1333	A	O4'-C1'-N9	5.09	112.28	108.20
34	AA	3159	G	C5-C6-O6	-5.09	125.55	128.60
34	AA	3160	A	O4'-C1'-N9	5.09	112.27	108.20
34	AA	3335	A	O4'-C1'-N9	5.09	112.27	108.20
1	A	343	G	P-O3'-C3'	-5.09	113.59	119.70
1	A	379	G	O4'-C1'-N9	5.09	112.27	108.20
1	A	561	C	P-O3'-C3'	5.09	125.81	119.70
1	A	944	G	O4'-C1'-N9	5.09	112.27	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1717	A	P-O3'-C3'	-5.09	113.59	119.70
21	3	39	PHE	CB-CG-CD2	-5.09	117.24	120.80
34	AA	1629	G	O4'-C1'-N9	5.09	112.27	108.20
34	AA	2411	C	O4'-C1'-N1	5.09	112.27	108.20
1	A	745	A	O4'-C1'-N9	5.09	112.27	108.20
34	AA	2714	U	O4'-C1'-N1	5.09	112.27	108.20
34	AA	3582	G	O4'-C1'-N9	5.09	112.27	108.20
34	AA	393	G	P-O3'-C3'	5.09	125.80	119.70
34	AA	757	U	O4'-C1'-N1	5.09	112.27	108.20
34	AA	756	G	O4'-C1'-N9	5.08	112.27	108.20
34	AA	2564	A	O4'-C1'-N9	5.08	112.27	108.20
34	AA	3049	G	C5-C6-O6	-5.08	125.55	128.60
1	A	410	G	O4'-C1'-N9	5.08	112.27	108.20
1	A	489	G	O4'-C1'-N9	5.08	112.27	108.20
34	AA	44	U	O4'-C1'-N1	5.08	112.27	108.20
34	AA	243	U	O4'-C1'-N1	5.08	112.27	108.20
34	AA	623	U	O4'-C1'-N1	5.08	112.27	108.20
34	AA	661	G	O4'-C1'-N9	5.08	112.27	108.20
34	AA	2117	A	O4'-C1'-N9	5.08	112.27	108.20
34	AA	3486	G	O4'-C1'-N9	5.08	112.27	108.20
36	AB	115	G	O4'-C1'-N9	5.08	112.27	108.20
1	A	1893	C	C6-N1-C1'	-5.08	114.70	120.80
34	AA	1067	U	O4'-C1'-N1	5.08	112.27	108.20
34	AA	2601	C	P-O3'-C3'	5.08	125.80	119.70
62	AR	24	ARG	NE-CZ-NH1	5.08	122.84	120.30
34	AA	3030	A	O4'-C1'-N9	5.08	112.26	108.20
34	AA	2885	A	C1'-O4'-C4'	-5.08	105.84	109.90
1	A	558	G	O4'-C1'-N9	5.08	112.26	108.20
1	A	906	U	O4'-C1'-N1	5.08	112.26	108.20
34	AA	716	C	O4'-C1'-N1	5.08	112.26	108.20
34	AA	3246	A	O4'-C1'-N9	5.08	112.26	108.20
18	1	69	ARG	NE-CZ-NH2	-5.07	117.76	120.30
34	AA	1012	U	O4'-C1'-N1	5.07	112.26	108.20
34	AA	1604	U	O4'-C1'-N1	5.07	112.26	108.20
34	AA	2122	U	O4'-C1'-N1	5.07	112.26	108.20
34	AA	2956	U	C2-N1-C1'	5.07	123.79	117.70
34	AA	3100	G	C5-C6-O6	-5.07	125.56	128.60
1	A	392	G	O4'-C1'-N9	5.07	112.26	108.20
34	AA	773	A	C4'-C3'-C2'	-5.07	97.53	102.60
34	AA	1190	G	O4'-C1'-N9	5.07	112.26	108.20
35	AC	37	A	C2'-C3'-O3'	5.07	121.82	113.70
1	A	1198	U	C1'-O4'-C4'	-5.07	105.84	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	P	121	ARG	NE-CZ-NH2	5.07	122.83	120.30
34	AA	147	C	O4'-C1'-N1	5.07	112.26	108.20
34	AA	3522	C	P-O3'-C3'	-5.07	113.61	119.70
1	A	1266	G	O4'-C1'-N9	5.07	112.25	108.20
1	A	1407	U	O4'-C1'-N1	5.07	112.25	108.20
34	AA	215	C	O4'-C1'-N1	5.07	112.25	108.20
58	AK	159	ARG	NE-CZ-NH1	5.07	122.83	120.30
7	U	99	ARG	NE-CZ-NH1	5.07	122.83	120.30
27	F	87	MET	CG-SD-CE	-5.07	92.09	100.20
34	AA	594	C	C6-N1-C2	-5.07	118.27	120.30
1	A	809	U	O4'-C1'-N1	5.07	112.25	108.20
34	AA	431	G	C4-N9-C1'	5.07	133.09	126.50
34	AA	431	G	C8-N9-C1'	-5.07	120.41	127.00
34	AA	1774	U	O4'-C1'-N1	5.07	112.25	108.20
34	AA	2391	U	O4'-C1'-N1	5.07	112.25	108.20
34	AA	3105	U	O4'-C1'-N1	5.07	112.25	108.20
34	AA	3449	U	O4'-C1'-N1	5.06	112.25	108.20
63	AW	23	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	A	1291	C	O4'-C1'-N1	5.06	112.25	108.20
7	U	76	ARG	NE-CZ-NH1	5.06	122.83	120.30
34	AA	64	G	O4'-C1'-N9	5.06	112.25	108.20
34	AA	317	U	O4'-C1'-N1	5.06	112.25	108.20
1	A	928	U	O4'-C1'-N1	5.06	112.25	108.20
1	A	1185	A	O4'-C1'-N9	5.06	112.25	108.20
1	A	1283	U	O4'-C1'-N1	5.06	112.25	108.20
34	AA	3062	U	O4'-C1'-N1	5.06	112.25	108.20
1	A	1165	G	O4'-C1'-N9	5.06	112.25	108.20
1	A	2065	C	O4'-C1'-N1	5.06	112.25	108.20
34	AA	1341	G	N1-C6-O6	5.06	122.93	119.90
34	AA	1593	G	O4'-C1'-N9	5.06	112.25	108.20
47	A8	13	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	A	583	G	C5-C6-O6	-5.06	125.57	128.60
1	A	1724	U	O4'-C1'-N1	5.06	112.24	108.20
34	AA	1092	A	O4'-C1'-N9	5.06	112.25	108.20
34	AA	2715	C	O4'-C1'-N1	5.06	112.25	108.20
34	AA	2960	G	O4'-C1'-N9	5.06	112.25	108.20
34	AA	3408	G	C5-C6-O6	-5.06	125.57	128.60
67	A3	10	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	A	567	U	O4'-C1'-N1	5.05	112.24	108.20
1	A	938	U	O4'-C1'-N1	5.05	112.24	108.20
34	AA	2550	C	C6-N1-C1'	-5.05	114.73	120.80
34	AA	3593	U	O4'-C1'-N1	5.05	112.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	3	95	ARG	NE-CZ-NH1	5.05	122.83	120.30
34	AA	83	U	C5'-C4'-O4'	5.05	115.16	109.10
34	AA	3248	C	C5'-C4'-O4'	5.05	115.16	109.10
34	AA	3580	G	O4'-C1'-N9	5.05	112.24	108.20
70	AE	281	ARG	NE-CZ-NH2	5.05	122.83	120.30
1	A	341	U	O4'-C1'-N1	5.05	112.24	108.20
1	A	550	C	O4'-C1'-N1	5.05	112.24	108.20
4	S	115	ARG	NE-CZ-NH2	5.05	122.83	120.30
34	AA	1519	G	O4'-C1'-N9	5.05	112.24	108.20
34	AA	1897	G	P-O3'-C3'	5.05	125.76	119.70
34	AA	2041	U	C5'-C4'-O4'	5.05	115.16	109.10
34	AA	2602	A	O4'-C1'-N9	5.05	112.24	108.20
1	A	153	A	C5'-C4'-O4'	5.05	115.16	109.10
1	A	453	U	O4'-C1'-N1	5.05	112.24	108.20
34	AA	212	U	O4'-C1'-N1	5.05	112.24	108.20
34	AA	645	A	O4'-C1'-N9	5.05	112.24	108.20
34	AA	20	G	O4'-C1'-N9	5.05	112.24	108.20
1	A	1964	G	O4'-C1'-N9	5.05	112.24	108.20
34	AA	319	U	O4'-C1'-N1	5.05	112.24	108.20
34	AA	1703	U	P-O3'-C3'	5.05	125.75	119.70
34	AA	3024	U	O4'-C1'-N1	5.04	112.24	108.20
34	AA	10	G	N1-C6-O6	5.04	122.93	119.90
34	AA	1319	U	P-O3'-C3'	5.04	125.75	119.70
34	AA	3027	U	O4'-C1'-N1	5.04	112.24	108.20
34	AA	3636	U	O4'-C1'-N1	5.04	112.23	108.20
1	A	635	G	N3-C2-N2	5.04	123.43	119.90
1	A	1319	G	C5-C6-O6	-5.04	125.58	128.60
34	AA	464	G	O4'-C1'-N9	5.04	112.23	108.20
34	AA	1048	G	O4'-C1'-N9	5.04	112.23	108.20
34	AA	3337	U	C5'-C4'-O4'	5.04	115.15	109.10
1	A	2073	A	C5'-C4'-O4'	5.04	115.15	109.10
15	O	63	ARG	NE-CZ-NH1	5.04	122.82	120.30
34	AA	215	C	C5'-C4'-O4'	5.04	115.15	109.10
34	AA	1989	A	O4'-C1'-N9	5.04	112.23	108.20
34	AA	2554	G	C5-C6-O6	-5.04	125.58	128.60
34	AA	3139	C	O4'-C1'-N1	5.04	112.23	108.20
34	AA	3436	U	O4'-C1'-N1	5.04	112.23	108.20
46	AN	21	PHE	CB-CG-CD1	-5.04	117.27	120.80
1	A	1173	C	O4'-C1'-N1	5.04	112.23	108.20
1	A	1208	G	O4'-C1'-N9	5.04	112.23	108.20
27	F	252	ARG	NE-CZ-NH1	5.04	122.82	120.30
34	AA	200	A	C5-C6-N6	-5.04	119.67	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	235	A	C5'-C4'-O4'	5.04	115.14	109.10
34	AA	798	U	P-O3'-C3'	-5.04	113.66	119.70
1	A	560	G	O4'-C1'-N9	5.03	112.23	108.20
1	A	958	U	O4'-C1'-N1	5.03	112.23	108.20
1	A	1705	C	C5'-C4'-O4'	5.03	115.14	109.10
34	AA	633	U	O4'-C1'-N1	5.03	112.23	108.20
34	AA	1188	A	O4'-C1'-N9	5.03	112.23	108.20
34	AA	1738	A	O4'-C1'-N9	5.03	112.23	108.20
34	AA	2590	U	P-O3'-C3'	-5.03	113.66	119.70
34	AA	2651	A	O4'-C1'-N9	5.03	112.23	108.20
34	AA	3311	G	P-O3'-C3'	-5.03	113.66	119.70
34	AA	3623	A	O4'-C1'-N9	5.03	112.23	108.20
56	AI	51	ARG	NE-CZ-NH2	5.03	122.82	120.30
34	AA	828	G	C5-C6-O6	-5.03	125.58	128.60
34	AA	2819	U	O4'-C1'-N1	5.03	112.22	108.20
34	AA	3321	U	O4'-C1'-N1	5.03	112.22	108.20
1	A	44	U	P-O3'-C3'	-5.03	113.67	119.70
34	AA	3549	U	O4'-C1'-N1	5.03	112.22	108.20
1	A	1282	U	O4'-C1'-N1	5.03	112.22	108.20
1	A	1363	U	O4'-C1'-N1	5.03	112.22	108.20
34	AA	2189	A	O4'-C1'-N9	5.03	112.22	108.20
36	AB	30	A	O4'-C1'-N9	5.03	112.22	108.20
1	A	168	U	P-O3'-C3'	-5.03	113.67	119.70
1	A	602	G	O4'-C1'-N9	5.03	112.22	108.20
1	A	852	A	O4'-C1'-N9	5.03	112.22	108.20
34	AA	614	U	O4'-C1'-N1	5.03	112.22	108.20
34	AA	1237	C	O4'-C1'-N1	5.03	112.22	108.20
34	AA	2808	U	O4'-C1'-N1	5.03	112.22	108.20
34	AA	2917	C	O4'-C1'-N1	5.03	112.22	108.20
34	AA	3342	C	C6-N1-C1'	-5.03	114.77	120.80
34	AA	3655	U	O4'-C1'-N1	5.03	112.22	108.20
34	AA	3639	G	N1-C6-O6	5.02	122.92	119.90
34	AA	3657	G	O4'-C1'-N9	5.02	112.22	108.20
1	A	1871	G	O4'-C1'-N9	5.02	112.22	108.20
2	7	15	G	C5-C6-O6	-5.02	125.59	128.60
34	AA	139	A	O4'-C1'-N9	5.02	112.22	108.20
34	AA	2171	U	O4'-C1'-N1	5.02	112.22	108.20
34	AA	1538	U	C6-N1-C1'	-5.02	114.17	121.20
1	A	90	U	O4'-C1'-N1	5.02	112.22	108.20
1	A	1108	A	C4'-C3'-C2'	-5.02	97.58	102.60
1	A	1453	G	O4'-C1'-N9	5.02	112.22	108.20
1	A	2070	G	N1-C6-O6	5.02	122.91	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AA	201	G	O4'-C1'-N9	5.02	112.22	108.20
34	AA	257	U	C2'-C3'-O3'	5.02	121.73	113.70
34	AA	550	A	O4'-C1'-N9	5.02	112.22	108.20
34	AA	821	C	C1'-O4'-C4'	-5.02	105.89	109.90
34	AA	1822	A	O4'-C1'-N9	5.02	112.22	108.20
35	AC	30	U	O4'-C1'-N1	5.02	112.22	108.20
36	AB	25	A	O4'-C1'-N9	5.02	112.22	108.20
1	A	884	G	N1-C6-O6	5.02	122.91	119.90
1	A	1437	U	O4'-C1'-N1	5.02	112.21	108.20
1	A	2028	U	O4'-C1'-N1	5.02	112.21	108.20
29	K	97	ARG	NE-CZ-NH1	5.02	122.81	120.30
34	AA	1027	G	P-O5'-C5'	-5.02	112.87	120.90
43	A6	38	ARG	NE-CZ-NH2	5.02	122.81	120.30
54	AP	63	ARG	NE-CZ-NH1	5.02	122.81	120.30
1	A	147	C	O4'-C1'-N1	5.01	112.21	108.20
1	A	1215	G	C5-C6-O6	-5.01	125.59	128.60
28	H	85	ARG	NE-CZ-NH1	-5.01	117.79	120.30
34	AA	798	U	O4'-C1'-N1	5.01	112.21	108.20
34	AA	1077	U	O4'-C1'-N1	5.01	112.21	108.20
34	AA	2408	G	C5'-C4'-O4'	5.01	115.12	109.10
34	AA	2600	G	N1-C6-O6	5.01	122.91	119.90
34	AA	3660	A	O4'-C1'-N9	5.01	112.21	108.20
1	A	844	G	N1-C6-O6	5.01	122.91	119.90
1	A	1703	U	O4'-C1'-N1	5.01	112.21	108.20
34	AA	912	U	O4'-C1'-N1	5.01	112.21	108.20
34	AA	1192	C	O4'-C1'-N1	5.01	112.21	108.20
1	A	1092	A	O4'-C1'-N9	5.01	112.21	108.20
34	AA	324	U	C5'-C4'-O4'	5.01	115.11	109.10
34	AA	607	A	C5-C6-N6	-5.01	119.69	123.70
34	AA	1016	A	C5'-C4'-O4'	5.01	115.11	109.10
34	AA	3363	U	O4'-C1'-N1	5.01	112.21	108.20
36	AB	48	G	O4'-C1'-N9	5.01	112.21	108.20
1	A	818	C	C5'-C4'-O4'	5.01	115.11	109.10
1	A	1941	C	O4'-C1'-N1	5.01	112.21	108.20
34	AA	238	G	O4'-C1'-N9	5.01	112.21	108.20
34	AA	943	G	O4'-C1'-N9	5.01	112.21	108.20
34	AA	2689	G	C8-N9-C4	5.01	108.40	106.40
64	AY	137	ARG	NE-CZ-NH1	5.01	122.80	120.30
34	AA	1168	C	O4'-C1'-N1	5.01	112.20	108.20
34	AA	2193	U	O4'-C1'-N1	5.01	112.20	108.20
1	A	413	A	O4'-C1'-N9	5.00	112.20	108.20
1	A	1068	U	O4'-C1'-N1	5.00	112.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	103	U	P-O3'-C3'	5.00	125.70	119.70
1	A	1901	U	O4'-C1'-N1	5.00	112.20	108.20
1	A	79	U	O4'-C1'-N1	5.00	112.20	108.20
1	A	103	U	O4'-C1'-N1	5.00	112.20	108.20
1	A	1848	U	O4'-C1'-N1	5.00	112.20	108.20
35	AC	103	G	O4'-C1'-N9	5.00	112.20	108.20

