Full wwPDB X-ray Structure Validation Report ⓘ

May 13, 2020 – 06:59 am BST

PDB ID	:	4V8I
Title	:	Crystal structure of YfiA bound to the 70S ribosome.
Authors	:	Polikanov, Y.S.; Blaha, G.M.; Steitz, T.A.
Deposited on	:	2011-12-12
Resolution	:	2.70 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The following versions of software and data (see references ①) were used in the production of this report:

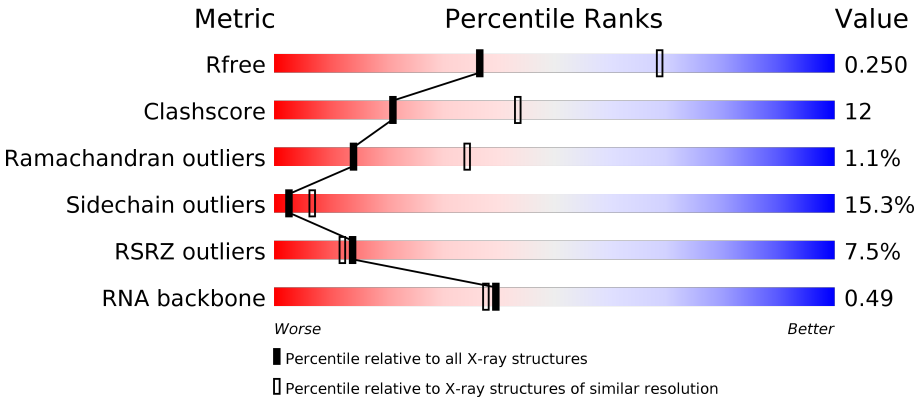
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.70 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	2808 (2.70-2.70)
Clashscore	141614	3122 (2.70-2.70)
Ramachandran outliers	138981	3069 (2.70-2.70)
Sidechain outliers	138945	3069 (2.70-2.70)
RSRZ outliers	127900	2737 (2.70-2.70)
RNA backbone	3102	1159 (3.00-2.40)

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

Mol	Chain	Length	Quality of chain
1	AA	1522	5% 39% 39% 15% 5% •
1	CA	1522	7% 35% 41% 18% • •
2	AB	256	11% 47% 36% 6% 11%
2	CB	256	30% 50% 36% 6% 8%

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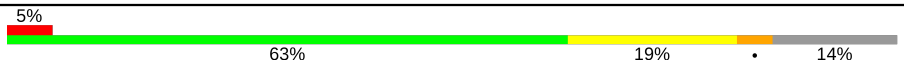
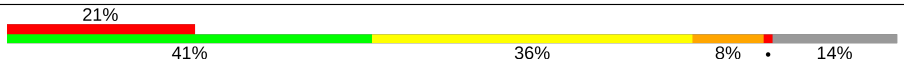
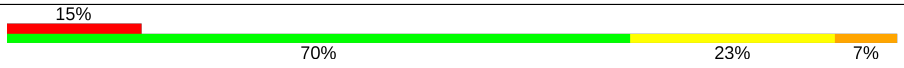
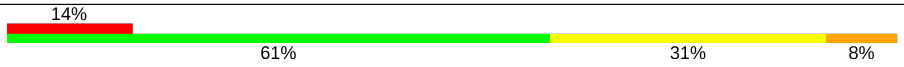
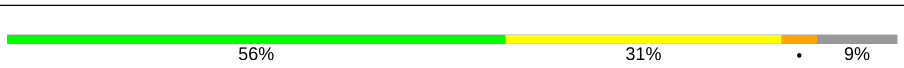
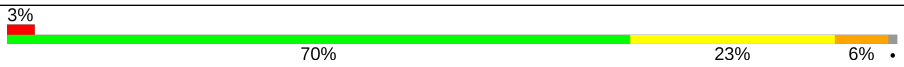
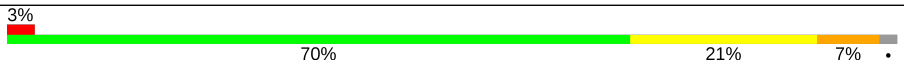
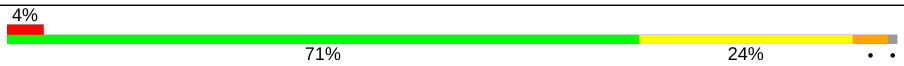
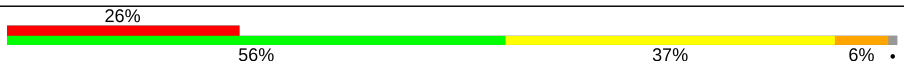
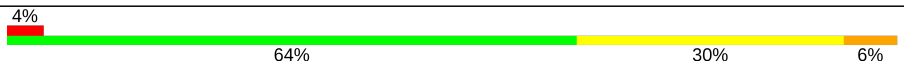
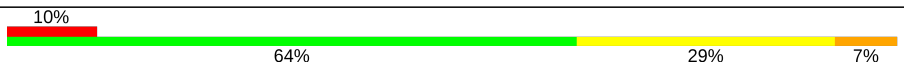
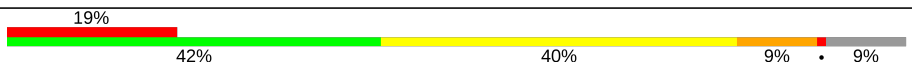
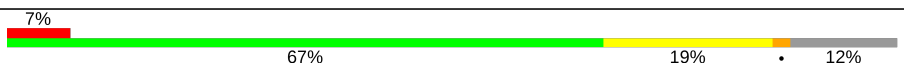
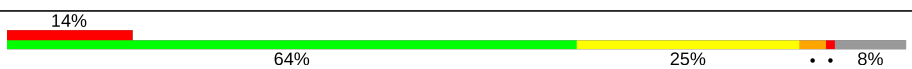
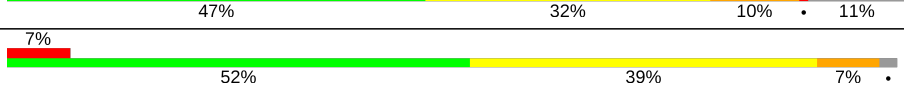
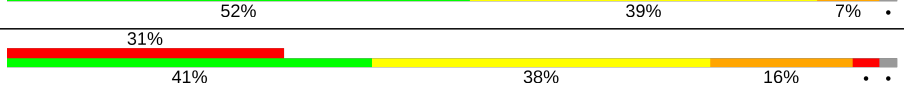
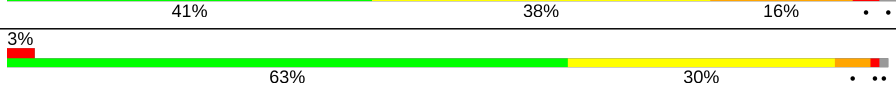
Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	

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Mol	Chain	Length	Quality of chain
15	CO	89	12% 60% 34%
16	AP	88	15% 51% 33% 9% 7%
16	CP	88	5% 41% 43% 9% 7%
17	AQ	105	3% 51% 36% 7% 6%
17	CQ	105	9% 57% 30% 7% 6%
18	AR	88	3% 50% 24% 23%
18	CR	88	10% 50% 23% 23%
19	AS	93	10% 54% 29% 13%
19	CS	93	37% 51% 25% 9% 16%
20	AT	106	10% 59% 25% 5% 9%
20	CT	106	12% 59% 32% 6%
21	AU	27	11% 56% 22% 7% 15%
21	CU	27	33% 44% 33% 7% 15%
22	AY	119	2% 56% 19% 20%
22	CY	119	43% 40% 30% 8% 21%
23	BA	2915	4% 37% 41% 15%
23	DA	2915	5% 39% 39% 15%
24	BB	122	% 50% 34% 13%
24	DB	122	20% 36% 40% 17% 5%
25	BD	276	71% 23% 5%
25	DD	276	71% 23% 5%
26	BE	206	67% 24% 7%
26	DE	206	% 66% 24% 9%
27	BF	210	66% 23% 6%
27	DF	210	6% 67% 26%

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Mol	Chain	Length	Quality of chain
28	BG	182	3% 65% 29% 6%
28	DG	182	46% 61% 32% 5%
29	BH	180	2% 69% 24%
29	DH	180	31% 70% 23%
30	BI	148	8% 53% 36% 9%
30	DI	148	8% 52% 34% 12%
31	BN	140	64% 32%
31	DN	140	3% 65% 30% 5%
32	BO	122	77% 22%
32	DO	122	% 77% 20%
33	BP	150	% 65% 27% 5%
33	DP	150	11% 63% 26% 8%
34	BQ	141	68% 27%
34	DQ	141	4% 63% 32%
35	BR	118	65% 29% 5%
35	DR	118	64% 27% 8%
36	BS	112	56% 34% 7%
36	DS	112	24% 54% 35% 8%
37	BT	146	% 58% 26% 5% 10%
37	DT	146	% 59% 24% 5% 11%
38	BU	118	% 79% 16%
38	DU	118	% 72% 23%
39	BV	101	% 70% 25% 5%
39	DV	101	9% 70% 22% 8%
40	BW	113	66% 25% 7%

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Mol	Chain	Length	Quality of chain
40	DW	113	67% 25% 6%
41	BX	96	76% 19%
41	DX	96	2% 74% 21%
42	BY	110	69% 25%
42	DY	110	13% 65% 27% 5%
43	BZ	206	64% 25% 7%
43	DZ	206	18% 60% 31% 7%
44	B0	85	67% 20% 11%
44	D0	85	8% 62% 24% 5% 9%
45	B1	98	2% 68% 24%
45	D1	98	3% 67% 24% 5%
46	B2	72	2% 65% 28%
46	D2	72	10% 65% 29%
47	B3	60	2% 82% 10% 7%
47	D3	60	10% 77% 17% 5%
48	B4	71	3% 41% 18% 35%
48	D4	71	17% 46% 13% 6% 35%
49	B5	60	75% 17% 5%
49	D5	60	3% 75% 17% 7%
50	B6	54	56% 30% 13%
50	D6	54	56% 31% 11%
51	B7	49	61% 29% 6%
51	D7	49	78% 12% 8%
52	B8	65	57% 35% 6%
52	D8	65	2% 51% 40% 5%

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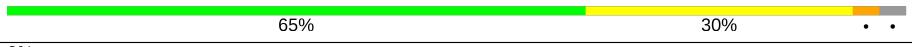
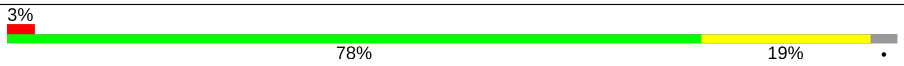
Mol	Chain	Length	Quality of chain
53	B9	37	
53	D9	37	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	BA	3111	-	-	-	X
54	MG	BA	3605	-	-	-	X
54	MG	CA	1604	-	-	-	X
54	MG	CA	1607	-	-	-	X
54	MG	CA	1612	-	-	-	X
54	MG	CA	1630	-	-	-	X
54	MG	DA	3014	-	-	-	X
54	MG	DA	3130	-	-	-	X
54	MG	DA	3547	-	-	-	X
54	MG	DA	3614	-	-	-	X
54	MG	DB	206	-	-	-	X

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 287173 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1493	Total	C	N	O	P	0	0	0
			32102	14287	5955	10367	1493			
1	CA	1491	Total	C	N	O	P	0	0	0
			32056	14267	5945	10353	1491			

- Molecule 2 is a protein called 30S Ribosomal Protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	229	Total	C	N	O	S	0	0	0
			1777	1134	318	320	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1817	1160	325	327	5			

- Molecule 3 is a protein called 30S Ribosomal Protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1450	906	279	264	1			
3	CC	206	Total	C	N	O	S	0	0	0
			1453	908	280	264	1			

- Molecule 4 is a protein called 30S Ribosomal Protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1520	960	283	272	5			
4	CD	208	Total	C	N	O	S	0	0	0
			1537	968	287	276	6			

- Molecule 5 is a protein called 30S Ribosomal Protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	148	Total	C	N	O	S	0	0	0
			1105	699	204	198	4			
5	CE	148	Total	C	N	O	S	0	0	0
			1106	700	204	198	4			

- Molecule 6 is a protein called 30S Ribosomal Protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			781	495	137	146	3			
6	CF	99	Total	C	N	O	S	0	0	0
			776	492	135	146	3			

- Molecule 7 is a protein called 30S Ribosomal Protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1167	727	224	210	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1164	726	224	208	6			

- Molecule 8 is a protein called 30S Ribosomal Protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1045	665	188	190	2			
8	CH	138	Total	C	N	O	S	0	0	0
			1049	667	188	192	2			

- Molecule 9 is a protein called 30S Ribosomal Protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	125	Total	C	N	O	0	0	0
			852	533	163	156			
9	CI	125	Total	C	N	O	0	0	0
			849	531	161	157			

- Molecule 10 is a protein called 30S Ribosomal Protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	AJ	96	Total	C	N	O	0	0	0
			659	408	131	120			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	CJ	96	Total	C	N	O	0	0	0
			657	407	129	121			

- Molecule 11 is a protein called 30S Ribosomal Protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	114	Total	C	N	O	S	0	0	0
			828	516	155	154	3			
11	CK	114	Total	C	N	O	S	0	0	0
			828	516	155	154	3			

- Molecule 12 is a protein called 30S Ribosomal Protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	122	Total	C	N	O	S	0	0	0
			909	570	179	159	1			
12	CL	122	Total	C	N	O	S	0	0	0
			905	567	178	159	1			

- Molecule 13 is a protein called 30S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			801	494	164	142	1			
13	CM	112	Total	C	N	O	S	0	0	0
			784	486	159	138	1			

- Molecule 14 is a protein called 30S Ribosomal Protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			478	303	99	72	4			
14	CN	60	Total	C	N	O	S	0	0	0
			474	300	98	72	4			

- Molecule 15 is a protein called 30S Ribosomal Protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			724	453	143	126	2			
15	CO	88	Total	C	N	O	S	0	0	0
			724	453	143	126	2			

- Molecule 16 is a protein called 30S Ribosomal Protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			651	416	123	111	1			
16	CP	82	Total	C	N	O	S	0	0	0
			661	421	126	113	1			

- Molecule 17 is a protein called 30S Ribosomal Protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			819	525	150	142	2			

- Molecule 18 is a protein called 30S Ribosomal Protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	68	Total	C	N	O	0	0	0
			514	329	98	87			
18	CR	68	Total	C	N	O	0	0	0
			514	329	98	87			

- Molecule 19 is a protein called 30S Ribosomal Protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	81	Total	C	N	O	S	0	0	0
			560	351	108	99	2			
19	CS	78	Total	C	N	O	S	0	0	0
			549	345	106	96	2			

- Molecule 20 is a protein called 30S Ribosomal Protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	96	Total	C	N	O	S	0	0	0
			699	430	150	117	2			
20	CT	104	Total	C	N	O	S	0	0	0
			773	476	162	133	2			

- Molecule 21 is a protein called 30S Ribosomal Protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	CU	23	Total	C	N	O	0	0	0
			180	112	41	27			

- Molecule 22 is a protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AY	95	Total	C	N	O	S	0	0	0
			754	472	142	137	3			
22	CY	94	Total	C	N	O	S	0	0	0
			739	461	138	137	3			

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AY	114	HIS	-	EXPRESSION TAG	UNP P0AD49
AY	115	HIS	-	EXPRESSION TAG	UNP P0AD49
AY	116	HIS	-	EXPRESSION TAG	UNP P0AD49
AY	117	HIS	-	EXPRESSION TAG	UNP P0AD49
AY	118	HIS	-	EXPRESSION TAG	UNP P0AD49
AY	119	HIS	-	EXPRESSION TAG	UNP P0AD49
CY	114	HIS	-	EXPRESSION TAG	UNP P0AD49
CY	115	HIS	-	EXPRESSION TAG	UNP P0AD49
CY	116	HIS	-	EXPRESSION TAG	UNP P0AD49
CY	117	HIS	-	EXPRESSION TAG	UNP P0AD49
CY	118	HIS	-	EXPRESSION TAG	UNP P0AD49
CY	119	HIS	-	EXPRESSION TAG	UNP P0AD49

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BA	2827	Total	C	N	O	P	0	0	0
			60898	27101	11400	19571	2826			
23	DA	2798	Total	C	N	O	P	0	0	0
			60264	26820	11274	19374	2796			

- Molecule 24 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	DB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 25 is a protein called 50S Ribosomal Protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
25	DD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 26 is a protein called 50S Ribosomal Protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			
26	DE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			

- Molecule 27 is a protein called 50S Ribosomal Protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BF	203	Total	C	N	O	S	0	0	1
			1577	1004	298	273	2			
27	DF	203	Total	C	N	O	S	0	0	1
			1572	1003	298	269	2			

- Molecule 28 is a protein called 50S Ribosomal Protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BG	181	Total	C	N	O	S	0	0	0
			1368	879	242	244	3			
28	DG	181	Total	C	N	O	S	0	0	0
			1368	879	242	244	3			

- Molecule 29 is a protein called 50S Ribosomal Protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			
29	DH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			

- Molecule 30 is a protein called 50S Ribosomal Protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BI	146	Total	C	N	O	S	0	0	0
			1043	672	180	190	1			
30	DI	146	Total	C	N	O	S	0	0	0
			1043	672	180	190	1			

- Molecule 31 is a protein called 50S Ribosomal Protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			
31	DN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			

- Molecule 32 is a protein called 50S Ribosomal Protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			
32	DO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			

- Molecule 33 is a protein called 50S Ribosomal Protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			
33	DP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			

- Molecule 34 is a protein called 50S Ribosomal Protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
34	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 35 is a protein called 50S Ribosomal Protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
35	DR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 36 is a protein called 50S Ribosomal Protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	BS	110	Total	C	N	O	0	0	0
			865	544	172	149			
36	DS	110	Total	C	N	O	0	0	0
			873	550	174	149			

- Molecule 37 is a protein called 50S Ribosomal Protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BT	131	Total	C	N	O	S	0	0	0
			1063	666	213	183	1			
37	DT	130	Total	C	N	O	S	0	0	0
			1058	663	212	182	1			

- Molecule 38 is a protein called 50S Ribosomal Protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
38	DU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 39 is a protein called 50S Ribosomal Protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BV	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
39	DV	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			

- Molecule 40 is a protein called 50S Ribosomal Protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BW	112	Total	C	N	O	S	0	0	0
			881	554	172	153	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	DW	111	Total	C	N	O	S	0	0	0
			877	552	171	152	2			

- Molecule 41 is a protein called 50S Ribosomal Protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BX	95	Total	C	N	O	S	0	0	0
			742	483	134	124	1			
41	DX	95	Total	C	N	O	S	0	0	0
			732	477	130	124	1			

- Molecule 42 is a protein called 50S Ribosomal Protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BY	107	Total	C	N	O	S	0	0	0
			785	503	145	131	6			
42	DY	107	Total	C	N	O	S	0	0	0
			781	502	145	128	6			

- Molecule 43 is a protein called 50S Ribosomal Protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BZ	198	Total	C	N	O	S	0	0	0
			1522	972	269	279	2			
43	DZ	203	Total	C	N	O	S	0	0	0
			1528	973	268	284	3			

- Molecule 44 is a protein called 50S Ribosomal Protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	B0	76	Total	C	N	O	S	0	0	0
			594	368	125	100	1			
44	D0	77	Total	C	N	O	S	0	0	0
			607	376	126	104	1			

- Molecule 45 is a protein called 50S Ribosomal Protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	B1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			
45	D1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			

- Molecule 46 is a protein called 50S Ribosomal Protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
46	D2	71	Total	C	N	O	S	0	0	0
			584	361	118	103	2			

- Molecule 47 is a protein called 50S Ribosomal Protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
47	B3	59	Total	C	N	O	0	0	0
			458	293	87	78			
47	D3	59	Total	C	N	O	0	0	0
			463	295	87	81			

- Molecule 48 is a protein called 50S Ribosomal Protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			
48	D4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			

- Molecule 49 is a protein called 50S Ribosomal Protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B5	59	Total	C	N	O	S	0	0	0
			455	286	90	74	5			
49	D5	59	Total	C	N	O	S	0	0	0
			451	283	89	74	5			

- Molecule 50 is a protein called 50S Ribosomal Protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B6	53	Total	C	N	O	S	0	0	0
			449	278	90	77	4			
50	D6	53	Total	C	N	O	S	0	0	0
			437	272	84	77	4			

- Molecule 51 is a protein called 50S Ribosomal Protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
51	D7	48	Total	C	N	O	S	0	0	0
			402	248	97	55	2			

- Molecule 52 is a protein called 50S Ribosomal Protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B8	64	Total	C	N	O	S	0	0	0
			509	326	99	82	2			
52	D8	64	Total	C	N	O	S	0	0	0
			509	326	99	82	2			

- Molecule 53 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B9	36	Total	C	N	O	S	0	0	0
			297	182	66	46	3			
53	D9	36	Total	C	N	O	S	0	0	0
			297	182	66	46	3			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	AP	1	Total	Mg	0	0
			1	1		
54	BA	729	Total	Mg	0	0
			729	729		
54	CA	203	Total	Mg	0	0
			203	203		
54	DQ	4	Total	Mg	0	0
			4	4		
54	DF	5	Total	Mg	0	0
			5	5		
54	B8	1	Total	Mg	0	0
			1	1		
54	BE	6	Total	Mg	0	0
			6	6		
54	B1	1	Total	Mg	0	0
			1	1		
54	BP	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	DD	5	Total Mg 5 5	0	0
54	B5	1	Total Mg 1 1	0	0
54	BB	19	Total Mg 19 19	0	0
54	BT	3	Total Mg 3 3	0	0
54	D8	2	Total Mg 2 2	0	0
54	AE	1	Total Mg 1 1	0	0
54	B9	3	Total Mg 3 3	0	0
54	BF	6	Total Mg 6 6	0	0
54	DR	2	Total Mg 2 2	0	0
54	B2	2	Total Mg 2 2	0	0
54	AA	217	Total Mg 217 217	0	0
54	BQ	5	Total Mg 5 5	0	0
54	CQ	1	Total Mg 1 1	0	0
54	D7	2	Total Mg 2 2	0	0
54	B6	1	Total Mg 1 1	0	0
54	AM	2	Total Mg 2 2	0	0
54	BU	3	Total Mg 3 3	0	0
54	AD	2	Total Mg 2 2	0	0
54	BN	2	Total Mg 2 2	0	0
54	D0	1	Total Mg 1 1	0	0
54	BG	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	AI	1	Total Mg 1 1	0	0
54	BY	1	Total Mg 1 1	0	0
54	DE	3	Total Mg 3 3	0	0
54	B3	3	Total Mg 3 3	0	0
54	BR	5	Total Mg 5 5	0	0
54	D9	1	Total Mg 1 1	0	0
54	DA	637	Total Mg 637 637	0	0
54	DP	3	Total Mg 3 3	0	0
54	DW	1	Total Mg 1 1	0	0
54	B7	1	Total Mg 1 1	0	0
54	AL	1	Total Mg 1 1	0	0
54	BV	4	Total Mg 4 4	0	0
54	DO	3	Total Mg 3 3	0	0
54	BO	1	Total Mg 1 1	0	0
54	D1	1	Total Mg 1 1	0	0
54	BZ	2	Total Mg 2 2	0	0
54	BS	1	Total Mg 1 1	0	0
54	D5	2	Total Mg 2 2	0	0
54	BD	7	Total Mg 7 7	0	0
54	DT	2	Total Mg 2 2	0	0
54	B0	4	Total Mg 4 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	CE	1	Total Mg 1 1	0	0
54	BW	1	Total Mg 1 1	0	0
54	DB	10	Total Mg 10 10	0	0
54	AF	1	Total Mg 1 1	0	0
54	BH	1	Total Mg 1 1	0	0

- Molecule 55 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	B5	1	Total Zn 1 1	0	0
55	B4	1	Total Zn 1 1	0	0
55	AD	1	Total Zn 1 1	0	0
55	CD	1	Total Zn 1 1	0	0
55	B9	1	Total Zn 1 1	0	0
55	BY	1	Total Zn 1 1	0	0
55	DY	1	Total Zn 1 1	0	0
55	D5	1	Total Zn 1 1	0	0
55	D4	1	Total Zn 1 1	0	0
55	AN	1	Total Zn 1 1	0	0
55	CN	1	Total Zn 1 1	0	0
55	D6	1	Total Zn 1 1	0	0
55	D9	1	Total Zn 1 1	0	0
55	B6	1	Total Zn 1 1	0	0

- Molecule 56 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	443	Total O 443 443	0	0
56	AD	3	Total O 3 3	0	0
56	AE	2	Total O 2 2	0	0
56	AF	2	Total O 2 2	0	0
56	AG	2	Total O 2 2	0	0
56	AJ	1	Total O 1 1	0	0
56	AK	1	Total O 1 1	0	0
56	AL	3	Total O 3 3	0	0
56	AM	1	Total O 1 1	0	0
56	AO	1	Total O 1 1	0	0
56	AP	1	Total O 1 1	0	0
56	AQ	3	Total O 3 3	0	0
56	AY	1	Total O 1 1	0	0
56	BA	1988	Total O 1988 1988	0	0
56	BB	43	Total O 43 43	0	0
56	BD	21	Total O 21 21	0	0
56	BE	18	Total O 18 18	0	0
56	BF	18	Total O 18 18	0	0
56	BG	2	Total O 2 2	0	0
56	BH	2	Total O 2 2	0	0
56	BN	7	Total O 7 7	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BO	3	Total O 3 3	0	0
56	BP	20	Total O 20 20	0	0
56	BQ	9	Total O 9 9	0	0
56	BR	8	Total O 8 8	0	0
56	BS	2	Total O 2 2	0	0
56	BT	5	Total O 5 5	0	0
56	BU	9	Total O 9 9	0	0
56	BV	13	Total O 13 13	0	0
56	BW	6	Total O 6 6	0	0
56	BX	2	Total O 2 2	0	0
56	BY	2	Total O 2 2	0	0
56	BZ	2	Total O 2 2	0	0
56	B0	4	Total O 4 4	0	0
56	B1	5	Total O 5 5	0	0
56	B3	4	Total O 4 4	0	0
56	B5	5	Total O 5 5	0	0
56	B6	2	Total O 2 2	0	0
56	B7	5	Total O 5 5	0	0
56	B8	11	Total O 11 11	0	0
56	B9	1	Total O 1 1	0	0
56	CA	400	Total O 400 400	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	CD	2	Total O 2 2	0	0
56	CE	4	Total O 4 4	0	0
56	CF	1	Total O 1 1	0	0
56	CK	1	Total O 1 1	0	0
56	CL	2	Total O 2 2	0	0
56	CP	3	Total O 3 3	0	0
56	CQ	3	Total O 3 3	0	0
56	CR	1	Total O 1 1	0	0
56	CT	2	Total O 2 2	0	0
56	CU	1	Total O 1 1	0	0
56	DA	1496	Total O 1496 1496	0	0
56	DB	33	Total O 33 33	0	0
56	DD	17	Total O 17 17	0	0
56	DE	12	Total O 12 12	0	0
56	DF	10	Total O 10 10	0	0
56	DN	2	Total O 2 2	0	0
56	DO	7	Total O 7 7	0	0
56	DP	11	Total O 11 11	0	0
56	DQ	2	Total O 2 2	0	0
56	DR	5	Total O 5 5	0	0
56	DT	3	Total O 3 3	0	0

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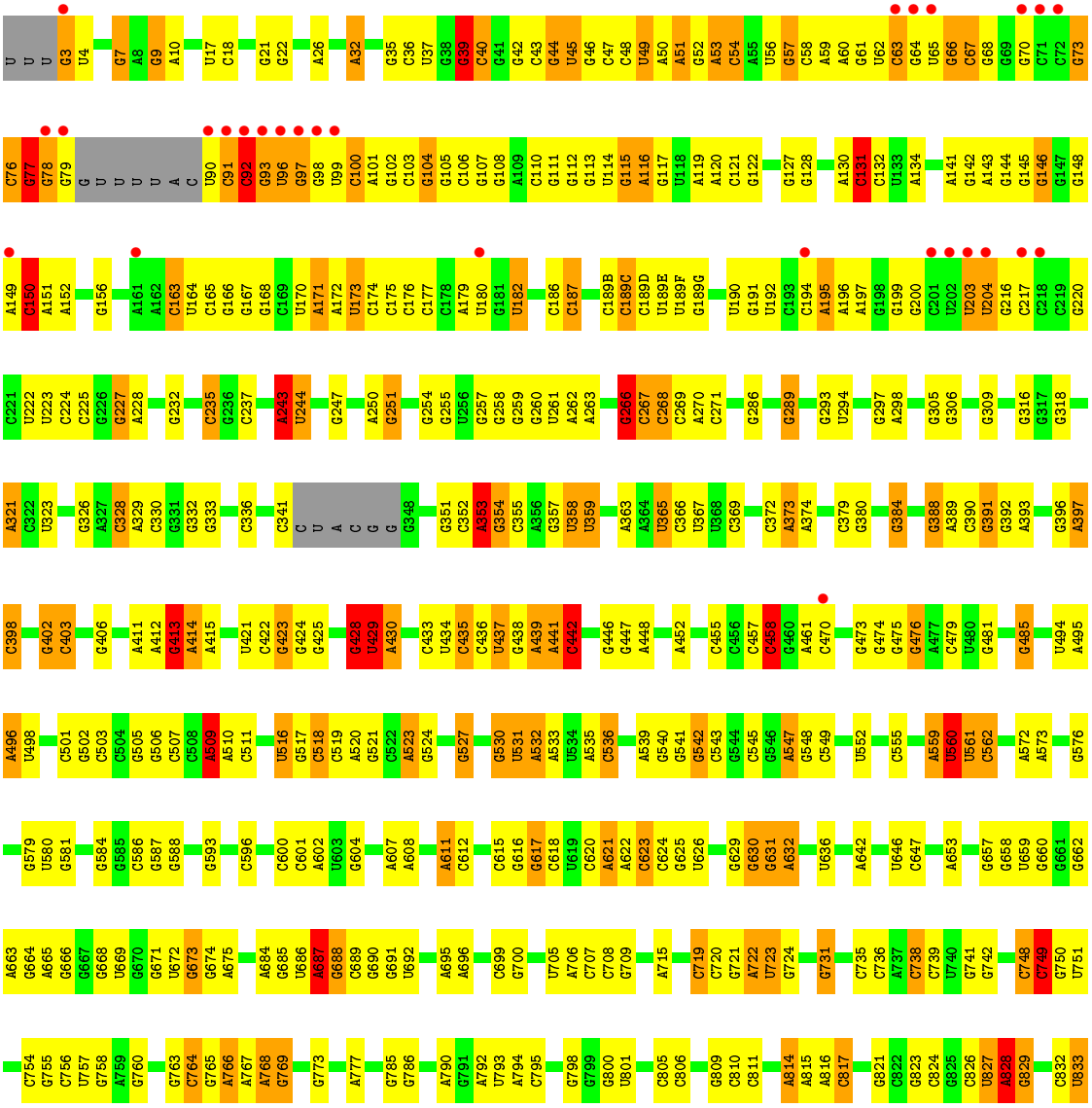
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DU	1	Total O 1 1	0	0
56	DV	1	Total O 1 1	0	0
56	DW	4	Total O 4 4	0	0
56	DX	2	Total O 2 2	0	0
56	DY	2	Total O 2 2	0	0
56	D0	2	Total O 2 2	0	0
56	D1	3	Total O 3 3	0	0
56	D2	1	Total O 1 1	0	0
56	D3	1	Total O 1 1	0	0
56	D5	3	Total O 3 3	0	0
56	D6	3	Total O 3 3	0	0
56	D7	3	Total O 3 3	0	0
56	D8	6	Total O 6 6	0	0
56	D9	1	Total O 1 1	0	0