All (5) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	7	31	G	C3'
25	B	225	ILE	CB
34	AA	3018	A	C3'
41	A2	55	THR	CA
41	A2	116	SER	CA

All (692) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
18	1	107	ARG	Sidechain
18	1	12	TYR	Sidechain
18	1	88	LYS	Peptide
19	2	76	ARG	Sidechain
21	3	10	ARG	Sidechain
21	3	15	ARG	Sidechain
23	5	26	ARG	Sidechain
24	6	10	ARG	Sidechain
24	6	33	ARG	Sidechain
24	6	40	TYR	Sidechain
24	6	43	ARG	Peptide
2	7	12	G	Sidechain
2	7	19	G	Sidechain
2	7	27	U	Sidechain
2	7	54	U	Sidechain
2	7	69	C	Sidechain
1	A	1008	A	Sidechain
1	A	1022	A	Sidechain
1	A	1026	A	Sidechain
1	A	103	U	Sidechain
1	A	1041	G	Sidechain
1	A	1056	G	Sidechain
1	A	1060	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1068	U	Sidechain
1	A	1077	G	Sidechain
1	A	1086	U	Sidechain
1	A	1104	G	Sidechain
1	A	1123	G	Sidechain
1	A	1188	A	Sidechain
1	A	1193	A	Sidechain
1	A	1195	G	Sidechain
1	A	1198	U	Sidechain
1	A	1201	G	Sidechain
1	A	1204	U	Sidechain
1	A	1208	G	Sidechain
1	A	1209	G	Sidechain
1	A	1220	C	Sidechain
1	A	1223	G	Sidechain
1	A	1240	A	Sidechain
1	A	1241	A	Sidechain
1	A	1242	G	Sidechain
1	A	1258	A	Sidechain
1	A	1264	A	Sidechain
1	A	1272	A	Sidechain
1	A	1283	U	Sidechain
1	A	1289	G	Sidechain
1	A	1307	U	Sidechain
1	A	1308	C	Sidechain
1	A	1362	U	Sidechain
1	A	1368	G	Sidechain
1	A	1377	U	Sidechain
1	A	1414	A	Sidechain
1	A	1415	A	Sidechain
1	A	1423	A	Sidechain
1	A	143	A	Sidechain
1	A	1436	U	Sidechain
1	A	1445	U	Sidechain
1	A	1457	A	Sidechain
1	A	148	U	Sidechain
1	A	161	U	Sidechain
1	A	1655	G	Sidechain
1	A	1656	A	Sidechain
1	A	1658	G	Sidechain
1	A	168	U	Sidechain
1	A	1683	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1684	G	Sidechain
1	A	1719	U	Sidechain
1	A	1720	G	Sidechain
1	A	1800	A	Sidechain
1	A	1819	U	Sidechain
1	A	182	U	Sidechain
1	A	1823	U	Sidechain
1	A	1828	A	Sidechain
1	A	1834	A	Sidechain
1	A	1835	U	Sidechain
1	A	1839	G	Sidechain
1	A	1845	U	Sidechain
1	A	1850	G	Sidechain
1	A	1865	G	Sidechain
1	A	1872	G	Sidechain
1	A	1876	G	Sidechain
1	A	1877	C	Sidechain
1	A	1881	G	Sidechain
1	A	1882	U	Sidechain
1	A	1906	U	Sidechain
1	A	1928	A	Sidechain
1	A	1939	G	Sidechain
1	A	1940	U	Sidechain
1	A	1953	U	Sidechain
1	A	1955	G	Sidechain
1	A	1972	G	Sidechain
1	A	1977	G	Sidechain
1	A	1979	C	Sidechain
1	A	201	G	Sidechain
1	A	2032	U	Sidechain
1	A	2059	G	Sidechain
1	A	207	G	Sidechain
1	A	2072	G	Sidechain
1	A	2073	A	Sidechain
1	A	245	A	Sidechain
1	A	263	A	Sidechain
1	A	292	G	Sidechain
1	A	3	C	Sidechain
1	A	310	U	Sidechain
1	A	328	G	Sidechain
1	A	343	G	Sidechain
1	A	38	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	39	A	Sidechain
1	A	393	A	Sidechain
1	A	396	G	Sidechain
1	A	402	G	Sidechain
1	A	403	A	Sidechain
1	A	408	U	Sidechain
1	A	440	G	Sidechain
1	A	441	U	Sidechain
1	A	457	A	Sidechain
1	A	47	A	Sidechain
1	A	493	G	Sidechain
1	A	522	G	Sidechain
1	A	546	G	Sidechain
1	A	559	G	Sidechain
1	A	573	C	Sidechain
1	A	577	A	Sidechain
1	A	580	C	Sidechain
1	A	583	G	Sidechain
1	A	587	A	Sidechain
1	A	589	U	Sidechain
1	A	598	A	Sidechain
1	A	616	U	Sidechain
1	A	617	G	Sidechain
1	A	62	A	Sidechain
1	A	620	G	Sidechain
1	A	623	G	Sidechain
1	A	625	U	Sidechain
1	A	626	A	Sidechain
1	A	629	A	Sidechain
1	A	638	G	Sidechain
1	A	64	U	Sidechain
1	A	751	U	Sidechain
1	A	759	C	Sidechain
1	A	791	U	Sidechain
1	A	802	A	Sidechain
1	A	814	U	Sidechain
1	A	829	G	Sidechain
1	A	850	G	Sidechain
1	A	857	A	Sidechain
1	A	879	A	Sidechain
1	A	894	U	Sidechain
1	A	939	A	Sidechain

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Mol	Chain	Res	Type	Group
1	A	942	U	Sidechain
1	A	943	U	Sidechain
1	A	953	C	Sidechain
1	A	954	G	Sidechain
1	A	966	C	Sidechain
1	A	967	A	Sidechain
1	A	975	A	Sidechain
1	A	987	U	Sidechain
38	A0	38	TYR	Sidechain
67	A3	105	ARG	Sidechain
42	A4	14	ARG	Sidechain
42	A4	30	MET	Peptide
42	A4	32	ARG	Sidechain
42	A4	7	HIS	Peptide,Sidechain
68	A5	109	ARG	Sidechain
68	A5	164	ARG	Sidechain
68	A5	222	PRO	Peptide
68	A5	245	ARG	Sidechain
68	A5	255	ARG	Sidechain
43	A6	56	ARG	Sidechain
44	A7	45	ARG	Sidechain
47	A8	13	ARG	Sidechain
47	A8	36	ARG	Sidechain
47	A8	92	TYR	Sidechain
48	A9	130	ARG	Sidechain
48	A9	39	ARG	Sidechain
48	A9	51	ARG	Sidechain
34	AA	1013	U	Sidechain
34	AA	1053	U	Sidechain
34	AA	1065	U	Sidechain
34	AA	1073	G	Sidechain
34	AA	109	A	Sidechain
34	AA	1095	U	Sidechain
34	AA	1096	G	Sidechain
34	AA	1101	A	Sidechain
34	AA	1103	A	Sidechain
34	AA	1109	U	Sidechain
34	AA	1115	G	Sidechain
34	AA	1116	G	Sidechain
34	AA	1122	A	Sidechain
34	AA	1135	G	Sidechain
34	AA	1141	G	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	1158	G	Sidechain
34	AA	116	A	Sidechain
34	AA	1172	C	Sidechain
34	AA	1188	A	Sidechain
34	AA	1193	G	Sidechain
34	AA	1196	A	Sidechain
34	AA	1204	A	Sidechain
34	AA	1224	A	Sidechain
34	AA	1243	G	Sidechain
34	AA	1255	G	Sidechain
34	AA	1256	U	Sidechain
34	AA	1264	A	Sidechain
34	AA	1274	A	Sidechain
34	AA	1280	G	Sidechain
34	AA	1282	U	Sidechain
34	AA	1294	G	Sidechain
34	AA	132	U	Sidechain
34	AA	1321	A	Sidechain
34	AA	1329	U	Sidechain
34	AA	1330	A	Sidechain
34	AA	1331	A	Sidechain
34	AA	136	U	Sidechain
34	AA	1429	A	Sidechain
34	AA	1436	A	Sidechain
34	AA	1443	U	Sidechain
34	AA	1445	A	Sidechain
34	AA	1446	A	Sidechain
34	AA	1447	G	Sidechain
34	AA	1458	A	Sidechain
34	AA	147	C	Sidechain
34	AA	1470	A	Sidechain
34	AA	1476	A	Sidechain
34	AA	1497	U	Sidechain
34	AA	1510	U	Sidechain
34	AA	1516	G	Sidechain
34	AA	153	A	Sidechain
34	AA	1534	U	Sidechain
34	AA	1538	U	Sidechain
34	AA	1540	G	Sidechain
34	AA	1552	G	Sidechain
34	AA	156	U	Sidechain
34	AA	1560	U	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	1563	U	Sidechain
34	AA	1565	G	Sidechain
34	AA	1575	C	Sidechain
34	AA	1586	C	Sidechain
34	AA	1588	U	Sidechain
34	AA	1595	A	Sidechain
34	AA	1597	U	Sidechain
34	AA	1613	G	Sidechain
34	AA	1618	C	Sidechain
34	AA	1619	U	Sidechain
34	AA	1628	U	Sidechain
34	AA	1629	G	Sidechain
34	AA	1643	U	Sidechain
34	AA	1644	U	Sidechain
34	AA	1645	U	Sidechain
34	AA	1647	U	Sidechain
34	AA	1650	U	Sidechain
34	AA	1661	U	Sidechain
34	AA	1674	G	Sidechain
34	AA	1695	A	Sidechain
34	AA	1703	U	Sidechain
34	AA	1735	G	Sidechain
34	AA	1740	A	Sidechain
34	AA	1763	G	Sidechain
34	AA	1784	G	Sidechain
34	AA	1785	U	Sidechain
34	AA	1786	A	Sidechain
34	AA	1797	A	Sidechain
34	AA	1820	U	Sidechain
34	AA	1821	U	Sidechain
34	AA	183	U	Sidechain
34	AA	1844	G	Sidechain
34	AA	1848	U	Sidechain
34	AA	1849	U	Sidechain
34	AA	1853	C	Sidechain
34	AA	1855	U	Sidechain
34	AA	1867	U	Sidechain
34	AA	1870	G	Sidechain
34	AA	1896	C	Sidechain
34	AA	1899	U	Sidechain
34	AA	190	G	Sidechain
34	AA	1902	A	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	191	A	Sidechain
34	AA	1913	A	Sidechain
34	AA	193	C	Sidechain
34	AA	1964	G	Sidechain
34	AA	1997	G	Sidechain
34	AA	20	G	Sidechain
34	AA	2004	U	Sidechain
34	AA	201	G	Sidechain
34	AA	2040	G	Sidechain
34	AA	205	G	Sidechain
34	AA	2081	U	Sidechain
34	AA	2084	U	Sidechain
34	AA	2102	A	Sidechain
34	AA	2104	C	Sidechain
34	AA	2107	C	Sidechain
34	AA	2109	A	Sidechain
34	AA	211	U	Sidechain
34	AA	2125	A	Sidechain
34	AA	2153	A	Sidechain
34	AA	2157	G	Sidechain
34	AA	2172	C	Sidechain
34	AA	2176	A	Sidechain
34	AA	219	A	Sidechain
34	AA	2202	G	Sidechain
34	AA	2207	G	Sidechain
34	AA	2219	A	Sidechain
34	AA	240	U	Sidechain
34	AA	2403	G	Sidechain
34	AA	2409	G	Sidechain
34	AA	2423	G	Sidechain
34	AA	2429	U	Sidechain
34	AA	2435	A	Sidechain
34	AA	2450	G	Sidechain
34	AA	2452	A	Sidechain
34	AA	246	U	Sidechain
34	AA	2460	A	Sidechain
34	AA	2473	A	Sidechain
34	AA	2481	A	Sidechain
34	AA	2497	U	Sidechain
34	AA	2498	U	Sidechain
34	AA	25	A	Sidechain
34	AA	2514	G	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	2515	A	Sidechain
34	AA	2551	U	Sidechain
34	AA	2554	G	Sidechain
34	AA	2562	U	Sidechain
34	AA	2564	A	Sidechain
34	AA	2565	G	Sidechain
34	AA	2590	U	Sidechain
34	AA	26	A	Sidechain
34	AA	261	A	Sidechain
34	AA	2614	A	Sidechain
34	AA	265	U	Sidechain
34	AA	2652	C	Sidechain
34	AA	2654	A	Sidechain
34	AA	2657	G	Sidechain
34	AA	2660	A	Sidechain
34	AA	2665	A	Sidechain
34	AA	2669	G	Sidechain
34	AA	2679	A	Sidechain
34	AA	2693	G	Sidechain
34	AA	2698	C	Sidechain
34	AA	2727	U	Sidechain
34	AA	2728	G	Sidechain
34	AA	2809	A	Sidechain
34	AA	2835	G	Sidechain
34	AA	2838	A	Sidechain
34	AA	2917	C	Sidechain
34	AA	293	U	Sidechain
34	AA	2932	A	Sidechain
34	AA	2945	G	Sidechain
34	AA	2956	U	Sidechain
34	AA	2963	G	Sidechain
34	AA	297	G	Sidechain
34	AA	2981	A	Sidechain
34	AA	3011	G	Sidechain
34	AA	3016	G	Sidechain
34	AA	3017	A	Sidechain
34	AA	3033	A	Sidechain
34	AA	3035	A	Sidechain
34	AA	3036	A	Sidechain
34	AA	3037	G	Sidechain
34	AA	304	U	Sidechain
34	AA	3062	U	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	3063	U	Sidechain
34	AA	3066	A	Sidechain
34	AA	308	U	Sidechain
34	AA	3082	G	Sidechain
34	AA	3084	G	Sidechain
34	AA	309	G	Sidechain
34	AA	3091	U	Sidechain
34	AA	3097	A	Sidechain
34	AA	3108	A	Sidechain
34	AA	3138	A	Sidechain
34	AA	3152	G	Sidechain
34	AA	3155	G	Sidechain
34	AA	3160	A	Sidechain
34	AA	3186	U	Sidechain
34	AA	319	U	Sidechain
34	AA	3192	U	Sidechain
34	AA	3195	C	Sidechain
34	AA	3209	G	Sidechain
34	AA	3210	A	Sidechain
34	AA	3220	U	Sidechain
34	AA	3222	G	Sidechain
34	AA	3227	U	Sidechain
34	AA	3239	U	Sidechain
34	AA	3245	U	Sidechain
34	AA	325	A	Sidechain
34	AA	3257	G	Sidechain
34	AA	3260	G	Sidechain
34	AA	3268	A	Sidechain
34	AA	3271	G	Sidechain
34	AA	3283	U	Sidechain
34	AA	3300	A	Sidechain
34	AA	331	A	Sidechain
34	AA	3313	U	Sidechain
34	AA	3325	G	Sidechain
34	AA	3341	A	Sidechain
34	AA	3388	U	Sidechain
34	AA	3391	G	Sidechain
34	AA	3412	G	Sidechain
34	AA	3415	A	Sidechain
34	AA	3436	U	Sidechain
34	AA	344	A	Sidechain
34	AA	3455	A	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	346	A	Sidechain
34	AA	3463	G	Sidechain
34	AA	3484	U	Sidechain
34	AA	349	G	Sidechain
34	AA	3499	C	Sidechain
34	AA	3503	U	Sidechain
34	AA	3505	U	Sidechain
34	AA	3509	G	Sidechain
34	AA	3538	A	Sidechain
34	AA	3589	U	Sidechain
34	AA	36	U	Sidechain
34	AA	3614	A	Sidechain
34	AA	3618	A	Sidechain
34	AA	3639	G	Sidechain
34	AA	3646	G	Sidechain
34	AA	3658	G	Sidechain
34	AA	3660	A	Sidechain
34	AA	367	U	Sidechain
34	AA	368	G	Sidechain
34	AA	3683	G	Sidechain
34	AA	3707	U	Sidechain
34	AA	3725	G	Sidechain
34	AA	3738	U	Sidechain
34	AA	3739	A	Sidechain
34	AA	3749	U	Sidechain
34	AA	3783	G	Sidechain
34	AA	379	G	Sidechain
34	AA	38	U	Sidechain
34	AA	380	A	Sidechain
34	AA	401	A	Sidechain
34	AA	41	G	Sidechain
34	AA	416	G	Sidechain
34	AA	436	G	Sidechain
34	AA	440	A	Sidechain
34	AA	441	A	Sidechain
34	AA	458	A	Sidechain
34	AA	46	U	Sidechain
34	AA	467	U	Sidechain
34	AA	497	U	Sidechain
34	AA	500	A	Sidechain
34	AA	503	A	Sidechain
34	AA	525	U	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	527	A	Sidechain
34	AA	528	A	Sidechain
34	AA	582	U	Sidechain
34	AA	583	U	Sidechain
34	AA	599	G	Sidechain
34	AA	606	A	Sidechain
34	AA	61	A	Sidechain
34	AA	632	U	Sidechain
34	AA	633	U	Sidechain
34	AA	643	G	Sidechain
34	AA	644	G	Sidechain
34	AA	652	A	Sidechain
34	AA	673	U	Sidechain
34	AA	684	G	Sidechain
34	AA	685	U	Sidechain
34	AA	688	U	Sidechain
34	AA	69	U	Sidechain
34	AA	70	A	Sidechain
34	AA	702	U	Sidechain
34	AA	706	U	Sidechain
34	AA	707	U	Sidechain
34	AA	708	A	Sidechain
34	AA	71	A	Sidechain
34	AA	716	C	Sidechain
34	AA	729	G	Sidechain
34	AA	734	A	Sidechain
34	AA	744	G	Sidechain
34	AA	746	A	Sidechain
34	AA	76	G	Sidechain
34	AA	760	A	Sidechain
34	AA	765	A	Sidechain
34	AA	769	U	Sidechain
34	AA	795	G	Sidechain
34	AA	802	U	Sidechain
34	AA	824	U	Sidechain
34	AA	825	G	Sidechain
34	AA	86	G	Sidechain
34	AA	869	A	Sidechain
34	AA	87	U	Sidechain
34	AA	884	A	Sidechain
34	AA	910	A	Sidechain
34	AA	911	U	Sidechain

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Mol	Chain	Res	Type	Group
34	AA	912	U	Sidechain
34	AA	913	U	Sidechain
34	AA	915	G	Sidechain
34	AA	917	A	Sidechain
34	AA	919	G	Sidechain
34	AA	92	G	Sidechain
34	AA	924	G	Sidechain
34	AA	925	A	Sidechain
34	AA	926	G	Sidechain
34	AA	938	U	Sidechain
34	AA	939	A	Sidechain
34	AA	94	G	Sidechain
34	AA	943	G	Sidechain
34	AA	954	G	Sidechain
34	AA	964	G	Sidechain
34	AA	967	A	Sidechain
34	AA	976	G	Sidechain
34	AA	981	U	Sidechain
34	AA	988	G	Sidechain
36	AB	11	A	Sidechain
36	AB	117	C	Sidechain
36	AB	48	G	Sidechain
36	AB	50	A	Sidechain
36	AB	56	G	Sidechain
36	AB	61	G	Sidechain
36	AB	79	U	Sidechain
36	AB	9	U	Sidechain
35	AC	103	G	Sidechain
35	AC	12	U	Sidechain
35	AC	121	C	Sidechain
35	AC	18	U	Sidechain
35	AC	20	G	Sidechain
35	AC	30	U	Sidechain
35	AC	31	U	Sidechain
35	AC	32	C	Sidechain
35	AC	40	G	Sidechain
35	AC	5	A	Sidechain
35	AC	64	U	Sidechain
35	AC	67	G	Sidechain
35	AC	89	U	Sidechain
69	AD	122	ASN	Peptide
69	AD	123	ARG	Sidechain

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Mol	Chain	Res	Type	Group
69	AD	163	ARG	Sidechain
69	AD	193	ARG	Sidechain
70	AE	10	ARG	Sidechain
70	AE	275	ARG	Sidechain
70	AE	345	ARG	Sidechain
70	AE	366	ARG	Sidechain
70	AE	92	TYR	Sidechain
70	AE	93	ARG	Sidechain
71	AF	113	ARG	Sidechain
71	AF	121	ARG	Sidechain
71	AF	140	ARG	Sidechain
71	AF	190	ARG	Sidechain
71	AF	199	ARG	Sidechain
71	AF	201	TYR	Peptide
71	AF	286	ASN	Peptide
71	AF	327	ARG	Sidechain
71	AF	50	HIS	Peptide
71	AF	97	ARG	Sidechain
72	AG	133	ARG	Sidechain
72	AG	141	ARG	Sidechain
72	AG	144	ARG	Sidechain
74	AH	123	ARG	Sidechain
74	AH	23	ARG	Sidechain
56	AI	102	ARG	Sidechain
56	AI	48	ARG	Sidechain
78	AJ	188	ARG	Sidechain
78	AJ	73	ARG	Sidechain
58	AK	132	ARG	Sidechain
58	AK	148	TYR	Sidechain
58	AK	159	ARG	Sidechain
58	AK	166	TYR	Sidechain
58	AK	17	ARG	Sidechain
58	AK	60	ARG	Sidechain
58	AK	73	ARG	Sidechain
58	AK	84	ARG	Sidechain
37	AL	138	GLY	Peptide
37	AL	140	PRO	Peptide
37	AL	202	ARG	Sidechain
37	AL	22	ARG	Sidechain
37	AL	34	ARG	Sidechain
37	AL	67	ARG	Sidechain
37	AL	8	LEU	Peptide

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Mol	Chain	Res	Type	Group
46	AN	120	ARG	Sidechain
46	AN	35	TYR	Sidechain
46	AN	73	ARG	Sidechain
39	AO	9	ARG	Sidechain
54	AP	111	CYS	Peptide
54	AP	112	GLY	Peptide
54	AP	163	ARG	Sidechain
54	AP	176	ARG	Sidechain
54	AP	186	ARG	Sidechain
54	AP	196	ARG	Sidechain
54	AP	50	ARG	Sidechain
61	AQ	128	ARG	Sidechain
61	AQ	154	ARG	Sidechain
61	AQ	22	TYR	Sidechain
61	AQ	38	ARG	Sidechain
61	AQ	88	ARG	Sidechain
61	AQ	98	ARG	Sidechain
62	AR	141	ARG	Sidechain
62	AR	154	ARG	Sidechain
62	AR	160	ARG	Sidechain
62	AR	21	ARG	Sidechain
62	AR	24	ARG	Sidechain
62	AR	31	ARG	Sidechain
62	AR	33	ARG	Sidechain
60	AS	10	ARG	Sidechain
60	AS	103	ARG	Sidechain
60	AS	111	ARG	Sidechain
60	AS	145	ARG	Sidechain
60	AS	165	TYR	Sidechain
60	AS	183	ARG	Sidechain
60	AS	27	ARG	Sidechain
60	AS	39	ARG	Sidechain
60	AS	59	ARG	Sidechain
65	AT	109	ARG	Sidechain
65	AT	116	ARG	Sidechain
65	AT	99	ARG	Sidechain
73	AU	122	ARG	Sidechain
73	AU	145	ARG	Sidechain
73	AU	170	TYR	Sidechain
73	AU	35	ARG	Sidechain
73	AU	49	ARG	Sidechain
75	AV	31	TYR	Peptide,Sidechain

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Mol	Chain	Res	Type	Group
75	AV	33	GLU	Peptide
75	AV	40	TYR	Sidechain
75	AV	71	ARG	Sidechain
75	AV	80	ARG	Sidechain
63	AW	113	ARG	Sidechain
63	AW	123	ARG	Sidechain
63	AW	135	ARG	Sidechain
63	AW	61	ARG	Sidechain
77	AX	117	ARG	Sidechain
64	AY	173	ARG	Sidechain
66	AZ	120	ARG	Sidechain
66	AZ	26	ARG	Sidechain
66	AZ	50	ARG	Sidechain
66	AZ	59	ARG	Sidechain
49	Aa	4	ARG	Sidechain
49	Aa	66	ARG	Sidechain
50	Ab	40	ARG	Sidechain
50	Ab	89	ARG	Sidechain
50	Ab	94	ARG	Sidechain
57	Ac	24	ARG	Sidechain
57	Ac	28	ARG	Sidechain
57	Ac	49	ARG	Sidechain
51	Ad	16	ARG	Sidechain
51	Ad	44	ARG	Sidechain
52	Ae	18	ARG	Sidechain
52	Ae	8	ARG	Sidechain
53	Af	41	ARG	Sidechain
53	Af	46	ARG	Sidechain
76	Ag	16	ARG	Sidechain
76	Ag	25	ARG	Sidechain
76	Ag	32	ARG	Sidechain
55	Ah	17	ARG	Sidechain
40	Ai	33	ARG	Sidechain
40	Ai	39	ARG	Sidechain
40	Ai	54	LYS	Peptide
25	B	107	ARG	Sidechain
25	B	118	TYR	Sidechain
25	B	136	ARG	Sidechain
25	B	165	ARG	Sidechain
9	E	171	ARG	Sidechain
9	E	69	ARG	Sidechain
9	E	8	TYR	Sidechain

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Mol	Chain	Res	Type	Group
27	F	145	ARG	Sidechain
27	F	221	ARG	Sidechain
27	F	235	TYR	Sidechain
27	F	98	TYR	Sidechain
28	H	104	GLN	Peptide
28	H	177	ARG	Sidechain
28	H	197	ARG	Sidechain
28	H	98	ARG	Sidechain
14	I	136	ARG	Sidechain
14	I	46	ARG	Sidechain
14	I	72	ARG	Sidechain
29	K	118	ARG	Sidechain
33	L	25	ARG	Sidechain
33	L	47	ARG	Sidechain
6	M	112	ARG	Sidechain
6	M	115	ARG	Sidechain
32	P	128	ARG	Sidechain
32	P	141	ARG	Sidechain
32	P	146	ARG	Sidechain
32	P	147	ARG	Sidechain
32	P	50	ARG	Sidechain
3	Q	109	ARG	Sidechain
3	Q	44	ARG	Sidechain
3	Q	69	ARG	Sidechain
3	Q	73	ARG	Sidechain
5	T	17	ARG	Sidechain
7	U	58	TYR	Sidechain
8	V	72	ARG	Sidechain
8	V	85	ARG	Sidechain
8	V	91	ARG	Sidechain
12	W	45	ARG	Sidechain
12	W	60	ARG	Sidechain
12	W	78	ARG	Sidechain
10	X	115	TYR	Sidechain
10	X	123	TYR	Sidechain
16	Y	53	TYR	Peptide
16	Y	79	ARG	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	A	34207	0	17266	45	0
2	7	1598	0	816	1	0
3	Q	1129	0	1196	3	0
4	S	1047	0	1101	2	0
5	T	405	0	419	0	0
6	M	1099	0	1183	1	0
7	U	1202	0	1299	1	0
8	V	1206	0	1239	1	0
9	E	1515	0	1605	0	0
10	X	777	0	832	2	0
11	G	1758	0	1811	1	0
12	W	786	0	858	0	0
13	R	747	0	754	0	0
14	I	1424	0	1471	1	0
15	O	687	0	695	0	0
16	Y	1267	0	1316	0	0
17	Z	557	0	558	0	0
18	1	986	0	1076	0	0
19	2	321	0	338	0	0
20	C	1539	0	1600	0	0
21	3	782	0	820	1	0
22	4	586	0	604	1	0
23	5	458	0	496	0	0
24	6	346	0	381	0	0
25	B	1714	0	1838	2	0
26	D	1229	0	1311	0	0
27	F	2062	0	2200	1	0
28	H	1648	0	1803	0	0
29	K	1037	0	1099	3	0
30	J	1529	0	1680	1	0
31	N	772	0	813	0	0
32	P	954	0	997	1	0
33	L	1383	0	1434	1	0
34	AA	67862	0	34233	156	0
35	AC	3215	0	1633	6	0
36	AB	2522	0	1275	2	0
37	AL	1757	0	1888	1	0
38	A0	522	0	539	0	0
39	AO	1172	0	1230	1	0
40	Ai	779	0	861	0	0
41	A2	831	0	887	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
42	A4	555	0	599	3	0
43	A6	741	0	763	1	0
44	A7	794	0	869	0	0
45	A1	1134	0	1245	1	0
46	AN	1202	0	1316	1	0
47	A8	1037	0	1139	1	0
48	A9	845	0	886	1	0
49	Aa	859	0	912	0	0
50	Ab	757	0	842	0	0
51	Ad	604	0	686	0	0
52	Ae	388	0	421	0	0
53	Af	414	0	452	0	0
54	AP	1697	0	1802	2	0
55	Ah	659	0	727	0	0
56	AI	1685	0	1849	0	0
57	Ac	710	0	761	0	0
58	AK	1660	0	1785	1	0
59	AM	996	0	1044	0	0
60	AS	1503	0	1636	0	0
61	AQ	1545	0	1582	0	0
62	AR	2050	0	2140	1	0
63	AW	1319	0	1303	0	0
64	AY	797	0	850	0	0
65	AT	1509	0	1682	0	0
66	AZ	1001	0	1099	1	0
67	A3	995	0	1121	1	0
68	A5	1879	0	2005	0	0
69	AD	1867	0	1964	1	0
70	AE	3062	0	3205	4	0
71	AF	3095	0	3333	3	0
72	AG	1011	0	1073	1	0
73	AU	1497	0	1556	2	0
74	AH	1476	0	1574	0	0
75	AV	1276	0	1355	1	0
76	Ag	343	0	388	0	0
77	AX	825	0	882	1	0
78	AJ	1813	0	1985	25	0
All	All	193017	0	144286	249	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 1.