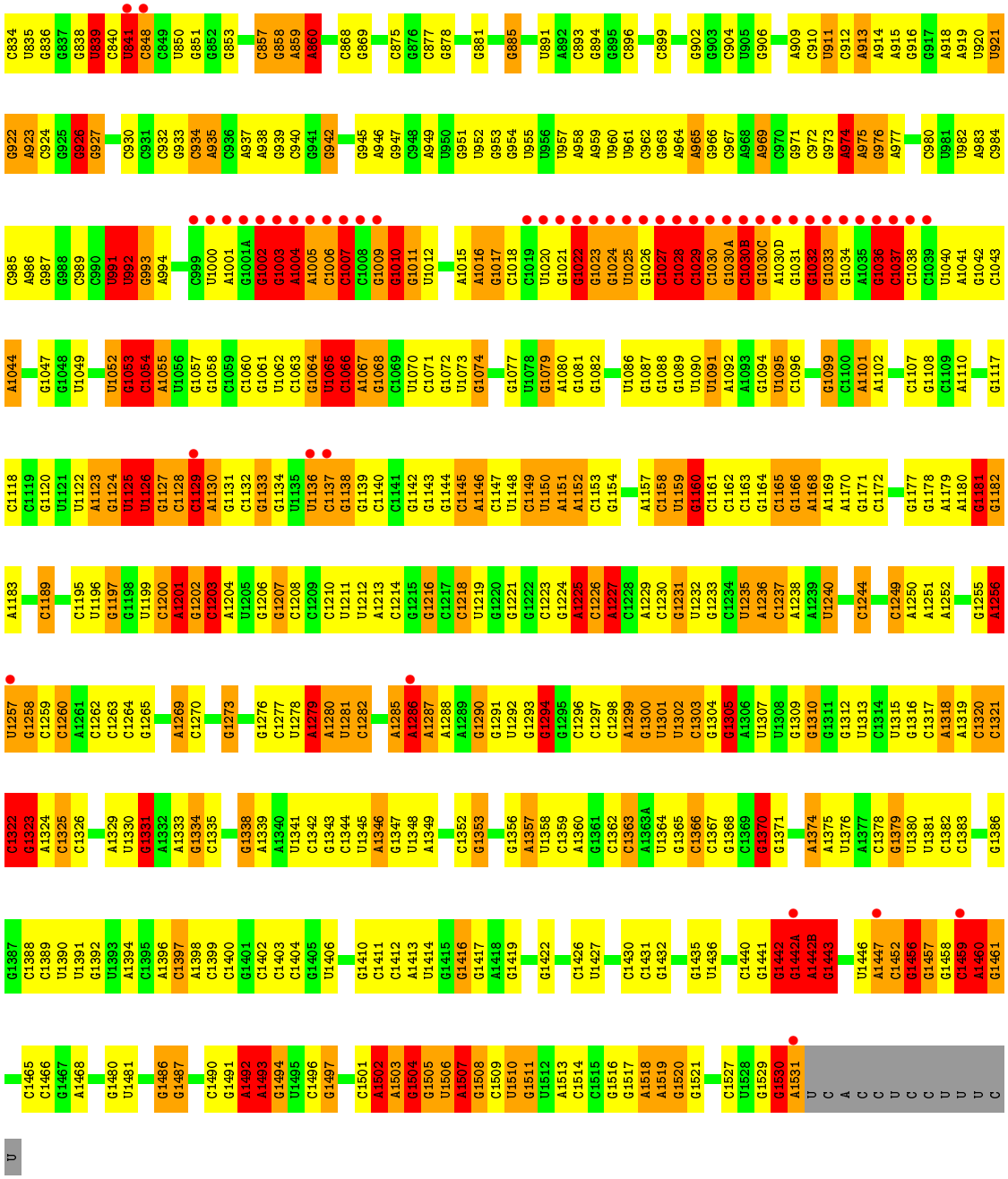
3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

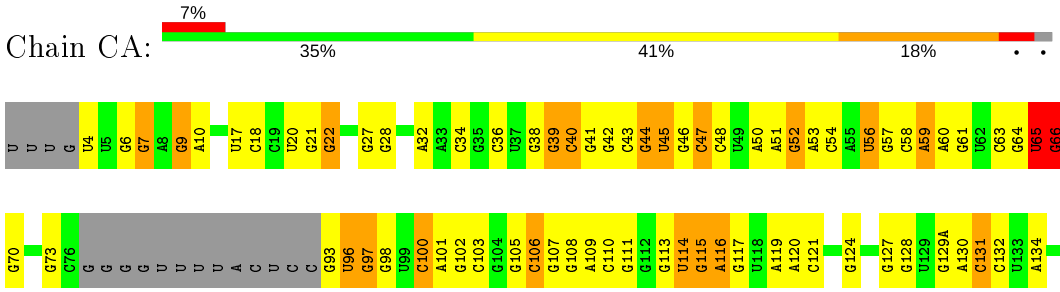
- Molecule 1: 16S Ribosomal RNA

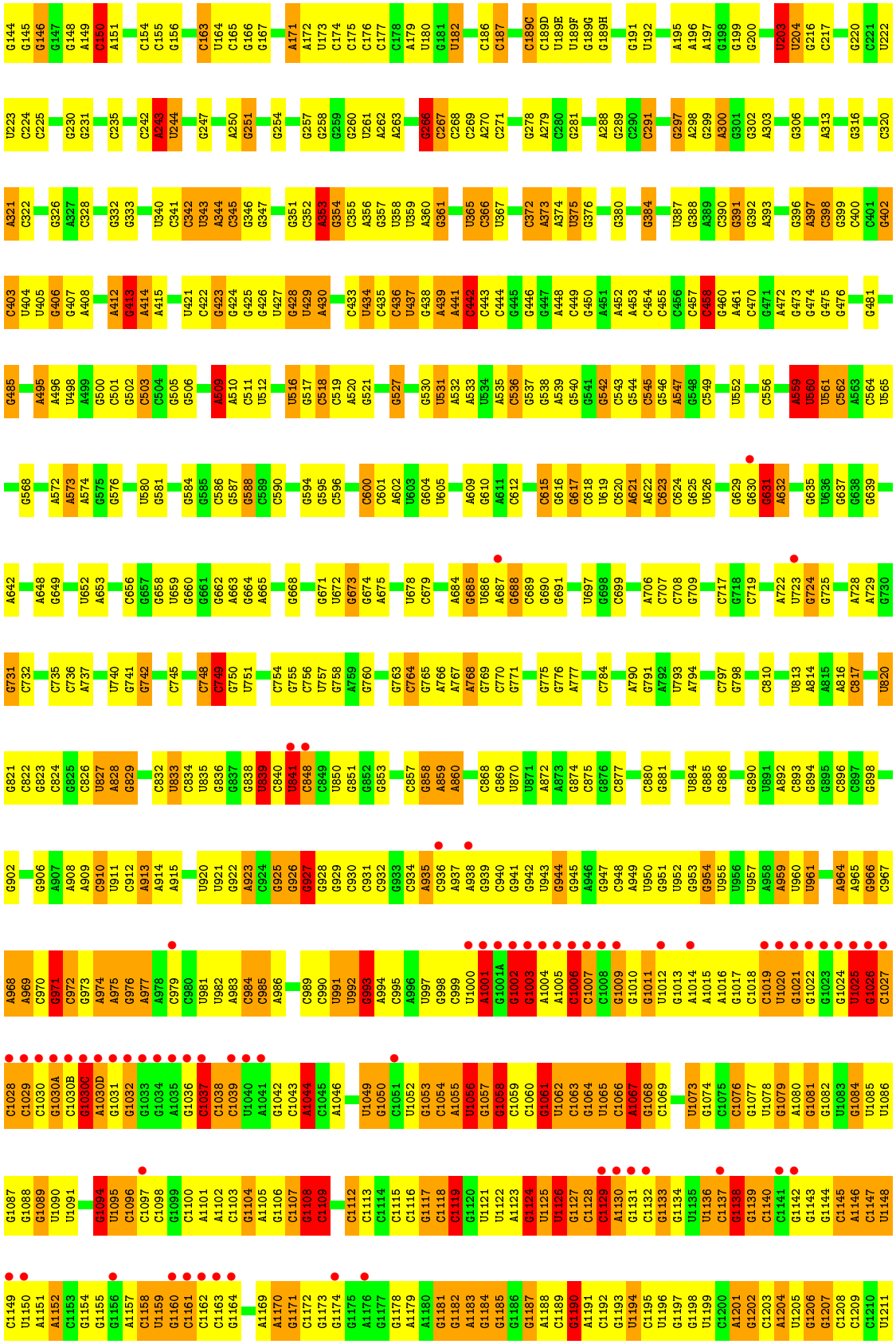
Chain AA: 





• Molecule 1: 16S Ribosomal RNA




G144 G145 G146 G147 G148 A149 C150 A151 C154 C155 G156 C163 U164 C165 G166 G167 A171 A172 U173 C174 C175 C176 C177 G178 A179 U180 G181 U182 C186 C187 C189C C189D U189E U189F G189G G189H G191 U192 A195 A196 A197 G198 G199 G200 U203 U204 G216 C217 G220 C221 U222
U223 C224 C225 G230 C231 C235 C242 A243 U244 G247 A250 G251 G254 C257 G258 G259 C260 U261 A262 A263 G266 C267 C268 C269 A270 C271 G278 A279 C280 G281 A288 G289 C290 C291 G297 A298 G299 A300 G301 G302 A303 G306 A313 G316 C320
A321 C322 G326 A327 C328 G332 G333 U340 C341 C342 U343 A344 C345 G346 G347 G351 C352 A353 G354 C355 A356 G357 U358 U359 A360 G361 U365 C366 U367 G372 A373 A374 U375 G376 G380 G384 U387 G388 A389 C390 G391 G392 A393 G396 A397 C398 G399 C400 C401 G402
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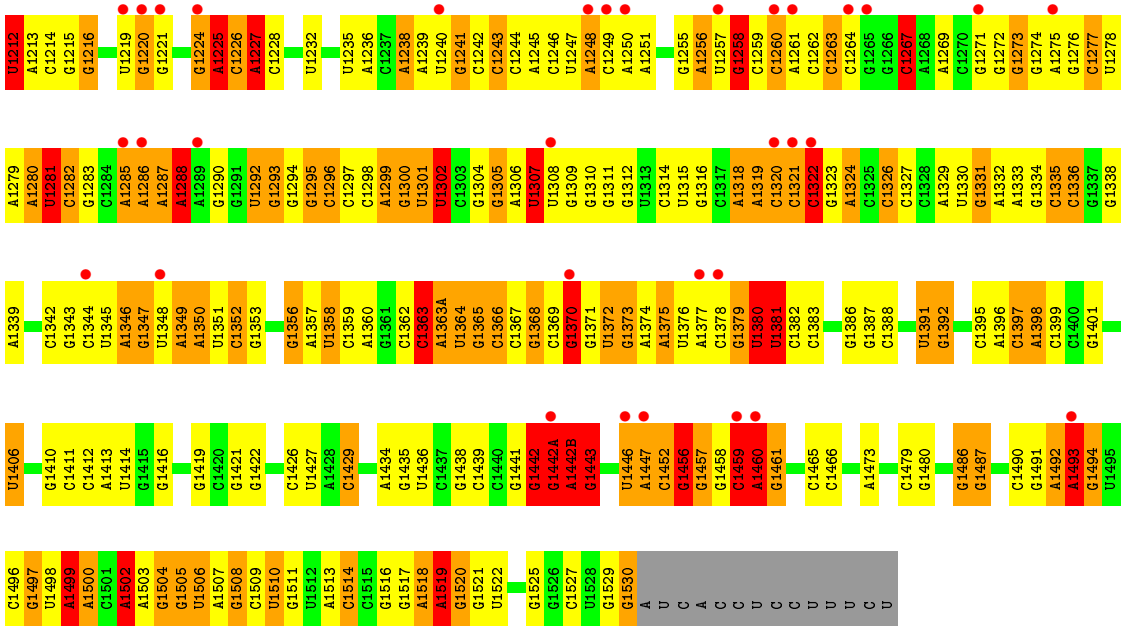

- Molecule 2: 30S Ribosomal Protein S2

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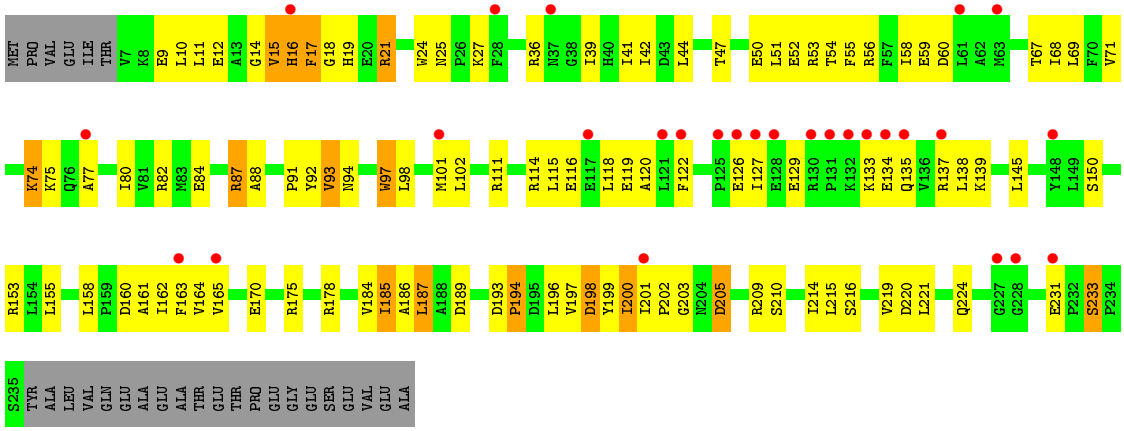
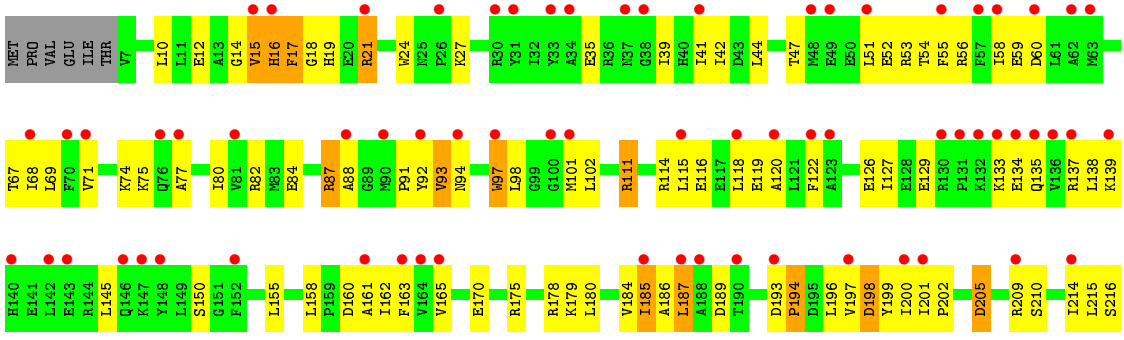
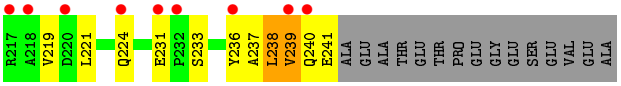


- Molecule 2: 30S Ribosomal Protein S2

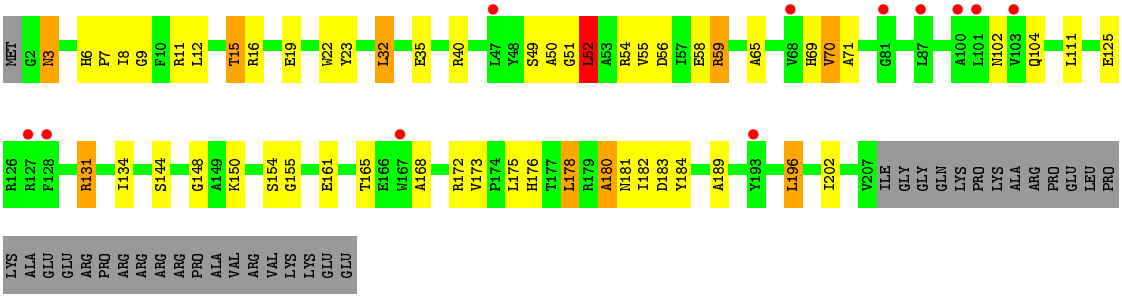
Chain CB:





• Molecule 3: 30S Ribosomal Protein S3

Chain AC:



• Molecule 3: 30S Ribosomal Protein S3

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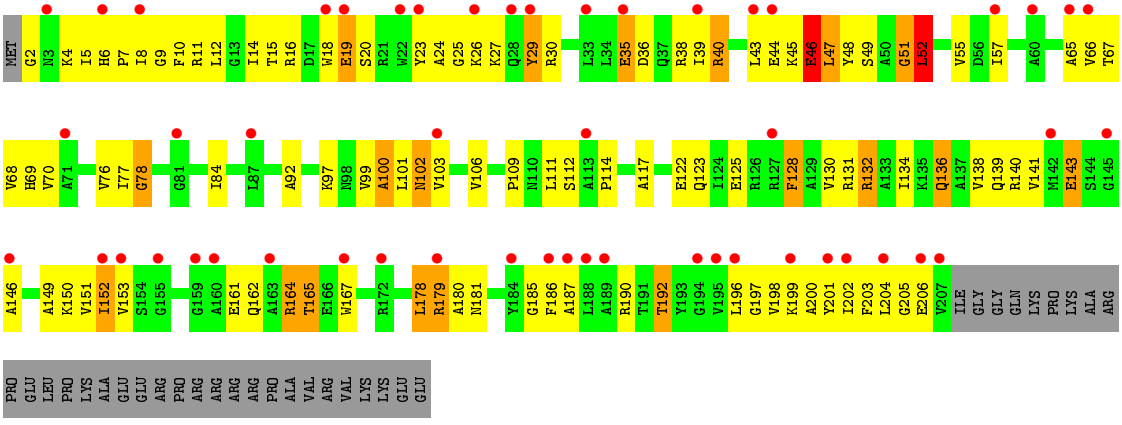
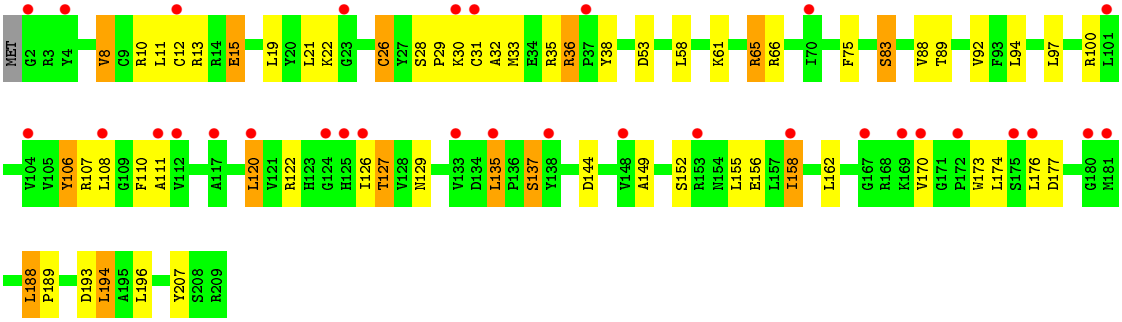


• Molecule 4: 30S Ribosomal Protein S4

Chain AD:



• Molecule 4: 30S Ribosomal Protein S4

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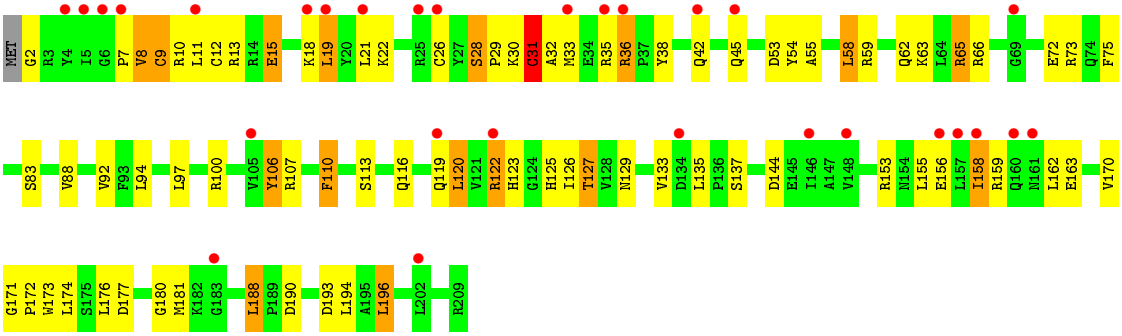
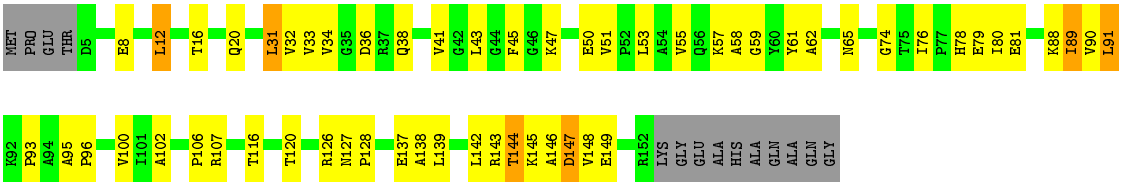


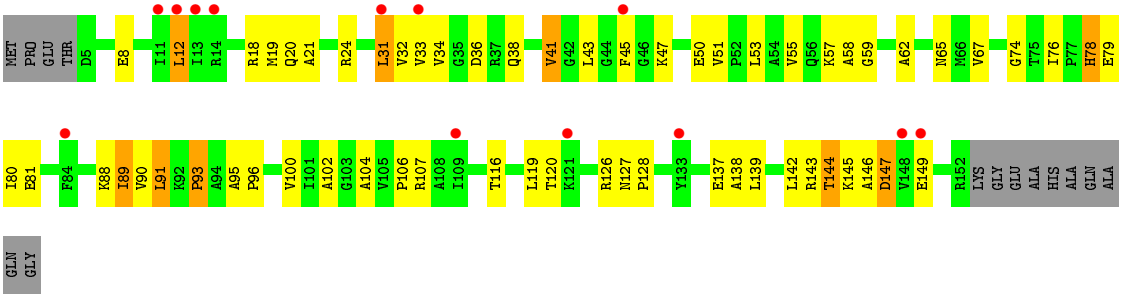
• Molecule 5: 30S Ribosomal Protein S5

Chain AE:



• Molecule 5: 30S Ribosomal Protein S5

Chain CE:



• Molecule 6: 30S Ribosomal Protein S6

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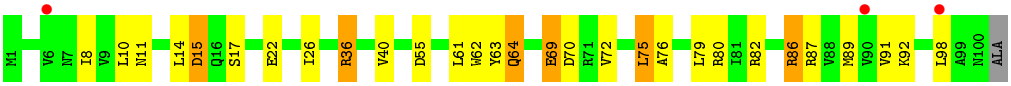
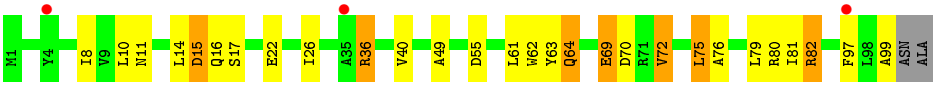


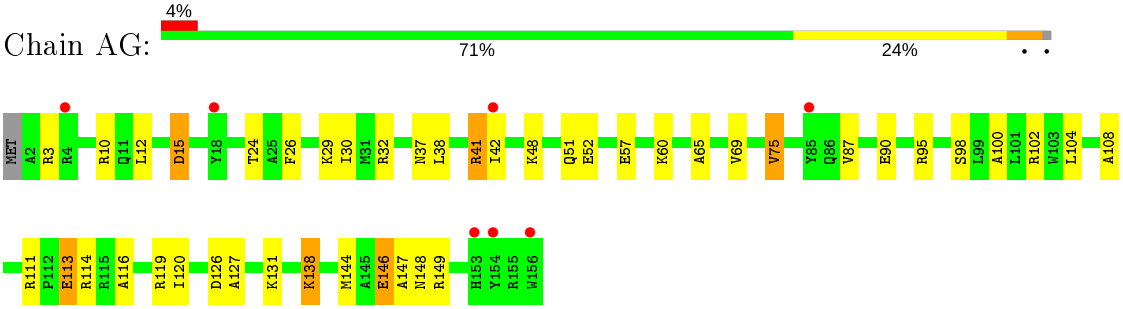
• Molecule 6: 30S Ribosomal Protein S6

Chain CF:



• Molecule 7: 30S Ribosomal Protein S7

Chain AG:



- Molecule 7: 30S Ribosomal Protein S7

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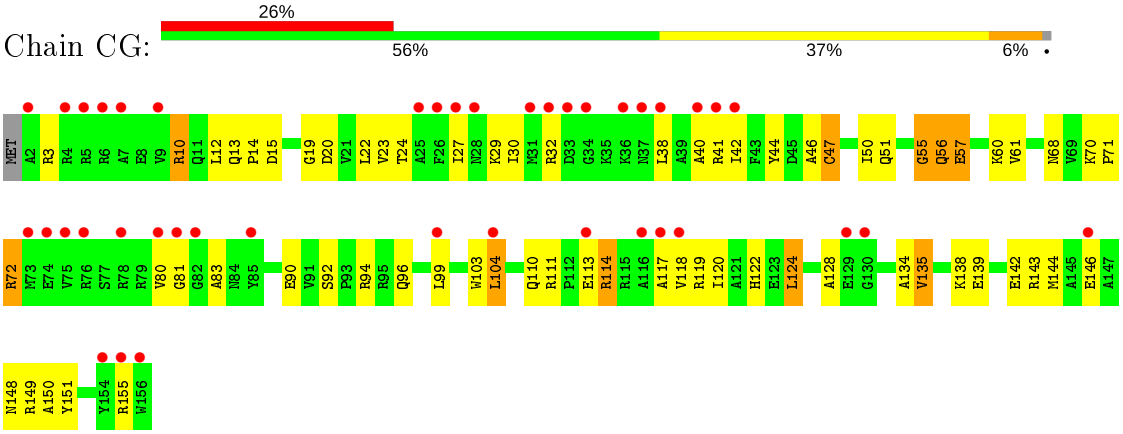
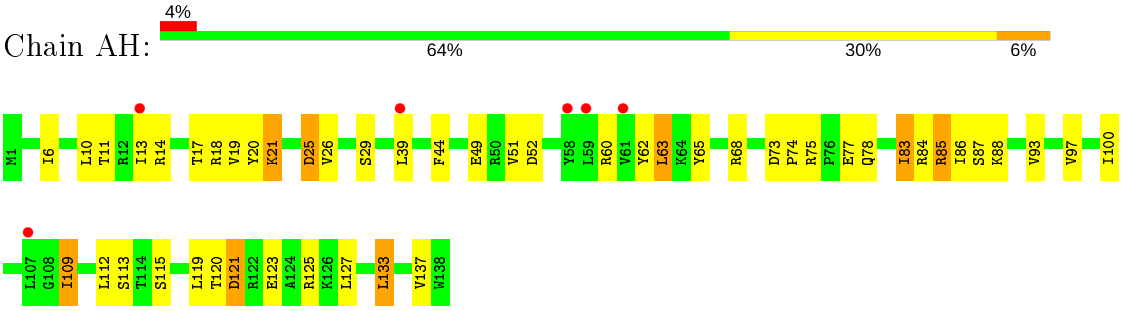


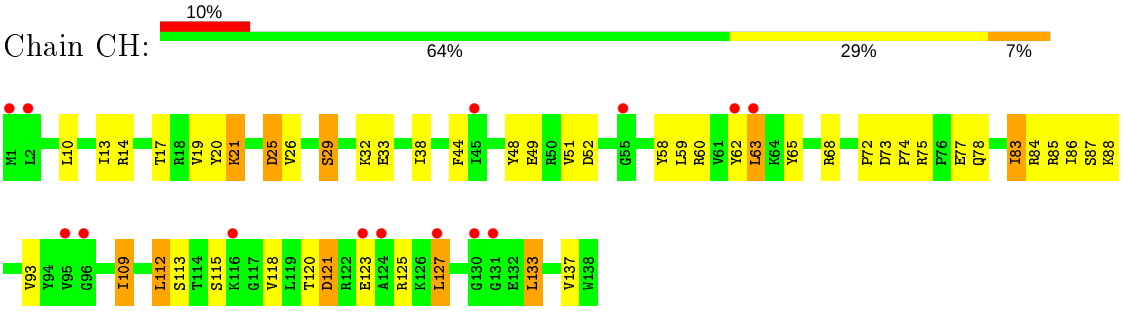
- Molecule 8: 30S Ribosomal Protein S8

Chain AH:



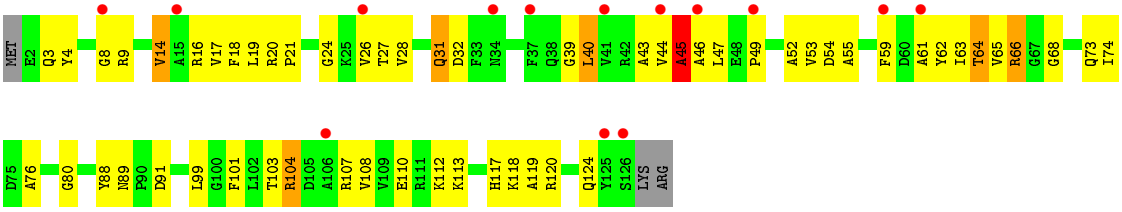
- Molecule 8: 30S Ribosomal Protein S8

Chain CH:



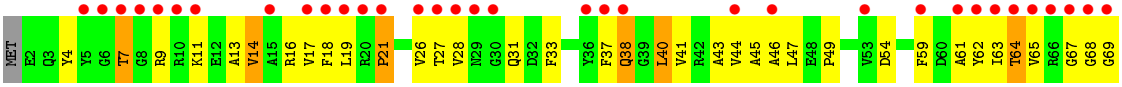
- Molecule 9: 30S Ribosomal Protein S9

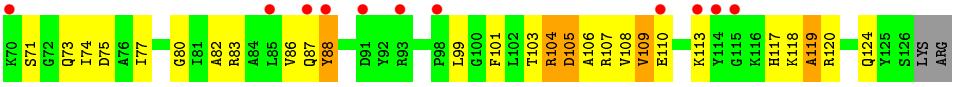
Chain AI:



- Molecule 9: 30S Ribosomal Protein S9

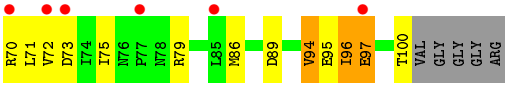
Chain CI:





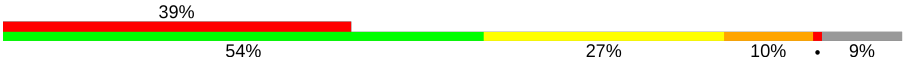
- Molecule 10: 30S Ribosomal Protein S10

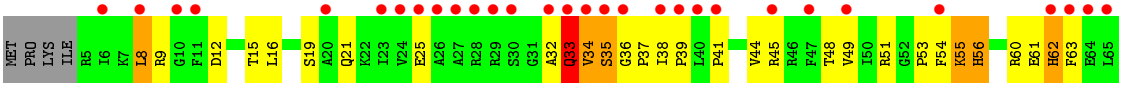
Chain AJ:

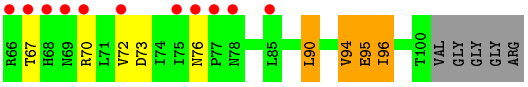


- Molecule 10: 30S Ribosomal Protein S10

Chain CJ:

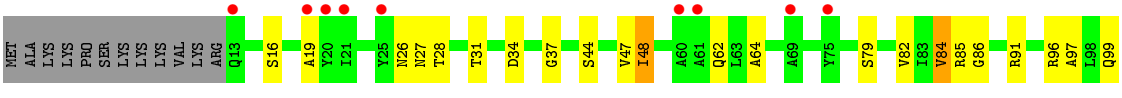






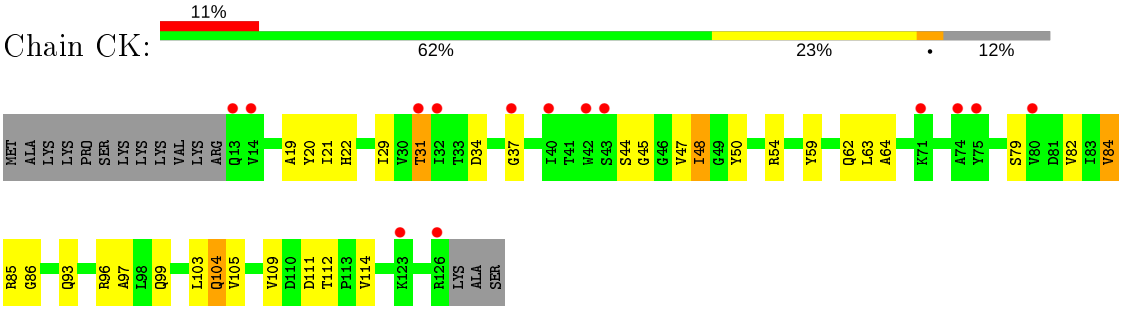
- Molecule 11: 30S Ribosomal Protein S11

Chain AK:



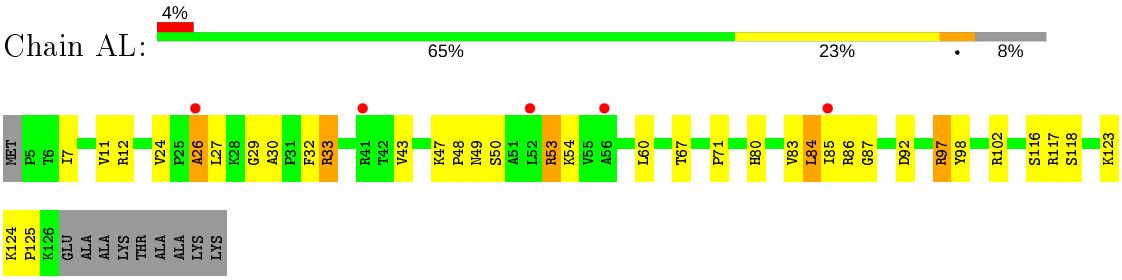
• Molecule 11: 30S Ribosomal Protein S11

Chain CK:



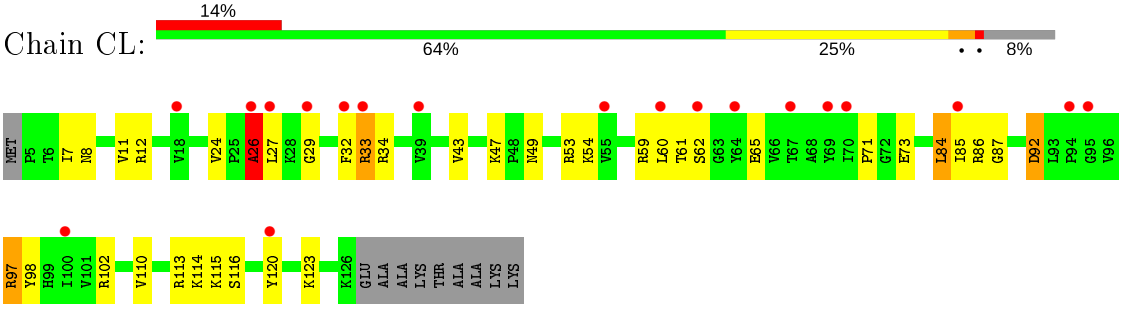
• Molecule 12: 30S Ribosomal Protein S12

Chain AL:



• Molecule 12: 30S Ribosomal Protein S12

Chain CL:



• Molecule 13: 30S Ribosomal Protein S13

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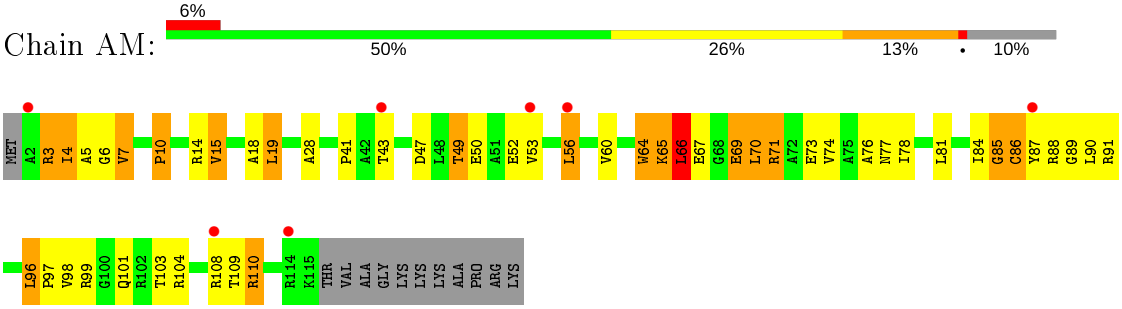

• Molecule 13: 30S Ribosomal Protein S13

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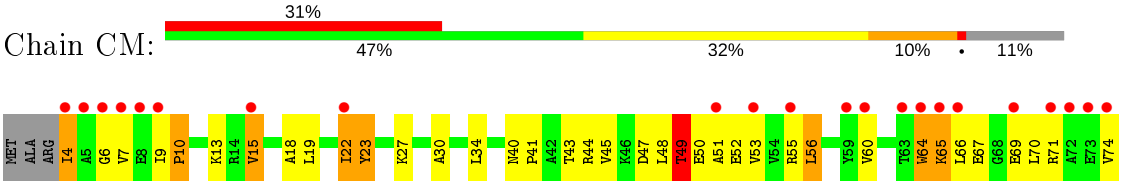
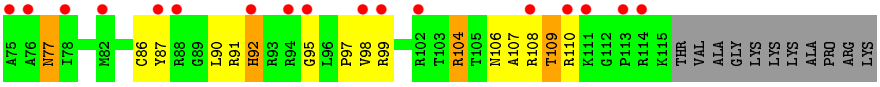
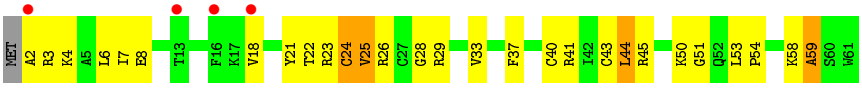




- Molecule 14: 30S Ribosomal Protein S14

Chain AN:



- Molecule 14: 30S Ribosomal Protein S14

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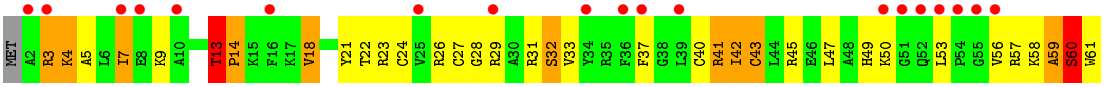
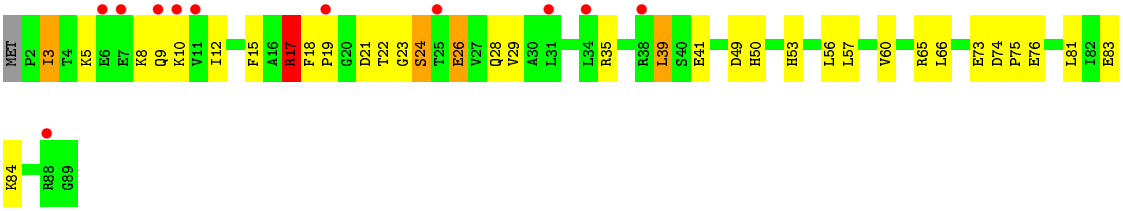


- Molecule 15: 30S Ribosomal Protein S15

Chain AO:

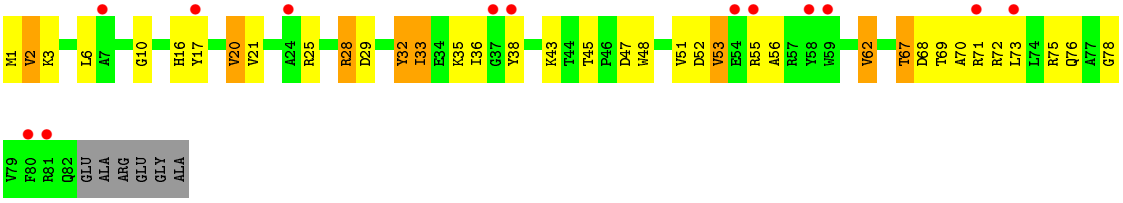
- Molecule 15: 30S Ribosomal Protein S15

Chain CO:



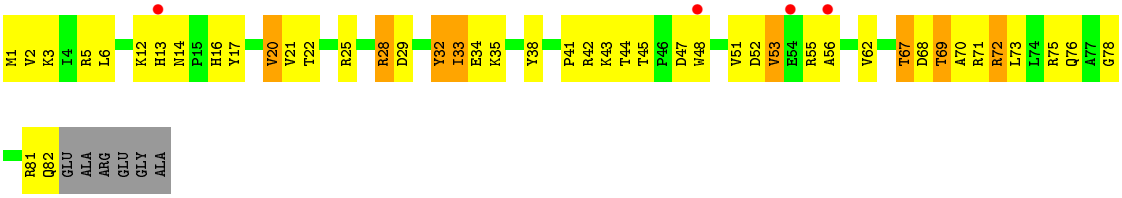
- Molecule 16: 30S Ribosomal Protein S16

Chain AP:



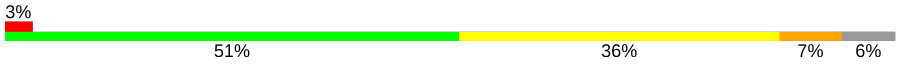
- Molecule 16: 30S Ribosomal Protein S16

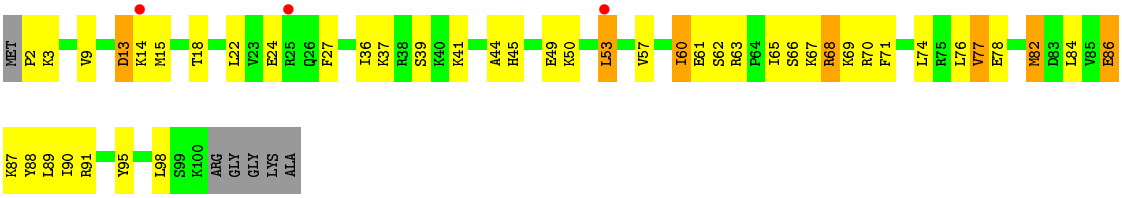
Chain CP:



• Molecule 17: 30S Ribosomal Protein S17

Chain AQ:



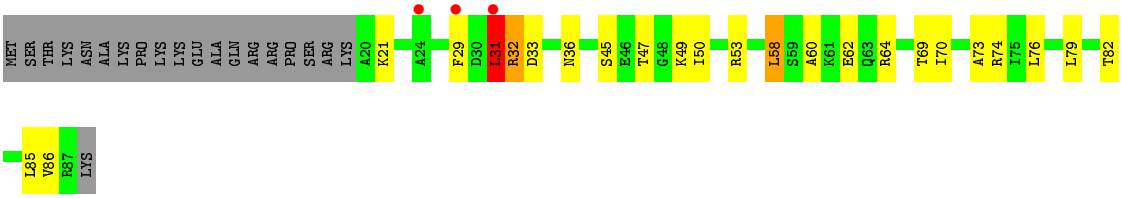


• Molecule 17: 30S Ribosomal Protein S17

Chain CQ:

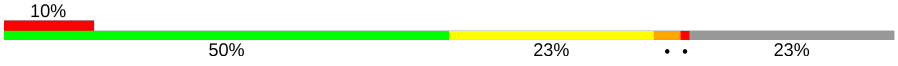
• Molecule 18: 30S Ribosomal Protein S18

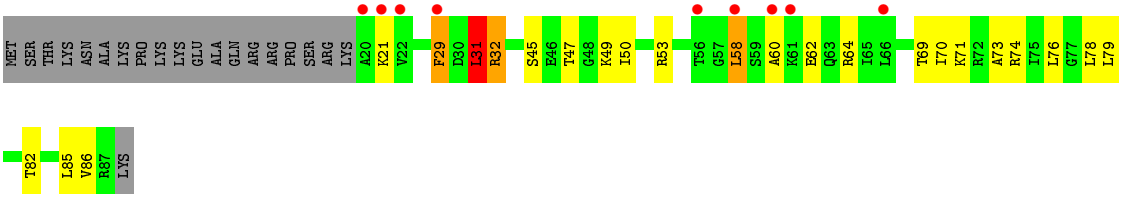
Chain AR:



• Molecule 18: 30S Ribosomal Protein S18

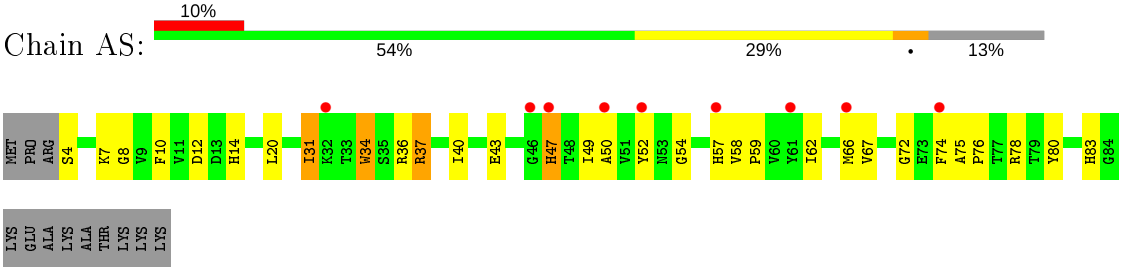
Chain CR:





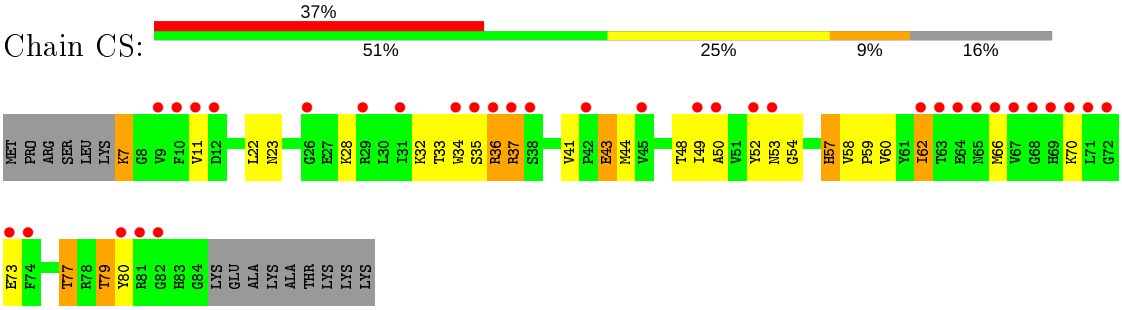
• Molecule 19: 30S Ribosomal Protein S19

Chain AS:



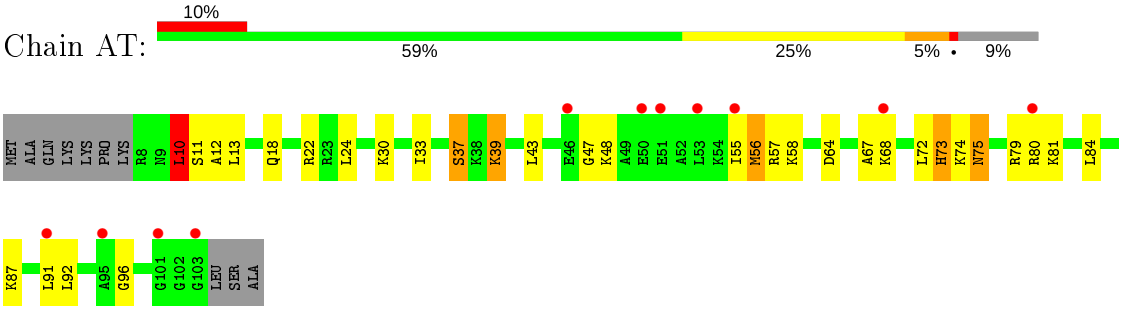
• Molecule 19: 30S Ribosomal Protein S19

Chain CS:



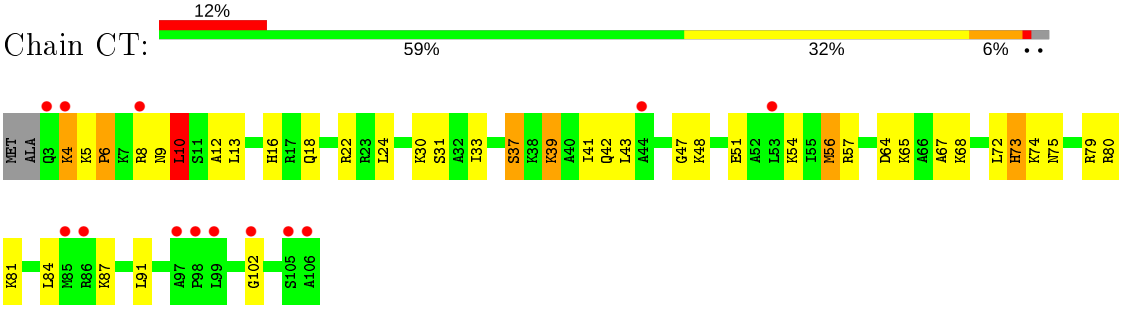
• Molecule 20: 30S Ribosomal Protein S20

Chain AT:



• Molecule 20: 30S Ribosomal Protein S20

Chain CT:

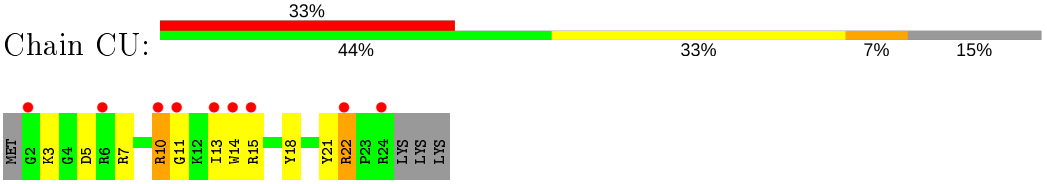


• Molecule 21: 30S Ribosomal Protein THX

Chain AU:

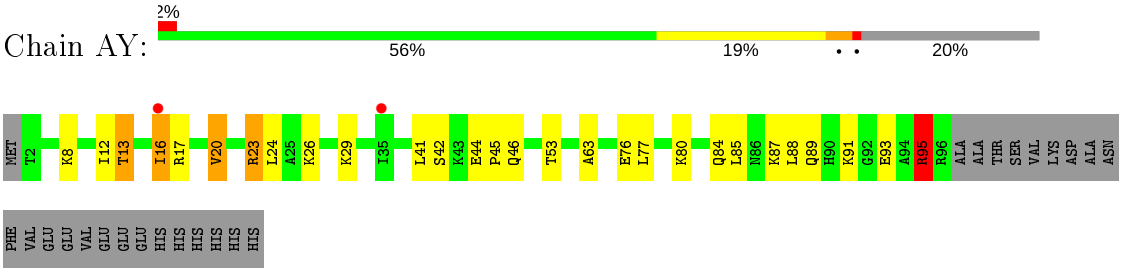
• Molecule 21: 30S Ribosomal Protein THX

Chain CU:



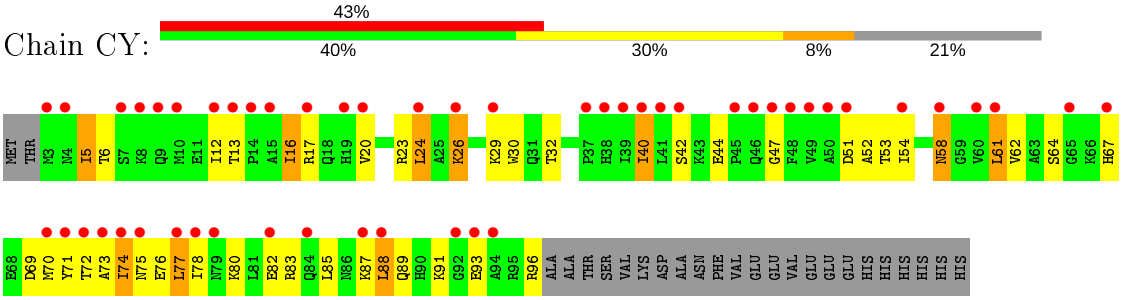
• Molecule 22: Ribosome-associated inhibitor A

Chain AY:



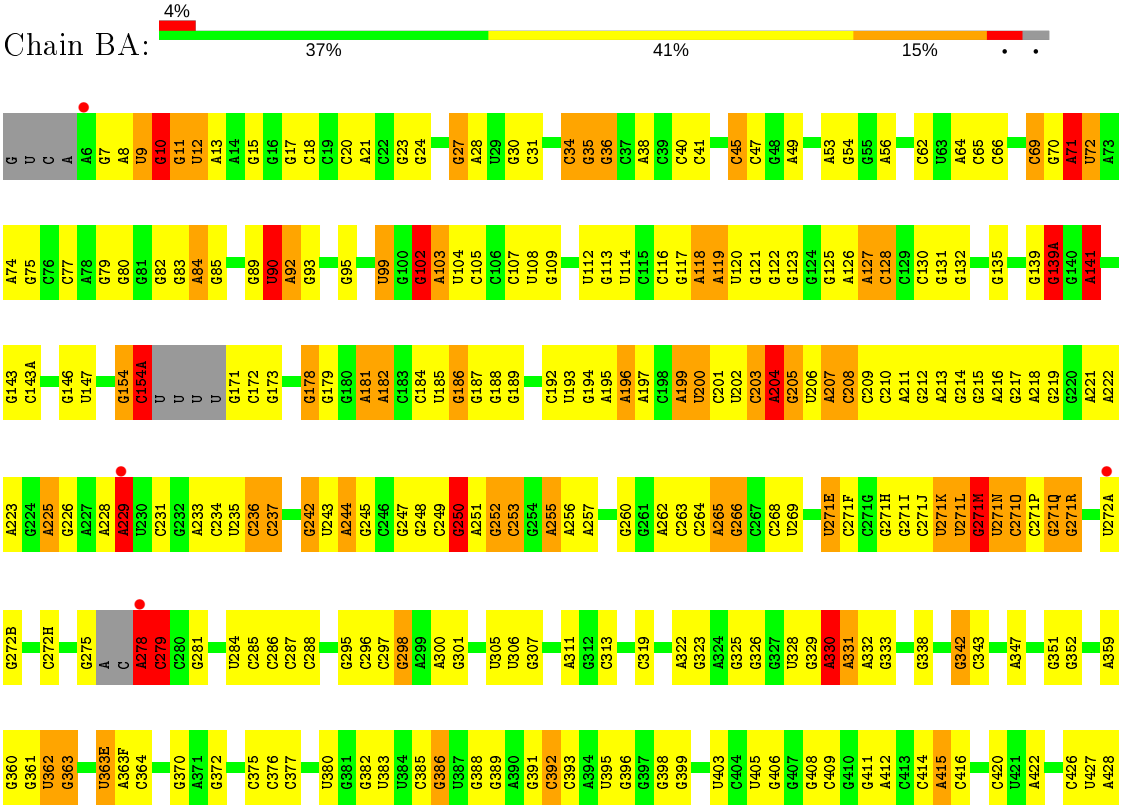
• Molecule 22: Ribosome-associated inhibitor A

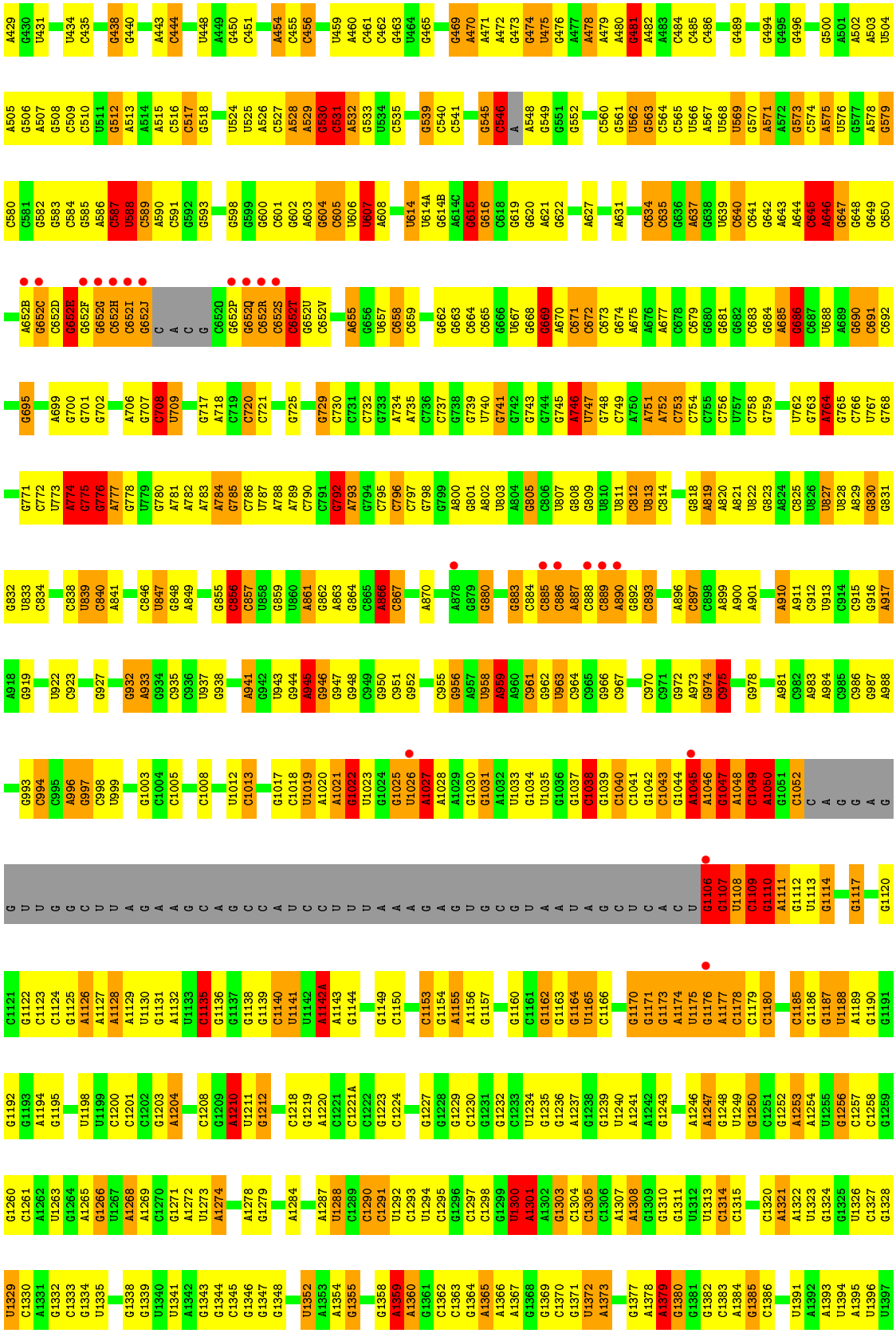
Chain CY:

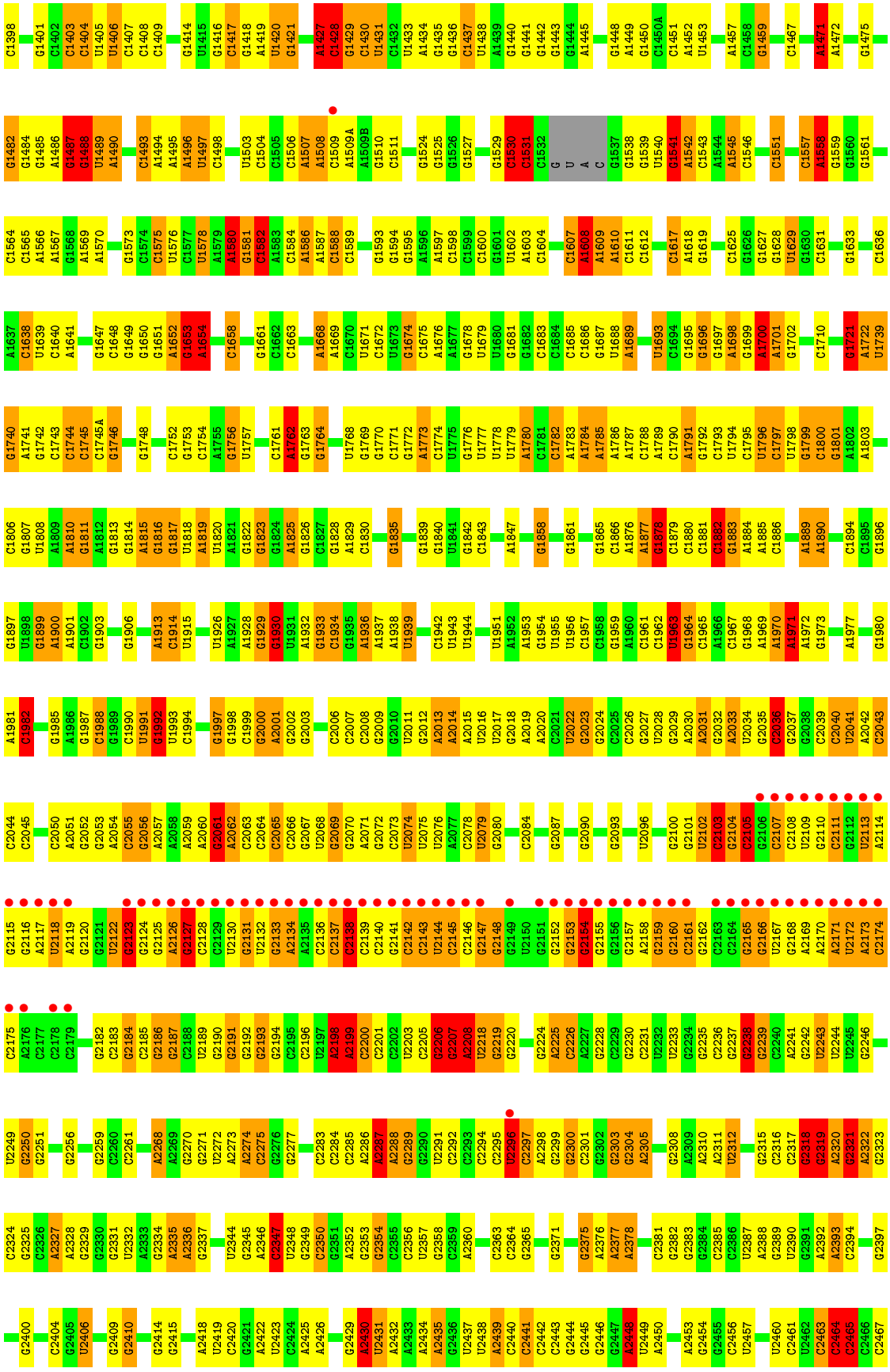


• Molecule 23: 23S Ribosomal RNA

Chain BA:



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G1482 G1484 G1485 A1486 G1487 G1488 U1489 A1490 C1493 A1494 A1495 A1496 U1497 C1498 U1503 C1504 C1505 C1506 A1507 A1508 C1509 A1509A A1509B G1510 C1511 G1524 G1525 G1526 G1527 G1529 C1530 C1531 C1532 G U A C G1537 G1538 G1539 U1540 G1541 A1542 C1543 A1544 A1545 C1546 C1551 C1557 A1558 G1559 G1560 G1561
C1564 C1565 A1566 A1567 G1568 A1569 A1570 G1573 C1574 C1575 U1576 C1577 U1578 A1579 A1580 G1581 C1582 A1583 C1584 A1586 A1587 C1588 C1589 G1593 G1594 G1595 A1596 A1597 C1598 C1599 C1600 G1601 U1602 A1603 C1604 C1607 A1608 A1609 A1610 C1611 C1612 C1617 A1618 G1619 C1625 G1626 G1627 G1628 U1629 G1630 C1631 G1633 C1636
A1637 C1638 U1639 C1640 A1641 G1647 C1648 G1649 G1650 G1651 A1652 G1653 A1654 C1658 G1661 C1662 C1663 A1668 A1669 C1670 U1671 C1672 U1673 G1674 C1675 A1676 A1677 G1678 U1679 U1680 G1681 G1682 C1683 C1684 C1685 C1686 G1687 U1688 A1689 U1693 C1694 G1695 G1696 G1697 A1698 G1699 A1700 A1701 G1702 C1710 G1721 A1722 U1739
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U2249 G2250 G2251 G2256 G2259 C2260 C2261 A2268 A2269 G2270 G2271 U2272 A2273 A2274 C2275 G2276 G2277 C2283 C2284 C2285 A2286 A2287 A2288 G2289 G2290 U2291 C2292 C2293 C2294 C2295 U2296 C2297 A2298 G2299 G2300 C2301 G2302 G2303 G2304 A2305 G2308 A2309 A2310 A2311 U2312 G2315 C2316 C2317 G2318 G2319 A2320 G2321 A2322 G2323
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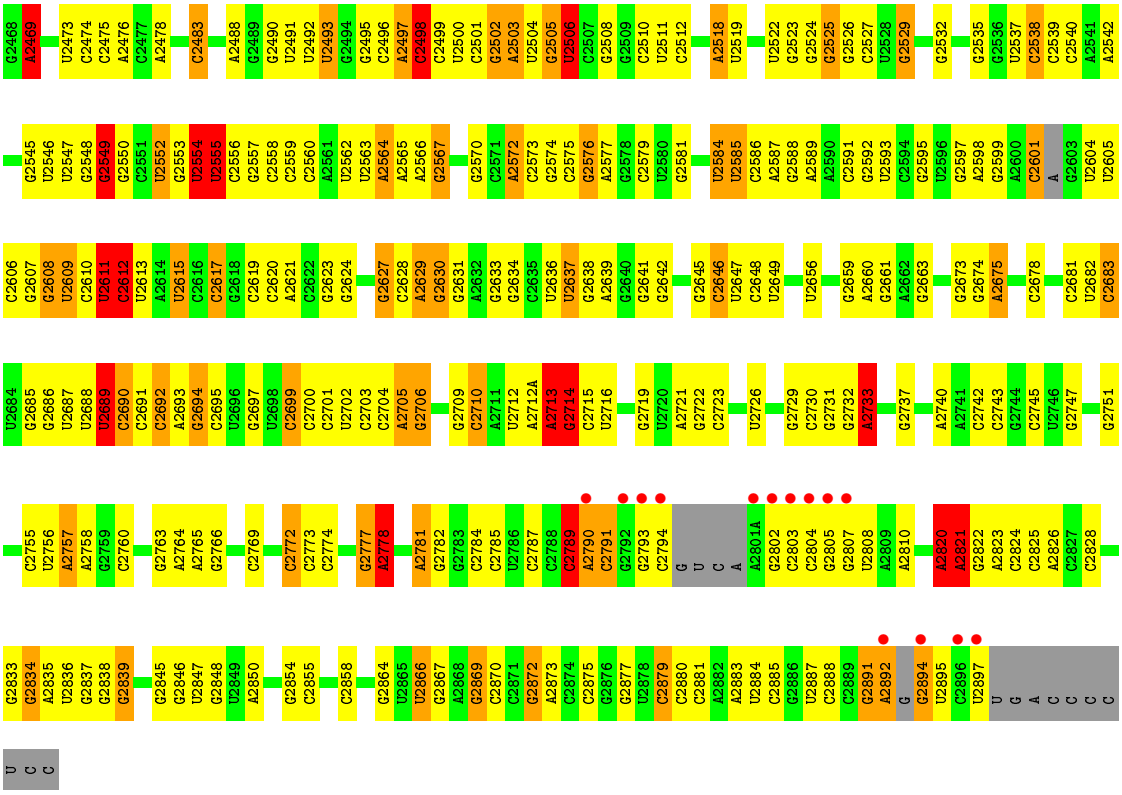
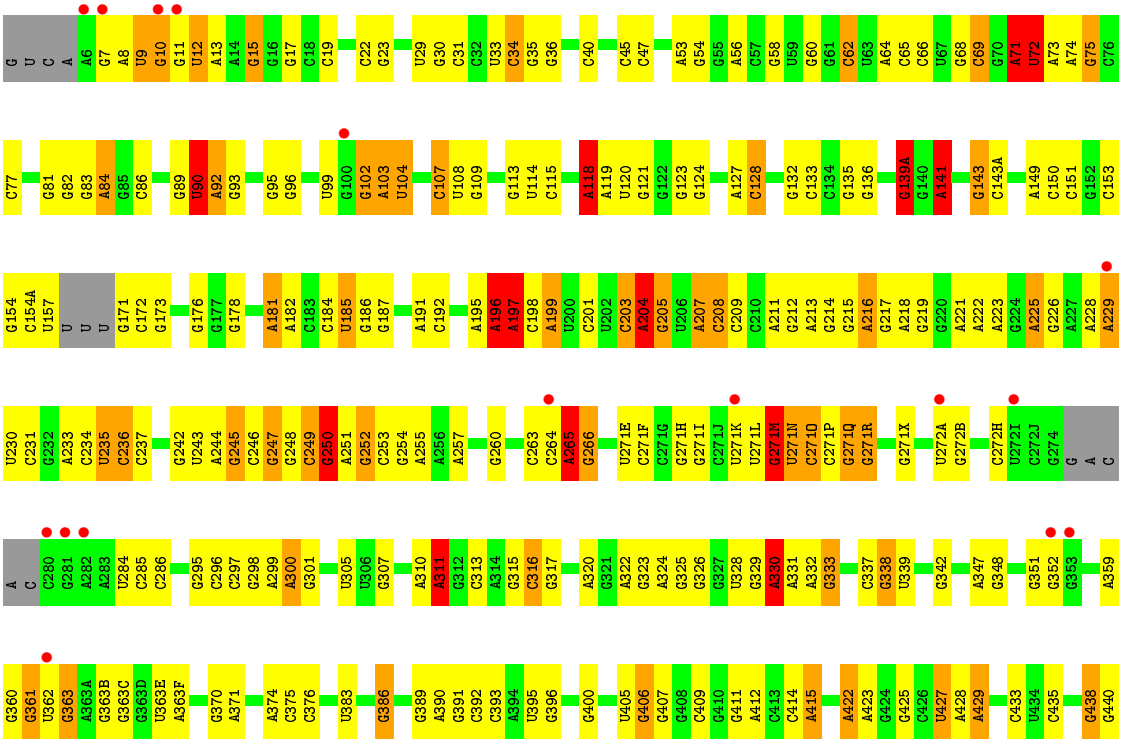
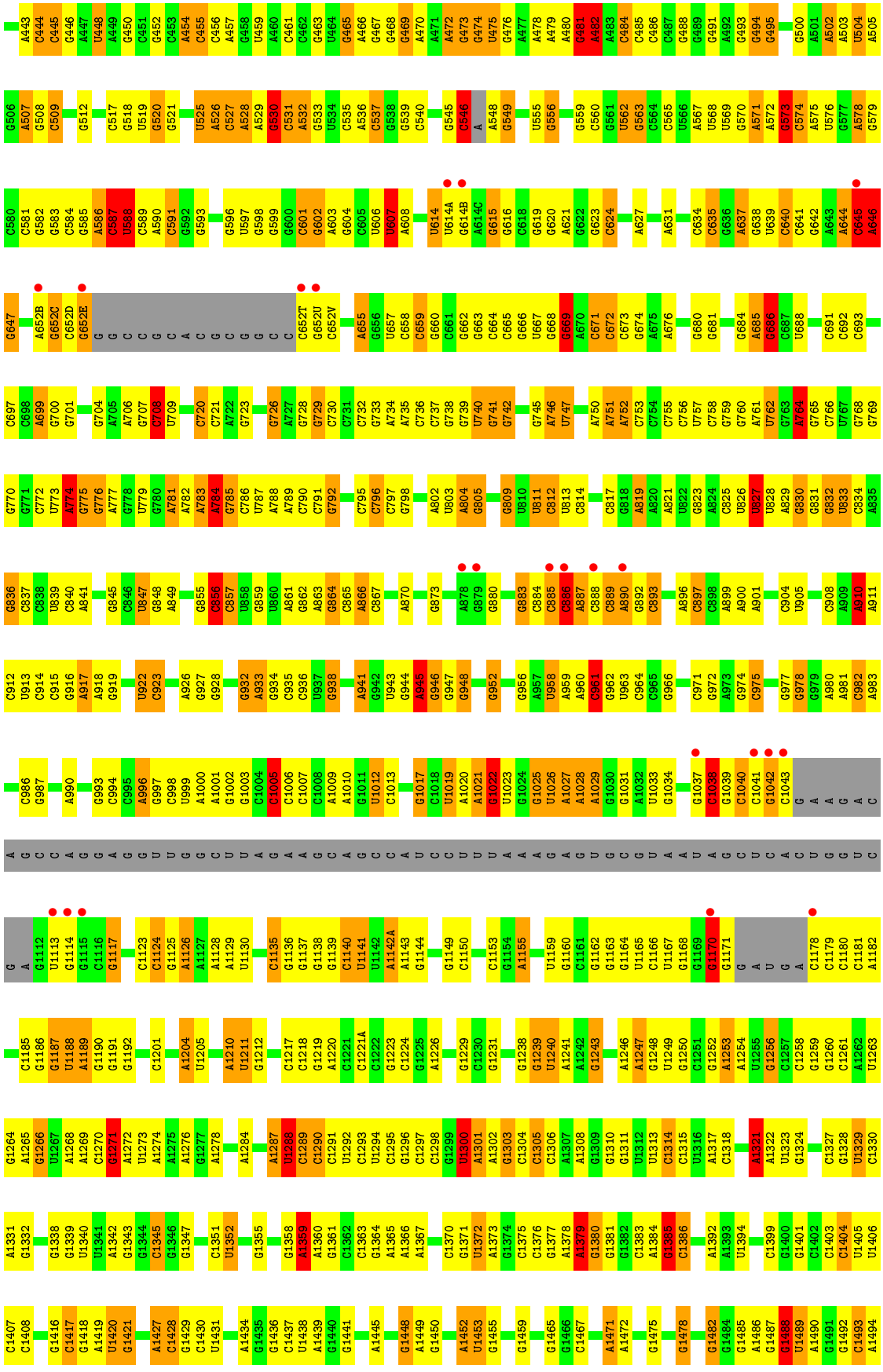
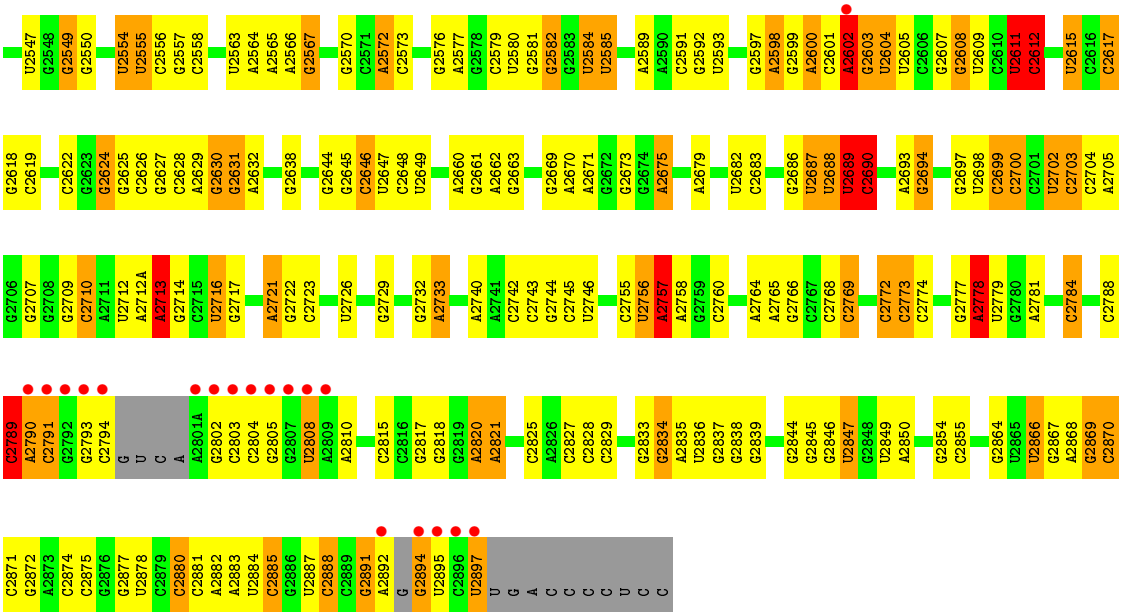


• Molecule 23: 23S Ribosomal RNA

Chain DA:

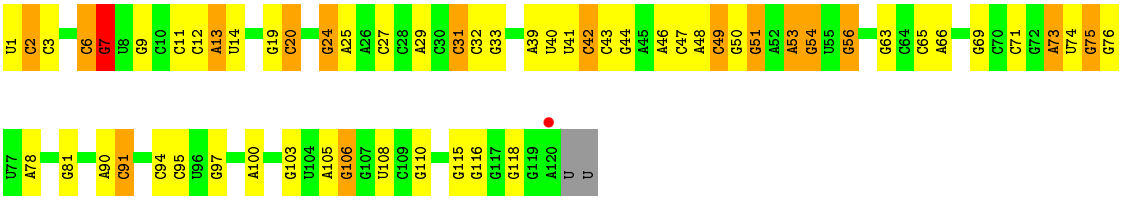






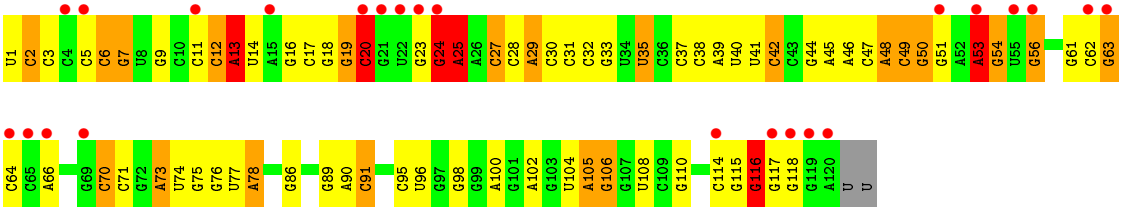
• Molecule 24: 5S Ribosomal RNA

Chain BB:



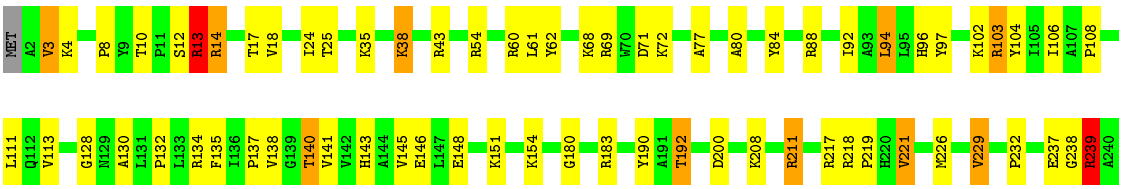
• Molecule 24: 5S Ribosomal RNA

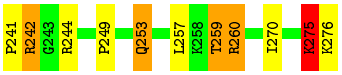
Chain DB:



• Molecule 25: 50S Ribosomal Protein L2

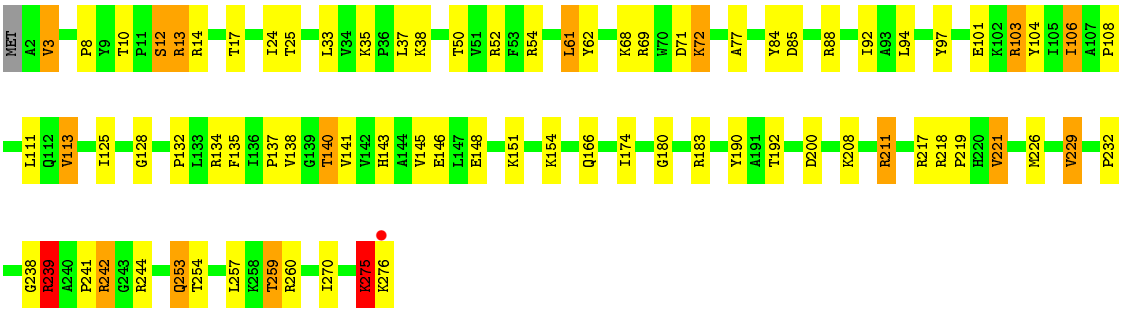
Chain BD:





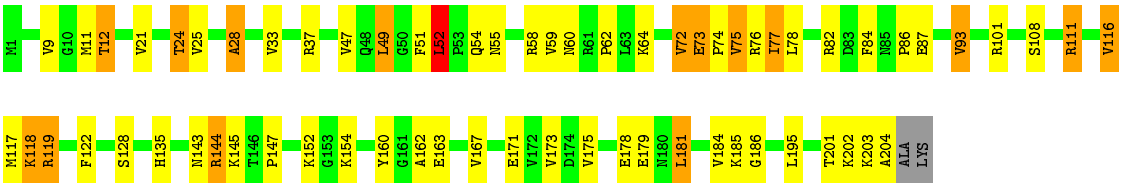
• Molecule 25: 50S Ribosomal Protein L2

Chain DD:



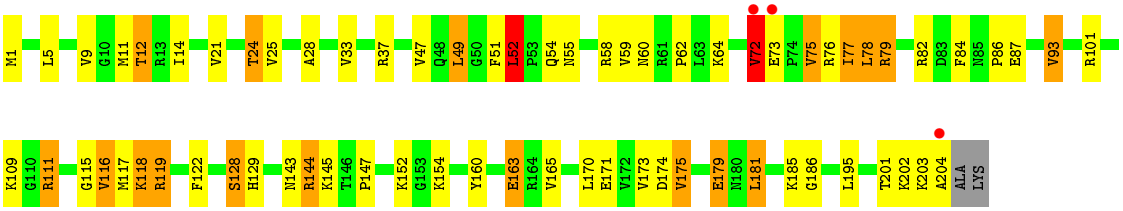
• Molecule 26: 50S Ribosomal Protein L3

Chain BE:



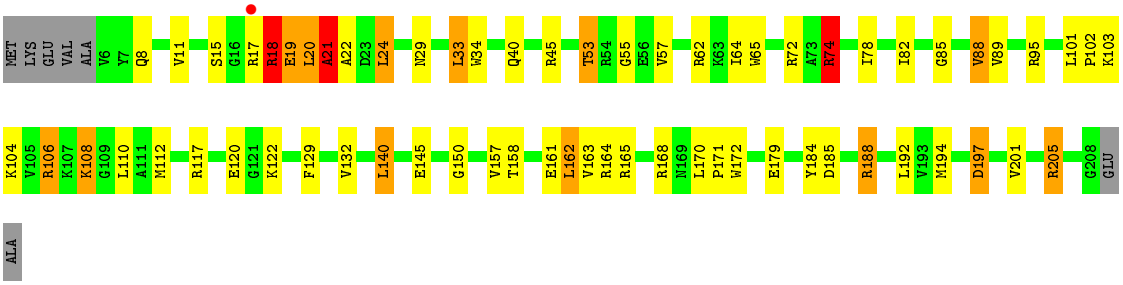
• Molecule 26: 50S Ribosomal Protein L3

Chain DE:



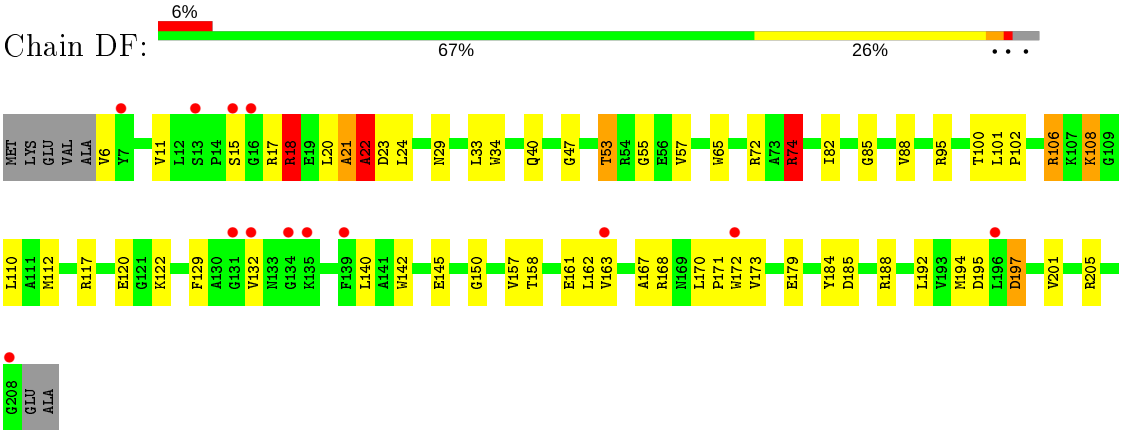
• Molecule 27: 50S Ribosomal Protein L4

Chain BF:



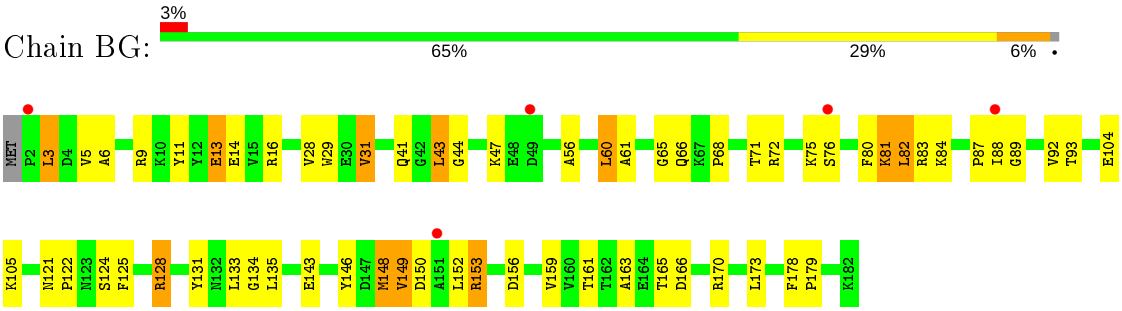
• Molecule 27: 50S Ribosomal Protein L4

Chain DF:



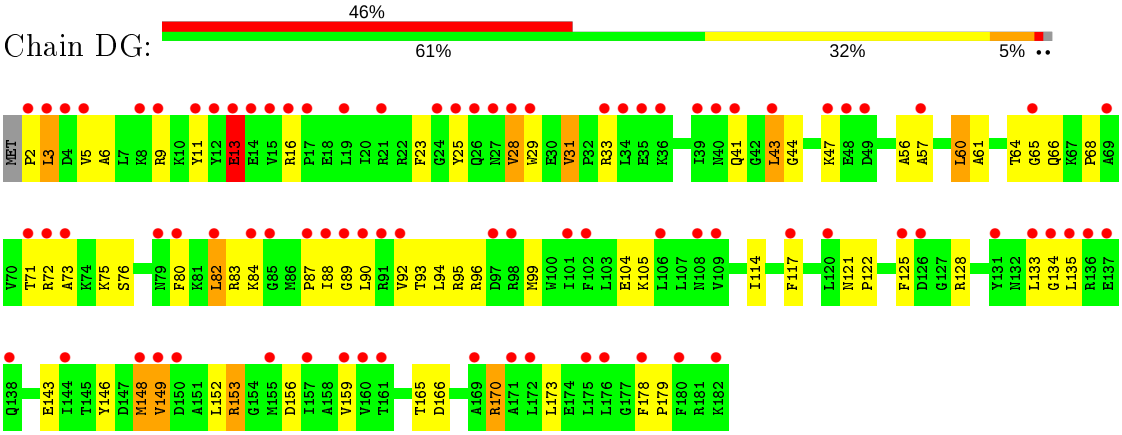
• Molecule 28: 50S Ribosomal Protein L5

Chain BG:



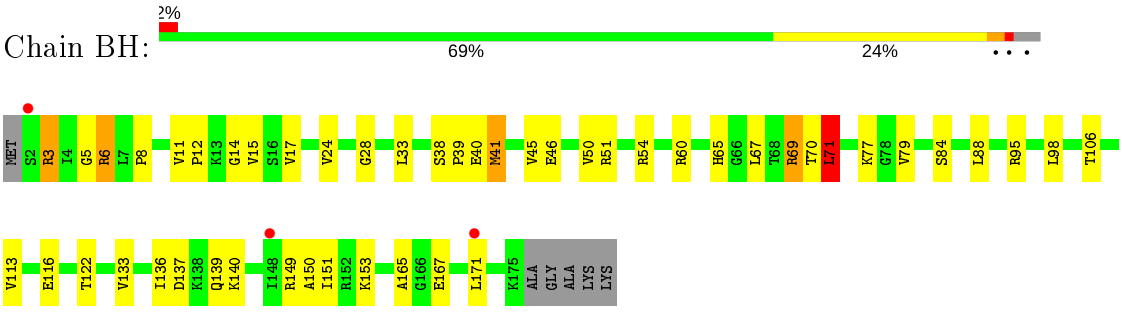
• Molecule 28: 50S Ribosomal Protein L5

Chain DG:



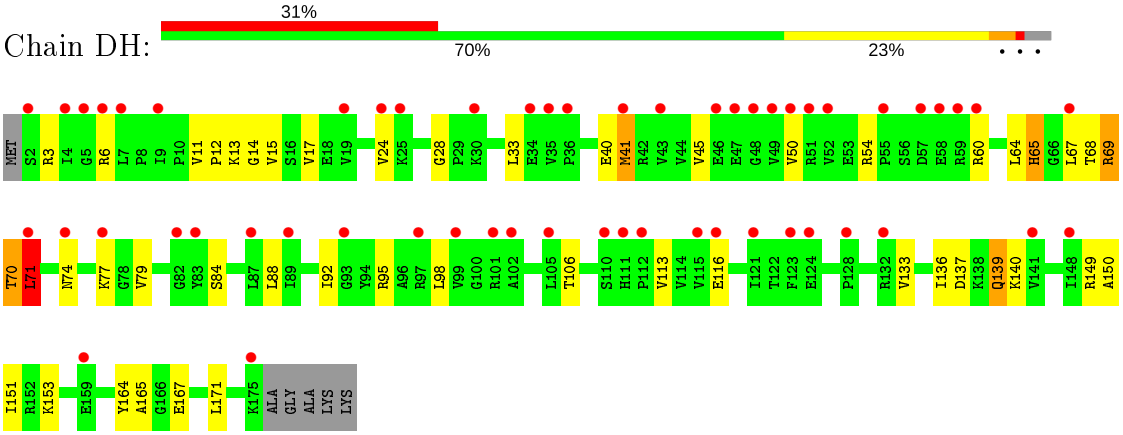
• Molecule 29: 50S Ribosomal Protein L6

Chain BH:



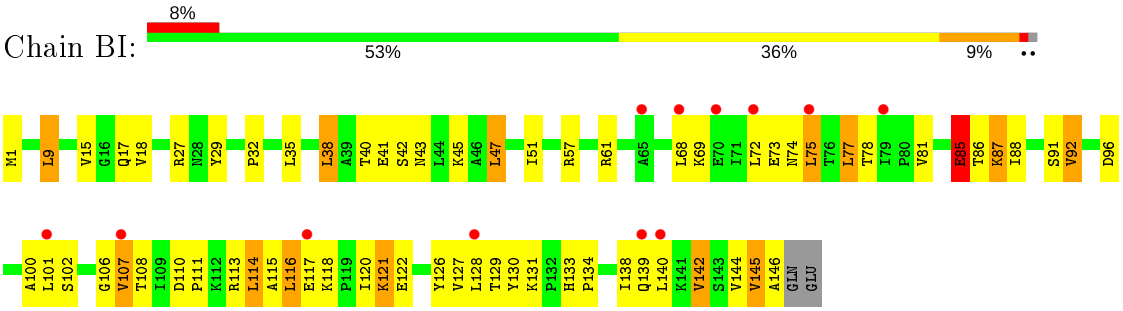
• Molecule 29: 50S Ribosomal Protein L6

Chain DH:



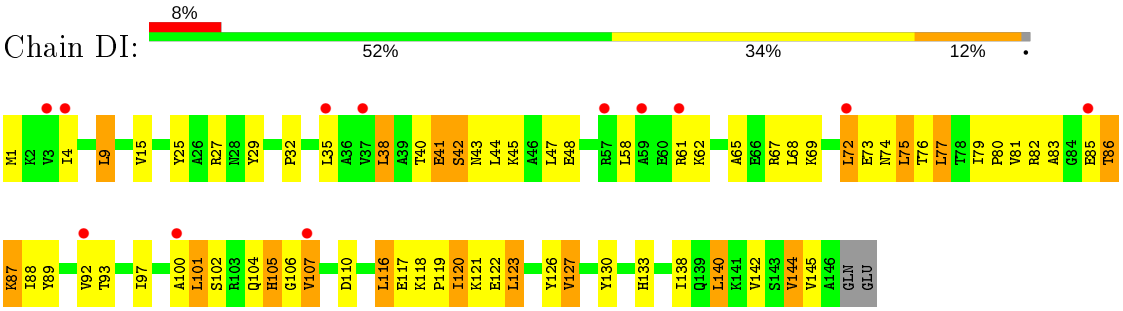
• Molecule 30: 50S Ribosomal Protein L9

Chain BI:



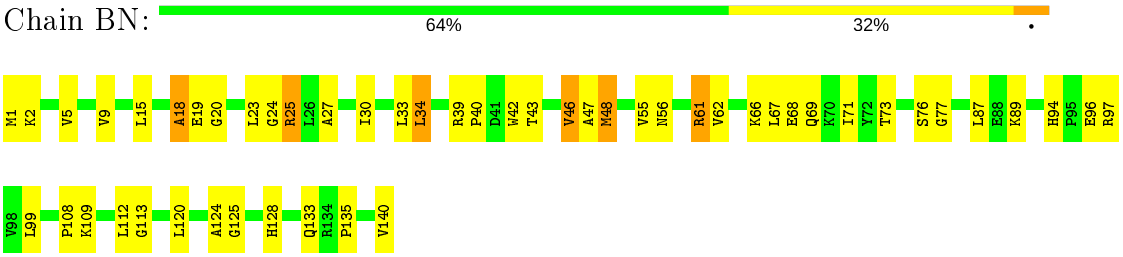
• Molecule 30: 50S Ribosomal Protein L9

Chain DI:



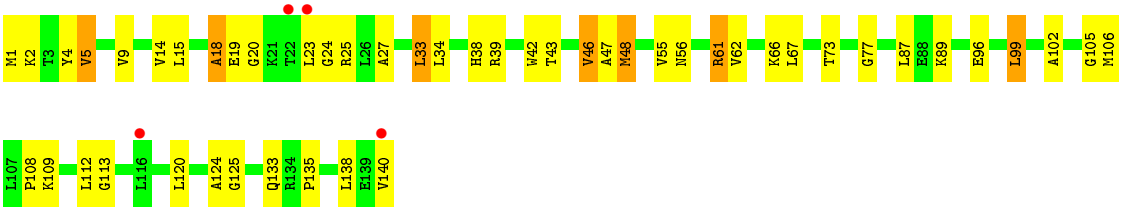
• Molecule 31: 50S Ribosomal Protein L13

Chain BN:



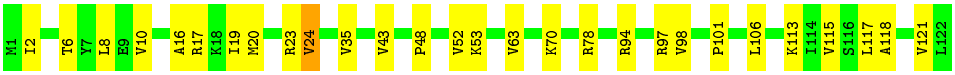
• Molecule 31: 50S Ribosomal Protein L13

Chain DN:



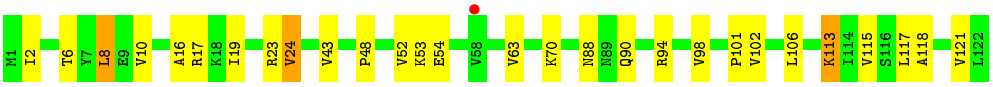
• Molecule 32: 50S Ribosomal Protein L14

Chain BO:



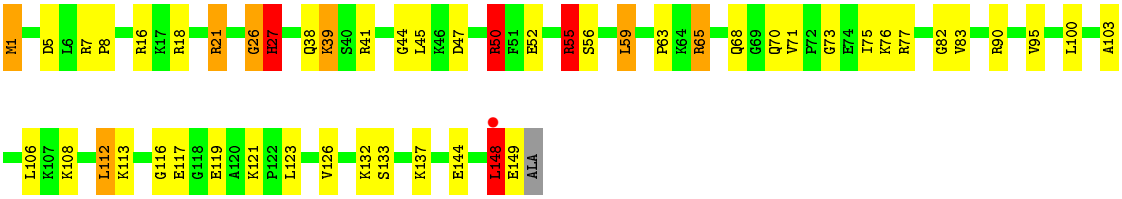
• Molecule 32: 50S Ribosomal Protein L14

Chain DO:



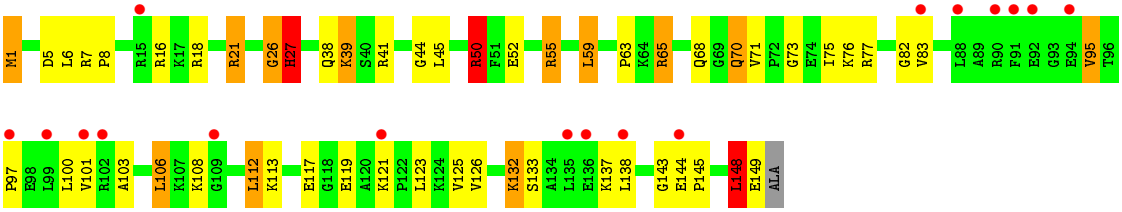
• Molecule 33: 50S Ribosomal Protein L15

Chain BP:



• Molecule 33: 50S Ribosomal Protein L15

Chain DP:

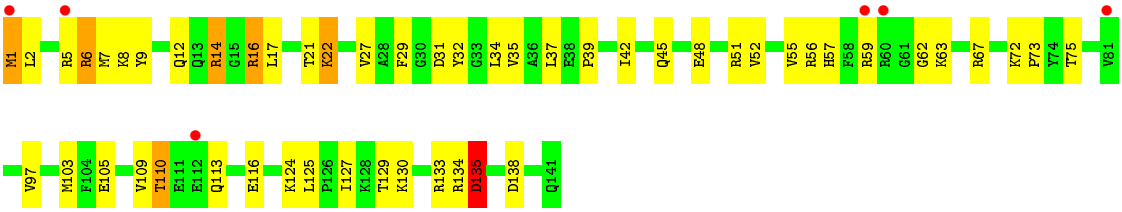


• Molecule 34: 50S Ribosomal Protein L16

Chain BQ:

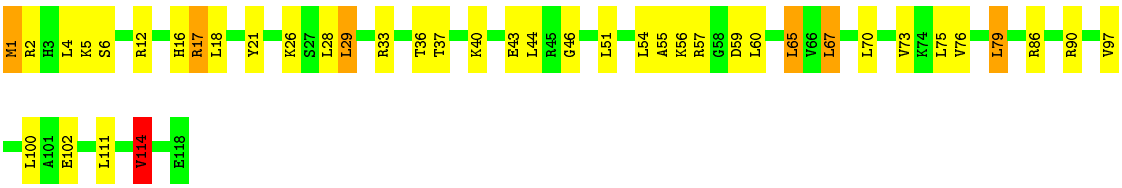
- Molecule 34: 50S Ribosomal Protein L16

Chain DQ:



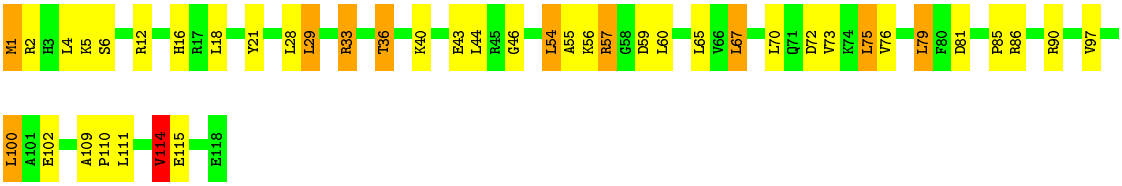
- Molecule 35: 50S Ribosomal Protein L17

Chain BR:



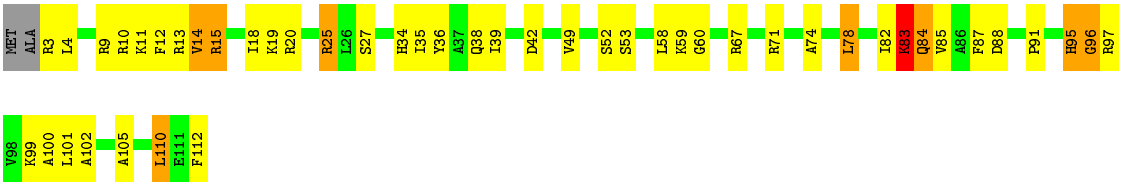
- Molecule 35: 50S Ribosomal Protein L17

Chain DR:



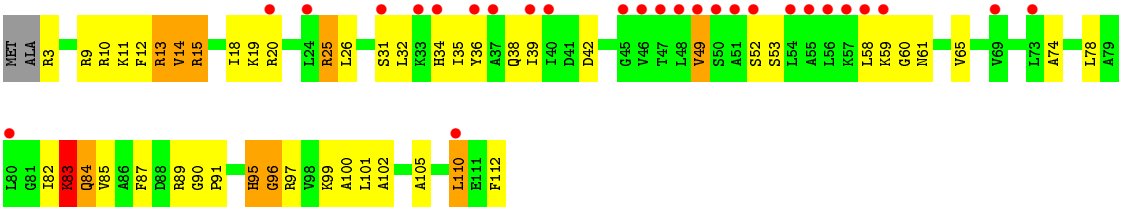
- Molecule 36: 50S Ribosomal Protein L18

Chain BS:



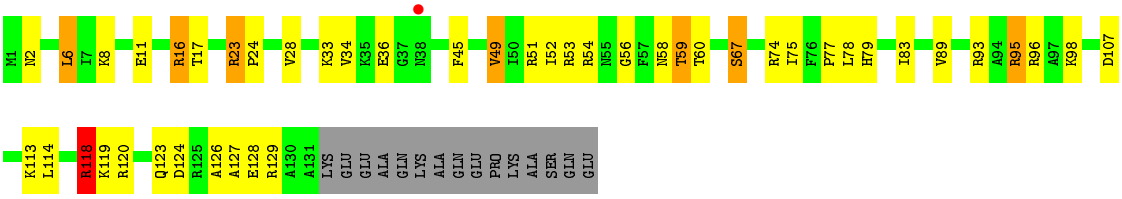
- Molecule 36: 50S Ribosomal Protein L18

Chain DS:



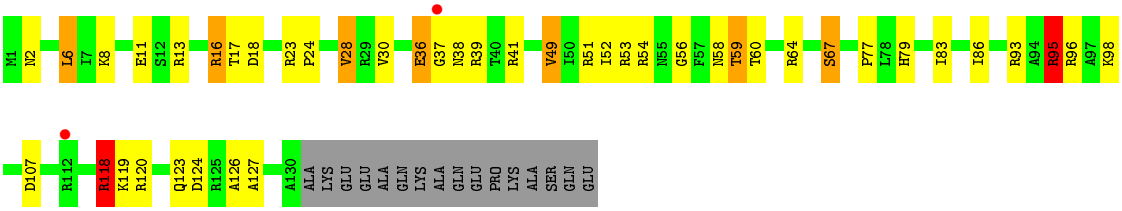
• Molecule 37: 50S Ribosomal Protein L19

Chain BT:



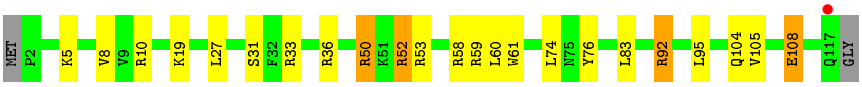
• Molecule 37: 50S Ribosomal Protein L19

Chain DT:



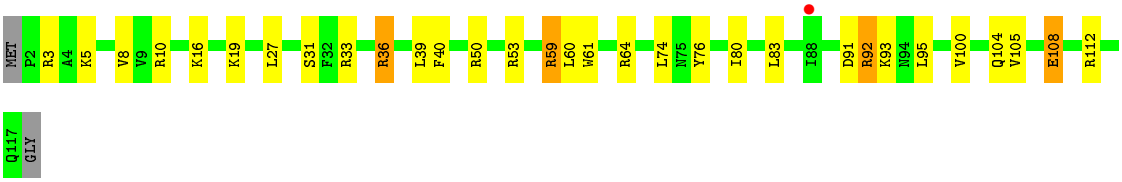
• Molecule 38: 50S Ribosomal Protein L20

Chain BU:



• Molecule 38: 50S Ribosomal Protein L20

Chain DU:



• Molecule 39: 50S Ribosomal Protein L21

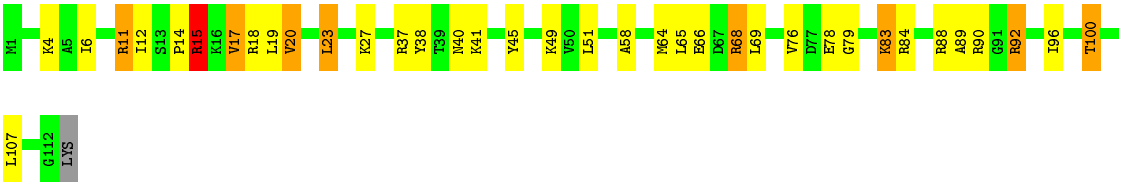
Chain BV:

• Molecule 39: 50S Ribosomal Protein L21

Chain DV:

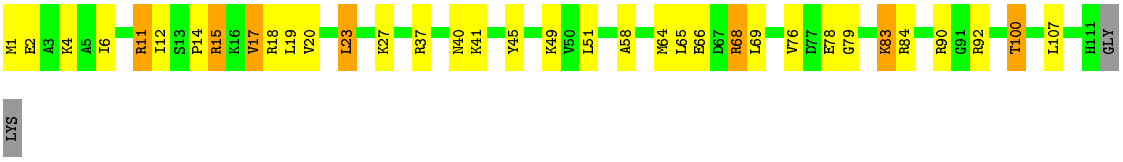
• Molecule 40: 50S Ribosomal Protein L22

Chain BW:



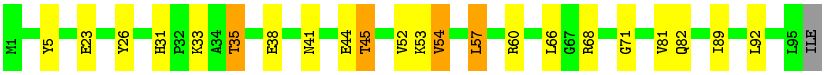
• Molecule 40: 50S Ribosomal Protein L22

Chain DW:



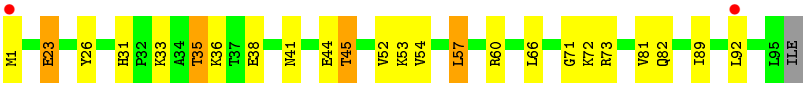
• Molecule 41: 50S Ribosomal Protein L23

Chain BX:



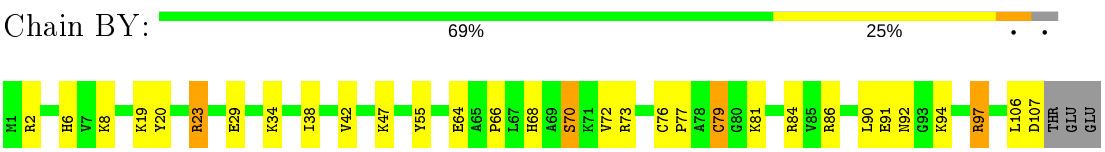
• Molecule 41: 50S Ribosomal Protein L23

Chain DX:



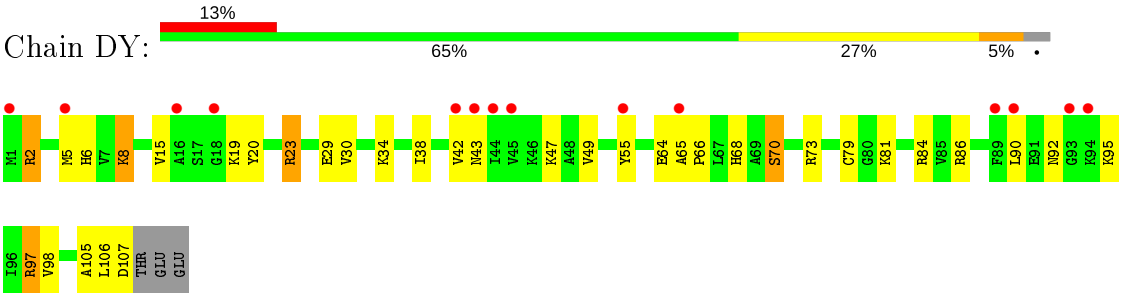
• Molecule 42: 50S Ribosomal Protein L24

Chain BY:



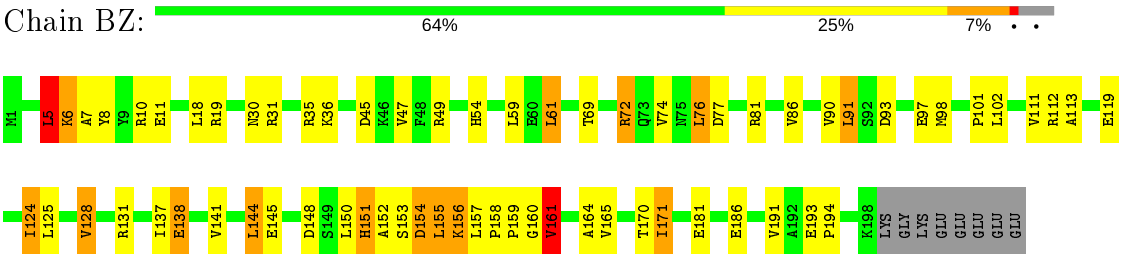
• Molecule 42: 50S Ribosomal Protein L24

Chain DY:



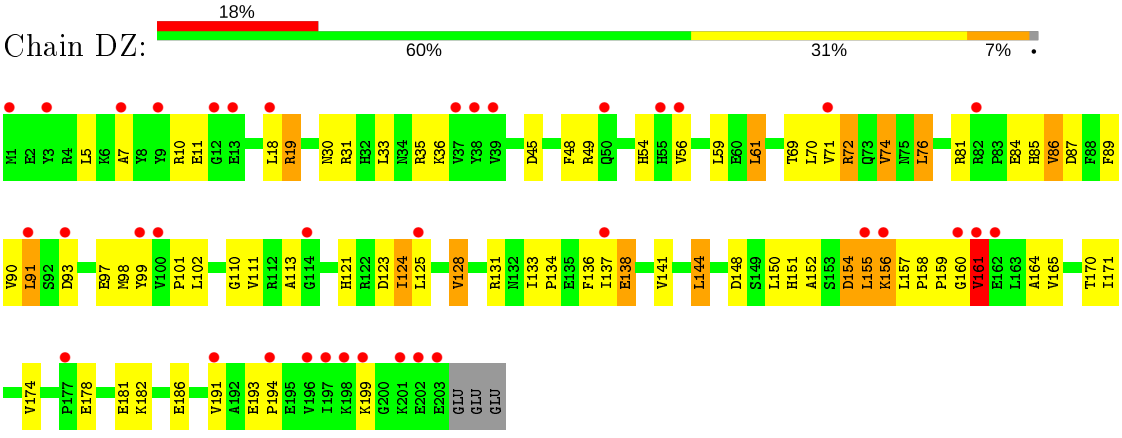
• Molecule 43: 50S Ribosomal Protein L25

Chain BZ:



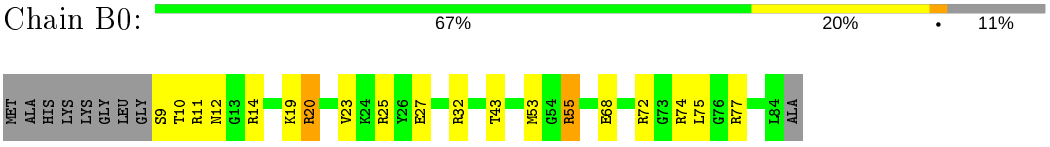
• Molecule 43: 50S Ribosomal Protein L25

Chain DZ:



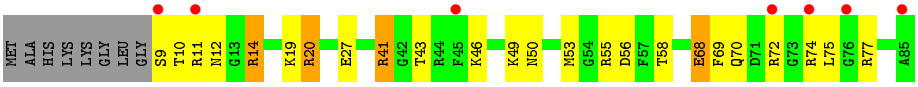
• Molecule 44: 50S Ribosomal Protein L27

Chain B0:



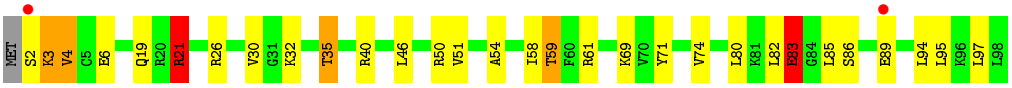
• Molecule 44: 50S Ribosomal Protein L27

Chain D0:



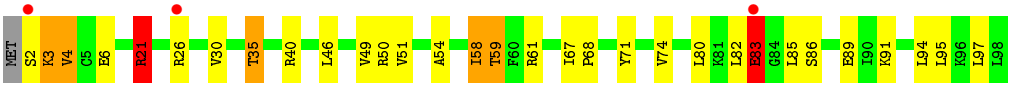
- Molecule 45: 50S Ribosomal Protein L28

Chain B1:



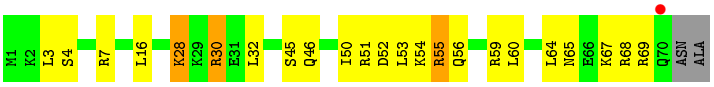
- Molecule 45: 50S Ribosomal Protein L28

Chain D1:



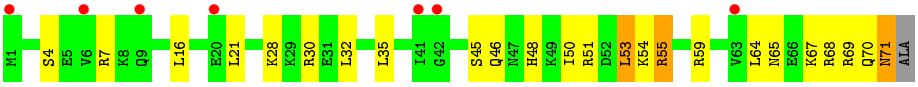
- Molecule 46: 50S Ribosomal Protein L29

Chain B2:



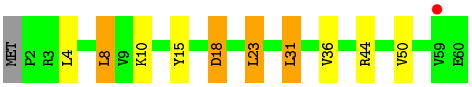
- Molecule 46: 50S Ribosomal Protein L29

Chain D2:



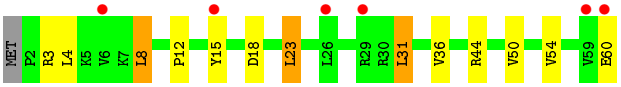
- Molecule 47: 50S Ribosomal Protein L30

Chain B3:



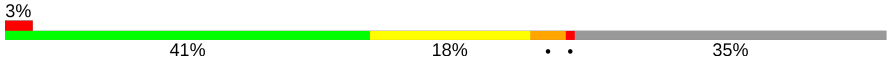
- Molecule 47: 50S Ribosomal Protein L30

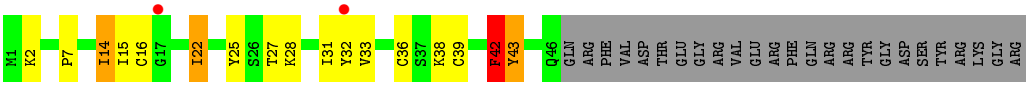
Chain D3:



- Molecule 48: 50S Ribosomal Protein L31

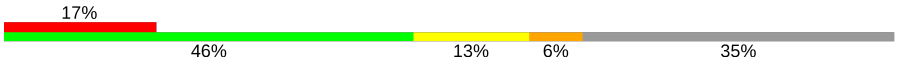
Chain B4:

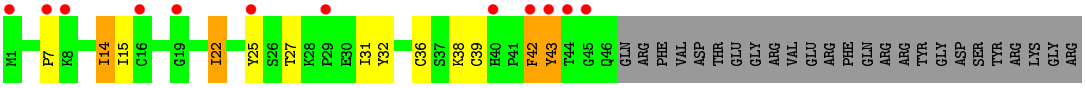




- Molecule 48: 50S Ribosomal Protein L31

Chain D4:



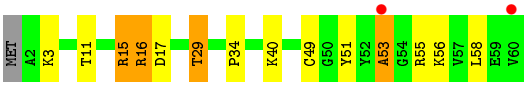


- Molecule 49: 50S Ribosomal Protein L32

Chain B5:

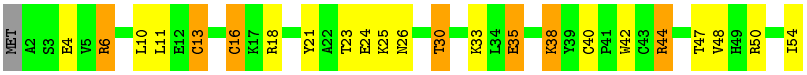
- Molecule 49: 50S Ribosomal Protein L32

Chain D5:



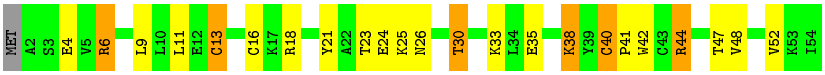
- Molecule 50: 50S Ribosomal Protein L33

Chain B6:



- Molecule 50: 50S Ribosomal Protein L33

Chain D6:

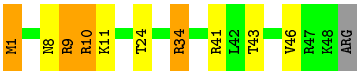


- Molecule 51: 50S Ribosomal Protein L34

Chain B7:

- Molecule 51: 50S Ribosomal Protein L34

Chain D7:

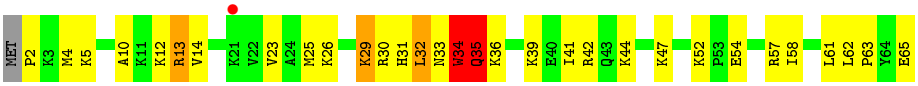


- Molecule 52: 50S Ribosomal Protein L35

Chain B8:

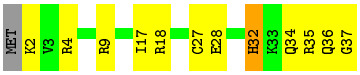
- Molecule 52: 50S Ribosomal Protein L35

Chain D8:



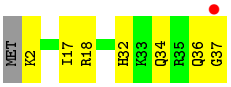
- Molecule 53: 50S ribosomal protein L36

Chain B9:



- Molecule 53: 50S ribosomal protein L36

Chain D9:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.63Å 449.30Å 620.90Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.71 – 2.70 49.71 – 2.70	Depositor EDS
% Data completeness (in resolution range)	98.4 (49.71-2.70) 98.4 (49.71-2.70)	Depositor EDS
R_{merge}	0.17	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.20 (at 2.69Å)	Xtriage
Refinement program	PHENIX 1.7.2_869	Depositor
R, R_{free}	0.217 , 0.254 0.213 , 0.250	Depositor DCC
R_{free} test set	78243 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å^2)	55.6	Xtriage
Anisotropy	0.155	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 46.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	287173	wwPDB-VP
Average B, all atoms (Å^2)	64.0	wwPDB-VP

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

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	AA	1.00	41/35935 (0.1%)	1.48	589/56084 (1.1%)
1	CA	0.97	39/35884 (0.1%)	1.44	557/56006 (1.0%)
2	AB	0.57	0/1811	0.74	0/2452
2	CB	0.62	0/1852	0.75	0/2510
3	AC	0.63	1/1474 (0.1%)	0.84	1/2003 (0.0%)
3	CC	0.67	0/1477	0.90	4/2006 (0.2%)
4	AD	0.73	2/1550 (0.1%)	0.87	1/2106 (0.0%)
4	CD	0.68	3/1567 (0.2%)	0.85	1/2125 (0.0%)
5	AE	0.60	0/1121	0.78	0/1517
5	CE	0.64	0/1122	0.81	0/1518
6	AF	0.61	0/794	0.79	0/1082
6	CF	0.58	0/789	0.78	0/1074
7	AG	0.59	0/1186	0.74	0/1603
7	CG	0.63	0/1183	0.74	0/1599
8	AH	0.52	0/1065	0.71	0/1445
8	CH	0.53	0/1069	0.69	0/1450
9	AI	0.60	0/867	0.85	0/1180
9	CI	0.70	0/864	0.84	0/1177
10	AJ	0.65	0/672	0.83	0/919
10	CJ	0.73	0/670	0.86	0/917
11	AK	0.59	0/843	0.74	0/1144
11	CK	0.60	0/843	0.75	0/1144
12	AL	0.67	0/925	0.83	0/1251
12	CL	0.65	0/921	0.87	2/1247 (0.2%)
13	AM	0.66	0/811	0.91	0/1103
13	CM	0.72	0/794	0.92	0/1081
14	AN	0.62	0/487	0.83	0/649
14	CN	0.68	0/483	0.91	1/645 (0.2%)
15	AO	0.59	0/735	0.84	2/981 (0.2%)
15	CO	0.57	0/735	0.79	1/981 (0.1%)
16	AP	0.60	0/667	0.83	0/905
16	CP	0.57	0/677	0.83	0/917

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.59	0/836	0.76	0/1117
17	CQ	0.62	0/832	0.77	0/1113
18	AR	0.51	0/519	0.82	1/699 (0.1%)
18	CR	0.52	0/519	0.81	0/699
19	AS	0.58	0/574	0.85	1/781 (0.1%)
19	CS	0.64	0/563	0.82	0/766
20	AT	0.59	0/701	0.86	2/930 (0.2%)
20	CT	0.60	0/776	0.83	2/1026 (0.2%)
21	AU	0.57	0/203	0.73	0/266
21	CU	0.71	0/184	0.85	0/244
22	AY	0.67	0/766	0.87	0/1034
22	CY	0.67	0/751	0.76	0/1017
23	BA	1.46	435/68200 (0.6%)	1.72	2119/106454 (2.0%)
23	DA	1.17	125/67486 (0.2%)	1.62	1697/105338 (1.6%)
24	BB	1.09	2/2878 (0.1%)	1.48	44/4490 (1.0%)
24	DB	1.27	9/2878 (0.3%)	1.51	51/4490 (1.1%)
25	BD	0.90	1/2186 (0.0%)	1.02	8/2944 (0.3%)
25	DD	0.79	0/2186	0.96	2/2944 (0.1%)
26	BE	0.89	0/1588	0.98	2/2145 (0.1%)
26	DE	0.79	1/1588 (0.1%)	0.96	1/2145 (0.0%)
27	BF	0.84	1/1612 (0.1%)	0.94	5/2184 (0.2%)
27	DF	0.71	0/1607	0.91	4/2178 (0.2%)
28	BG	0.55	0/1393	0.78	0/1892
28	DG	0.69	0/1393	0.80	0/1892
29	BH	0.68	0/1343	0.80	0/1820
29	DH	0.63	0/1343	0.75	0/1820
30	BI	0.63	0/1058	0.84	0/1449
30	DI	0.64	0/1058	0.90	1/1449 (0.1%)
31	BN	0.84	0/1139	0.96	4/1538 (0.3%)
31	DN	0.71	0/1139	0.89	1/1538 (0.1%)
32	BO	0.86	0/933	0.92	2/1257 (0.2%)
32	DO	0.77	0/933	0.91	1/1257 (0.1%)
33	BP	0.85	0/1148	1.02	7/1529 (0.5%)
33	DP	0.72	0/1148	0.97	5/1529 (0.3%)
34	BQ	0.85	0/1143	0.89	2/1527 (0.1%)
34	DQ	0.76	0/1143	0.90	2/1527 (0.1%)
35	BR	0.85	0/982	0.98	2/1312 (0.2%)
35	DR	0.71	0/982	0.92	1/1312 (0.1%)
36	BS	0.71	0/875	0.91	1/1168 (0.1%)
36	DS	0.78	0/883	0.89	1/1176 (0.1%)
37	BT	0.79	0/1077	0.98	2/1444 (0.1%)
37	DT	0.73	0/1072	0.97	4/1437 (0.3%)
38	BU	0.89	0/977	0.95	4/1301 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DU	0.78	0/977	0.83	0/1301
39	BV	0.85	0/782	0.92	0/1049
39	DV	0.77	0/786	0.89	0/1053
40	BW	0.97	2/891 (0.2%)	0.97	3/1197 (0.3%)
40	DW	0.85	0/887	0.91	1/1192 (0.1%)
41	BX	0.88	0/756	0.90	1/1016 (0.1%)
41	DX	0.78	0/746	0.88	1/1005 (0.1%)
42	BY	0.76	1/798 (0.1%)	1.04	4/1073 (0.4%)
42	DY	0.73	0/794	1.03	3/1067 (0.3%)
43	BZ	0.67	0/1555	0.85	4/2118 (0.2%)
43	DZ	0.71	0/1561	0.84	3/2131 (0.1%)
44	B0	0.78	0/602	0.94	3/804 (0.4%)
44	D0	0.76	0/615	0.90	0/820
45	B1	0.85	0/752	0.91	2/1003 (0.2%)
45	D1	0.76	0/752	0.92	2/1003 (0.2%)
46	B2	0.77	0/590	0.80	0/781
46	D2	0.73	0/586	0.78	0/779
47	B3	0.76	0/463	0.77	0/623
47	D3	0.74	0/468	0.75	0/628
48	B4	0.65	1/358 (0.3%)	0.82	1/487 (0.2%)
48	D4	0.73	0/358	0.80	0/487
49	B5	0.93	0/469	1.07	2/634 (0.3%)
49	D5	0.85	1/465 (0.2%)	0.99	1/630 (0.2%)
50	B6	0.89	1/456 (0.2%)	0.90	0/609
50	D6	0.81	0/444	0.86	0/595
51	B7	1.02	0/426	1.17	5/561 (0.9%)
51	D7	0.81	0/410	0.99	1/543 (0.2%)
52	B8	0.92	0/516	0.98	1/679 (0.1%)
52	D8	0.82	0/516	1.06	5/679 (0.7%)
53	B9	0.98	0/300	1.11	3/395 (0.8%)
53	D9	0.77	0/300	1.02	0/395
All	All	1.09	666/304847 (0.2%)	1.44	5184/456336 (1.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	AB	0	1
2	CB	0	2
3	AC	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	CC	0	3
4	AD	0	1
4	CD	0	1
9	AI	0	3
9	CI	0	1
10	AJ	0	3
10	CJ	0	2
12	CL	0	2
13	AM	0	2
13	CM	0	1
14	CN	0	2
18	AR	0	1
18	CR	0	1
23	BA	0	4
23	DA	0	1
25	BD	0	1
25	DD	0	1
26	BE	0	1
26	DE	0	1
27	BF	0	3
27	DF	0	2
28	BG	0	1
28	DG	0	1
29	BH	0	1
29	DH	0	1
30	BI	0	1
31	BN	0	1
31	DN	0	1
33	BP	0	2
33	DP	0	2
36	BS	0	1
36	DS	0	1
37	BT	0	1
37	DT	0	1
41	BX	0	1
41	DX	0	1
43	BZ	0	1
43	DZ	0	1
45	B1	0	1
45	D1	0	1
48	B4	0	1
48	D4	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
49	B5	0	1
49	D5	0	1
52	D8	0	1
All	All	0	68