All (249) 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)
34:AA:2915:U:C5	34:AA:2915:U:C4	2.03	1.46
34:AA:2915:U:N3	34:AA:2915:U:C2	1.87	1.42
34:AA:2915:U:N1	34:AA:2915:U:C6	1.89	1.39
34:AA:2915:U:C4	34:AA:2915:U:N3	1.89	1.37
34:AA:2915:U:C2	34:AA:2915:U:N1	1.93	1.35
34:AA:2915:U:C4	78:AJ:55:ILE:CD1	2.35	1.09
34:AA:2915:U:C5	78:AJ:55:ILE:CD1	2.35	1.09
34:AA:2915:U:C6	78:AJ:55:ILE:CD1	2.36	1.08
34:AA:2915:U:C2	78:AJ:55:ILE:CD1	2.38	1.06
34:AA:2915:U:C5	78:AJ:55:ILE:CG1	2.39	1.05
34:AA:2915:U:C4	78:AJ:55:ILE:CG1	2.39	1.05
34:AA:2915:U:C2	78:AJ:55:ILE:CG1	2.42	1.02
34:AA:2915:U:C6	78:AJ:55:ILE:CG1	2.41	1.02
34:AA:2915:U:C6	78:AJ:55:ILE:HG12	2.03	0.92
34:AA:2915:U:N3	78:AJ:55:ILE:CD1	2.38	0.87
34:AA:2915:U:C2	78:AJ:55:ILE:HG13	2.10	0.87
34:AA:2915:U:N1	78:AJ:55:ILE:CD1	2.39	0.85
34:AA:2915:U:C5	78:AJ:55:ILE:HG12	2.09	0.85
34:AA:2915:U:N3	78:AJ:55:ILE:CG1	2.42	0.83
34:AA:2915:U:C5	78:AJ:55:ILE:HD13	2.13	0.82
34:AA:2915:U:C4	78:AJ:55:ILE:HD13	2.14	0.82
34:AA:2915:U:C6	78:AJ:55:ILE:HD11	2.14	0.82
34:AA:2915:U:N1	78:AJ:55:ILE:CG1	2.43	0.81
34:AA:2915:U:C2	78:AJ:55:ILE:HD12	2.16	0.81
34:AA:2838:A:N1	34:AA:2916:C:N3	2.40	0.69
34:AA:2915:U:C4	78:AJ:55:ILE:CB	2.77	0.68
34:AA:2915:U:N3	78:AJ:55:ILE:HD12	2.09	0.65
34:AA:2915:U:N1	78:AJ:55:ILE:HD11	2.10	0.65
34:AA:2915:U:N1	78:AJ:55:ILE:HG13	2.10	0.65
34:AA:1072:A:H4'	34:AA:1073:G:H21	1.63	0.63
70:AE:68:HIS:CG	70:AE:69:LYS:H	2.19	0.60
1:A:1103:C:HO2'	29:K:2:VAL:N	2.00	0.60
34:AA:2838:A:C2	34:AA:2916:C:C2	2.89	0.59
66:AZ:108:LEU:H	66:AZ:108:LEU:HD23	1.69	0.57
34:AA:123:A:H3'	34:AA:124:U:H5''	1.85	0.57
34:AA:1273:G:H2'	34:AA:1274:A:C8	2.40	0.57
34:AA:1204:A:N6	62:AR:141:ARG:HH22	2.02	0.57
34:AA:3626:A:H3'	34:AA:3627:C:H5''	1.86	0.57
34:AA:3726:U:H4'	34:AA:3727:A:H5''	1.86	0.56
1:A:458:A:H3'	1:A:459:A:C5'	2.35	0.56
4:S:122:HIS:CE1	4:S:126:ARG:HE	2.23	0.56
34:AA:799:A:N6	39:AO:113:ASN:HD21	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AA:2915:U:C4	78:AJ:55:ILE:HB	2.43	0.54
34:AA:2083:U:H2'	34:AA:2084:U:C6	2.43	0.54
34:AA:1263:A:H4'	42:A4:7:HIS:CG	2.43	0.54
34:AA:2981:A:C4	42:A4:7:HIS:CE1	2.96	0.53
34:AA:746:A:H2'	34:AA:747:A:C8	2.43	0.53
34:AA:2657:G:H22	34:AA:2689:G:H1'	1.74	0.53
34:AA:681:U:C6	34:AA:681:U:H5''	2.44	0.53
54:AP:181:LEU:H	54:AP:181:LEU:HD12	1.75	0.52
1:A:1061:A:C2	1:A:1062:A:C8	2.98	0.52
34:AA:2838:A:C6	34:AA:2916:C:N3	2.77	0.52
69:AD:238:ILE:H	69:AD:238:ILE:HD12	1.74	0.52
34:AA:445:A:C2	34:AA:446:G:C4	2.98	0.51
1:A:1672:C:H3'	1:A:1673:A:H5''	1.91	0.51
34:AA:1727:U:H2'	34:AA:1728:C:C6	2.45	0.51
34:AA:2084:U:H5''	34:AA:2084:U:H6	1.74	0.51
34:AA:3632:U:H3	34:AA:3653:G:H1	1.59	0.51
6:M:44:ILE:HD12	6:M:44:ILE:H	1.76	0.50
34:AA:909:U:H2'	34:AA:910:A:C8	2.46	0.50
43:A6:103:ILE:HD12	43:A6:103:ILE:H	1.77	0.50
71:AF:268:HIS:CG	71:AF:269:GLU:H	2.30	0.50
1:A:1307:U:H2'	1:A:1308:C:C5	2.46	0.50
34:AA:967:A:C5	34:AA:968:G:H1'	2.47	0.50
1:A:1022:A:H2'	1:A:1023:A:C8	2.47	0.50
34:AA:1822:A:N1	34:AA:2004:U:C4	2.80	0.50
34:AA:2915:U:C2	34:AA:2915:U:C1'	2.89	0.49
34:AA:3035:A:H2'	34:AA:3036:A:C8	2.47	0.49
34:AA:2669:G:H2'	34:AA:2670:G:C8	2.46	0.49
34:AA:3257:G:H3'	34:AA:3258:C:C5'	2.42	0.49
35:AC:149:C:H2'	35:AC:150:U:C6	2.48	0.49
35:AC:30:U:H2'	35:AC:31:U:C6	2.47	0.49
70:AE:68:HIS:CG	70:AE:69:LYS:N	2.79	0.48
1:A:1187:A:H2'	1:A:1188:A:C8	2.49	0.48
34:AA:2496:U:H2'	34:AA:2497:U:C6	2.48	0.48
34:AA:173:A:H3'	34:AA:174:U:H5''	1.95	0.48
34:AA:715:U:H2'	34:AA:716:C:C5	2.49	0.48
1:A:886:U:H2'	1:A:887:A:C8	2.47	0.48
34:AA:34:A:H2'	34:AA:35:A:C8	2.48	0.48
34:AA:445:A:N1	34:AA:702:U:C4	2.81	0.48
34:AA:1644:U:C4	34:AA:2102:A:N1	2.82	0.48
1:A:1832:U:H4'	1:A:1833:G:C4	2.48	0.48
67:A3:119:LEU:HD13	67:A3:120:VAL:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1859:A:H2'	1:A:1860:A:C8	2.49	0.48
34:AA:440:A:H2'	34:AA:441:A:C8	2.48	0.47
34:AA:1758:C:H2'	34:AA:1759:A:C8	2.49	0.47
1:A:344:C:HO2'	33:L:5:ARG:N	2.12	0.47
34:AA:642:A:C5	34:AA:684:G:C8	3.02	0.47
34:AA:2838:A:C2	34:AA:2916:C:N3	2.82	0.47
1:A:2047:A:H3'	1:A:2048:A:H5'	1.96	0.47
34:AA:506:A:H2'	34:AA:507:G:C8	2.50	0.47
34:AA:1257:A:H2'	34:AA:1258:A:C8	2.50	0.47
34:AA:2106:A:H5'	34:AA:2107:C:C5	2.49	0.47
27:F:249:ILE:HD12	27:F:249:ILE:H	1.79	0.47
34:AA:916:U:H2'	34:AA:917:A:C8	2.50	0.47
1:A:843:U:H2'	1:A:844:G:C8	2.49	0.46
34:AA:1762:A:HO2'	34:AA:1763:G:H8	1.62	0.46
14:I:117:THR:HG1	14:I:128:GLN:N	2.13	0.46
1:A:1424:A:H2'	1:A:1425:C:C6	2.50	0.46
34:AA:912:U:H2'	34:AA:913:U:C6	2.50	0.46
34:AA:1506:C:H2'	34:AA:1507:U:C6	2.50	0.46
29:K:115:GLU:CD	29:K:118:ARG:HH12	2.19	0.46
78:AJ:55:ILE:CD1	78:AJ:55:ILE:CG1	2.94	0.46
34:AA:2589:A:H2'	34:AA:2590:U:H5'	1.98	0.46
34:AA:525:U:H2'	34:AA:526:U:C6	2.51	0.46
1:A:955:U:H2'	1:A:956:A:C8	2.51	0.46
4:S:100:VAL:HG23	4:S:101:ILE:H	1.81	0.46
34:AA:939:A:H2'	34:AA:940:A:C8	2.51	0.46
34:AA:3615:A:C6	34:AA:3618:A:C5	3.04	0.45
34:AA:2008:G:H2'	34:AA:2009:A:C8	2.51	0.45
34:AA:2590:U:H2'	34:AA:2590:U:O2	2.16	0.45
34:AA:687:G:H2'	34:AA:688:U:C6	2.51	0.45
34:AA:921:C:H2'	34:AA:922:C:C6	2.52	0.45
34:AA:2020:A:H2'	34:AA:2021:A:C8	2.51	0.45
34:AA:293:U:H2'	34:AA:294:G:C8	2.52	0.45
34:AA:2084:U:C6	34:AA:2084:U:H5''	2.52	0.45
34:AA:1574:C:H2'	34:AA:1575:C:C6	2.52	0.45
1:A:1850:G:H3'	10:X:47:ARG:HH12	1.82	0.45
34:AA:320:C:H2'	34:AA:321:A:C8	2.51	0.45
1:A:1720:G:H2'	1:A:1721:A:C8	2.52	0.45
34:AA:88:A:C2	34:AA:99:A:C4	3.05	0.45
34:AA:1216:C:H2'	34:AA:1217:U:H5'	1.98	0.45
34:AA:1675:C:H4'	34:AA:1737:A:C4	2.51	0.45
41:A2:32:LEU:HD23	41:A2:37:ASN:HD21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:520:U:H2'	1:A:521:G:C8	2.52	0.44
30:J:69:TYR:CD1	30:J:96:ALA:HB2	2.51	0.44
34:AA:63:A:H2'	34:AA:64:G:C8	2.52	0.44
1:A:149:A:N1	1:A:161:U:C4	2.85	0.44
34:AA:2559:U:H2'	34:AA:2560:C:C6	2.52	0.44
34:AA:2709:U:H2'	34:AA:2710:U:C6	2.52	0.44
1:A:1976:G:H3'	1:A:1977:G:C8	2.52	0.44
1:A:1299:G:C6	1:A:1301:G:C6	3.06	0.44
34:AA:659:U:H2'	34:AA:660:U:C6	2.53	0.44
34:AA:1133:A:C2	34:AA:1163:A:C2	3.05	0.44
34:AA:2506:A:H2'	34:AA:2507:A:C8	2.52	0.44
34:AA:3131:A:C6	34:AA:3133:U:H1'	2.52	0.44
34:AA:3511:C:H2'	34:AA:3512:A:C8	2.52	0.44
1:A:2068:A:H2'	1:A:2069:G:C8	2.53	0.44
34:AA:888:A:H3'	34:AA:889:U:H5''	2.00	0.44
34:AA:1628:U:C5	34:AA:1629:G:C5	3.05	0.44
34:AA:1974:U:H2'	34:AA:1975:A:C8	2.52	0.44
34:AA:2672:U:H2'	34:AA:2673:U:C6	2.53	0.44
1:A:1883:A:C5	1:A:1908:A:C2	3.05	0.44
8:V:6:ASP:N	8:V:9:HIS:HE2	2.16	0.44
1:A:1448:U:H2'	1:A:1449:U:H2'	2.00	0.44
34:AA:2138:U:H2'	34:AA:2139:C:C6	2.53	0.44
1:A:458:A:H3'	1:A:459:A:H5''	1.99	0.43
1:A:1293:C:H3'	1:A:1294:A:H2'	2.00	0.43
1:A:1815:U:H2'	1:A:1816:U:C5	2.52	0.43
25:B:30:TYR:CE2	25:B:94:ARG:HA	2.54	0.43
34:AA:1093:G:H2'	34:AA:1094:U:C6	2.53	0.43
34:AA:26:A:N6	34:AA:58:A:H61	2.15	0.43
21:3:13:HIS:CD2	21:3:13:HIS:H	2.37	0.43
34:AA:629:A:C2	34:AA:630:U:C2	3.06	0.43
34:AA:1072:A:H3'	34:AA:1245:G:C8	2.53	0.43
34:AA:1096:G:HO2'	34:AA:1097:A:H8	1.66	0.43
35:AC:32:C:H2'	35:AC:33:C:C6	2.54	0.43
34:AA:1435:G:C5	34:AA:1436:A:C6	3.05	0.43
34:AA:2838:A:C2	34:AA:2917:C:C5	3.07	0.43
34:AA:764:G:H2'	34:AA:765:A:C8	2.54	0.43
34:AA:2981:A:H2'	34:AA:2982:A:C8	2.54	0.43
75:AV:45:CYS:H	75:AV:59:HIS:CD2	2.37	0.43
34:AA:136:U:C4	34:AA:141:A:C2	3.07	0.43
11:G:75:ILE:HD12	11:G:75:ILE:H	1.84	0.43
34:AA:740:U:H2'	34:AA:741:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AA:1263:A:H4'	42:A4:7:HIS:ND1	2.34	0.42
25:B:107:ARG:HH21	32:P:131:ASP:CG	2.22	0.42
34:AA:344:A:C2	34:AA:345:G:C5	3.07	0.42
34:AA:1572:U:C5	34:AA:1573:C:C5	3.07	0.42
70:AE:353:LEU:H	70:AE:353:LEU:HD23	1.83	0.42
34:AA:276:G:H2'	54:AP:121:TRP:CE2	2.55	0.42
34:AA:3578:A:HO2'	34:AA:3579:A:H8	1.67	0.42
34:AA:899:A:H3'	34:AA:900:G:H5''	2.01	0.42
1:A:1675:G:H2'	1:A:1676:U:C6	2.54	0.42
34:AA:3386:A:H2'	34:AA:3387:U:C6	2.54	0.42
45:A1:11:ILE:HG22	45:A1:82:PRO:HA	2.02	0.42
34:AA:1683:A:H2'	34:AA:1684:A:C8	2.54	0.42
46:AN:71:LEU:HD13	73:AU:162:HIS:CD2	2.55	0.42
34:AA:734:A:H2'	34:AA:735:A:C8	2.55	0.42
34:AA:2650:A:H2'	34:AA:2651:A:C8	2.55	0.42
34:AA:2884:G:H2'	34:AA:2885:A:H5'	2.01	0.42
1:A:993:A:H2'	1:A:994:G:C8	2.55	0.42
22:4:71:LEU:HG	22:4:72:THR:H	1.84	0.42
34:AA:2122:U:H2'	34:AA:2123:C:C6	2.55	0.42
34:AA:332:A:H2'	34:AA:333:A:C8	2.55	0.42
34:AA:1739:C:H2'	34:AA:1740:A:C8	2.55	0.42
71:AF:290:TYR:CZ	71:AF:294:HIS:CE1	3.08	0.42
1:A:1922:C:H2'	1:A:1923:U:C6	2.55	0.42
34:AA:136:U:O4	34:AA:141:A:C2	2.73	0.42
34:AA:1540:G:C8	34:AA:1565:G:C2	3.08	0.42
34:AA:2563:A:H2'	34:AA:2564:A:C8	2.54	0.42
1:A:1876:G:H2'	1:A:1877:C:C6	2.55	0.41
34:AA:73:U:C6	37:AL:58:HIS:CE1	3.09	0.41
34:AA:580:A:H2'	34:AA:581:C:C6	2.54	0.41
34:AA:1675:C:H4'	34:AA:1737:A:C5	2.55	0.41
72:AG:15:ASN:H	72:AG:130:HIS:CD2	2.38	0.41
77:AX:110:TYR:CE1	77:AX:114:HIS:CE1	3.08	0.41
1:A:576:C:H41	3:Q:69:ARG:NH2	2.17	0.41
1:A:1846:U:C5	10:X:39:ALA:HB3	2.55	0.41
34:AA:914:G:H2'	34:AA:915:G:C8	2.54	0.41
34:AA:3241:U:H2'	34:AA:3242:U:C6	2.55	0.41
1:A:945:G:C6	1:A:1005:G:C6	3.08	0.41
3:Q:29:TYR:CE2	3:Q:33:HIS:CE1	3.08	0.41
34:AA:1184:A:H2'	34:AA:1185:A:C8	2.56	0.41
35:AC:73:A:C6	35:AC:74:A:H1'	2.54	0.41
70:AE:85:VAL:HB	70:AE:160:HIS:CE1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AA:140:A:C5	34:AA:141:A:H1'	2.56	0.41
34:AA:314:A:C2	34:AA:3143:G:H1'	2.56	0.41
35:AC:101:A:H3'	35:AC:102:U:C6	2.56	0.41
1:A:1008:A:H2'	1:A:1009:A:C8	2.55	0.41
1:A:1304:A:C6	1:A:1852:A:C6	3.08	0.41
34:AA:1063:A:H4'	47:A8:33:ARG:HE	1.86	0.41
34:AA:3486:G:H2'	34:AA:3487:A:C8	2.54	0.41
34:AA:1015:A:C2	34:AA:1032:A:C2	3.08	0.41
36:AB:77:A:C2	36:AB:100:A:C4	3.09	0.41
36:AB:116:U:H2'	36:AB:117:C:C6	2.55	0.41
1:A:105:A:C8	1:A:366:A:C6	3.09	0.41
1:A:1226:A:C5	1:A:1227:G:H1'	2.56	0.41
35:AC:146:C:H2'	35:AC:147:U:C6	2.56	0.41
1:A:483:A:N6	1:A:518:A:H61	2.19	0.41
1:A:1656:A:H2'	1:A:1657:A:C8	2.56	0.41
1:A:1947:U:H2'	1:A:1948:A:C8	2.56	0.41
3:Q:102:VAL:HG12	3:Q:127:VAL:HG12	2.03	0.41
7:U:36:ALA:HB1	7:U:58:TYR:CE2	2.56	0.41
29:K:7:LEU:HD12	29:K:7:LEU:H	1.86	0.41
34:AA:709:A:H2'	34:AA:710:C:C6	2.55	0.41
34:AA:1031:G:H2'	34:AA:1033:A:C5	2.56	0.41
34:AA:1752:C:H2'	34:AA:1753:U:C6	2.56	0.41
58:AK:13:HIS:CE1	58:AK:119:LEU:H	2.37	0.41
73:AU:6:ASP:CG	73:AU:7:ASN:H	2.24	0.41
34:AA:1431:A:C2	34:AA:3246:A:C4	3.08	0.41
34:AA:3195:C:C5	34:AA:3212:G:C2	3.09	0.41
1:A:1414:A:H4'	1:A:1415:A:OP1	2.21	0.40
34:AA:492:U:H2'	34:AA:493:C:C6	2.56	0.40
34:AA:1212:U:H2'	34:AA:1213:U:C6	2.56	0.40
48:A9:39:ARG:HH22	48:A9:42:GLU:CD	2.24	0.40
71:AF:107:ILE:HD12	71:AF:107:ILE:H	1.85	0.40
34:AA:60:A:C8	34:AA:335:A:C6	3.10	0.40
34:AA:453:A:C4	34:AA:503:A:C2	3.09	0.40
34:AA:947:U:H2'	34:AA:948:G:C8	2.57	0.40
1:A:262:A:C5	1:A:263:A:H1'	2.57	0.40
1:A:1821:A:H2'	1:A:1822:A:C8	2.56	0.40
34:AA:606:A:H2'	34:AA:607:A:C8	2.57	0.40
1:A:1188:A:H2'	1:A:1189:A:C8	2.57	0.40
2:7:70:G:C3'	2:7:71:C:H5''	2.52	0.40
34:AA:141:A:C2	34:AA:142:C:N3	2.90	0.40
34:AA:445:A:C2	34:AA:702:U:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AA:1228:A:C6	34:AA:1230:A:C5	3.09	0.40
34:AA:3444:G:H2'	34:AA:3445:C:C6	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	Q	142/144 (99%)	134 (94%)	6 (4%)	2 (1%)	11	46
4	S	126/128 (98%)	107 (85%)	11 (9%)	8 (6%)	1	16
5	T	46/48 (96%)	44 (96%)	2 (4%)	0	100	100
6	M	136/138 (99%)	128 (94%)	6 (4%)	2 (2%)	10	45
7	U	147/149 (99%)	144 (98%)	2 (1%)	1 (1%)	22	62
8	V	142/156 (91%)	134 (94%)	4 (3%)	4 (3%)	5	30
9	E	183/185 (99%)	176 (96%)	7 (4%)	0	100	100
10	X	92/103 (89%)	82 (89%)	6 (6%)	4 (4%)	2	22
11	G	222/224 (99%)	209 (94%)	10 (4%)	3 (1%)	11	46
12	W	91/108 (84%)	87 (96%)	3 (3%)	1 (1%)	14	51
13	R	92/114 (81%)	78 (85%)	10 (11%)	4 (4%)	2	22
14	I	176/189 (93%)	166 (94%)	7 (4%)	3 (2%)	9	42
15	O	77/79 (98%)	70 (91%)	3 (4%)	4 (5%)	2	19
16	Y	152/154 (99%)	141 (93%)	7 (5%)	4 (3%)	5	31
17	Z	70/72 (97%)	65 (93%)	4 (6%)	1 (1%)	11	46
18	1	118/120 (98%)	109 (92%)	7 (6%)	2 (2%)	9	42
19	2	35/68 (52%)	32 (91%)	1 (3%)	2 (6%)	1	17
20	C	193/195 (99%)	180 (93%)	11 (6%)	2 (1%)	15	54

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	3	93/95 (98%)	81 (87%)	12 (13%)	0	100	100
22	4	74/76 (97%)	67 (90%)	4 (5%)	3 (4%)	3	22
23	5	54/65 (83%)	52 (96%)	1 (2%)	1 (2%)	8	38
24	6	41/43 (95%)	38 (93%)	3 (7%)	0	100	100
25	B	208/210 (99%)	188 (90%)	16 (8%)	4 (2%)	8	38
26	D	149/209 (71%)	143 (96%)	4 (3%)	2 (1%)	12	48
27	F	255/257 (99%)	244 (96%)	10 (4%)	1 (0%)	34	72
28	H	200/214 (94%)	186 (93%)	13 (6%)	1 (0%)	29	69
29	K	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	9	43
30	J	186/188 (99%)	175 (94%)	7 (4%)	4 (2%)	6	35
31	N	96/98 (98%)	90 (94%)	6 (6%)	0	100	100
32	P	125/127 (98%)	110 (88%)	15 (12%)	0	100	100
33	L	165/214 (77%)	149 (90%)	15 (9%)	1 (1%)	25	66
37	AL	209/211 (99%)	190 (91%)	13 (6%)	6 (3%)	4	29
38	A0	60/62 (97%)	58 (97%)	2 (3%)	0	100	100
39	AO	145/147 (99%)	134 (92%)	8 (6%)	3 (2%)	7	36
40	Ai	93/95 (98%)	84 (90%)	6 (6%)	3 (3%)	4	26
41	A2	96/118 (81%)	92 (96%)	3 (3%)	1 (1%)	15	54
42	A4	64/66 (97%)	56 (88%)	8 (12%)	0	100	100
43	A6	96/98 (98%)	94 (98%)	2 (2%)	0	100	100
44	A7	92/102 (90%)	90 (98%)	2 (2%)	0	100	100
45	A1	136/145 (94%)	131 (96%)	5 (4%)	0	100	100
46	AN	144/146 (99%)	138 (96%)	4 (3%)	2 (1%)	11	46
47	A8	123/125 (98%)	111 (90%)	10 (8%)	2 (2%)	9	43
48	A9	101/103 (98%)	93 (92%)	5 (5%)	3 (3%)	4	28
49	Aa	104/106 (98%)	97 (93%)	7 (7%)	0	100	100
50	Ab	91/105 (87%)	86 (94%)	3 (3%)	2 (2%)	6	35
51	Ad	68/76 (90%)	65 (96%)	2 (3%)	1 (2%)	10	45
52	Ae	39/50 (78%)	38 (97%)	1 (3%)	0	100	100
53	Af	49/51 (96%)	44 (90%)	5 (10%)	0	100	100
54	AP	202/204 (99%)	182 (90%)	11 (5%)	9 (4%)	2	21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
55	Ah	83/85 (98%)	79 (95%)	4 (5%)	0	100	100
56	AI	203/213 (95%)	188 (93%)	10 (5%)	5 (2%)	5	32
57	Ac	87/89 (98%)	78 (90%)	6 (7%)	3 (3%)	3	26
58	AK	199/201 (99%)	190 (96%)	8 (4%)	1 (0%)	29	69
59	AM	130/132 (98%)	122 (94%)	7 (5%)	1 (1%)	19	60
60	AS	184/186 (99%)	166 (90%)	13 (7%)	5 (3%)	5	31
61	AQ	185/205 (90%)	169 (91%)	11 (6%)	5 (3%)	5	31
62	AR	244/289 (84%)	219 (90%)	19 (8%)	6 (2%)	5	32
63	AW	149/170 (88%)	137 (92%)	10 (7%)	2 (1%)	12	48
64	AY	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	15	54
65	AT	179/181 (99%)	174 (97%)	3 (2%)	2 (1%)	14	51
66	AZ	119/121 (98%)	113 (95%)	5 (4%)	1 (1%)	19	60
67	A3	117/119 (98%)	110 (94%)	5 (4%)	2 (2%)	9	42
68	A5	221/223 (99%)	197 (89%)	19 (9%)	5 (2%)	6	33
69	AD	245/247 (99%)	232 (95%)	9 (4%)	4 (2%)	9	43
70	AE	378/380 (100%)	350 (93%)	27 (7%)	1 (0%)	41	76
71	AF	388/390 (100%)	355 (92%)	24 (6%)	9 (2%)	6	33
72	AG	116/159 (73%)	106 (91%)	7 (6%)	3 (3%)	5	31
73	AU	178/180 (99%)	162 (91%)	12 (7%)	4 (2%)	6	35
74	AH	183/185 (99%)	163 (89%)	17 (9%)	3 (2%)	9	43
75	AV	153/155 (99%)	142 (93%)	10 (6%)	1 (1%)	22	62
76	Ag	35/37 (95%)	29 (83%)	5 (14%)	1 (3%)	4	29
77	AX	95/97 (98%)	91 (96%)	4 (4%)	0	100	100
78	AJ	216/244 (88%)	201 (93%)	12 (6%)	3 (1%)	11	46
All	All	10111/10698 (94%)	9380 (93%)	565 (6%)	166 (2%)	13	43

All (166) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	M	41	GLU
8	V	41	VAL
10	X	52	LYS
13	R	42	ILE
14	I	70	HIS

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Mol	Chain	Res	Type
16	Y	55	LYS
25	B	98	THR
28	H	25	LEU
29	K	120	HIS
33	L	29	LEU
39	AO	25	HIS
54	AP	16	SER
54	AP	188	SER
56	AI	47	GLN
57	Ac	42	TYR
57	Ac	80	LYS
60	AS	174	GLU
61	AQ	175	PRO
65	AT	56	VAL
70	AE	196	LEU
71	AF	235	LEU
73	AU	13	ILE
3	Q	8	GLY
3	Q	137	LYS
4	S	20	THR
4	S	101	ILE
8	V	10	GLU
10	X	51	LYS
10	X	90	VAL
12	W	4	VAL
13	R	39	LYS
30	J	112	ILE
37	AL	101	LYS
37	AL	160	ILE
40	Ai	85	LYS
50	Ab	19	SER
54	AP	150	ASN
57	Ac	75	ARG
60	AS	166	VAL
61	AQ	35	ASP
62	AR	44	TYR
62	AR	142	LYS
64	AY	105	LEU
68	A5	229	ALA
71	AF	287	PRO
73	AU	160	ALA
75	AV	14	TYR

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Mol	Chain	Res	Type
78	AJ	45	ILE
78	AJ	66	SER
4	S	88	ARG
11	G	121	GLY
13	R	37	GLY
15	O	15	PRO
17	Z	30	GLY
18	1	5	PHE
22	4	19	LEU
25	B	146	ARG
26	D	29	LEU
29	K	58	SER
30	J	31	SER
37	AL	61	THR
37	AL	130	ASN
37	AL	171	TYR
47	A8	50	ASN
48	A9	94	GLY
54	AP	113	ASN
56	AI	88	PRO
60	AS	184	ALA
61	AQ	131	ILE
62	AR	59	GLN
63	AW	64	ASN
65	AT	129	ASN
67	A3	75	LYS
68	A5	116	ARG
69	AD	29	LEU
71	AF	80	PRO
76	Ag	8	TYR
4	S	51	ASN
7	U	16	LEU
8	V	115	SER
11	G	101	GLN
14	I	174	GLU
16	Y	19	PRO
18	1	96	GLY
19	2	38	HIS
20	C	143	VAL
22	4	18	LYS
22	4	47	HIS
25	B	132	ASN

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Mol	Chain	Res	Type
37	AL	21	VAL
39	AO	64	LEU
41	A2	95	GLN
47	A8	40	CYS
50	Ab	17	PHE
54	AP	72	LYS
56	AI	212	ASN
60	AS	154	ALA
62	AR	89	PRO
62	AR	174	ASN
63	AW	20	VAL
68	A5	100	GLY
68	A5	223	PRO
69	AD	199	VAL
71	AF	115	VAL
71	AF	279	LEU
72	AG	96	PHE
74	AH	11	LEU
74	AH	169	LYS
4	S	24	GLY
4	S	99	HIS
10	X	115	TYR
11	G	80	GLN
13	R	126	SER
15	O	41	PRO
15	O	70	TYR
16	Y	143	LYS
20	C	202	LEU
23	5	4	SER
26	D	162	GLY
30	J	132	SER
39	AO	40	HIS
40	Ai	29	LYS
46	AN	88	LYS
54	AP	94	SER
56	AI	19	VAL
59	AM	114	SER
61	AQ	140	THR
67	A3	84	LYS
68	A5	228	LYS
71	AF	19	VAL
71	AF	144	ILE

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Mol	Chain	Res	Type
71	AF	216	GLY
71	AF	304	ALA
74	AH	86	LYS
8	V	16	GLN
25	B	75	ASN
27	F	133	LYS
48	A9	47	LEU
56	AI	139	THR
61	AQ	94	PHE
72	AG	153	LYS
73	AU	143	VAL
73	AU	166	LEU
78	AJ	248	LYS
6	M	98	VAL
16	Y	110	VAL
46	AN	46	VAL
48	A9	38	VAL
54	AP	56	ILE
66	AZ	70	VAL
19	2	60	THR
54	AP	149	ILE
58	AK	88	PRO
60	AS	82	VAL
69	AD	4	VAL
72	AG	45	PRO
4	S	76	PRO
4	S	100	VAL
30	J	13	PRO
54	AP	79	ILE
15	O	44	PRO
40	Ai	55	PRO
62	AR	152	ILE
69	AD	127	VAL
14	I	71	GLY
51	Ad	68	LEU

5.3.2 Protein sidechains ⓘ

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

The Analysed column shows the number of residues for which the sidechain conformation was

analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	Q	120/120 (100%)	116 (97%)	4 (3%)	38	61
4	S	114/114 (100%)	111 (97%)	3 (3%)	46	66
5	T	43/43 (100%)	41 (95%)	2 (5%)	26	51
6	M	116/116 (100%)	112 (97%)	4 (3%)	37	60
7	U	132/132 (100%)	129 (98%)	3 (2%)	50	70
8	V	131/140 (94%)	128 (98%)	3 (2%)	50	70
9	E	161/164 (98%)	159 (99%)	2 (1%)	71	83
10	X	88/94 (94%)	87 (99%)	1 (1%)	73	84
11	G	191/191 (100%)	186 (97%)	5 (3%)	46	66
12	W	86/99 (87%)	86 (100%)	0	100	100
13	R	83/97 (86%)	83 (100%)	0	100	100
14	I	154/160 (96%)	150 (97%)	4 (3%)	46	66
15	O	76/76 (100%)	74 (97%)	2 (3%)	46	66
16	Y	137/137 (100%)	132 (96%)	5 (4%)	35	59
17	Z	60/60 (100%)	60 (100%)	0	100	100
18	1	104/104 (100%)	102 (98%)	2 (2%)	57	75
19	2	35/61 (57%)	34 (97%)	1 (3%)	42	64
20	C	167/167 (100%)	164 (98%)	3 (2%)	59	77
21	3	87/87 (100%)	87 (100%)	0	100	100
22	4	70/70 (100%)	68 (97%)	2 (3%)	42	64
23	5	47/52 (90%)	46 (98%)	1 (2%)	53	72
24	6	36/36 (100%)	36 (100%)	0	100	100
25	B	195/195 (100%)	191 (98%)	4 (2%)	53	72
26	D	132/177 (75%)	127 (96%)	5 (4%)	33	57
27	F	233/233 (100%)	223 (96%)	10 (4%)	29	53
28	H	182/190 (96%)	175 (96%)	7 (4%)	33	57
29	K	115/115 (100%)	114 (99%)	1 (1%)	78	87
30	J	177/177 (100%)	170 (96%)	7 (4%)	31	55
31	N	91/91 (100%)	90 (99%)	1 (1%)	73	84
32	P	99/99 (100%)	97 (98%)	2 (2%)	55	74
33	L	151/190 (80%)	147 (97%)	4 (3%)	46	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	AL	190/190 (100%)	185 (97%)	5 (3%)	46	66
38	A0	53/53 (100%)	52 (98%)	1 (2%)	57	75
39	AO	121/121 (100%)	117 (97%)	4 (3%)	38	61
40	Ai	87/87 (100%)	85 (98%)	2 (2%)	50	70
41	A2	97/109 (89%)	94 (97%)	3 (3%)	40	62
42	A4	60/60 (100%)	59 (98%)	1 (2%)	60	78
43	A6	83/83 (100%)	80 (96%)	3 (4%)	35	59
44	A7	90/96 (94%)	89 (99%)	1 (1%)	73	84
45	A1	127/131 (97%)	126 (99%)	1 (1%)	81	89
46	AN	135/135 (100%)	132 (98%)	3 (2%)	52	71
47	A8	114/114 (100%)	113 (99%)	1 (1%)	78	87
48	A9	90/90 (100%)	84 (93%)	6 (7%)	16	40
49	Aa	89/89 (100%)	86 (97%)	3 (3%)	37	60
50	Ab	82/92 (89%)	80 (98%)	2 (2%)	49	69
51	Ad	69/73 (94%)	67 (97%)	2 (3%)	42	64
52	Ae	40/47 (85%)	38 (95%)	2 (5%)	24	49
53	Af	45/45 (100%)	44 (98%)	1 (2%)	52	71
54	AP	179/179 (100%)	170 (95%)	9 (5%)	24	49
55	Ah	70/70 (100%)	70 (100%)	0	100	100
56	AI	189/195 (97%)	186 (98%)	3 (2%)	62	79
57	Ac	74/74 (100%)	71 (96%)	3 (4%)	30	55
58	AK	181/181 (100%)	175 (97%)	6 (3%)	38	61
59	AM	106/106 (100%)	105 (99%)	1 (1%)	78	87
60	AS	158/158 (100%)	154 (98%)	4 (2%)	47	68
61	AQ	165/176 (94%)	159 (96%)	6 (4%)	35	59
62	AR	215/250 (86%)	210 (98%)	5 (2%)	50	70
63	AW	128/128 (100%)	121 (94%)	7 (6%)	21	47
64	AY	90/90 (100%)	88 (98%)	2 (2%)	52	71
65	AT	162/162 (100%)	160 (99%)	2 (1%)	71	83
66	AZ	111/111 (100%)	109 (98%)	2 (2%)	59	77
67	A3	110/110 (100%)	106 (96%)	4 (4%)	35	59

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
68	A5	201/201 (100%)	197 (98%)	4 (2%)	55	74
69	AD	191/191 (100%)	181 (95%)	10 (5%)	23	48
70	AE	335/335 (100%)	332 (99%)	3 (1%)	78	87
71	AF	336/336 (100%)	327 (97%)	9 (3%)	44	65
72	AG	110/142 (78%)	107 (97%)	3 (3%)	44	65
73	AU	162/162 (100%)	160 (99%)	2 (1%)	71	83
74	AH	168/168 (100%)	166 (99%)	2 (1%)	71	83
75	AV	140/140 (100%)	137 (98%)	3 (2%)	53	72
76	Ag	34/34 (100%)	33 (97%)	1 (3%)	42	64
77	AX	92/92 (100%)	91 (99%)	1 (1%)	73	84
78	AJ	204/224 (91%)	200 (98%)	4 (2%)	55	74
All	All	9096/9417 (97%)	8871 (98%)	225 (2%)	50	68

All (225) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	Q	27	LYS
3	Q	30	LYS
3	Q	60	GLU
3	Q	107	PHE
4	S	12	GLN
4	S	16	ARG
4	S	129	TRP
5	T	18	GLN
5	T	31	LYS
6	M	10	THR
6	M	62	LYS
6	M	64	LEU
6	M	107	LYS
7	U	3	ARG
7	U	7	LYS
7	U	62	GLN
8	V	16	GLN
8	V	38	TRP
8	V	107	HIS
9	E	47	TYR
9	E	69	ARG
10	X	119	PHE