All (666) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1459	C	N1-C2	18.78	1.58	1.40
1	CA	1459	C	N1-C2	17.97	1.58	1.40
1	CA	1442(A)	G	N9-C4	15.13	1.50	1.38
23	BA	1021	A	N9-C4	-14.91	1.28	1.37
23	BA	2287	A	N9-C4	-14.79	1.28	1.37
23	BA	1142(A)	A	N9-C4	-14.66	1.29	1.37
23	BA	945	A	N9-C4	-14.58	1.29	1.37
1	AA	1442(A)	G	N9-C4	13.88	1.49	1.38
23	BA	528	A	N9-C4	-13.49	1.29	1.37
23	BA	2335	A	C6-N6	-12.44	1.24	1.33
23	DA	2123	G	P-OP2	-12.16	1.28	1.49
1	CA	66	G	P-OP2	-12.16	1.28	1.49
23	DA	1142(A)	A	N9-C4	-12.11	1.30	1.37
23	BA	2123	G	P-OP1	-12.01	1.28	1.49
23	BA	2243	U	P-OP2	-11.95	1.28	1.49
23	DA	2287	A	N9-C4	-11.93	1.30	1.37
1	AA	1459	C	C1'-N1	11.90	1.66	1.48
23	DA	528	A	N9-C4	-11.85	1.30	1.37
1	CA	52	G	P-OP1	-11.85	1.28	1.49
23	DA	1021	A	N9-C4	-11.75	1.30	1.37
23	DA	2335	A	C6-N6	-11.70	1.24	1.33
1	CA	1459	C	C1'-N1	11.46	1.66	1.48
1	AA	1442(A)	G	C2-N3	11.18	1.41	1.32
1	AA	1459	C	C2-N3	11.00	1.44	1.35
23	BA	788	A	P-OP2	-10.86	1.30	1.49
4	AD	12	CYS	CB-SG	10.70	2.00	1.82
23	BA	2589	A	P-O5'	-10.52	1.49	1.59
23	BA	2057	A	P-OP2	-10.45	1.31	1.49
1	CA	1459	C	C2-N3	10.41	1.44	1.35
23	BA	330	A	N9-C4	-10.35	1.31	1.37
1	AA	52	G	P-OP2	-10.33	1.31	1.49
23	BA	933	A	N9-C4	-10.29	1.31	1.37
1	CA	1442(A)	G	C2-N3	10.12	1.40	1.32
1	AA	66	G	P-OP1	-10.09	1.31	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	933	A	N3-C4	-10.00	1.28	1.34
23	BA	679	C	P-OP2	-9.95	1.32	1.49
23	BA	530	G	N9-C8	9.95	1.44	1.37
23	BA	1026	U	P-OP2	-9.88	1.32	1.49
23	DA	945	A	N9-C4	-9.87	1.31	1.37
23	BA	546	C	P-OP1	-9.68	1.32	1.49
1	CA	542	G	P-OP2	-9.51	1.32	1.49
1	AA	187	C	P-OP2	-9.49	1.32	1.49
1	CA	187	C	P-OP1	-9.48	1.32	1.49
23	BA	2445	G	P-OP1	-9.47	1.32	1.49
23	DA	1821	A	C5-C4	-9.47	1.32	1.38
1	AA	341	C	P-OP1	-9.44	1.32	1.49
1	CA	439	A	P-OP2	-9.37	1.33	1.49
23	DA	546	C	P-OP2	-9.35	1.33	1.49
23	BA	272(A)	U	C1'-N1	9.28	1.62	1.48
23	BA	2296	U	C4-C5	9.11	1.51	1.43
23	BA	2450	A	P-OP2	-9.10	1.33	1.49
1	AA	615	C	P-OP2	-9.07	1.33	1.49
23	BA	1303	G	C6-N1	-9.06	1.33	1.39
1	CA	615	C	P-OP1	-8.98	1.33	1.49
1	AA	542	G	P-OP1	-8.90	1.33	1.49
23	BA	945	A	C5-C6	-8.80	1.33	1.41
23	BA	685	A	N9-C4	-8.79	1.32	1.37
23	BA	945	A	N9-C8	8.78	1.44	1.37
1	AA	516	U	P-OP2	-8.76	1.34	1.49
1	AA	516	U	P-OP1	-8.73	1.34	1.49
1	AA	1442(A)	G	P-OP1	-8.72	1.34	1.49
23	DA	2296	U	C4-C5	8.68	1.51	1.43
23	DA	1026	U	P-OP1	-8.67	1.34	1.49
23	BA	945	A	N3-C4	-8.66	1.29	1.34
1	CA	1442(A)	G	P-OP2	-8.66	1.34	1.49
4	AD	26	CYS	CB-SG	8.66	1.97	1.82
23	BA	1762	A	P-OP1	-8.64	1.34	1.49
23	BA	679	C	P-OP1	-8.58	1.34	1.49
1	AA	341	C	P-OP2	-8.56	1.34	1.49
1	AA	1227	A	N9-C4	-8.53	1.32	1.37
23	BA	2143	C	P-OP1	-8.49	1.34	1.49
1	AA	542	G	P-OP2	-8.49	1.34	1.49
24	BB	27	C	P-OP1	-8.48	1.34	1.49
1	CA	439	A	P-OP1	-8.44	1.34	1.49
23	BA	530	G	C2-N3	-8.42	1.26	1.32
23	BA	2296	U	N1-C2	8.42	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	808	G	P-OP2	-8.40	1.34	1.49
23	BA	2589	A	P-OP2	-8.40	1.34	1.49
1	AA	615	C	P-OP1	-8.39	1.34	1.49
1	AA	1442(A)	G	C5-C6	8.38	1.50	1.42
23	BA	2450	A	P-O5'	-8.36	1.51	1.59
1	AA	1442(A)	G	P-OP2	-8.35	1.34	1.49
23	BA	1698	A	N9-C4	-8.35	1.32	1.37
1	CA	44	G	P-OP1	-8.32	1.34	1.49
23	DA	1762	A	P-OP1	-8.31	1.34	1.49
23	BA	2028	U	C2-N3	-8.29	1.31	1.37
23	BA	2607	G	N7-C5	-8.29	1.34	1.39
1	AA	1442(A)	G	N3-C4	8.26	1.41	1.35
23	BA	788	A	P-O5'	-8.24	1.51	1.59
1	CA	542	G	P-OP1	-8.22	1.34	1.49
23	BA	1274	A	N7-C5	-8.21	1.34	1.39
23	DA	330	A	N9-C4	-8.21	1.32	1.37
23	BA	530	G	C8-N7	8.21	1.35	1.30
23	BA	747	U	P-OP2	-8.18	1.35	1.49
1	CA	516	U	P-OP1	-8.16	1.35	1.49
23	BA	1776	G	C8-N7	-8.15	1.26	1.30
23	BA	2454	G	C6-N1	-8.15	1.33	1.39
1	AA	439	A	P-OP2	-8.13	1.35	1.49
23	BA	1698	A	N9-C8	8.11	1.44	1.37
24	BB	27	C	P-OP2	-8.08	1.35	1.49
23	BA	809	G	P-OP2	-8.05	1.35	1.49
1	CA	615	C	P-OP2	-8.03	1.35	1.49
1	CA	187	C	P-OP2	-8.01	1.35	1.49
1	CA	341	C	P-OP1	-8.01	1.35	1.49
23	DA	272(A)	U	C1'-N1	7.97	1.60	1.48
1	CA	1442(A)	G	N3-C4	7.97	1.41	1.35
23	DA	530	G	N9-C8	7.95	1.43	1.37
1	CA	341	C	P-OP2	-7.94	1.35	1.49
23	BA	2444	G	O3'-P	-7.93	1.51	1.61
23	DA	1698	A	N9-C4	-7.92	1.33	1.37
23	BA	1190	G	N7-C5	-7.90	1.34	1.39
1	AA	44	G	P-OP2	-7.87	1.35	1.49
23	BA	2143	C	P-OP2	-7.85	1.35	1.49
23	BA	2035	G	P-OP1	-7.84	1.35	1.49
23	BA	1762	A	P-OP2	-7.83	1.35	1.49
23	DA	945	A	C5-C6	-7.83	1.34	1.41
23	DA	2143	C	P-OP1	-7.82	1.35	1.49
1	AA	44	G	P-OP1	-7.79	1.35	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2450	A	P-OP1	-7.77	1.35	1.49
23	DA	2143	C	P-OP2	-7.77	1.35	1.49
23	BA	2502	G	N7-C5	-7.75	1.34	1.39
23	BA	1045	A	N9-C4	7.70	1.42	1.37
23	BA	2057	A	P-OP1	-7.67	1.35	1.49
23	BA	2243	U	P-O5'	-7.67	1.52	1.59
1	AA	187	C	P-OP1	-7.65	1.35	1.49
1	CA	516	U	P-OP2	-7.65	1.35	1.49
24	DB	27	C	P-OP2	-7.64	1.35	1.49
23	DA	1026	U	P-OP2	-7.62	1.35	1.49
24	DB	27	C	P-OP1	-7.62	1.35	1.49
23	BA	278	A	C6-N1	7.60	1.40	1.35
23	BA	808	G	N7-C5	-7.60	1.34	1.39
23	BA	2036	C	N1-C6	7.58	1.41	1.37
23	BA	330	A	N9-C8	7.55	1.43	1.37
23	BA	2572	A	C5-C4	-7.54	1.33	1.38
23	BA	1026	U	P-OP1	-7.51	1.36	1.49
23	BA	2055	C	P-OP1	-7.49	1.36	1.49
1	AA	439	A	P-OP1	-7.48	1.36	1.49
23	DA	786	C	N1-C6	7.48	1.41	1.37
23	BA	528	A	C5-C6	-7.48	1.34	1.41
23	BA	809	G	P-OP1	-7.46	1.36	1.49
23	DA	2638	G	N7-C5	-7.46	1.34	1.39
23	BA	207	A	N9-C4	-7.45	1.33	1.37
23	DA	530	G	C8-N7	7.45	1.35	1.30
23	BA	2287	A	C5-C6	-7.43	1.34	1.41
23	BA	685	A	N3-C4	-7.38	1.30	1.34
23	BA	527	C	N3-C4	-7.37	1.28	1.33
23	DA	2322	A	N7-C5	7.36	1.43	1.39
23	BA	1982	C	P-OP2	-7.33	1.36	1.49
23	BA	2322	A	C8-N7	7.33	1.36	1.31
23	BA	1770	G	C5-C4	-7.27	1.33	1.38
23	BA	528	A	N9-C8	7.27	1.43	1.37
23	BA	776	G	C6-N1	-7.24	1.34	1.39
23	BA	945	A	N7-C5	-7.22	1.34	1.39
49	D5	49	CYS	CB-SG	-7.21	1.70	1.82
23	BA	1982	C	P-OP1	-7.20	1.36	1.49
23	BA	1653	G	N7-C5	-7.20	1.34	1.39
23	BA	2057	A	P-O5'	-7.18	1.52	1.59
23	BA	1981	A	O3'-P	-7.17	1.52	1.61
1	CA	1442(A)	G	C5-C6	7.17	1.49	1.42
23	BA	2449	U	O3'-P	-7.14	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	571	A	P-OP2	-7.13	1.36	1.49
23	DA	2322	A	N9-C4	7.13	1.42	1.37
23	BA	1564	C	N3-C4	-7.10	1.28	1.33
23	BA	679	C	P-O5'	-7.09	1.52	1.59
4	CD	12	CYS	CB-SG	7.09	1.94	1.82
1	CA	1442(A)	G	P-OP1	-7.08	1.36	1.49
23	BA	573	G	N7-C5	-7.08	1.35	1.39
23	BA	2322	A	C6-N1	7.08	1.40	1.35
23	BA	568	U	C4-O4	-7.06	1.18	1.23
23	BA	2605	U	C2-N3	-7.05	1.32	1.37
23	BA	2335	A	C5-C4	-7.05	1.33	1.38
23	DA	546	C	P-OP1	-7.04	1.36	1.49
4	CD	9	CYS	CB-SG	7.02	1.94	1.82
23	BA	751	A	N3-C4	-7.01	1.30	1.34
1	AA	1442(A)	G	C6-N1	6.99	1.44	1.39
23	DA	530	G	C2-N3	-6.99	1.27	1.32
1	CA	44	G	P-OP2	-6.97	1.37	1.49
23	BA	2393	A	C6-N1	-6.92	1.30	1.35
23	BA	747	U	P-OP1	-6.92	1.37	1.49
23	BA	1263	U	C4-O4	-6.92	1.18	1.23
23	BA	528	A	C2-N3	-6.89	1.27	1.33
23	BA	2019	A	C6-N1	-6.88	1.30	1.35
23	DA	1762	A	P-OP2	-6.88	1.37	1.49
23	DA	2296	U	N1-C2	6.86	1.44	1.38
23	BA	2437	U	C2-O2	-6.83	1.16	1.22
23	DA	2003	G	C6-N1	-6.79	1.34	1.39
23	BA	546	C	P-OP2	-6.78	1.37	1.49
23	BA	1982	C	P-O5'	-6.76	1.52	1.59
23	BA	1131	G	N1-C2	-6.76	1.32	1.37
23	BA	2589	A	P-OP1	-6.75	1.37	1.49
23	BA	2557	G	N1-C2	-6.75	1.32	1.37
23	BA	1324	G	N1-C2	-6.73	1.32	1.37
42	BY	79	CYS	CB-SG	-6.73	1.70	1.82
23	BA	331	A	N9-C4	-6.72	1.33	1.37
23	BA	53	A	N3-C4	-6.72	1.30	1.34
23	BA	2454	G	N1-C2	-6.71	1.32	1.37
23	BA	688	U	C2-O2	-6.70	1.16	1.22
23	BA	1142(A)	A	N3-C4	-6.70	1.30	1.34
27	BF	88	VAL	CB-CG1	-6.68	1.38	1.52
23	DA	1698	A	N9-C8	6.68	1.43	1.37
23	DA	12	U	N1-C2	6.67	1.44	1.38
23	BA	1204	A	N9-C4	-6.67	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2050	C	N3-C4	6.66	1.38	1.33
23	BA	747	U	P-O5'	-6.63	1.53	1.59
23	DA	2322	A	C6-N1	6.63	1.40	1.35
23	BA	450	G	N7-C5	-6.63	1.35	1.39
4	CD	31	CYS	CB-SG	-6.63	1.71	1.82
23	DA	757	U	C4-O4	-6.61	1.18	1.23
24	DB	53	A	N9-C4	6.61	1.41	1.37
23	DA	71	A	N9-C4	6.61	1.41	1.37
23	BA	2505	G	N3-C4	-6.59	1.30	1.35
23	DA	2322	A	C5-C6	6.58	1.47	1.41
23	BA	1611	C	N1-C6	-6.58	1.33	1.37
23	BA	1698	A	C5-C4	6.57	1.43	1.38
23	BA	787	U	O3'-P	-6.57	1.53	1.61
23	BA	734	A	C6-N1	-6.54	1.30	1.35
23	BA	1782	C	P-OP1	-6.52	1.37	1.49
23	BA	2570	G	C5-C4	-6.52	1.33	1.38
23	DA	2774	C	N1-C6	6.50	1.41	1.37
23	BA	2055	C	P-OP2	-6.50	1.37	1.49
23	DA	2707	G	C2-N3	6.50	1.38	1.32
23	BA	1628	G	C8-N7	-6.49	1.27	1.30
23	BA	328	U	C2-O2	-6.48	1.16	1.22
23	DA	2689	U	C3'-O3'	6.46	1.51	1.42
23	DA	945	A	N1-C2	6.44	1.40	1.34
23	BA	2032	G	N7-C5	-6.43	1.35	1.39
1	CA	1003	G	N9-C4	6.43	1.43	1.38
23	BA	785	G	P-O5'	-6.42	1.53	1.59
23	BA	2249	U	C4-O4	-6.41	1.18	1.23
23	BA	2588	G	O3'-P	-6.40	1.53	1.61
48	B4	16	CYS	CB-SG	-6.39	1.71	1.82
23	BA	1764	G	N1-C2	-6.39	1.32	1.37
23	BA	2065	C	N3-C4	-6.39	1.29	1.33
23	BA	2442	C	C2-O2	-6.38	1.18	1.24
23	BA	567	A	C6-N1	-6.38	1.31	1.35
23	BA	2322	A	N9-C4	6.38	1.41	1.37
23	BA	579	G	N9-C8	-6.37	1.33	1.37
23	BA	265	A	N9-C4	-6.36	1.34	1.37
23	BA	2035	G	P-O5'	-6.36	1.53	1.59
1	CA	398	C	N3-C4	-6.35	1.29	1.33
1	AA	1443	G	C6-O6	-6.34	1.18	1.24
23	BA	962	G	N9-C8	-6.34	1.33	1.37
23	BA	808	G	P-O5'	-6.32	1.53	1.59
23	BA	1366	A	C6-N1	-6.32	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	663	G	C6-N1	-6.31	1.35	1.39
23	BA	2894	G	C5-C4	6.31	1.42	1.38
23	DA	1021	A	N3-C4	-6.31	1.31	1.34
23	BA	573	G	C8-N7	-6.30	1.27	1.30
23	DA	528	A	N9-C8	6.30	1.42	1.37
23	BA	2445	G	P-OP2	-6.29	1.38	1.49
23	BA	808	G	P-OP1	-6.29	1.38	1.49
23	BA	1771	C	N3-C4	-6.29	1.29	1.33
23	BA	2053	G	N9-C8	-6.28	1.33	1.37
23	BA	1348	G	C5-C4	-6.28	1.33	1.38
23	BA	2035	G	N7-C5	-6.27	1.35	1.39
1	CA	1067	A	N9-C4	6.26	1.41	1.37
23	BA	1429	G	N1-C2	-6.26	1.32	1.37
23	DA	1799	G	N9-C4	6.26	1.43	1.38
23	BA	530	G	N3-C4	-6.26	1.31	1.35
23	DA	472	A	N7-C5	-6.25	1.35	1.39
23	BA	2067	G	N3-C4	-6.25	1.31	1.35
23	BA	1200	C	N3-C4	-6.23	1.29	1.33
23	BA	2546	U	C2-N3	-6.22	1.33	1.37
23	BA	1826	G	C8-N7	6.22	1.34	1.30
23	BA	12	U	N1-C2	6.22	1.44	1.38
23	DA	945	A	N7-C5	-6.22	1.35	1.39
23	BA	795	C	C2-O2	-6.21	1.18	1.24
23	BA	1558	A	N3-C4	-6.20	1.31	1.34
23	DA	1698	A	N3-C4	-6.20	1.31	1.34
23	BA	2823	A	N3-C4	-6.20	1.31	1.34
23	BA	197	A	N3-C4	-6.18	1.31	1.34
23	BA	802	A	C6-N1	-6.18	1.31	1.35
23	BA	2689	U	C3'-O3'	6.18	1.50	1.42
23	BA	512	G	C5-C4	-6.18	1.34	1.38
23	BA	2028	U	C4-O4	-6.17	1.18	1.23
23	BA	1247	A	N3-C4	-6.16	1.31	1.34
23	BA	2497	A	C6-N1	-6.14	1.31	1.35
23	BA	1842	G	N7-C5	-6.14	1.35	1.39
23	BA	822	U	C2-O2	-6.13	1.16	1.22
23	BA	1693	U	C4-O4	-6.13	1.18	1.23
23	BA	362	U	C2-N3	6.11	1.42	1.37
23	BA	1300	U	C3'-O3'	6.09	1.50	1.42
23	BA	2286	A	N3-C4	-6.09	1.31	1.34
23	DA	2609	U	C2-N3	-6.08	1.33	1.37
23	BA	1021	A	N3-C4	-6.08	1.31	1.34
23	BA	788	A	P-OP1	-6.06	1.38	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	945	A	C5-C4	6.06	1.43	1.38
23	BA	608	A	N3-C4	-6.06	1.31	1.34
23	DA	2335	A	C5-C4	-6.05	1.34	1.38
23	DA	2454	G	C8-N7	6.05	1.34	1.30
23	BA	398	G	N7-C5	-6.05	1.35	1.39
23	BA	330	A	N3-C4	-6.04	1.31	1.34
23	BA	2065	C	N1-C6	-6.02	1.33	1.37
23	BA	1764	G	C6-N1	-6.01	1.35	1.39
23	BA	695	G	N1-C2	-6.01	1.32	1.37
23	DA	2207	G	N7-C5	-6.01	1.35	1.39
23	BA	1366	A	N3-C4	-6.01	1.31	1.34
23	DA	777	A	N3-C4	-6.01	1.31	1.34
23	DA	1142(A)	A	N3-C4	-6.01	1.31	1.34
23	BA	584	C	N1-C6	-6.00	1.33	1.37
23	BA	2032	G	C8-N7	-6.00	1.27	1.30
23	BA	1187	G	N7-C5	-6.00	1.35	1.39
23	BA	2599	G	N1-C2	-5.99	1.32	1.37
23	DA	90	U	C2-N3	5.99	1.42	1.37
23	BA	1698	A	N3-C4	-5.97	1.31	1.34
23	BA	2033	A	P-OP1	-5.97	1.38	1.49
23	BA	2055	C	P-O5'	-5.97	1.53	1.59
23	BA	69	C	N1-C6	-5.97	1.33	1.37
23	DA	741	G	N1-C2	-5.97	1.32	1.37
1	CA	65	U	C3'-O3'	5.96	1.50	1.42
23	DA	1783	A	N3-C4	-5.96	1.31	1.34
23	BA	2641	G	N9-C8	-5.95	1.33	1.37
23	BA	2432	A	N9-C4	-5.94	1.34	1.37
23	DA	2286	A	C5-C4	5.94	1.43	1.38
23	DA	2322	A	C8-N7	5.93	1.35	1.31
23	DA	528	A	C2-N3	-5.93	1.28	1.33
23	BA	944	G	C6-N1	-5.92	1.35	1.39
24	DB	76	G	N7-C5	5.91	1.42	1.39
23	BA	2035	G	N9-C8	-5.91	1.33	1.37
1	CA	47	C	C2-N3	-5.90	1.31	1.35
23	BA	2450	A	C6-N1	-5.90	1.31	1.35
23	BA	1629	U	C4-O4	-5.89	1.19	1.23
23	DA	772	C	C4-C5	-5.88	1.38	1.43
23	BA	525	U	N1-C2	-5.87	1.33	1.38
23	DA	1958	C	N1-C6	-5.86	1.33	1.37
23	DA	2286	A	N7-C5	-5.86	1.35	1.39
23	BA	805	G	N1-C2	-5.85	1.33	1.37
23	BA	1782	C	P-OP2	-5.85	1.39	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	2641	G	N7-C5	-5.85	1.35	1.39
23	BA	2453	A	C6-N6	-5.85	1.29	1.33
23	BA	972	G	C8-N7	-5.84	1.27	1.30
23	BA	1287	A	C8-N7	-5.84	1.27	1.31
23	DA	1815	A	N3-C4	-5.83	1.31	1.34
23	BA	2764	A	N3-C4	-5.83	1.31	1.34
23	BA	2445	G	P-O5'	-5.83	1.53	1.59
23	DA	1654	A	C6-N1	-5.83	1.31	1.35
23	BA	1210	A	N3-C4	-5.83	1.31	1.34
23	BA	1753	G	N7-C5	-5.83	1.35	1.39
23	BA	472	A	N3-C4	-5.82	1.31	1.34
23	BA	1433	U	C2-N3	-5.82	1.33	1.37
23	DA	2602	A	N9-C4	5.82	1.41	1.37
26	DE	163	GLU	CG-CD	5.82	1.60	1.51
23	BA	608	A	C6-N1	-5.81	1.31	1.35
23	BA	503	A	N3-C4	-5.80	1.31	1.34
23	BA	2322	A	N7-C5	5.80	1.42	1.39
23	DA	2249	U	C2-N3	-5.80	1.33	1.37
23	BA	1393	A	N3-C4	-5.79	1.31	1.34
1	AA	965	A	N9-C4	-5.78	1.34	1.37
23	BA	141	A	N9-C4	-5.78	1.34	1.37
23	BA	2764	A	N9-C4	-5.78	1.34	1.37
23	BA	1111	A	N9-C4	-5.78	1.34	1.37
23	BA	2062	A	C5-C4	5.78	1.42	1.38
23	DA	1204	A	N9-C4	-5.77	1.34	1.37
23	BA	24	G	N1-C2	-5.76	1.33	1.37
23	BA	113	G	N9-C4	-5.76	1.33	1.38
23	BA	1107	G	N9-C4	5.76	1.42	1.38
23	BA	510	C	N3-C4	-5.75	1.29	1.33
23	BA	1021	A	C5-C6	-5.75	1.35	1.41
23	DA	2829	C	N3-C4	5.75	1.38	1.33
23	BA	813	U	C2-N3	-5.75	1.33	1.37
23	BA	197	A	C5-C6	-5.74	1.35	1.41
23	BA	808	G	C8-N7	-5.74	1.27	1.30
23	BA	1108	U	N1-C2	5.73	1.43	1.38
23	BA	204	A	P-O5'	-5.73	1.54	1.59
23	BA	1008	C	C4-C5	-5.73	1.38	1.43
23	BA	2019	A	N7-C5	-5.73	1.35	1.39
23	BA	831	G	C8-N7	-5.72	1.27	1.30
23	BA	2090	G	C6-N1	-5.72	1.35	1.39
23	BA	2286	A	C5-C4	5.72	1.42	1.38
1	AA	1519	A	N7-C5	-5.72	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	563	G	N7-C5	5.72	1.42	1.39
23	BA	196	A	C8-N7	-5.71	1.27	1.31
23	BA	2346	A	N7-C5	-5.70	1.35	1.39
23	BA	830	G	N7-C5	-5.69	1.35	1.39
23	DA	1762	A	C5'-C4'	-5.69	1.44	1.51
23	BA	997	G	C2-N3	-5.68	1.28	1.32
23	DA	2599	G	C6-N1	-5.68	1.35	1.39
23	BA	2434	A	C6-N1	-5.68	1.31	1.35
23	BA	2570	G	C8-N7	-5.68	1.27	1.30
23	BA	593	G	N1-C2	-5.68	1.33	1.37
23	BA	2054	A	C5-C4	-5.67	1.34	1.38
23	BA	90	U	C2-N3	5.67	1.41	1.37
23	BA	780	G	P-OP2	-5.66	1.39	1.49
24	DB	49	C	N1-C6	5.66	1.40	1.37
23	BA	734	A	N9-C4	-5.66	1.34	1.37
23	DA	2579	C	N1-C6	-5.66	1.33	1.37
23	BA	2061	G	C8-N7	-5.65	1.27	1.30
23	DA	2515	C	N3-C4	-5.64	1.29	1.33
24	DB	48	A	N7-C5	5.64	1.42	1.39
23	BA	2287	A	N3-C4	-5.64	1.31	1.34
23	BA	1671	U	C4-O4	-5.64	1.19	1.23
23	BA	675	A	N3-C4	-5.64	1.31	1.34
23	BA	1782	C	P-O5'	-5.63	1.54	1.59
23	DA	2029	G	C8-N7	5.63	1.34	1.30
23	BA	1773	A	C8-N7	-5.63	1.27	1.31
23	BA	788	A	N7-C5	-5.62	1.35	1.39
23	BA	2615	U	C2-N3	-5.62	1.33	1.37
23	BA	2018	G	N1-C2	-5.62	1.33	1.37
23	DA	910	A	C6-N1	-5.62	1.31	1.35
23	BA	2284	C	N1-C6	-5.62	1.33	1.37
23	BA	197	A	C5-C4	-5.62	1.34	1.38
23	BA	38	A	N7-C5	-5.61	1.35	1.39
23	BA	1034	G	C5-C4	-5.60	1.34	1.38
23	DA	118	A	N9-C4	-5.60	1.34	1.37
23	BA	208	C	N1-C6	-5.60	1.33	1.37
23	BA	807	U	O3'-P	-5.59	1.54	1.61
23	BA	745	G	P-OP2	-5.58	1.39	1.49
23	BA	947	G	P-O5'	-5.58	1.54	1.59
23	BA	2576	G	C2-N2	-5.58	1.28	1.34
23	BA	2241	A	C6-N1	-5.58	1.31	1.35
23	BA	429	A	C6-N1	-5.57	1.31	1.35
23	DA	249	C	N1-C6	-5.57	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1125	U	P-O5'	5.57	1.65	1.59
23	BA	768	G	C6-N1	-5.57	1.35	1.39
1	AA	1502	A	N9-C4	-5.57	1.34	1.37
23	BA	278	A	N9-C4	5.56	1.41	1.37
23	BA	1298	C	P-OP2	-5.55	1.39	1.49
23	BA	2599	G	C6-N1	-5.55	1.35	1.39
23	BA	105	C	N1-C6	5.55	1.40	1.37
23	BA	1699	G	N1-C2	-5.55	1.33	1.37
23	BA	829	A	N9-C4	-5.55	1.34	1.37
23	BA	2066	C	N1-C6	-5.55	1.33	1.37
1	AA	1459	C	C2-O2	5.54	1.29	1.24
23	BA	1695	G	N7-C5	-5.54	1.35	1.39
1	CA	1493	A	N9-C4	5.54	1.41	1.37
23	DA	733	G	N7-C5	-5.54	1.35	1.39
1	AA	1493	A	N9-C4	5.53	1.41	1.37
23	BA	1366	A	C5-C4	-5.53	1.34	1.38
23	DA	1788	C	N3-C4	-5.53	1.30	1.33
23	DA	2346	A	N7-C5	-5.52	1.35	1.39
23	DA	1992	G	N1-C2	-5.52	1.33	1.37
23	DA	774	A	C6-N1	-5.52	1.31	1.35
23	BA	1823	G	C6-N1	-5.51	1.35	1.39
23	DA	2069	G	N7-C5	-5.51	1.35	1.39
23	BA	571	A	P-OP1	-5.51	1.39	1.49
23	BA	1992	G	C4'-C3'	-5.51	1.47	1.52
1	CA	52	G	P-O5'	-5.50	1.54	1.59
23	BA	1027	A	N9-C8	-5.50	1.33	1.37
23	BA	2207	G	N7-C5	-5.50	1.35	1.39
23	DA	2287	A	C5-C6	-5.50	1.36	1.41
23	BA	1160	G	N7-C5	-5.49	1.35	1.39
23	BA	1122	G	N7-C5	-5.49	1.35	1.39
23	BA	2249	U	C2-N3	-5.49	1.33	1.37
23	BA	1256	G	P-O5'	-5.48	1.54	1.59
23	DA	139(A)	G	N9-C4	5.48	1.42	1.38
23	BA	2286	A	N7-C5	-5.47	1.35	1.39
23	BA	2612	C	P-OP1	-5.47	1.39	1.49
23	BA	2621	A	N9-C4	-5.47	1.34	1.37
23	BA	1954	G	N7-C5	-5.46	1.35	1.39
23	DA	726	G	C8-N7	5.46	1.34	1.30
23	BA	1672	C	N3-C4	-5.46	1.30	1.33
23	BA	1786	A	C6-N1	-5.46	1.31	1.35
23	BA	1971	A	C6-N1	-5.45	1.31	1.35
23	BA	2335	A	C5-C6	-5.45	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	1392	A	N3-C4	5.45	1.38	1.34
23	DA	2598	A	C5-C4	-5.45	1.34	1.38
23	BA	1649	G	C6-N1	-5.44	1.35	1.39
23	BA	1762	A	C5'-C4'	-5.44	1.44	1.51
23	BA	1675	C	N3-C4	-5.44	1.30	1.33
23	BA	2059	A	N3-C4	-5.44	1.31	1.34
23	BA	1427	A	N3-C4	5.43	1.38	1.34
23	DA	2607	G	C6-O6	-5.43	1.19	1.24
23	BA	2498	C	P-O5'	-5.43	1.54	1.59
23	DA	2572	A	C5-C4	-5.43	1.34	1.38
23	BA	2453	A	N7-C5	-5.43	1.35	1.39
23	BA	135	G	C5-C4	-5.43	1.34	1.38
23	BA	803	U	C2-N3	-5.43	1.33	1.37
23	BA	1970	A	N3-C4	-5.43	1.31	1.34
23	BA	265	A	N7-C5	-5.42	1.36	1.39
23	BA	2065	C	C2-N3	-5.41	1.31	1.35
23	BA	1971	A	C6-N6	-5.41	1.29	1.33
1	AA	1201	A	N3-C4	5.40	1.38	1.34
23	BA	2377	A	N9-C4	-5.40	1.34	1.37
23	BA	2826	A	N7-C5	-5.40	1.36	1.39
23	BA	1393	A	N7-C5	-5.40	1.36	1.39
23	BA	681	G	N9-C8	-5.40	1.34	1.37
23	BA	775	G	N1-C2	-5.40	1.33	1.37
23	BA	788	A	C8-N7	-5.39	1.27	1.31
23	BA	677	A	N7-C5	-5.39	1.36	1.39
23	BA	1650	G	C6-N1	-5.39	1.35	1.39
23	BA	1990	C	N3-C4	-5.39	1.30	1.33
23	BA	1575	C	N1-C6	-5.38	1.33	1.37
23	BA	2524	G	C6-N1	-5.38	1.35	1.39
23	BA	776	G	N1-C2	-5.38	1.33	1.37
23	BA	975	C	N3-C4	-5.38	1.30	1.33
23	BA	27	G	N7-C5	-5.37	1.36	1.39
23	DA	2607	G	C5-C6	-5.36	1.36	1.42
23	BA	330	A	C5-C4	5.36	1.42	1.38
23	BA	1295	C	C4-N4	-5.35	1.29	1.33
23	BA	2545	G	N9-C8	-5.35	1.34	1.37
23	BA	796	C	C2-O2	-5.35	1.19	1.24
23	BA	489	G	C8-N7	-5.35	1.27	1.30
23	BA	2740	A	C5-C4	-5.35	1.35	1.38
23	DA	2882	A	N7-C5	-5.35	1.36	1.39
23	BA	2542	A	C5-C6	-5.35	1.36	1.41
23	BA	296	C	C2-N3	-5.35	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	561	G	N1-C2	-5.35	1.33	1.37
23	BA	963	U	C2-N3	-5.35	1.34	1.37
23	BA	1162	G	N9-C8	-5.34	1.34	1.37
23	BA	1246	A	C5-C4	-5.34	1.35	1.38
23	BA	2605	U	N3-C4	-5.34	1.33	1.38
23	BA	2448	A	C6-N6	-5.33	1.29	1.33
23	DA	948	G	C8-N7	5.33	1.34	1.30
24	DB	13	A	N9-C4	-5.33	1.34	1.37
3	AC	56	ASP	CB-CG	5.33	1.62	1.51
23	DA	1698	A	C5-C4	5.33	1.42	1.38
23	BA	2251	G	N9-C8	-5.33	1.34	1.37
23	BA	2572	A	N9-C8	-5.32	1.33	1.37
23	DA	1300	U	C3'-O3'	5.32	1.49	1.42
23	BA	517	C	C4-N4	-5.32	1.29	1.33
23	BA	1985	G	C8-N7	-5.32	1.27	1.30
23	BA	1977	A	N9-C8	-5.32	1.33	1.37
23	BA	2508	G	P-O5'	-5.32	1.54	1.59
23	BA	646	A	C5-C4	5.32	1.42	1.38
23	BA	974	G	P-O5'	-5.31	1.54	1.59
23	BA	2286	A	N9-C4	-5.30	1.34	1.37
23	BA	1052	C	N1-C6	5.30	1.40	1.37
23	BA	1204	A	C5-C4	5.30	1.42	1.38
23	BA	2501	C	C2-N3	-5.30	1.31	1.35
23	BA	255	A	C6-N1	-5.30	1.31	1.35
23	BA	1367	A	C5-C4	-5.30	1.35	1.38
23	BA	2304	G	C6-N1	5.30	1.43	1.39
23	BA	2322	A	C5-C6	5.30	1.45	1.41
1	CA	1442(A)	G	C6-N1	5.30	1.43	1.39
23	DA	2690	C	N1-C6	-5.30	1.33	1.37
23	BA	919	G	C2-N3	-5.29	1.28	1.32
23	BA	513	A	N7-C5	-5.29	1.36	1.39
23	BA	1030	G	C6-N1	-5.29	1.35	1.39
23	BA	1260	G	C6-N1	-5.29	1.35	1.39
23	BA	2438	U	N1-C2	-5.29	1.33	1.38
23	BA	751	A	C6-N6	-5.28	1.29	1.33
23	BA	1328	G	N7-C5	5.28	1.42	1.39
23	BA	1611	C	N3-C4	-5.28	1.30	1.33
1	CA	1030(D)	A	N9-C4	5.28	1.41	1.37
23	BA	265	A	N3-C4	-5.28	1.31	1.34
23	BA	2063	C	C2-O2	-5.28	1.19	1.24
23	BA	271(M)	G	C2-N3	5.28	1.36	1.32
23	BA	1278	A	N7-C5	-5.28	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	773	U	C4-O4	-5.27	1.19	1.23
23	BA	1799	G	C3'-O3'	5.27	1.49	1.42
23	BA	579	G	C8-N7	-5.26	1.27	1.30
24	DB	25	A	N3-C4	5.26	1.38	1.34
23	DA	803	U	C2-O2	-5.25	1.17	1.22
23	BA	1608	A	C5-C4	-5.25	1.35	1.38
23	BA	1288	U	N3-C4	-5.25	1.33	1.38
23	BA	1132	A	N7-C5	-5.25	1.36	1.39
23	DA	2894	G	C5-C4	5.25	1.42	1.38
1	CA	1525	G	N7-C5	5.24	1.42	1.39
23	DA	1558	A	N3-C4	-5.24	1.31	1.34
23	BA	808	G	O3'-P	-5.24	1.54	1.61
23	BA	818	G	C6-N1	-5.24	1.35	1.39
23	DA	798	G	C8-N7	5.24	1.34	1.30
23	BA	1768	U	C2-N3	-5.23	1.34	1.37
23	DA	254	G	N3-C4	-5.23	1.31	1.35
23	DA	2434	A	N9-C4	5.22	1.41	1.37
23	DA	1359	A	N7-C5	5.22	1.42	1.39
23	BA	331	A	N3-C4	-5.22	1.31	1.34
23	BA	1641	A	N3-C4	-5.22	1.31	1.34
1	AA	358	U	N3-C4	-5.22	1.33	1.38
23	BA	2061	G	P-OP2	-5.22	1.40	1.49
1	AA	53	A	C6-N1	-5.21	1.31	1.35
23	BA	829	A	C8-N7	-5.21	1.27	1.31
1	CA	1124	G	N9-C4	5.21	1.42	1.38
23	BA	330	A	C6-N1	-5.21	1.31	1.35
23	BA	2641	G	C8-N7	-5.21	1.27	1.30
23	BA	2581	G	P-OP1	-5.21	1.40	1.49
23	DA	706	A	N7-C5	-5.21	1.36	1.39
23	BA	659	C	N1-C6	-5.21	1.34	1.37
1	CA	1446	U	N1-C2	5.21	1.43	1.38
23	BA	1120	G	C6-N1	-5.20	1.35	1.39
1	CA	1036	G	N9-C4	5.20	1.42	1.38
23	DA	300	A	N3-C4	5.20	1.38	1.34
23	DA	2331	G	C8-N7	5.20	1.34	1.30
25	BD	237	GLU	CG-CD	5.20	1.59	1.51
23	BA	2438	U	C4-O4	-5.19	1.19	1.23
23	BA	1227	G	N1-C2	-5.19	1.33	1.37
23	BA	219	G	N7-C5	-5.19	1.36	1.39
23	BA	2434	A	N9-C8	-5.19	1.33	1.37
1	AA	398	C	C4-C5	5.18	1.47	1.43
23	DA	2332	U	C4-C5	5.18	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1142(A)	A	C2-N3	-5.17	1.28	1.33
23	DA	1321	A	N7-C5	-5.17	1.36	1.39
23	BA	573	G	C5-C4	-5.16	1.34	1.38
23	BA	2442	C	C2-N3	-5.15	1.31	1.35
1	CA	44	G	N9-C4	-5.15	1.33	1.38
23	BA	1352	U	C2-N3	-5.15	1.34	1.37
23	BA	789	A	N7-C5	-5.14	1.36	1.39
23	BA	1603	A	C8-N7	-5.14	1.27	1.31
23	BA	2034	U	O3'-P	-5.14	1.54	1.61
23	BA	1031	G	N1-C2	-5.13	1.33	1.37
23	BA	1383	C	C2-N3	5.13	1.39	1.35
24	DB	114	C	C4-C5	5.13	1.47	1.43
23	DA	2335	A	N3-C4	5.13	1.38	1.34
23	BA	1268	A	N3-C4	-5.13	1.31	1.34
23	DA	1641	A	N3-C4	-5.13	1.31	1.34
23	BA	2032	G	C5-C4	-5.12	1.34	1.38
23	BA	2505	G	C6-O6	-5.12	1.19	1.24
23	BA	385	C	N1-C6	-5.12	1.34	1.37
23	BA	752	A	C3'-O3'	5.12	1.49	1.42
23	BA	1265	A	N3-C4	-5.12	1.31	1.34
23	DA	1788	C	N1-C6	-5.12	1.34	1.37
23	DA	685	A	C6-N1	-5.12	1.31	1.35
23	BA	684	G	C6-N1	-5.12	1.35	1.39
23	BA	2007	C	P-O5'	-5.12	1.54	1.59
23	DA	728	G	N9-C4	5.12	1.42	1.38
23	DA	2593	U	C4-O4	-5.12	1.19	1.23
40	BW	92	ARG	CZ-NH2	5.11	1.39	1.33
23	BA	2791	C	N1-C2	5.11	1.45	1.40
23	BA	383	U	C4-O4	5.11	1.27	1.23
23	BA	393	C	C2-O2	-5.11	1.19	1.24
23	BA	801	G	N9-C8	-5.11	1.34	1.37
23	BA	1627	G	C8-N7	-5.11	1.27	1.30
50	B6	16	CYS	CB-SG	-5.11	1.73	1.81
23	DA	1997	G	N1-C2	-5.10	1.33	1.37
1	AA	1125	U	O3'-P	5.10	1.67	1.61
23	BA	1046	A	N9-C4	5.10	1.41	1.37
23	DA	777	A	N7-C5	-5.10	1.36	1.39
23	BA	775	G	C8-N7	-5.09	1.27	1.30
23	BA	2547	U	N1-C2	-5.09	1.33	1.38
23	DA	2034	U	C2-N3	5.09	1.41	1.37
23	BA	1031	G	C5-C4	-5.08	1.34	1.38
23	BA	1045	A	N3-C4	5.08	1.38	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	532	A	C5-C6	-5.08	1.36	1.41
23	BA	1013	C	C4-C5	-5.08	1.38	1.43
23	BA	1770	G	N3-C4	-5.08	1.31	1.35
23	BA	2454	G	C5-C4	-5.08	1.34	1.38
23	DA	1298	C	P-OP2	-5.07	1.40	1.49
1	AA	1492	A	N9-C4	5.07	1.40	1.37
23	BA	527	C	C2-O2	-5.07	1.19	1.24
23	BA	229	A	N9-C4	5.06	1.40	1.37
23	DA	526	A	N9-C4	5.06	1.40	1.37
23	BA	1675	C	C4-C5	-5.05	1.39	1.43
23	BA	2872	G	N1-C2	-5.05	1.33	1.37
23	DA	2437	U	N3-C4	-5.05	1.33	1.38
23	BA	1668	A	N3-C4	-5.05	1.31	1.34
23	BA	1799	G	N9-C4	5.05	1.42	1.38
23	BA	786	C	P-OP2	-5.05	1.40	1.49
23	BA	1128	A	C8-N7	5.05	1.35	1.31
23	BA	2274	A	C8-N7	-5.05	1.28	1.31
23	BA	2599	G	C6-O6	-5.05	1.19	1.24
23	DA	1657	C	N3-C4	-5.05	1.30	1.33
23	BA	2007	C	N3-C4	-5.04	1.30	1.33
23	DA	254	G	N9-C4	-5.04	1.33	1.38
23	DA	567	A	N9-C4	-5.04	1.34	1.37
23	DA	1776	G	C2-N3	5.04	1.36	1.32
23	BA	1890	A	N9-C4	-5.04	1.34	1.37
23	BA	2729	G	C6-N1	-5.04	1.36	1.39
23	BA	1266	G	C5-C6	-5.03	1.37	1.42
23	BA	1676	A	N9-C4	-5.03	1.34	1.37
23	BA	1649	G	N9-C8	-5.03	1.34	1.37
23	BA	1696	G	P-O5'	-5.03	1.54	1.59
23	BA	819	A	N9-C4	-5.03	1.34	1.37
23	BA	85	G	C6-N1	-5.02	1.36	1.39
23	BA	2054	A	C8-N7	-5.02	1.28	1.31
23	BA	2598	A	N3-C4	-5.02	1.31	1.34
23	BA	2242	G	O3'-P	-5.02	1.55	1.61
23	DA	933	A	C5-C4	5.02	1.42	1.38
23	BA	945	A	N1-C2	5.02	1.38	1.34
40	BW	20	VAL	CB-CG2	-5.02	1.42	1.52
23	BA	839	U	C2-N3	-5.02	1.34	1.37
23	BA	182	A	P-O5'	-5.01	1.54	1.59
23	BA	454	A	N7-C5	-5.01	1.36	1.39
1	AA	1256	A	N9-C4	5.00	1.40	1.37
23	BA	2627	G	N7-C5	-5.00	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1256	G	O3'-P	-5.00	1.55	1.61
23	BA	2599	G	C5-C4	-5.00	1.34	1.38

All (5184) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1459	C	C6-N1-C2	-31.41	107.74	120.30
1	CA	1459	C	C6-N1-C2	-31.40	107.74	120.30
1	CA	1459	C	N3-C2-O2	-28.90	101.67	121.90
1	AA	1459	C	N3-C2-O2	-28.10	102.23	121.90
1	CA	1442(A)	G	N3-C4-C5	-25.05	116.07	128.60
1	AA	1442(A)	G	N3-C4-C5	-24.94	116.13	128.60
23	BA	2296	U	N3-C4-O4	-24.74	102.08	119.40
23	BA	1021	A	C2-N3-C4	-23.74	98.73	110.60
23	BA	2296	U	C2-N3-C4	-23.58	112.85	127.00
23	BA	945	A	C5-N7-C8	-23.44	92.18	103.90
23	DA	2335	A	C5-C6-N1	22.57	128.98	117.70
23	DA	2296	U	N3-C4-O4	-22.36	103.75	119.40
23	BA	2335	A	C5-C6-N1	22.23	128.81	117.70
23	DA	2296	U	C2-N3-C4	-21.07	114.36	127.00
1	CA	1459	C	N1-C2-O2	20.36	131.12	118.90
23	BA	2287	A	C2-N3-C4	-20.28	100.46	110.60
23	BA	2296	U	C5-C6-N1	-19.95	112.72	122.70
1	AA	1459	C	N1-C2-O2	19.91	130.84	118.90
23	DA	1021	A	C2-N3-C4	-19.52	100.84	110.60
1	AA	1442(A)	G	C6-N1-C2	-19.29	113.52	125.10
23	DA	2296	U	C5-C6-N1	-19.05	113.17	122.70
1	CA	1442(A)	G	C6-N1-C2	-19.04	113.68	125.10
23	BA	528	A	C2-N3-C4	-18.89	101.16	110.60
1	AA	1442(A)	G	C2-N3-C4	18.67	121.24	111.90
23	DA	528	A	C2-N3-C4	-18.67	101.27	110.60
23	BA	945	A	C4-C5-N7	18.60	120.00	110.70
1	AA	1442(B)	A	N1-C2-N3	18.55	138.57	129.30
23	BA	330	A	C2-N3-C4	-18.41	101.39	110.60
23	DA	945	A	N1-C6-N6	18.34	129.61	118.60
23	BA	528	A	N3-C4-C5	18.06	139.44	126.80
23	DA	1142(A)	A	C2-N3-C4	-18.04	101.58	110.60
1	CA	1442(A)	G	N3-C4-N9	18.02	136.81	126.00
1	CA	1442(A)	G	C2-N3-C4	17.90	120.85	111.90
1	AA	1442(A)	G	N3-C4-N9	17.90	136.74	126.00
1	AA	1442(A)	G	C5-C6-N1	17.75	120.38	111.50
1	CA	1442(A)	G	C5-C6-N1	17.75	120.37	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1459	C	C2-N1-C1'	17.71	138.28	118.80
23	BA	1653	G	C8-N9-C4	-17.58	99.37	106.40
23	BA	945	A	C2-N3-C4	-17.43	101.89	110.60
23	BA	1142(A)	A	C2-N3-C4	-17.22	101.99	110.60
1	AA	1459	C	C2-N1-C1'	17.11	137.62	118.80
23	BA	2322	A	C6-N1-C2	-16.87	108.48	118.60
23	DA	945	A	C2-N3-C4	-16.76	102.22	110.60
23	DA	2287	A	C2-N3-C4	-16.41	102.40	110.60
23	DA	528	A	N3-C4-C5	16.30	138.21	126.80
23	BA	528	A	N3-C4-N9	-16.19	114.45	127.40
23	BA	945	A	N7-C8-N9	16.04	121.82	113.80
23	DA	2296	U	C2-N1-C1'	-15.96	98.54	117.70
23	BA	2296	U	N1-C2-N3	15.85	124.41	114.90
23	BA	2296	U	C5-C4-O4	15.84	135.40	125.90
23	BA	2322	A	C5-C6-N1	15.84	125.62	117.70
23	DA	528	A	N3-C4-N9	-15.63	114.90	127.40
23	DA	2322	A	C6-N1-C2	-15.30	109.42	118.60
23	BA	933	A	C5-N7-C8	-15.26	96.27	103.90
23	BA	2296	U	C2-N1-C1'	-15.05	99.64	117.70
1	CA	44	G	N1-C6-O6	14.99	128.89	119.90
23	BA	2286	A	N7-C8-N9	14.71	121.15	113.80
23	BA	2296	U	N3-C2-O2	-14.70	111.91	122.20
23	BA	141	A	N7-C8-N9	14.69	121.14	113.80
23	DA	2296	U	C5-C4-O4	14.60	134.66	125.90
23	DA	2322	A	C5-C6-N1	14.56	124.98	117.70
23	BA	2286	A	C8-N9-C4	-14.50	100.00	105.80
23	BA	2287	A	N3-C4-C5	14.48	136.94	126.80
23	DA	945	A	C5-N7-C8	-14.41	96.69	103.90
23	BA	141	A	C5-N7-C8	-14.37	96.72	103.90
23	BA	945	A	N1-C6-N6	14.22	127.13	118.60
24	DB	115	G	C8-N9-C4	14.16	112.06	106.40
23	BA	1021	A	N3-C4-C5	13.88	136.52	126.80
23	BA	933	A	N7-C8-N9	13.73	120.67	113.80
23	BA	1698	A	C5-N7-C8	-13.69	97.06	103.90
23	BA	568	U	C5-C4-O4	-13.63	117.72	125.90
23	DA	2286	A	N7-C8-N9	13.62	120.61	113.80
23	DA	2296	U	N1-C2-N3	13.57	123.04	114.90
23	BA	856	C	C6-N1-C2	-13.47	114.91	120.30
23	BA	1142(A)	A	C5-N7-C8	-13.46	97.17	103.90
1	AA	53	A	C6-N1-C2	13.45	126.67	118.60
23	DA	1698	A	C2-N3-C4	-13.41	103.90	110.60
23	DA	1698	A	C5-N7-C8	-13.37	97.21	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	961	C	C2-N3-C4	-13.23	113.28	119.90
23	BA	2296	U	N3-C4-C5	13.18	122.51	114.60
23	BA	945	A	C6-C5-N7	-13.14	123.10	132.30
23	BA	1142(A)	A	N3-C4-N9	-13.11	116.92	127.40
23	BA	1142(A)	A	N3-C4-C5	13.04	135.93	126.80
23	BA	2312	U	N3-C2-O2	-13.00	113.10	122.20
23	BA	1204	A	C2-N3-C4	-12.98	104.11	110.60
1	AA	365	U	C5-C6-N1	-12.96	116.22	122.70
1	CA	361	G	N1-C6-O6	12.94	127.67	119.90
1	CA	1442(B)	A	N1-C2-N3	12.83	135.71	129.30
42	DY	2	ARG	NE-CZ-NH1	-12.81	113.89	120.30
23	DA	2287	A	N3-C4-C5	12.81	135.76	126.80
23	BA	1372	U	C5-C4-O4	-12.80	118.22	125.90
23	BA	1204	A	C5-N7-C8	-12.70	97.55	103.90
23	BA	2286	A	C5-N7-C8	-12.69	97.56	103.90
23	BA	2335	A	C6-N1-C2	-12.68	110.99	118.60
23	BA	1021	A	C5-N7-C8	-12.66	97.57	103.90
23	BA	528	A	C5-N7-C8	-12.65	97.58	103.90
23	DA	1142(A)	A	N3-C4-N9	-12.62	117.31	127.40
23	DA	2286	A	C8-N9-C4	-12.57	100.77	105.80
23	DA	1142(A)	A	N3-C4-C5	12.55	135.58	126.80
23	BA	1021	A	C5-C6-N1	-12.54	111.43	117.70
23	DA	945	A	C4-C5-N7	12.53	116.96	110.70
1	CA	47	C	C6-N1-C2	12.50	125.30	120.30
23	DA	945	A	C6-C5-N7	-12.49	123.56	132.30
23	DA	2286	A	C6-C5-N7	-12.45	123.59	132.30
23	BA	1698	A	C2-N3-C4	-12.41	104.39	110.60
23	BA	1142(A)	A	C5-C6-N1	-12.39	111.50	117.70
23	DA	2286	A	C2-N3-C4	-12.39	104.41	110.60
1	AA	1442(A)	G	C8-N9-C4	-12.38	101.45	106.40
23	BA	2866	U	C5-C6-N1	-12.38	116.51	122.70
1	CA	1442(A)	G	C8-N9-C4	-12.38	101.45	106.40
23	BA	1021	A	N3-C4-N9	-12.36	117.51	127.40
1	AA	358	U	C2-N3-C4	12.36	134.42	127.00
23	BA	847	U	C5-C6-N1	-12.35	116.53	122.70
23	BA	278	A	C6-N1-C2	-12.35	111.19	118.60
23	DA	2322	A	N1-C6-N6	-12.34	111.19	118.60
23	BA	2322	A	N1-C6-N6	-12.31	111.22	118.60
1	AA	1459	C	C2-N3-C4	-12.27	113.77	119.90
23	BA	141	A	C8-N9-C4	-12.26	100.90	105.80
23	BA	568	U	N3-C4-C5	12.24	121.94	114.60
23	BA	2286	A	C2-N3-C4	-12.18	104.51	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BY	2	ARG	NE-CZ-NH2	-12.13	114.24	120.30
23	DA	847	U	C5-C6-N1	-12.12	116.64	122.70
23	BA	1140	C	C6-N1-C2	-12.04	115.48	120.30
23	BA	265	A	C5-N7-C8	-11.90	97.95	103.90
23	DA	141	A	N7-C8-N9	11.88	119.74	113.80
1	CA	1442(A)	G	C4-N9-C1'	11.86	141.92	126.50
23	BA	330	A	N1-C2-N3	11.82	135.21	129.30
1	CA	1158	C	C6-N1-C2	-11.79	115.58	120.30
1	AA	1442(A)	G	C4-N9-C1'	11.76	141.79	126.50
23	BA	966	G	C5-C6-O6	11.74	135.65	128.60
23	BA	945	A	C8-N9-C4	-11.71	101.11	105.80
23	DA	2286	A	N1-C6-N6	11.69	125.61	118.60
23	BA	530	G	C5-N7-C8	-11.65	98.48	104.30
1	CA	1391	U	C5-C4-O4	11.64	132.88	125.90
23	DA	2296	U	N3-C4-C5	11.63	121.58	114.60
23	BA	527	C	N1-C2-N3	11.63	127.34	119.20
1	CA	1459	C	C2-N3-C4	-11.61	114.09	119.90
23	DA	933	A	C5-N7-C8	-11.59	98.11	103.90
23	DA	2335	A	C5-C6-N6	-11.58	114.43	123.70
23	BA	1653	G	N9-C4-C5	11.56	110.02	105.40
23	DA	1372	U	C5-C4-O4	-11.56	118.96	125.90
23	DA	2312	U	N3-C2-O2	-11.56	114.11	122.20
23	BA	2287	A	N3-C4-N9	-11.54	118.17	127.40
23	DA	1021	A	N3-C4-C5	11.54	134.88	126.80
23	DA	2286	A	C5-C6-N1	-11.54	111.93	117.70
23	BA	330	A	C5-N7-C8	-11.51	98.14	103.90
23	BA	1698	A	N7-C8-N9	11.48	119.54	113.80
23	BA	530	G	N3-C4-N9	-11.47	119.11	126.00
23	DA	2335	A	C6-N1-C2	-11.47	111.72	118.60
1	CA	1459	C	N1-C2-N3	11.44	127.21	119.20
23	DA	2286	A	C5-N7-C8	-11.44	98.18	103.90
1	CA	365	U	C5-C6-N1	-11.44	116.98	122.70
23	BA	2335	A	C5-C6-N6	-11.41	114.57	123.70
23	BA	945	A	N3-C4-C5	11.40	134.78	126.80
23	DA	1698	A	N7-C8-N9	11.38	119.49	113.80
23	BA	2454	G	N1-C6-O6	-11.37	113.08	119.90
1	AA	39	G	C5-C6-O6	-11.37	121.78	128.60
23	DA	141	A	C5-N7-C8	-11.33	98.23	103.90
1	CA	1459	C	C5-C6-N1	11.33	126.66	121.00
23	BA	1203	G	C8-N9-C4	-11.31	101.88	106.40
23	DA	2296	U	C6-N1-C1'	11.30	137.02	121.20
23	BA	2866	U	C5-C4-O4	11.26	132.66	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	330	A	C2-N3-C4	-11.25	104.97	110.60
23	DA	847	U	C2-N1-C1'	-11.21	104.24	117.70
23	BA	528	A	C6-N1-C2	11.21	125.33	118.60
23	BA	568	U	C2-N3-C4	-11.17	120.30	127.00
23	BA	527	C	C5-C4-N4	11.16	128.01	120.20
23	DA	1698	A	C8-N9-C4	-11.10	101.36	105.80
1	AA	1459	C	C5-C6-N1	11.07	126.53	121.00
1	AA	1459	C	N1-C2-N3	11.04	126.93	119.20
23	DA	1654	A	N1-C6-N6	-11.01	111.99	118.60
23	DA	1021	A	N3-C4-N9	-10.98	118.62	127.40
23	DA	2287	A	C5-N7-C8	-10.98	98.41	103.90
23	DA	528	A	C5-N7-C8	-10.98	98.41	103.90
23	BA	2286	A	N1-C2-N3	10.95	134.77	129.30
23	BA	2296	U	C6-N1-C1'	10.93	136.50	121.20
1	AA	1123	A	C6-N1-C2	10.90	125.14	118.60
1	AA	40	C	C6-N1-C2	10.89	124.66	120.30
23	BA	527	C	C4-C5-C6	10.88	122.84	117.40
23	BA	847	U	C2-N1-C1'	-10.87	104.65	117.70
1	AA	1502	A	C2-N3-C4	-10.85	105.18	110.60
27	BF	74	ARG	NE-CZ-NH1	10.85	125.72	120.30
23	BA	729	G	C8-N9-C4	-10.81	102.08	106.40
1	AA	1150	U	C2-N3-C4	10.80	133.48	127.00
23	DA	1558	A	C2-N3-C4	-10.78	105.21	110.60
23	BA	1383	C	N1-C2-O2	-10.78	112.43	118.90
23	BA	265	A	N7-C8-N9	10.76	119.18	113.80
23	DA	2296	U	N3-C2-O2	-10.75	114.67	122.20
23	BA	2065	C	N3-C2-O2	-10.74	114.38	121.90
23	BA	1939	U	N3-C4-C5	10.73	121.04	114.60
23	DA	2286	A	C4-C5-C6	10.72	122.36	117.00
23	DA	1021	A	N1-C2-N3	10.69	134.65	129.30
23	BA	966	G	N1-C6-O6	-10.68	113.49	119.90
23	BA	1653	G	N7-C8-N9	10.68	118.44	113.10
1	CA	1003	G	C2-N3-C4	10.64	117.22	111.90
1	CA	1003	G	N3-C4-C5	-10.62	123.29	128.60
1	CA	1267	C	C2-N1-C1'	10.62	130.48	118.80
1	CA	44	G	C5-C6-N1	-10.61	106.20	111.50
23	DA	1021	A	C5-N7-C8	-10.60	98.60	103.90
23	BA	1108	U	N3-C2-O2	-10.59	114.79	122.20
23	BA	2312	U	C6-N1-C2	-10.54	114.67	121.00
23	BA	1698	A	C8-N9-C4	-10.53	101.59	105.80
1	CA	366	C	C6-N1-C2	10.53	124.51	120.30
1	AA	403	C	N3-C4-C5	-10.50	117.70	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	39	G	C6-N1-C2	-10.50	118.80	125.10
23	DA	933	A	N7-C8-N9	10.50	119.05	113.80
23	BA	933	A	C8-N9-C4	-10.49	101.60	105.80
1	AA	1460	A	C5-N7-C8	10.44	109.12	103.90
23	BA	1108	U	N1-C2-O2	10.42	130.09	122.80
1	CA	40	C	C2-N3-C4	-10.40	114.70	119.90
24	DB	115	G	N7-C8-N9	-10.30	107.95	113.10
23	DA	945	A	C5-C6-N6	-10.29	115.47	123.70
23	BA	265	A	C8-N9-C4	-10.29	101.69	105.80
23	DA	2312	U	C6-N1-C2	-10.27	114.84	121.00
23	BA	1021	A	N1-C2-N3	10.24	134.42	129.30
23	BA	530	G	N3-C4-C5	10.23	133.71	128.60
23	BA	2866	U	N3-C4-O4	-10.19	112.26	119.40
23	DA	1379	A	N1-C6-N6	10.19	124.72	118.60
1	AA	398	C	C2-N3-C4	-10.18	114.81	119.90
23	BA	1695	G	C8-N9-C4	-10.17	102.33	106.40
23	BA	2495	G	C5-C6-N1	-10.17	106.42	111.50
23	BA	2287	A	C5-C6-N1	-10.16	112.62	117.70
1	AA	1150	U	N3-C4-C5	-10.15	108.51	114.60
23	BA	1678	G	N3-C4-C5	-10.13	123.54	128.60
23	DA	528	A	C5-C6-N1	-10.12	112.64	117.70
23	DA	1204	A	C5-N7-C8	-10.11	98.84	103.90
23	BA	2497	A	N1-C6-N6	-10.10	112.54	118.60
1	CA	44	G	C6-N1-C2	10.10	131.16	125.10
23	DA	1558	A	N1-C2-N3	10.09	134.35	129.30
23	BA	2700	C	C6-N1-C2	10.09	124.34	120.30
23	BA	528	A	C4-C5-C6	-10.06	111.97	117.00
23	BA	1204	A	N7-C8-N9	10.06	118.83	113.80
23	DA	803	U	N3-C4-O4	-10.04	112.37	119.40
23	BA	1300	U	N3-C2-O2	-10.04	115.17	122.20
23	DA	1653	G	C8-N9-C4	-10.04	102.38	106.40
23	BA	2322	A	C2-N3-C4	10.02	115.61	110.60
23	BA	1303	G	N1-C6-O6	-10.00	113.90	119.90
1	CA	1260	C	C6-N1-C2	-10.00	116.30	120.30
1	AA	1227	A	C2-N3-C4	-10.00	105.60	110.60
23	BA	1204	A	C6-C5-N7	-9.99	125.31	132.30
23	BA	265	A	C2-N3-C4	-9.99	105.61	110.60
23	DA	1142(A)	A	C5-N7-C8	-9.99	98.91	103.90
1	AA	992	U	N3-C2-O2	-9.97	115.22	122.20
23	BA	2233	U	N1-C2-N3	9.96	120.88	114.90
23	BA	1303	G	C5-C6-O6	9.95	134.57	128.60
23	BA	330	A	N3-C4-N9	-9.94	119.45	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1253	A	C2-N3-C4	9.92	115.56	110.60
1	CA	403	C	C2-N3-C4	-9.90	114.95	119.90
23	BA	1204	A	C4-C5-N7	9.90	115.65	110.70
23	BA	1939	U	C4-C5-C6	-9.89	113.76	119.70
23	BA	1782	C	C6-N1-C2	9.87	124.25	120.30
23	BA	2286	A	C6-C5-N7	-9.87	125.39	132.30
42	DY	2	ARG	NE-CZ-NH2	9.87	125.24	120.30
23	BA	530	G	C4-C5-N7	9.86	114.74	110.80
1	CA	1460	A	C5-N7-C8	9.84	108.82	103.90
23	DA	1955	U	C5-C6-N1	-9.84	117.78	122.70
23	BA	1254	A	C8-N9-C4	-9.83	101.87	105.80
23	DA	330	A	C5-N7-C8	-9.82	98.99	103.90
23	BA	1142(A)	A	N7-C8-N9	9.81	118.71	113.80
23	DA	729	G	C8-N9-C4	-9.80	102.48	106.40
23	BA	2226	C	C6-N1-C2	9.79	124.22	120.30
23	DA	527	C	C4-C5-C6	9.79	122.30	117.40
23	BA	2287	A	C5-N7-C8	-9.79	99.01	103.90
23	BA	330	A	N3-C4-C5	9.78	133.65	126.80
1	AA	1126	U	C5-C6-N1	9.78	127.59	122.70
1	AA	1126	U	C2-N1-C1'	9.75	129.40	117.70
23	BA	1678	G	C6-N1-C2	-9.75	119.25	125.10
23	BA	1934	C	C5-C6-N1	-9.74	116.13	121.00
23	DA	2287	A	N3-C4-N9	-9.71	119.63	127.40
23	BA	961	C	N1-C2-O2	-9.71	113.08	118.90
23	BA	915	C	N3-C2-O2	-9.70	115.11	121.90
23	BA	1372	U	N3-C4-O4	9.69	126.19	119.40
4	AD	12	CYS	CA-CB-SG	9.69	131.44	114.00
23	DA	2318	G	C5-N7-C8	9.69	109.14	104.30
23	BA	2027	G	C2-N3-C4	9.68	116.74	111.90
23	DA	2206	G	C8-N9-C4	9.67	110.27	106.40
23	BA	1204	A	N1-C2-N3	9.67	134.14	129.30
23	BA	530	G	C8-N9-C4	-9.67	102.53	106.40
23	BA	2105	C	C6-N1-C2	-9.64	116.44	120.30
23	DA	2226	C	C6-N1-C2	9.64	124.16	120.30
1	AA	1335	C	C6-N1-C2	9.64	124.16	120.30
23	DA	2517	C	N1-C2-O2	-9.64	113.12	118.90
23	DA	2322	A	C2-N3-C4	9.62	115.41	110.60
23	BA	565	C	C6-N1-C2	-9.61	116.45	120.30
23	DA	2818	G	C8-N9-C4	9.61	110.25	106.40
23	DA	945	A	N1-C2-N3	9.59	134.10	129.30
23	DA	219	G	C5-C6-N1	-9.56	106.72	111.50
23	BA	2006	C	C6-N1-C2	-9.56	116.48	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	528	A	C5-C6-N1	-9.55	112.93	117.70
1	AA	1460	A	N1-C6-N6	-9.54	112.88	118.60
23	BA	328	U	N3-C2-O2	-9.52	115.53	122.20
23	BA	2036	C	N1-C2-O2	-9.51	113.19	118.90
23	BA	223	A	C8-N9-C4	-9.51	102.00	105.80
23	DA	587	C	N3-C2-O2	-9.50	115.25	121.90
23	BA	1305	C	N3-C2-O2	-9.49	115.25	121.90
23	DA	2286	A	N1-C2-N3	9.49	134.05	129.30
1	AA	1502	A	C5-N7-C8	-9.48	99.16	103.90
1	AA	39	G	N1-C2-N3	-9.48	118.21	123.90
23	DA	530	G	N3-C4-N9	-9.47	120.32	126.00
1	CA	398	C	C2-N3-C4	9.46	124.63	119.90
23	BA	528	A	C4-C5-N7	9.45	115.42	110.70
23	DA	2712	U	C5-C4-O4	-9.44	120.23	125.90
23	BA	481	G	C8-N9-C4	-9.41	102.64	106.40
1	CA	39	G	N1-C6-O6	-9.40	114.26	119.90
1	CA	1443	G	C5-C6-N1	9.40	116.20	111.50
23	BA	1678	G	N9-C4-C5	9.39	109.15	105.40
23	DA	2698	U	C5-C6-N1	-9.38	118.01	122.70
23	BA	2137	C	N3-C2-O2	-9.38	115.33	121.90
27	BF	74	ARG	NE-CZ-NH2	-9.38	115.61	120.30
23	BA	2437	U	N3-C2-O2	-9.38	115.64	122.20
23	DA	530	G	C8-N9-C4	-9.35	102.66	106.40
23	BA	2312	U	N1-C2-O2	9.32	129.33	122.80
1	AA	357	G	C6-N1-C2	9.32	130.69	125.10
23	DA	945	A	N7-C8-N9	9.32	118.46	113.80
23	DA	1021	A	C5-C6-N1	-9.31	113.04	117.70
1	AA	1502	A	N1-C2-N3	9.31	133.95	129.30
23	DA	1296	G	C5-C6-O6	9.31	134.18	128.60
1	AA	1443	G	C5-C6-N1	9.31	116.15	111.50
1	AA	1502	A	N7-C8-N9	9.30	118.45	113.80
23	DA	2713	A	N1-C6-N6	-9.30	113.02	118.60
23	BA	1698	A	N3-C4-N9	-9.29	119.97	127.40
23	BA	2609	U	C2-N3-C4	-9.29	121.43	127.00
23	DA	2866	U	C5-C6-N1	-9.29	118.06	122.70
1	AA	398	C	N3-C4-C5	9.28	125.61	121.90
23	DA	528	A	C6-N1-C2	9.27	124.16	118.60
23	DA	1675	C	C6-N1-C2	9.27	124.01	120.30
1	AA	1442(B)	A	C2-N3-C4	-9.26	105.97	110.60