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Mol	Chain	Res	Type
11	G	109	ARG
11	G	168	MET
11	G	189	GLN
11	G	215	LYS
11	G	242	TRP
14	I	7	ASP
14	I	25	SER
14	I	62	ARG
14	I	132	VAL
15	O	54	MET
15	O	75	GLN
16	Y	25	THR
16	Y	29	ILE
16	Y	30	LYS
16	Y	105	LYS
16	Y	119	SER
18	1	48	TYR
18	1	107	ARG
19	2	68	TYR
20	C	12	GLU
20	C	168	GLU
20	C	202	LEU
22	4	18	LYS
22	4	32	ASP
23	5	28	GLN
25	B	37	MET
25	B	146	ARG
25	B	149	GLN
25	B	229	MET
26	D	76	ARG
26	D	107	ARG
26	D	117	ARG
26	D	158	LEU
26	D	166	LYS
27	F	17	HIS
27	F	18	TRP
27	F	59	ASP
27	F	87	MET
27	F	102	LEU
27	F	103	TYR
27	F	132	ARG
27	F	133	LYS

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Mol	Chain	Res	Type
27	F	249	ILE
27	F	252	ARG
28	H	13	GLN
28	H	72	ARG
28	H	82	LYS
28	H	111	LEU
28	H	140	LYS
28	H	159	ILE
28	H	197	ARG
29	K	69	ILE
30	J	5	GLN
30	J	58	LYS
30	J	67	LYS
30	J	72	TYR
30	J	127	LEU
30	J	149	ARG
30	J	181	ARG
31	N	64	THR
32	P	68	GLU
32	P	131	ASP
33	L	27	TYR
33	L	64	SER
33	L	92	ARG
33	L	216	LYS
37	AL	51	GLU
37	AL	75	THR
37	AL	91	THR
37	AL	142	ASP
37	AL	155	LYS
38	A0	10	THR
39	AO	12	ARG
39	AO	32	ARG
39	AO	58	MET
39	AO	132	VAL
40	Ai	42	TYR
40	Ai	78	LYS
41	A2	5	SER
41	A2	59	LEU
41	A2	114	ARG
42	A4	32	ARG
43	A6	26	TYR
43	A6	64	MET

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Mol	Chain	Res	Type
43	A6	89	ARG
44	A7	88	ASN
45	A1	32	GLN
46	AN	10	GLU
46	AN	71	LEU
46	AN	85	LYS
47	A8	41	ARG
48	A9	39	ARG
48	A9	53	GLN
48	A9	76	PHE
48	A9	92	HIS
48	A9	104	VAL
48	A9	136	TYR
49	Aa	67	ARG
49	Aa	74	ARG
49	Aa	91	ARG
50	Ab	86	THR
50	Ab	89	ARG
51	Ad	9	ARG
51	Ad	38	ILE
52	Ae	8	ARG
52	Ae	42	ARG
53	Af	46	ARG
54	AP	13	LYS
54	AP	31	ARG
54	AP	61	ILE
54	AP	85	LYS
54	AP	124	GLN
54	AP	161	GLU
54	AP	163	ARG
54	AP	190	ARG
54	AP	192	ASN
56	AI	27	LYS
56	AI	97	LYS
56	AI	159	MET
57	Ac	50	PHE
57	Ac	52	TRP
57	Ac	55	LYS
58	AK	1	MET
58	AK	39	ASP
58	AK	116	LYS
58	AK	127	ARG

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Mol	Chain	Res	Type
58	AK	159	ARG
58	AK	193	ARG
59	AM	89	ARG
60	AS	91	LEU
60	AS	122	PHE
60	AS	174	GLU
60	AS	177	ARG
61	AQ	15	LYS
61	AQ	40	LYS
61	AQ	55	TYR
61	AQ	94	PHE
61	AQ	119	PHE
61	AQ	175	PRO
62	AR	16	TYR
62	AR	23	ARG
62	AR	44	TYR
62	AR	160	ARG
62	AR	215	ASN
63	AW	16	LYS
63	AW	34	ARG
63	AW	37	ARG
63	AW	61	ARG
63	AW	62	LYS
63	AW	97	ASN
63	AW	131	LYS
64	AY	173	ARG
64	AY	177	GLU
65	AT	23	MET
65	AT	73	ARG
66	AZ	51	LYS
66	AZ	101	SER
67	A3	102	MET
67	A3	105	ARG
67	A3	113	PHE
67	A3	119	LEU
68	A5	86	ARG
68	A5	169	ARG
68	A5	192	HIS
68	A5	232	HIS
69	AD	34	TYR
69	AD	40	TYR
69	AD	54	ARG

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Mol	Chain	Res	Type
69	AD	67	GLU
69	AD	71	LYS
69	AD	107	MET
69	AD	125	THR
69	AD	238	ILE
69	AD	241	ARG
69	AD	242	ARG
70	AE	30	ARG
70	AE	230	TYR
70	AE	237	ARG
71	AF	122	TYR
71	AF	140	ARG
71	AF	196	MET
71	AF	266	LYS
71	AF	276	ASN
71	AF	287	PRO
71	AF	347	ILE
71	AF	376	TYR
71	AF	386	LYS
72	AG	16	LYS
72	AG	125	MET
72	AG	127	PHE
73	AU	88	LEU
73	AU	184	MET
74	AH	62	VAL
74	AH	167	ARG
75	AV	34	LYS
75	AV	68	ILE
75	AV	71	ARG
76	Ag	8	TYR
77	AX	48	LYS
78	AJ	45	ILE
78	AJ	147	LEU
78	AJ	179	LEU
78	AJ	262	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (27) such sidechains are listed below:

Mol	Chain	Res	Type
7	U	28	GLN
8	V	107	HIS
20	C	23	HIS

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Mol	Chain	Res	Type
26	D	22	ASN
29	K	113	HIS
32	P	79	GLN
33	L	21	HIS
37	AL	58	HIS
39	AO	113	ASN
42	A4	7	HIS
44	A7	29	HIS
46	AN	97	ASN
46	AN	130	GLN
49	Aa	10	HIS
54	AP	159	HIS
55	Ah	34	HIS
61	AQ	59	GLN
61	AQ	92	HIS
62	AR	221	HIS
63	AW	25	HIS
63	AW	145	HIS
63	AW	147	GLN
68	A5	185	HIS
70	AE	174	HIS
70	AE	253	HIS
70	AE	310	HIS
73	AU	15	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	1588/1608 (98%)	480 (30%)	100 (6%)
2	7	74/75 (98%)	33 (44%)	5 (6%)
34	AA	3165/3192 (99%)	971 (30%)	189 (5%)
35	AC	148/151 (98%)	49 (33%)	10 (6%)
36	AB	117/118 (99%)	27 (23%)	2 (1%)
All	All	5092/5144 (98%)	1560 (30%)	306 (6%)

All (1560) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	2	A
1	A	3	C
1	A	5	U

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Mol	Chain	Res	Type
1	A	17	C
1	A	26	A
1	A	27	U
1	A	34	G
1	A	35	U
1	A	42	G
1	A	45	U
1	A	47	A
1	A	50	C
1	A	57	G
1	A	59	G
1	A	60	A
1	A	61	A
1	A	67	A
1	A	68	U
1	A	71	A
1	A	81	U
1	A	82	G
1	A	84	A
1	A	103	U
1	A	104	U
1	A	106	A
1	A	107	A
1	A	108	A
1	A	113	U
1	A	116	A
1	A	125	G
1	A	128	A
1	A	129	U
1	A	130	U
1	A	138	U
1	A	139	A
1	A	142	G
1	A	143	A
1	A	144	U
1	A	151	G
1	A	157	G
1	A	159	U
1	A	161	U
1	A	164	C
1	A	165	U
1	A	169	A

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Mol	Chain	Res	Type
1	A	182	U
1	A	183	C
1	A	205	A
1	A	206	A
1	A	207	G
1	A	208	U
1	A	209	A
1	A	217	G
1	A	247	G
1	A	250	A
1	A	252	U
1	A	254	U
1	A	255	A
1	A	258	A
1	A	260	A
1	A	262	A
1	A	264	G
1	A	266	A
1	A	267	A
1	A	268	C
1	A	273	A
1	A	292	G
1	A	305	G
1	A	308	U
1	A	320	C
1	A	322	G
1	A	323	C
1	A	326	U
1	A	327	U
1	A	328	G
1	A	330	U
1	A	335	G
1	A	339	A
1	A	342	G
1	A	343	G
1	A	344	C
1	A	345	C
1	A	350	A
1	A	357	U
1	A	358	G
1	A	361	G
1	A	365	A

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Mol	Chain	Res	Type
1	A	366	A
1	A	367	C
1	A	375	U
1	A	379	G
1	A	384	A
1	A	386	U
1	A	396	G
1	A	399	C
1	A	405	A
1	A	406	A
1	A	407	A
1	A	408	U
1	A	409	A
1	A	410	G
1	A	422	A
1	A	424	G
1	A	425	G
1	A	430	C
1	A	431	A
1	A	432	G
1	A	433	C
1	A	434	A
1	A	440	G
1	A	445	U
1	A	446	U
1	A	450	C
1	A	451	A
1	A	454	U
1	A	458	A
1	A	459	A
1	A	466	A
1	A	467	G
1	A	470	A
1	A	483	A
1	A	484	A
1	A	488	U
1	A	494	G
1	A	508	U
1	A	509	U
1	A	515	U
1	A	516	G
1	A	521	G

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Mol	Chain	Res	Type
1	A	526	G
1	A	527	A
1	A	543	A
1	A	545	A
1	A	546	G
1	A	548	A
1	A	549	A
1	A	562	A
1	A	563	A
1	A	564	G
1	A	565	U
1	A	566	C
1	A	568	G
1	A	572	C
1	A	575	G
1	A	578	G
1	A	584	G
1	A	587	A
1	A	588	U
1	A	590	C
1	A	592	A
1	A	601	A
1	A	602	G
1	A	616	U
1	A	617	G
1	A	618	U
1	A	626	A
1	A	627	A
1	A	629	A
1	A	630	C
1	A	631	G
1	A	642	A
1	A	645	U
1	A	646	U
1	A	648	A
1	A	746	U
1	A	753	U
1	A	756	A
1	A	760	C
1	A	790	U
1	A	791	U
1	A	792	U

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Mol	Chain	Res	Type
1	A	793	G
1	A	794	U
1	A	800	U
1	A	801	G
1	A	804	U
1	A	805	A
1	A	806	A
1	A	816	U
1	A	818	C
1	A	819	A
1	A	824	A
1	A	830	U
1	A	831	U
1	A	832	A
1	A	833	A
1	A	834	A
1	A	837	A
1	A	844	G
1	A	845	U
1	A	846	G
1	A	849	U
1	A	852	A
1	A	853	U
1	A	856	U
1	A	857	A
1	A	858	U
1	A	866	A
1	A	869	A
1	A	870	A
1	A	873	A
1	A	874	A
1	A	875	A
1	A	876	U
1	A	877	U
1	A	880	A
1	A	881	C
1	A	882	A
1	A	887	A
1	A	888	A
1	A	896	U
1	A	906	U
1	A	908	U

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Mol	Chain	Res	Type
1	A	915	G
1	A	917	C
1	A	920	A
1	A	921	G
1	A	922	U
1	A	924	A
1	A	927	A
1	A	928	U
1	A	929	U
1	A	931	A
1	A	941	C
1	A	942	U
1	A	945	G
1	A	962	A
1	A	965	U
1	A	966	C
1	A	967	A
1	A	974	A
1	A	978	U
1	A	982	A
1	A	983	G
1	A	984	A
1	A	990	U
1	A	1002	A
1	A	1004	U
1	A	1011	G
1	A	1013	A
1	A	1020	U
1	A	1021	A
1	A	1029	U
1	A	1035	A
1	A	1038	C
1	A	1051	U
1	A	1054	G
1	A	1057	A
1	A	1061	A
1	A	1062	A
1	A	1065	C
1	A	1067	A
1	A	1070	A
1	A	1071	G
1	A	1072	A

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Mol	Chain	Res	Type
1	A	1073	U
1	A	1074	A
1	A	1082	A
1	A	1089	A
1	A	1090	C
1	A	1092	A
1	A	1093	U
1	A	1094	A
1	A	1095	A
1	A	1097	C
1	A	1098	U
1	A	1099	A
1	A	1101	G
1	A	1107	U
1	A	1108	A
1	A	1109	G
1	A	1112	G
1	A	1116	G
1	A	1119	G
1	A	1175	G
1	A	1177	A
1	A	1183	U
1	A	1184	G
1	A	1193	A
1	A	1194	A
1	A	1195	G
1	A	1197	C
1	A	1199	U
1	A	1209	G
1	A	1210	G
1	A	1212	C
1	A	1227	G
1	A	1230	A
1	A	1233	A
1	A	1239	A
1	A	1247	G
1	A	1251	G
1	A	1255	G
1	A	1259	C
1	A	1260	C
1	A	1261	A
1	A	1265	G

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Mol	Chain	Res	Type
1	A	1268	G
1	A	1271	G
1	A	1274	C
1	A	1284	A
1	A	1286	U
1	A	1287	U
1	A	1291	C
1	A	1292	U
1	A	1293	C
1	A	1294	A
1	A	1295	A
1	A	1296	C
1	A	1297	A
1	A	1300	G
1	A	1301	G
1	A	1302	G
1	A	1304	A
1	A	1306	C
1	A	1307	U
1	A	1309	A
1	A	1315	U
1	A	1317	A
1	A	1319	G
1	A	1321	C
1	A	1363	U
1	A	1366	A
1	A	1367	U
1	A	1370	U
1	A	1374	G
1	A	1375	C
1	A	1382	G
1	A	1383	U
1	A	1384	U
1	A	1385	U
1	A	1388	A
1	A	1389	G
1	A	1409	U
1	A	1415	A
1	A	1416	U
1	A	1417	U
1	A	1422	U
1	A	1423	A

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Mol	Chain	Res	Type
1	A	1427	A
1	A	1433	A
1	A	1434	U
1	A	1437	U
1	A	1443	G
1	A	1444	C
1	A	1445	U
1	A	1449	U
1	A	1450	A
1	A	1451	G
1	A	1453	G
1	A	1454	G
1	A	1456	G
1	A	1459	U
1	A	1462	A
1	A	1463	C
1	A	1464	U
1	A	1607	U
1	A	1623	U
1	A	1624	U
1	A	1626	U
1	A	1635	C
1	A	1636	A
1	A	1644	U
1	A	1645	C
1	A	1648	A
1	A	1649	C
1	A	1656	A
1	A	1659	U
1	A	1660	U
1	A	1664	G
1	A	1666	C
1	A	1667	A
1	A	1668	A
1	A	1673	A
1	A	1674	G
1	A	1677	C
1	A	1678	U
1	A	1679	G
1	A	1692	A
1	A	1693	U
1	A	1702	C

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Mol	Chain	Res	Type
1	A	1705	C
1	A	1706	A
1	A	1715	A
1	A	1716	C
1	A	1717	A
1	A	1720	G
1	A	1721	A
1	A	1723	A
1	A	1727	A
1	A	1728	U
1	A	1729	A
1	A	1732	G
1	A	1735	U
1	A	1742	A
1	A	1749	C
1	A	1787	U
1	A	1790	C
1	A	1792	U
1	A	1795	G
1	A	1796	C
1	A	1799	A
1	A	1800	A
1	A	1801	A
1	A	1802	G
1	A	1811	A
1	A	1812	A
1	A	1813	U
1	A	1817	U
1	A	1818	A
1	A	1819	U
1	A	1820	C
1	A	1824	A
1	A	1830	C
1	A	1833	G
1	A	1834	A
1	A	1835	U
1	A	1837	G
1	A	1844	A
1	A	1846	U
1	A	1850	G
1	A	1854	U
1	A	1855	U

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Mol	Chain	Res	Type
1	A	1856	A
1	A	1861	U
1	A	1866	A
1	A	1868	C
1	A	1870	A
1	A	1871	G
1	A	1881	G
1	A	1882	U
1	A	1883	A
1	A	1887	A
1	A	1892	U
1	A	1897	A
1	A	1898	G
1	A	1902	G
1	A	1904	G
1	A	1907	A
1	A	1908	A
1	A	1911	A
1	A	1912	C
1	A	1913	G
1	A	1915	C
1	A	1916	C
1	A	1927	U
1	A	1928	A
1	A	1929	C
1	A	1930	A
1	A	1934	C
1	A	1935	G
1	A	1938	C
1	A	1954	U
1	A	1955	G
1	A	1961	U
1	A	1977	G
1	A	1978	A
1	A	1979	C
1	A	1980	A
1	A	1981	A
1	A	1982	G
1	A	2012	G
1	A	2019	C
1	A	2021	U
1	A	2028	U

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Mol	Chain	Res	Type
1	A	2034	U
1	A	2042	A
1	A	2048	A
1	A	2049	G
1	A	2054	A
1	A	2058	A
1	A	2060	G
1	A	2061	U
1	A	2072	G
1	A	2073	A
1	A	2075	C
1	A	2084	G
1	A	2085	G
1	A	2086	A
1	A	2090	U
2	7	2	G
2	7	4	G
2	7	5	G
2	7	6	G
2	7	8	U
2	7	9	G
2	7	13	C
2	7	15	G
2	7	16	C
2	7	17	C
2	7	19	G
2	7	20	U
2	7	21	A
2	7	24	U
2	7	25	C
2	7	27	U
2	7	28	C
2	7	35	A
2	7	44	A
2	7	45	G
2	7	48	C
2	7	52	G
2	7	53	G
2	7	54	U
2	7	55	U
2	7	56	C
2	7	59	A

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Mol	Chain	Res	Type
2	7	61	C
2	7	62	C
2	7	63	G
2	7	71	C
2	7	72	A
2	7	74	C
34	AA	11	A
34	AA	13	G
34	AA	14	U
34	AA	16	A
34	AA	18	G
34	AA	25	A
34	AA	26	A
34	AA	30	G
34	AA	32	C
34	AA	34	A
34	AA	40	A
34	AA	44	U
34	AA	45	A
34	AA	49	U
34	AA	55	G
34	AA	57	A
34	AA	59	G
34	AA	60	A
34	AA	62	A
34	AA	63	A
34	AA	66	A
34	AA	69	U
34	AA	73	U
34	AA	75	U
34	AA	83	U
34	AA	85	A
34	AA	87	U
34	AA	92	G
34	AA	105	G
34	AA	109	A
34	AA	110	G
34	AA	111	C
34	AA	113	C
34	AA	119	G
34	AA	122	A
34	AA	124	U

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Mol	Chain	Res	Type
34	AA	130	G
34	AA	133	U
34	AA	134	G
34	AA	135	G
34	AA	136	U
34	AA	139	A
34	AA	144	U
34	AA	145	U
34	AA	147	C
34	AA	148	G
34	AA	149	A
34	AA	152	G
34	AA	154	A
34	AA	156	U
34	AA	157	G
34	AA	163	G
34	AA	165	A
34	AA	167	U
34	AA	168	A
34	AA	173	A
34	AA	174	U
34	AA	175	G
34	AA	182	U
34	AA	183	U
34	AA	185	A
34	AA	186	A
34	AA	189	U
34	AA	190	G
34	AA	191	A
34	AA	192	G
34	AA	195	A
34	AA	197	G
34	AA	198	U
34	AA	199	G
34	AA	200	A
34	AA	201	G
34	AA	206	A
34	AA	207	A
34	AA	211	U
34	AA	214	C
34	AA	215	C
34	AA	216	C

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Mol	Chain	Res	Type
34	AA	219	A
34	AA	220	G
34	AA	221	A
34	AA	226	G
34	AA	227	A
34	AA	228	A
34	AA	229	A
34	AA	231	G
34	AA	235	A
34	AA	239	U
34	AA	242	U
34	AA	246	U
34	AA	250	U
34	AA	251	U
34	AA	255	C
34	AA	257	U
34	AA	258	U
34	AA	263	U
34	AA	265	U
34	AA	268	C
34	AA	269	A
34	AA	271	G
34	AA	276	G
34	AA	277	U
34	AA	290	G
34	AA	293	U
34	AA	302	A
34	AA	303	A
34	AA	304	U
34	AA	305	A
34	AA	307	G
34	AA	308	U
34	AA	309	G
34	AA	310	U
34	AA	313	U
34	AA	315	C
34	AA	317	U
34	AA	319	U
34	AA	324	U
34	AA	325	A
34	AA	336	U
34	AA	337	A

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Mol	Chain	Res	Type
34	AA	338	U
34	AA	342	G
34	AA	344	A
34	AA	354	C
34	AA	356	A
34	AA	358	C
34	AA	359	A
34	AA	362	U
34	AA	378	U
34	AA	382	A
34	AA	383	U
34	AA	384	A
34	AA	385	G
34	AA	386	U
34	AA	392	G
34	AA	394	A
34	AA	395	A
34	AA	396	U
34	AA	400	C
34	AA	401	A
34	AA	402	A
34	AA	405	A
34	AA	408	U
34	AA	409	A
34	AA	412	A
34	AA	413	C
34	AA	431	G
34	AA	432	A
34	AA	433	A
34	AA	434	C
34	AA	439	U
34	AA	442	G
34	AA	444	G
34	AA	447	A
34	AA	448	A
34	AA	449	A
34	AA	450	A
34	AA	451	C
34	AA	458	A
34	AA	459	G
34	AA	462	G
34	AA	463	G

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Mol	Chain	Res	Type
34	AA	467	U
34	AA	489	U
34	AA	494	U
34	AA	495	U
34	AA	497	U
34	AA	498	U
34	AA	499	U
34	AA	501	U
34	AA	502	U
34	AA	503	A
34	AA	504	A
34	AA	505	A
34	AA	506	A
34	AA	509	A
34	AA	510	A
34	AA	514	C
34	AA	521	U
34	AA	522	A
34	AA	523	A
34	AA	527	A
34	AA	530	U
34	AA	531	U
34	AA	532	C
34	AA	534	A
34	AA	536	A
34	AA	538	A
34	AA	539	G
34	AA	542	A
34	AA	544	C
34	AA	545	C
34	AA	547	C
34	AA	549	G
34	AA	573	U
34	AA	574	G
34	AA	575	U
34	AA	579	C
34	AA	580	A
34	AA	581	C
34	AA	582	U
34	AA	583	U
34	AA	585	C
34	AA	586	U

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Mol	Chain	Res	Type
34	AA	592	C
34	AA	593	A
34	AA	594	C
34	AA	595	U
34	AA	597	A
34	AA	598	U
34	AA	599	G
34	AA	601	G
34	AA	604	G
34	AA	605	A
34	AA	608	A
34	AA	610	U
34	AA	615	U
34	AA	617	A
34	AA	618	U
34	AA	620	U
34	AA	621	C
34	AA	622	U
34	AA	623	U
34	AA	628	U
34	AA	631	U
34	AA	636	U
34	AA	637	U
34	AA	641	G
34	AA	642	A
34	AA	643	G
34	AA	645	A
34	AA	646	A
34	AA	647	U
34	AA	649	U
34	AA	653	A
34	AA	658	U
34	AA	659	U
34	AA	662	A
34	AA	665	U
34	AA	666	U
34	AA	669	C
34	AA	671	U
34	AA	672	C
34	AA	674	U
34	AA	675	A
34	AA	677	A

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Mol	Chain	Res	Type
34	AA	678	A
34	AA	679	U
34	AA	681	U
34	AA	682	A
34	AA	683	A
34	AA	684	G
34	AA	685	U
34	AA	694	U
34	AA	697	A
34	AA	698	G
34	AA	699	U
34	AA	704	U
34	AA	707	U
34	AA	708	A
34	AA	714	C
34	AA	715	U
34	AA	716	C
34	AA	722	G
34	AA	727	A
34	AA	729	G
34	AA	738	A
34	AA	755	A
34	AA	759	U
34	AA	760	A
34	AA	761	U
34	AA	763	U
34	AA	765	A
34	AA	767	U
34	AA	769	U
34	AA	770	U
34	AA	773	A
34	AA	774	A
34	AA	793	A
34	AA	794	C
34	AA	799	A
34	AA	800	A
34	AA	804	A
34	AA	806	G
34	AA	809	A
34	AA	810	U
34	AA	812	U
34	AA	822	A

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Mol	Chain	Res	Type
34	AA	823	U
34	AA	825	G
34	AA	833	G
34	AA	834	U
34	AA	835	G
34	AA	859	C
34	AA	860	A
34	AA	862	U
34	AA	873	U
34	AA	874	A
34	AA	880	A
34	AA	885	A
34	AA	889	U
34	AA	890	G
34	AA	893	U
34	AA	895	A
34	AA	896	U
34	AA	899	A
34	AA	900	G
34	AA	905	A
34	AA	918	G
34	AA	920	A
34	AA	925	A
34	AA	927	A
34	AA	934	G
34	AA	936	A
34	AA	937	C
34	AA	945	G
34	AA	946	A
34	AA	951	A
34	AA	955	A
34	AA	956	A
34	AA	966	A
34	AA	968	G
34	AA	970	C
34	AA	976	G
34	AA	980	A
34	AA	984	A
34	AA	988	G
34	AA	990	U
34	AA	993	U
34	AA	998	U

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Mol	Chain	Res	Type
34	AA	999	G
34	AA	1013	U
34	AA	1014	C
34	AA	1015	A
34	AA	1016	A
34	AA	1024	U
34	AA	1026	G
34	AA	1027	G
34	AA	1033	A
34	AA	1035	G
34	AA	1036	A
34	AA	1040	A
34	AA	1041	U
34	AA	1042	C
34	AA	1043	G
34	AA	1052	A
34	AA	1053	U
34	AA	1056	G
34	AA	1063	A
34	AA	1070	A
34	AA	1072	A
34	AA	1073	G
34	AA	1078	C
34	AA	1079	U
34	AA	1086	C
34	AA	1087	G
34	AA	1092	A
34	AA	1097	A
34	AA	1098	U
34	AA	1099	U
34	AA	1101	A
34	AA	1102	U
34	AA	1106	A
34	AA	1109	U
34	AA	1111	A
34	AA	1113	C
34	AA	1114	A
34	AA	1115	G
34	AA	1116	G
34	AA	1121	G
34	AA	1122	A
34	AA	1123	U

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Mol	Chain	Res	Type
34	AA	1124	A
34	AA	1128	A
34	AA	1132	G
34	AA	1136	A
34	AA	1158	G
34	AA	1164	U
34	AA	1168	C
34	AA	1169	A
34	AA	1170	A
34	AA	1172	C
34	AA	1174	C
34	AA	1186	A
34	AA	1187	A
34	AA	1193	G
34	AA	1194	A
34	AA	1196	A
34	AA	1197	U
34	AA	1198	A
34	AA	1199	A
34	AA	1200	C
34	AA	1202	C
34	AA	1203	A
34	AA	1205	U
34	AA	1206	U
34	AA	1207	U
34	AA	1210	A
34	AA	1215	A
34	AA	1217	U
34	AA	1218	C
34	AA	1219	A
34	AA	1223	U
34	AA	1224	A
34	AA	1225	A
34	AA	1226	A
34	AA	1229	A
34	AA	1230	A
34	AA	1231	A
34	AA	1232	U
34	AA	1233	A
34	AA	1234	A
34	AA	1239	A
34	AA	1240	A

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Mol	Chain	Res	Type
34	AA	1244	G
34	AA	1245	G
34	AA	1259	G
34	AA	1263	A
34	AA	1272	U
34	AA	1273	G
34	AA	1281	C
34	AA	1283	C
34	AA	1287	A
34	AA	1288	C
34	AA	1291	U
34	AA	1295	A
34	AA	1299	G
34	AA	1300	G
34	AA	1306	A
34	AA	1309	U
34	AA	1310	A
34	AA	1314	G
34	AA	1320	G
34	AA	1321	A
34	AA	1324	U
34	AA	1325	C
34	AA	1329	U
34	AA	1334	G
34	AA	1337	G
34	AA	1340	G
34	AA	1341	G
34	AA	1344	C
34	AA	1345	A
34	AA	1346	U
34	AA	1418	A
34	AA	1420	C
34	AA	1431	A
34	AA	1433	U
34	AA	1434	G
34	AA	1435	G
34	AA	1436	A
34	AA	1437	U
34	AA	1441	G
34	AA	1444	A
34	AA	1445	A
34	AA	1450	G

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Mol	Chain	Res	Type
34	AA	1451	A
34	AA	1453	U
34	AA	1458	A
34	AA	1460	A
34	AA	1473	A
34	AA	1476	A
34	AA	1480	G
34	AA	1481	A
34	AA	1486	A
34	AA	1498	U
34	AA	1499	U
34	AA	1503	A
34	AA	1504	A
34	AA	1505	U
34	AA	1506	C
34	AA	1524	U
34	AA	1535	G
34	AA	1537	G
34	AA	1539	U
34	AA	1540	G
34	AA	1549	U
34	AA	1550	A
34	AA	1556	G
34	AA	1565	G
34	AA	1567	A
34	AA	1571	C
34	AA	1572	U
34	AA	1575	C
34	AA	1583	G
34	AA	1586	C
34	AA	1592	G
34	AA	1595	A
34	AA	1599	G
34	AA	1603	C
34	AA	1604	U
34	AA	1605	A
34	AA	1606	U
34	AA	1619	U
34	AA	1624	A
34	AA	1626	A
34	AA	1630	A
34	AA	1631	A

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Mol	Chain	Res	Type
34	AA	1635	G
34	AA	1636	A
34	AA	1637	G
34	AA	1643	U
34	AA	1649	G
34	AA	1651	C
34	AA	1657	U
34	AA	1659	A
34	AA	1661	U
34	AA	1668	G
34	AA	1676	C
34	AA	1677	G
34	AA	1685	G
34	AA	1688	A
34	AA	1691	G
34	AA	1693	U
34	AA	1703	U
34	AA	1704	U
34	AA	1705	A
34	AA	1706	A
34	AA	1721	C
34	AA	1725	U
34	AA	1730	A
34	AA	1732	A
34	AA	1736	A
34	AA	1737	A
34	AA	1748	A
34	AA	1750	U
34	AA	1751	C
34	AA	1756	G
34	AA	1761	U
34	AA	1762	A
34	AA	1763	G
34	AA	1766	U
34	AA	1767	U
34	AA	1768	A
34	AA	1769	U
34	AA	1770	G
34	AA	1771	A
34	AA	1774	U
34	AA	1780	G
34	AA	1781	A

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Mol	Chain	Res	Type
34	AA	1782	U
34	AA	1783	G
34	AA	1788	C
34	AA	1797	A
34	AA	1799	A
34	AA	1800	U
34	AA	1801	G
34	AA	1805	U
34	AA	1806	C
34	AA	1812	C
34	AA	1817	G
34	AA	1832	U
34	AA	1842	U
34	AA	1850	U
34	AA	1852	C
34	AA	1855	U
34	AA	1856	U
34	AA	1857	A
34	AA	1871	A
34	AA	1873	U
34	AA	1874	C
34	AA	1881	C
34	AA	1882	U
34	AA	1887	G
34	AA	1888	A
34	AA	1898	U
34	AA	1899	U
34	AA	1900	G
34	AA	1902	A
34	AA	1904	U
34	AA	1905	C
34	AA	1914	A
34	AA	1963	U
34	AA	1964	G
34	AA	1965	U
34	AA	1966	A
34	AA	1969	A
34	AA	1970	A
34	AA	1971	U
34	AA	1976	A
34	AA	1978	U
34	AA	1981	U

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Mol	Chain	Res	Type
34	AA	1990	A
34	AA	1991	U
34	AA	1996	C
34	AA	1997	G
34	AA	1998	A
34	AA	1999	A
34	AA	2000	G
34	AA	2003	G
34	AA	2010	C
34	AA	2016	U
34	AA	2017	U
34	AA	2018	G
34	AA	2019	A
34	AA	2030	G
34	AA	2034	G
34	AA	2080	C
34	AA	2082	C
34	AA	2084	U
34	AA	2090	U
34	AA	2092	G
34	AA	2094	A
34	AA	2096	G
34	AA	2097	A
34	AA	2102	A
34	AA	2106	A
34	AA	2107	C
34	AA	2108	A
34	AA	2109	A
34	AA	2113	C
34	AA	2115	U
34	AA	2117	A
34	AA	2125	A
34	AA	2132	A
34	AA	2136	C
34	AA	2145	A
34	AA	2147	A
34	AA	2148	U
34	AA	2149	A
34	AA	2160	G
34	AA	2161	G
34	AA	2171	U
34	AA	2174	G

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Mol	Chain	Res	Type
34	AA	2186	C
34	AA	2203	G
34	AA	2218	C
34	AA	2219	A
34	AA	2220	U
34	AA	2221	U
34	AA	2389	G
34	AA	2394	C
34	AA	2395	U
34	AA	2403	G
34	AA	2404	A
34	AA	2409	G
34	AA	2410	A
34	AA	2411	C
34	AA	2414	G
34	AA	2415	G
34	AA	2419	A
34	AA	2424	A
34	AA	2427	G
34	AA	2433	U
34	AA	2434	U
34	AA	2435	A
34	AA	2437	A
34	AA	2438	A
34	AA	2451	A
34	AA	2453	A
34	AA	2463	U
34	AA	2464	G
34	AA	2465	G
34	AA	2477	U
34	AA	2486	U
34	AA	2489	C
34	AA	2500	A
34	AA	2510	U
34	AA	2518	U
34	AA	2521	A
34	AA	2524	C
34	AA	2525	A
34	AA	2536	A
34	AA	2537	A
34	AA	2539	G
34	AA	2542	G

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Mol	Chain	Res	Type
34	AA	2544	G
34	AA	2545	A
34	AA	2548	A
34	AA	2549	A
34	AA	2550	C
34	AA	2552	A
34	AA	2555	A
34	AA	2556	C
34	AA	2562	U
34	AA	2564	A
34	AA	2565	G
34	AA	2566	G
34	AA	2573	A
34	AA	2574	A
34	AA	2575	U
34	AA	2576	G
34	AA	2580	C
34	AA	2581	G
34	AA	2584	A
34	AA	2588	A
34	AA	2591	U
34	AA	2596	A
34	AA	2600	G
34	AA	2602	A
34	AA	2603	U
34	AA	2606	A
34	AA	2608	G
34	AA	2627	U
34	AA	2628	G
34	AA	2629	U
34	AA	2640	U
34	AA	2665	A
34	AA	2666	A
34	AA	2667	C
34	AA	2668	G
34	AA	2671	C
34	AA	2676	C
34	AA	2681	U
34	AA	2684	G
34	AA	2686	G
34	AA	2690	A
34	AA	2694	A

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Mol	Chain	Res	Type
34	AA	2695	A
34	AA	2696	G
34	AA	2697	A
34	AA	2698	C
34	AA	2703	U
34	AA	2704	U
34	AA	2705	G
34	AA	2710	U
34	AA	2711	U
34	AA	2712	A
34	AA	2727	U
34	AA	2728	G
34	AA	2730	G
34	AA	2745	G
34	AA	2803	A
34	AA	2809	A
34	AA	2810	A
34	AA	2811	A
34	AA	2817	U
34	AA	2822	U
34	AA	2823	U
34	AA	2832	A
34	AA	2833	U
34	AA	2835	G
34	AA	2837	G
34	AA	2884	G
34	AA	2886	A
34	AA	2887	U
34	AA	2888	U
34	AA	2928	G
34	AA	2932	A
34	AA	2933	C
34	AA	2945	G
34	AA	2946	G
34	AA	2953	G
34	AA	2967	A
34	AA	2968	U
34	AA	2975	A
34	AA	2980	U
34	AA	2981	A
34	AA	2987	G
34	AA	2990	G

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Mol	Chain	Res	Type
34	AA	2991	U
34	AA	2995	A
34	AA	2996	A
34	AA	3005	C
34	AA	3011	G
34	AA	3013	A
34	AA	3014	C
34	AA	3015	A
34	AA	3018	A
34	AA	3019	A
34	AA	3020	U
34	AA	3028	A
34	AA	3029	G
34	AA	3030	A
34	AA	3033	A
34	AA	3035	A
34	AA	3042	A
34	AA	3053	G
34	AA	3061	U
34	AA	3068	A
34	AA	3073	G
34	AA	3076	G
34	AA	3079	A
34	AA	3081	C
34	AA	3086	A
34	AA	3087	A
34	AA	3088	G
34	AA	3091	U
34	AA	3092	G
34	AA	3094	C
34	AA	3100	G
34	AA	3108	A
34	AA	3111	U
34	AA	3113	U
34	AA	3116	A
34	AA	3118	A
34	AA	3123	C
34	AA	3124	G
34	AA	3126	A
34	AA	3127	A
34	AA	3130	U
34	AA	3131	A

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Mol	Chain	Res	Type
34	AA	3135	A
34	AA	3138	A
34	AA	3139	C
34	AA	3141	G
34	AA	3146	U
34	AA	3155	G
34	AA	3158	U
34	AA	3159	G
34	AA	3160	A
34	AA	3161	A
34	AA	3162	A
34	AA	3167	A
34	AA	3168	C
34	AA	3169	C
34	AA	3173	G
34	AA	3175	G
34	AA	3176	A
34	AA	3177	U
34	AA	3180	C
34	AA	3193	G
34	AA	3201	C
34	AA	3202	U
34	AA	3204	C
34	AA	3208	C
34	AA	3209	G
34	AA	3212	G
34	AA	3220	U
34	AA	3225	C
34	AA	3230	G
34	AA	3231	A
34	AA	3235	C
34	AA	3245	U
34	AA	3246	A
34	AA	3248	C
34	AA	3253	G
34	AA	3257	G
34	AA	3258	C
34	AA	3262	A
34	AA	3269	A
34	AA	3277	G
34	AA	3281	G
34	AA	3282	U

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Mol	Chain	Res	Type
34	AA	3287	C
34	AA	3292	A
34	AA	3293	A
34	AA	3294	U
34	AA	3295	A
34	AA	3297	G
34	AA	3301	C
34	AA	3302	G
34	AA	3304	G
34	AA	3305	A
34	AA	3306	G
34	AA	3312	U
34	AA	3313	U
34	AA	3330	A
34	AA	3336	G
34	AA	3338	U
34	AA	3342	C
34	AA	3349	G
34	AA	3351	U
34	AA	3353	A
34	AA	3354	A
34	AA	3358	U
34	AA	3359	A
34	AA	3361	U
34	AA	3362	A
34	AA	3374	U
34	AA	3375	A
34	AA	3377	A
34	AA	3378	C
34	AA	3379	A
34	AA	3380	U
34	AA	3381	A
34	AA	3382	U
34	AA	3383	A
34	AA	3389	G
34	AA	3391	G
34	AA	3398	A
34	AA	3415	A
34	AA	3416	G
34	AA	3418	A
34	AA	3419	U
34	AA	3420	U

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Mol	Chain	Res	Type
34	AA	3421	A
34	AA	3432	A
34	AA	3435	A
34	AA	3436	U
34	AA	3442	C
34	AA	3443	A
34	AA	3444	G
34	AA	3445	C
34	AA	3459	A
34	AA	3463	G
34	AA	3464	U
34	AA	3468	G
34	AA	3471	A
34	AA	3472	A
34	AA	3476	A
34	AA	3477	A
34	AA	3483	U
34	AA	3488	U
34	AA	3493	G
34	AA	3500	G
34	AA	3507	A
34	AA	3510	C
34	AA	3513	G
34	AA	3515	A
34	AA	3516	A
34	AA	3527	U
34	AA	3530	A
34	AA	3555	U
34	AA	3571	A
34	AA	3573	U
34	AA	3575	U
34	AA	3576	A
34	AA	3578	A
34	AA	3579	A
34	AA	3580	G
34	AA	3581	A
34	AA	3582	G
34	AA	3585	A
34	AA	3586	U
34	AA	3588	A
34	AA	3589	U
34	AA	3590	A

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Mol	Chain	Res	Type
34	AA	3591	U
34	AA	3594	G
34	AA	3597	C
34	AA	3612	U
34	AA	3615	A
34	AA	3618	A
34	AA	3619	U
34	AA	3623	A
34	AA	3624	U
34	AA	3625	C
34	AA	3626	A
34	AA	3627	C
34	AA	3632	U
34	AA	3658	G
34	AA	3659	C
34	AA	3661	A
34	AA	3662	U
34	AA	3663	A
34	AA	3664	G
34	AA	3665	U
34	AA	3667	C
34	AA	3668	U
34	AA	3669	U
34	AA	3670	U
34	AA	3671	A
34	AA	3677	A
34	AA	3680	A
34	AA	3683	G
34	AA	3689	C
34	AA	3697	G
34	AA	3698	U
34	AA	3707	U
34	AA	3711	U
34	AA	3712	G
34	AA	3716	C
34	AA	3727	A
34	AA	3728	A
34	AA	3732	U
34	AA	3733	G
34	AA	3736	A
34	AA	3737	G
34	AA	3739	A

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Mol	Chain	Res	Type
34	AA	3740	A
34	AA	3752	C
34	AA	3761	G
34	AA	3767	U
34	AA	3768	A
34	AA	3770	C
34	AA	3775	G
34	AA	3778	G
34	AA	3779	U
34	AA	3782	A
34	AA	3783	G
35	AC	5	A
35	AC	6	C
35	AC	25	C
35	AC	36	C
35	AC	38	G
35	AC	39	C
35	AC	43	G
35	AC	50	G
35	AC	53	G
35	AC	55	A
35	AC	57	A
35	AC	63	A
35	AC	64	U
35	AC	65	A
35	AC	66	C
35	AC	67	G
35	AC	68	C
35	AC	73	A
35	AC	75	A
35	AC	80	C
35	AC	90	G
35	AC	92	A
35	AC	94	C
35	AC	98	A
35	AC	99	G
35	AC	100	A
35	AC	101	A
35	AC	102	U
35	AC	107	A
35	AC	108	A
35	AC	109	U

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Mol	Chain	Res	Type
35	AC	111	U
35	AC	112	A
35	AC	114	A
35	AC	115	C
35	AC	116	U
35	AC	117	A
35	AC	119	A
35	AC	122	A
35	AC	123	A
35	AC	135	G
35	AC	137	A
35	AC	138	U
35	AC	139	A
35	AC	140	G
35	AC	142	G
35	AC	145	A
35	AC	146	C
35	AC	149	C
36	AB	3	A
36	AB	7	G
36	AB	10	C
36	AB	13	A
36	AB	16	A
36	AB	18	A
36	AB	22	G
36	AB	25	A
36	AB	26	C
36	AB	27	A
36	AB	28	C
36	AB	33	U
36	AB	38	U
36	AB	48	G
36	AB	51	G
36	AB	53	U
36	AB	54	A
36	AB	63	A
36	AB	64	A
36	AB	69	U
36	AB	71	G
36	AB	74	A
36	AB	89	G
36	AB	93	G

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Mol	Chain	Res	Type
36	AB	97	G
36	AB	100	A
36	AB	110	G

All (306) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	1	A
1	A	2	A
1	A	25	C
1	A	44	U
1	A	45	U
1	A	95	A
1	A	103	U
1	A	105	A
1	A	107	A
1	A	156	A
1	A	161	U
1	A	206	A
1	A	246	A
1	A	249	A
1	A	251	U
1	A	326	U
1	A	327	U
1	A	357	U
1	A	358	G
1	A	383	G
1	A	406	A
1	A	408	U
1	A	423	A
1	A	474	A
1	A	525	G
1	A	544	G
1	A	561	C
1	A	577	A
1	A	614	A
1	A	616	U
1	A	745	A
1	A	752	U
1	A	753	U
1	A	789	U
1	A	790	U

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Mol	Chain	Res	Type
1	A	793	G
1	A	804	U
1	A	805	A
1	A	815	G
1	A	818	C
1	A	831	U
1	A	844	G
1	A	872	A
1	A	874	A
1	A	876	U
1	A	879	A
1	A	919	U
1	A	973	G
1	A	981	U
1	A	983	G
1	A	1028	U
1	A	1056	G
1	A	1070	A
1	A	1100	U
1	A	1182	A
1	A	1209	G
1	A	1259	C
1	A	1292	U
1	A	1295	A
1	A	1300	G
1	A	1301	G
1	A	1305	A
1	A	1370	U
1	A	1381	C
1	A	1414	A
1	A	1416	U
1	A	1421	A
1	A	1423	A
1	A	1432	G
1	A	1448	U
1	A	1455	C
1	A	1659	U
1	A	1666	C
1	A	1667	A
1	A	1672	C
1	A	1691	G
1	A	1692	A

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Mol	Chain	Res	Type
1	A	1704	G
1	A	1705	C
1	A	1729	A
1	A	1786	U
1	A	1788	U
1	A	1799	A
1	A	1818	A
1	A	1819	U
1	A	1834	A
1	A	1854	U
1	A	1865	G
1	A	1870	A
1	A	1871	G
1	A	1897	A
1	A	1898	G
1	A	1912	C
1	A	1934	C
1	A	1976	G
1	A	1977	G
1	A	2048	A
1	A	2053	U
1	A	2060	G
1	A	2071	U
2	7	34	C
2	7	44	A
2	7	53	G
2	7	55	U
2	7	73	A
34	AA	10	G
34	AA	25	A
34	AA	43	A
34	AA	61	A
34	AA	62	A
34	AA	65	A
34	AA	121	U
34	AA	122	A
34	AA	124	U
34	AA	138	C
34	AA	149	A
34	AA	162	U
34	AA	181	C
34	AA	205	G

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Mol	Chain	Res	Type
34	AA	215	C
34	AA	218	U
34	AA	228	A
34	AA	257	U
34	AA	270	U
34	AA	289	A
34	AA	315	C
34	AA	337	A
34	AA	353	G
34	AA	416	G
34	AA	432	A
34	AA	497	U
34	AA	500	A
34	AA	501	U
34	AA	504	A
34	AA	505	A
34	AA	579	C
34	AA	580	A
34	AA	581	C
34	AA	594	C
34	AA	595	U
34	AA	596	A
34	AA	597	A
34	AA	607	A
34	AA	620	U
34	AA	621	C
34	AA	641	G
34	AA	645	A
34	AA	650	U
34	AA	652	A
34	AA	667	U
34	AA	674	U
34	AA	681	U
34	AA	683	A
34	AA	697	A
34	AA	698	G
34	AA	703	U
34	AA	715	U
34	AA	721	U
34	AA	764	G
34	AA	768	C
34	AA	769	U

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Mol	Chain	Res	Type
34	AA	803	A
34	AA	809	A
34	AA	811	A
34	AA	821	C
34	AA	859	C
34	AA	889	U
34	AA	899	A
34	AA	904	G
34	AA	935	A
34	AA	965	A
34	AA	998	U
34	AA	1013	U
34	AA	1027	G
34	AA	1035	G
34	AA	1042	C
34	AA	1078	C
34	AA	1098	U
34	AA	1101	A
34	AA	1115	G
34	AA	1186	A
34	AA	1197	U
34	AA	1202	C
34	AA	1204	A
34	AA	1217	U
34	AA	1223	U
34	AA	1224	A
34	AA	1243	G
34	AA	1272	U
34	AA	1319	U
34	AA	1422	A
34	AA	1435	G
34	AA	1457	G
34	AA	1503	A
34	AA	1538	U
34	AA	1539	U
34	AA	1574	C
34	AA	1602	A
34	AA	1603	C
34	AA	1605	A
34	AA	1632	G
34	AA	1642	G
34	AA	1658	G

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Mol	Chain	Res	Type
34	AA	1703	U
34	AA	1705	A
34	AA	1750	U
34	AA	1798	A
34	AA	1805	U
34	AA	1872	A
34	AA	1873	U
34	AA	1881	C
34	AA	1898	U
34	AA	1964	G
34	AA	1989	A
34	AA	1990	A
34	AA	1996	C
34	AA	1999	A
34	AA	2015	C
34	AA	2033	C
34	AA	2096	G
34	AA	2146	A
34	AA	2170	G
34	AA	2193	U
34	AA	2219	A
34	AA	2394	C
34	AA	2409	G
34	AA	2434	U
34	AA	2437	A
34	AA	2523	U
34	AA	2563	A
34	AA	2574	A
34	AA	2665	A
34	AA	2696	G
34	AA	2727	U
34	AA	2810	A
34	AA	2816	U
34	AA	2822	U
34	AA	2883	U
34	AA	2886	A
34	AA	2932	A
34	AA	2966	C
34	AA	3013	A
34	AA	3017	A
34	AA	3018	A
34	AA	3019	A

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Mol	Chain	Res	Type
34	AA	3027	U
34	AA	3034	A
34	AA	3085	A
34	AA	3097	A
34	AA	3129	U
34	AA	3137	U
34	AA	3140	U
34	AA	3158	U
34	AA	3161	A
34	AA	3167	A
34	AA	3195	C
34	AA	3229	C
34	AA	3230	G
34	AA	3245	U
34	AA	3291	U
34	AA	3309	G
34	AA	3337	U
34	AA	3361	U
34	AA	3379	A
34	AA	3381	A
34	AA	3382	U
34	AA	3414	G
34	AA	3419	U
34	AA	3434	A
34	AA	3435	A
34	AA	3476	A
34	AA	3500	G
34	AA	3526	U
34	AA	3575	U
34	AA	3577	A
34	AA	3579	A
34	AA	3584	A
34	AA	3585	A
34	AA	3588	A
34	AA	3590	A
34	AA	3617	A
34	AA	3624	U
34	AA	3627	C
34	AA	3658	G
34	AA	3660	A
34	AA	3663	A
34	AA	3667	C

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Mol	Chain	Res	Type
34	AA	3669	U
34	AA	3670	U
34	AA	3688	G
34	AA	3711	U
34	AA	3732	U
34	AA	3774	A
34	AA	3782	A
35	AC	35	A
35	AC	37	A
35	AC	64	U
35	AC	90	G
35	AC	100	A
35	AC	108	A
35	AC	114	A
35	AC	134	G
35	AC	139	A
35	AC	145	A
36	AB	84	U
36	AB	88	A

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
63	AW	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AW	154:ASN	C	197:UNK	N	36.79

6 Map visualisation

This section contains visualisations of the EMDB entry EMD-6452. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections

This section was not generated.

6.2 Central slices

This section was not generated.

6.3 Largest variance slices

This section was not generated.

6.4 Orthogonal surface views

This section was not generated.

6.5 Mask visualisation

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

7 Map analysis ⓘ

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

7.1 Map-value distribution ⓘ

This section was not generated.

7.2 Volume estimate versus contour level ⓘ

This section was not generated.

7.3 Rotationally averaged power spectrum ⓘ

This section was not generated. The rotationally averaged power spectrum had issues being displayed.

8 Fourier-Shell correlation

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

9 Map-model fit

This section was not generated.