1	AA	839	U	N1-C2-O2	9.25	129.28	122.80
23	BA	847	U	N1-C2-N3	9.23	120.44	114.90
42	BY	2	ARG	NE-CZ-NH1	9.23	124.91	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1200	C	C5-C6-N1	-9.22	116.39	121.00
1	AA	54	C	C2-N3-C4	9.22	124.51	119.90
23	DA	1304	C	C6-N1-C2	9.22	123.99	120.30
23	DA	527	C	C5-C6-N1	-9.21	116.39	121.00
1	CA	44	G	N3-C4-C5	9.21	133.20	128.60
23	DA	2324	C	N3-C4-C5	9.19	125.58	121.90
1	CA	303	A	C8-N9-C4	9.18	109.47	105.80
23	DA	1142(A)	A	C5-C6-N1	-9.15	113.12	117.70
23	BA	2137	C	N1-C2-O2	9.13	124.38	118.90
23	DA	1488	G	C8-N9-C4	-9.13	102.75	106.40
23	BA	1678	G	C8-N9-C4	-9.12	102.75	106.40
23	DA	1758	G	N1-C6-O6	9.11	125.36	119.90
1	CA	1442	G	C5-N7-C8	9.09	108.85	104.30
23	DA	2070	G	N1-C2-N2	-9.09	108.02	116.20
23	BA	614	U	N3-C2-O2	-9.07	115.85	122.20
23	DA	465	G	C8-N9-C4	-9.06	102.78	106.40
23	DA	2335	A	C4-C5-C6	-9.06	112.47	117.00
1	CA	1460	A	N1-C6-N6	-9.05	113.17	118.60
1	CA	358	U	C2-N3-C4	-9.04	121.57	127.00
23	DA	1956	U	N1-C2-O2	-9.04	116.47	122.80
23	BA	271(M)	G	N3-C4-N9	9.03	131.42	126.00
1	AA	39	G	N1-C6-O6	9.03	125.31	119.90
23	DA	2137	C	N3-C2-O2	-9.02	115.58	121.90
23	BA	1963	U	C2-N1-C1'	9.01	128.51	117.70
23	BA	2028	U	C6-N1-C2	9.00	126.40	121.00
23	DA	114	U	N3-C4-O4	9.00	125.70	119.40
23	BA	944	G	C5-C6-O6	9.00	134.00	128.60
23	DA	1698	A	N3-C4-N9	-8.99	120.21	127.40
23	DA	195	A	C5-N7-C8	8.97	108.39	103.90
23	BA	915	C	N1-C2-O2	8.96	124.28	118.90
1	AA	1460	A	N7-C8-N9	-8.96	109.32	113.80
23	BA	943	U	C5-C4-O4	8.95	131.27	125.90
23	BA	1346	G	N1-C6-O6	-8.95	114.53	119.90
23	BA	2322	A	N9-C4-C5	8.93	109.37	105.80
1	AA	1181	G	C4-N9-C1'	-8.93	114.90	126.50
1	AA	1442(A)	G	N1-C2-N2	-8.93	108.17	116.20
23	BA	2440	C	C6-N1-C2	8.92	123.87	120.30
23	BA	2430	A	C8-N9-C4	-8.92	102.23	105.80
23	DA	2705	A	C8-N9-C4	8.92	109.37	105.80
23	BA	1383	C	N3-C2-O2	8.91	128.13	121.90
23	BA	1618	A	N9-C4-C5	8.91	109.36	105.80
23	DA	1776	G	N3-C4-N9	8.91	131.34	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1698	A	C5-C6-N1	-8.90	113.25	117.70
23	BA	1223	G	N1-C6-O6	-8.90	114.56	119.90
1	CA	1067	A	C8-N9-C4	-8.88	102.25	105.80
23	BA	803	U	N3-C2-O2	-8.88	115.99	122.20
23	BA	1305	C	N1-C2-O2	8.88	124.23	118.90
23	DA	1990	C	N1-C2-N3	8.88	125.41	119.20
23	BA	1107	G	N3-C4-N9	8.84	131.30	126.00
23	DA	2347	C	N3-C2-O2	-8.84	115.72	121.90
23	DA	1204	A	C4-C5-N7	8.83	115.12	110.70
23	BA	1678	G	C4-C5-N7	-8.82	107.27	110.80
23	BA	2453	A	C2-N3-C4	8.82	115.01	110.60
1	CA	53	A	N1-C6-N6	-8.82	113.31	118.60
23	DA	113	G	N3-C4-N9	-8.82	120.70	126.00
23	DA	2137	C	C6-N1-C2	-8.81	116.77	120.30
23	BA	622	G	N1-C6-O6	-8.81	114.61	119.90
23	DA	527	C	N1-C2-N3	8.81	125.37	119.20
23	BA	139(A)	G	C5-C6-O6	-8.81	123.32	128.60
23	BA	622	G	C5-C6-O6	8.80	133.88	128.60
23	BA	1203	G	N9-C4-C5	8.80	108.92	105.40
23	DA	195	A	N7-C8-N9	-8.80	109.40	113.80
23	BA	933	A	C2-N3-C4	-8.79	106.21	110.60
1	CA	913	A	C8-N9-C4	-8.78	102.29	105.80
23	DA	133	C	C6-N1-C2	8.78	123.81	120.30
23	BA	2318	G	C5-N7-C8	8.78	108.69	104.30
23	BA	582	G	N1-C6-O6	-8.77	114.64	119.90
23	BA	1962	C	C5-C6-N1	8.77	125.38	121.00
23	DA	584	C	C6-N1-C2	8.77	123.81	120.30
23	BA	1359	A	C2-N3-C4	8.76	114.98	110.60
23	DA	2585	U	C2-N1-C1'	8.76	128.22	117.70
23	BA	1944	U	C2-N3-C4	-8.76	121.74	127.00
23	DA	1978	A	N9-C4-C5	8.76	109.30	105.80
1	CA	839	U	N1-C2-O2	8.76	128.93	122.80
23	DA	2070	G	N3-C2-N2	8.75	126.02	119.90
24	BB	91	C	C6-N1-C2	8.74	123.80	120.30
23	DA	141	A	C8-N9-C4	-8.74	102.30	105.80
23	DA	645	C	N1-C2-O2	8.72	124.13	118.90
23	BA	753	C	N1-C2-O2	8.72	124.13	118.90
23	DA	961	C	N1-C2-O2	-8.70	113.68	118.90
23	DA	2373	G	C2-N3-C4	-8.69	107.55	111.90
23	BA	933	A	C4-C5-N7	8.69	115.04	110.70
23	DA	495	G	C4-C5-N7	-8.68	107.33	110.80
23	BA	1359	A	N1-C2-N3	-8.68	124.96	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2312	U	N1-C2-O2	8.67	128.87	122.80
23	BA	945	A	N3-C4-N9	-8.67	120.46	127.40
23	BA	479	A	N1-C6-N6	-8.67	113.40	118.60
23	BA	1295	C	N3-C4-C5	8.66	125.36	121.90
23	DA	1638	C	C6-N1-C2	8.66	123.77	120.30
1	AA	44	G	N1-C6-O6	-8.66	114.70	119.90
1	AA	1027	C	C5-C4-N4	8.66	126.26	120.20
23	DA	2617	C	C6-N1-C2	8.66	123.76	120.30
23	DA	776	G	C8-N9-C4	-8.65	102.94	106.40
23	BA	1254	A	N7-C8-N9	8.65	118.12	113.80
23	DA	1978	A	N1-C6-N6	-8.64	113.41	118.60
23	BA	1956	U	C2-N3-C4	-8.64	121.82	127.00
1	CA	1460	A	N7-C8-N9	-8.64	109.48	113.80
23	DA	624	C	N1-C2-O2	-8.64	113.72	118.90
23	BA	508	G	N1-C6-O6	8.63	125.08	119.90
23	DA	1963	U	C2-N1-C1'	8.61	128.03	117.70
23	DA	1372	U	N3-C4-O4	8.61	125.42	119.40
23	BA	1649	G	N1-C6-O6	-8.60	114.74	119.90
23	DA	560	C	C6-N1-C2	8.60	123.74	120.30
23	BA	2304	G	C5-C6-N1	8.60	115.80	111.50
1	AA	53	A	C5-C6-N1	-8.60	113.40	117.70
1	CA	358	U	N1-C2-N3	8.59	120.06	114.90
24	DB	104	U	C5-C6-N1	-8.59	118.41	122.70
23	BA	961	C	N3-C4-C5	8.58	125.33	121.90
23	DA	2036	C	N1-C2-O2	-8.58	113.75	118.90
23	DA	495	G	C5-N7-C8	8.58	108.59	104.30
1	CA	366	C	C5-C6-N1	-8.58	116.71	121.00
23	DA	2312	U	C2-N1-C1'	8.58	127.99	117.70
23	BA	1698	A	N3-C4-C5	8.57	132.80	126.80
23	DA	141	A	C4-C5-N7	8.57	114.98	110.70
23	DA	2605	U	C5-C4-O4	8.56	131.04	125.90
23	BA	1049	C	C5-C6-N1	8.55	125.28	121.00
23	BA	1678	G	N1-C2-N3	8.55	129.03	123.90
23	BA	141	A	C4-C5-N7	8.55	114.97	110.70
23	BA	139	G	C2-N3-C4	8.54	116.17	111.90
23	BA	1928	A	C8-N9-C4	-8.54	102.39	105.80
23	DA	527	C	N3-C2-O2	-8.53	115.93	121.90
23	BA	1188	U	N3-C4-O4	-8.53	113.43	119.40
23	BA	2388	A	C8-N9-C4	-8.53	102.39	105.80
23	DA	468	G	C8-N9-C4	8.53	109.81	106.40
1	CA	1009	G	C5-C6-O6	8.53	133.72	128.60
23	BA	205	G	C8-N9-C4	8.52	109.81	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	365	U	C2-N1-C1'	-8.52	107.47	117.70
23	DA	115	C	C6-N1-C2	8.52	123.71	120.30
23	BA	1248	G	C4-C5-N7	8.50	114.20	110.80
23	DA	823	G	C5-C6-O6	8.50	133.70	128.60
23	BA	915	C	C6-N1-C2	-8.49	116.90	120.30
23	DA	1698	A	N3-C4-C5	8.49	132.74	126.80
23	BA	565	C	N3-C4-C5	-8.49	118.50	121.90
23	DA	570	G	N1-C6-O6	-8.47	114.81	119.90
1	CA	1205	U	C6-N1-C2	-8.47	115.92	121.00
23	BA	587	C	C6-N1-C2	-8.47	116.91	120.30
23	DA	71	A	C2-N3-C4	8.47	114.83	110.60
23	DA	2605	U	N3-C4-O4	-8.47	113.47	119.40
1	AA	396	G	C5-C6-O6	8.47	133.68	128.60
23	BA	1107	G	C4-N9-C1'	8.46	137.50	126.50
23	BA	2103	C	C2-N3-C4	8.46	124.13	119.90
23	DA	2253	G	N1-C6-O6	8.46	124.98	119.90
23	BA	1801	G	N1-C6-O6	8.46	124.97	119.90
23	DA	1302	A	N7-C8-N9	-8.46	109.57	113.80
23	BA	265	A	C4-C5-N7	8.45	114.93	110.70
23	DA	271(M)	G	N3-C4-N9	8.45	131.07	126.00
23	BA	1609	A	N7-C8-N9	-8.45	109.58	113.80
23	BA	1653	G	N3-C4-C5	-8.44	124.38	128.60
23	BA	774	A	C2-N3-C4	8.43	114.82	110.60
23	BA	527	C	N3-C2-O2	-8.41	116.01	121.90
23	BA	1558	A	C2-N3-C4	-8.41	106.39	110.60
1	CA	1459	C	C4-C5-C6	8.41	121.60	117.40
1	AA	1058	G	N9-C4-C5	-8.39	102.04	105.40
24	DB	117	G	N1-C6-O6	8.39	124.93	119.90
23	DA	2287	A	C4-C5-N7	8.38	114.89	110.70
23	BA	635	C	C6-N1-C2	-8.38	116.95	120.30
1	CA	1442(A)	G	C8-N9-C1'	-8.38	116.11	127.00
23	DA	2084	C	C6-N1-C2	8.37	123.65	120.30
23	DA	1787	A	C8-N9-C4	8.36	109.14	105.80
23	DA	1558	A	C8-N9-C4	-8.36	102.46	105.80
23	BA	2206	G	N3-C4-C5	8.36	132.78	128.60
23	BA	278	A	C5-C6-N6	-8.35	117.02	123.70
1	AA	398	C	N3-C4-N4	-8.34	112.16	118.00
23	DA	1266	G	C5-C6-O6	-8.34	123.60	128.60
23	BA	298	G	C5-C6-O6	8.33	133.60	128.60
1	AA	896	C	C6-N1-C2	8.33	123.63	120.30
23	BA	2287	A	N1-C6-N6	8.33	123.59	118.60
23	DA	2287	A	N1-C6-N6	8.33	123.60	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1743	C	N1-C2-O2	-8.32	113.91	118.90
23	BA	1021	A	N7-C8-N9	8.32	117.96	113.80
23	DA	2322	A	N9-C4-C5	8.32	109.13	105.80
23	BA	2312	U	C2-N1-C1'	8.32	127.68	117.70
23	BA	2503	A	N1-C2-N3	-8.32	125.14	129.30
23	DA	1204	A	C2-N3-C4	-8.32	106.44	110.60
1	AA	402	G	N1-C6-O6	8.32	124.89	119.90
23	BA	673	C	N3-C4-C5	8.32	125.23	121.90
23	DA	1990	C	N3-C2-O2	-8.32	116.08	121.90
23	DA	2226	C	C5-C6-N1	-8.32	116.84	121.00
23	BA	1346	G	C5-C6-O6	8.31	133.59	128.60
23	DA	1698	A	C4-C5-N7	8.31	114.86	110.70
23	BA	330	A	N7-C8-N9	8.31	117.96	113.80
23	BA	1672	C	C5-C6-N1	-8.30	116.85	121.00
23	BA	527	C	C5-C6-N1	-8.30	116.85	121.00
23	BA	1107	G	N3-C4-C5	-8.30	124.45	128.60
23	DA	2260	C	N1-C2-O2	-8.30	113.92	118.90
23	BA	584	C	C5-C4-N4	-8.29	114.40	120.20
1	AA	402	G	C5-C6-N1	-8.29	107.36	111.50
23	BA	530	G	C4-C5-C6	-8.28	113.83	118.80
23	BA	139(A)	G	N7-C8-N9	8.28	117.24	113.10
1	CA	44	G	C2-N3-C4	-8.27	107.76	111.90
23	BA	2335	A	C4-C5-C6	-8.27	112.86	117.00
1	CA	402	G	C6-N1-C2	-8.27	120.14	125.10
23	BA	1814	G	N1-C6-O6	-8.27	114.94	119.90
23	BA	2501	C	C5-C6-N1	-8.26	116.87	121.00
23	BA	528	A	C8-N9-C1'	8.26	142.57	127.70
23	DA	1296	G	N1-C6-O6	-8.26	114.94	119.90
23	BA	2825	C	C5-C6-N1	-8.25	116.87	121.00
1	CA	1030(A)	G	C8-N9-C4	-8.25	103.10	106.40
1	CA	1442(A)	G	C5-C6-O6	-8.25	123.65	128.60
23	DA	2439	A	C2-N3-C4	-8.24	106.48	110.60
23	BA	822	U	N3-C2-O2	-8.23	116.44	122.20
23	DA	2420	C	C6-N1-C2	8.23	123.59	120.30
1	AA	1459	C	C4-C5-C6	8.22	121.51	117.40
23	BA	981	A	C2-N3-C4	8.22	114.71	110.60
23	DA	2105	C	C6-N1-C2	-8.22	117.01	120.30
23	BA	531	C	C2-N3-C4	-8.22	115.79	119.90
23	BA	565	C	C4-C5-C6	8.22	121.51	117.40
24	BB	20	C	C5-C4-N4	-8.21	114.45	120.20
23	DA	608	A	C8-N9-C4	-8.21	102.52	105.80
1	AA	1024	G	N7-C8-N9	8.20	117.20	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2074	U	N1-C2-N3	8.20	119.82	114.90
23	BA	2246	G	C5-C6-N1	8.20	115.60	111.50
23	DA	271(M)	G	C4-N9-C1'	8.20	137.16	126.50
1	AA	403	C	N1-C2-O2	-8.19	113.98	118.90
1	AA	1443	G	N1-C6-O6	-8.19	114.98	119.90
23	DA	2579	C	C6-N1-C2	8.19	123.58	120.30
23	BA	847	U	C6-N1-C1'	8.19	132.66	121.20
23	BA	2613	U	N3-C4-C5	8.19	119.51	114.60
23	BA	2304	G	N9-C4-C5	8.18	108.67	105.40
1	CA	1366	C	N1-C2-O2	8.18	123.81	118.90
23	DA	528	A	C4-C5-C6	-8.17	112.92	117.00
1	AA	1442(A)	G	C8-N9-C1'	-8.16	116.39	127.00
23	BA	2078	C	C6-N1-C2	-8.16	117.03	120.30
23	DA	933	A	C4-C5-N7	8.16	114.78	110.70
23	DA	1317	A	N1-C6-N6	-8.16	113.70	118.60
23	BA	1203	G	C5-C6-O6	8.16	133.50	128.60
23	DA	529	A	C5-N7-C8	-8.16	99.82	103.90
1	CA	1181	G	C4-N9-C1'	-8.15	115.90	126.50
1	AA	40	C	N3-C2-O2	8.15	127.61	121.90
23	BA	195	A	C5-N7-C8	8.15	107.97	103.90
23	DA	1654	A	C5-C6-N6	8.15	130.22	123.70
23	DA	1957	C	N3-C4-N4	-8.15	112.30	118.00
1	AA	365	U	C2-N1-C1'	-8.14	107.93	117.70
1	CA	1442	G	C4-C5-N7	-8.14	107.54	110.80
23	DA	1678	G	C8-N9-C4	-8.14	103.14	106.40
23	BA	362	U	C2-N3-C4	-8.14	122.12	127.00
23	BA	732	C	C6-N1-C2	-8.13	117.05	120.30
23	BA	1698	A	C5-C6-N1	-8.13	113.63	117.70
23	DA	823	G	N1-C6-O6	-8.13	115.02	119.90
23	BA	1618	A	N1-C6-N6	-8.13	113.72	118.60
23	DA	113	G	N3-C4-C5	8.12	132.66	128.60
23	BA	1573	G	C8-N9-C4	8.12	109.65	106.40
1	CA	1442(A)	G	N1-C2-N2	-8.11	108.90	116.20
1	AA	1123	A	C5-C6-N6	8.11	130.19	123.70
23	BA	2200	C	N3-C2-O2	-8.11	116.23	121.90
23	BA	527	C	C6-N1-C2	-8.10	117.06	120.30
23	DA	40	C	N1-C2-O2	-8.10	114.04	118.90
23	DA	1681	G	C8-N9-C4	8.10	109.64	106.40
23	BA	2230	G	N3-C2-N2	-8.10	114.23	119.90
23	BA	933	A	C5-C6-N1	-8.10	113.65	117.70
23	DA	208	C	N3-C2-O2	8.10	127.57	121.90
23	DA	502	A	N1-C6-N6	-8.10	113.74	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	585	G	C6-N1-C2	-8.09	120.25	125.10
23	DA	2103	C	C2-N3-C4	8.08	123.94	119.90
23	BA	1428	C	N1-C2-O2	-8.07	114.06	118.90
23	BA	2236	C	C5-C6-N1	-8.07	116.96	121.00
1	AA	1197	G	N3-C4-C5	-8.07	124.57	128.60
23	BA	1200	C	N3-C4-N4	-8.06	112.36	118.00
23	BA	650	C	C6-N1-C2	-8.06	117.08	120.30
23	DA	1204	A	C6-C5-N7	-8.06	126.66	132.30
27	DF	74	ARG	NE-CZ-NH1	8.06	124.33	120.30
1	AA	1442(A)	G	N1-C6-O6	-8.06	115.07	119.90
1	CA	357	G	N1-C6-O6	-8.06	115.06	119.90
23	DA	1302	A	C8-N9-C4	8.06	109.02	105.80
23	BA	1782	C	C5-C6-N1	-8.06	116.97	121.00
23	BA	2318	G	C4-C5-N7	-8.05	107.58	110.80
23	BA	2609	U	C5-C6-N1	-8.05	118.67	122.70
23	BA	646	A	C8-N9-C4	-8.05	102.58	105.80
23	BA	933	A	C6-C5-N7	-8.05	126.67	132.30
23	BA	1962	C	C4-C5-C6	-8.05	113.38	117.40
1	AA	913	A	C8-N9-C4	-8.04	102.58	105.80
23	BA	1111	A	N1-C6-N6	8.04	123.42	118.60
23	DA	1258	C	C6-N1-C2	8.04	123.52	120.30
23	DA	2347	C	N1-C2-O2	8.04	123.72	118.90
23	DA	729	G	N7-C8-N9	8.04	117.12	113.10
1	AA	396	G	N1-C6-O6	-8.03	115.08	119.90
23	DA	1635	G	N1-C6-O6	8.03	124.72	119.90
1	AA	1197	G	N3-C4-N9	8.02	130.81	126.00
23	BA	1045	A	C2-N3-C4	8.02	114.61	110.60
1	CA	297	G	N1-C6-O6	8.02	124.71	119.90
1	CA	1486	G	N1-C6-O6	8.02	124.71	119.90
23	BA	139(A)	G	C4-C5-N7	8.01	114.00	110.80
23	BA	2015	A	C8-N9-C4	8.01	109.00	105.80
23	DA	2059	A	N1-C6-N6	8.01	123.41	118.60
23	BA	1311	G	N1-C6-O6	-8.01	115.10	119.90
1	CA	45	U	N3-C2-O2	8.00	127.80	122.20
45	B1	21	ARG	NE-CZ-NH1	8.00	124.30	120.30
1	AA	1027	C	N3-C4-N4	-8.00	112.40	118.00
23	BA	2028	U	N3-C4-C5	8.00	119.40	114.60
1	AA	992	U	N1-C2-O2	8.00	128.40	122.80
23	DA	528	A	C8-N9-C1'	7.99	142.09	127.70
1	CA	47	C	C2-N1-C1'	-7.99	110.01	118.80
23	DA	1359	A	N1-C2-N3	-7.99	125.31	129.30
23	BA	2335	A	C4-C5-N7	7.99	114.69	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2558	C	N3-C4-C5	7.99	125.09	121.90
1	AA	1099	G	C8-N9-C4	-7.99	103.21	106.40
23	BA	2319	G	N7-C8-N9	7.98	117.09	113.10
1	CA	1258	G	N3-C2-N2	7.98	125.49	119.90
1	CA	1518	A	C5-C6-N6	7.98	130.08	123.70
1	AA	365	U	C4-C5-C6	7.98	124.49	119.70
1	AA	1126	U	C5-C4-O4	-7.97	121.12	125.90
23	DA	776	G	N9-C4-C5	7.97	108.59	105.40
23	DA	856	C	C6-N1-C2	-7.96	117.12	120.30
1	CA	458	C	C6-N1-C2	-7.96	117.12	120.30
23	DA	740	U	C5-C4-O4	7.95	130.67	125.90
23	DA	2380	C	N1-C2-O2	-7.95	114.13	118.90
23	BA	847	U	C2-N3-C4	-7.95	122.23	127.00
23	BA	2593	U	N3-C2-O2	-7.95	116.64	122.20
1	CA	1321	C	C6-N1-C2	-7.95	117.12	120.30
24	DB	102	A	C8-N9-C4	7.95	108.98	105.80
23	BA	2287	A	C4-C5-N7	7.94	114.67	110.70
23	DA	943	U	N3-C2-O2	-7.94	116.64	122.20
23	DA	1254	A	C8-N9-C4	-7.94	102.62	105.80
1	AA	357	G	N1-C2-N2	7.94	123.34	116.20
1	CA	403	C	N3-C2-O2	-7.93	116.35	121.90
23	DA	1657	C	C5-C6-N1	-7.93	117.03	121.00
1	AA	1504	G	C8-N9-C4	7.93	109.57	106.40
1	AA	1150	U	C5-C4-O4	7.93	130.66	125.90
23	DA	1288	U	N3-C2-O2	-7.93	116.65	122.20
1	AA	1054	C	N3-C4-C5	7.92	125.07	121.90
23	BA	2825	C	C4-C5-C6	7.92	121.36	117.40
23	BA	571	A	N9-C4-C5	-7.92	102.63	105.80
23	DA	1776	G	C5-C6-O6	-7.92	123.85	128.60
3	CC	52	LEU	CA-CB-CG	7.92	133.50	115.30
23	DA	205	G	C8-N9-C4	7.92	109.57	106.40
23	BA	2713	A	C2-N3-C4	7.91	114.56	110.60
23	BA	2065	C	N1-C2-O2	7.91	123.65	118.90
23	BA	2237	G	N1-C2-N2	-7.91	109.08	116.20
23	BA	1035	U	C5-C6-N1	-7.91	118.75	122.70
1	CA	1206	G	N3-C4-N9	7.91	130.74	126.00
23	DA	1248	G	N3-C2-N2	7.91	125.43	119.90
23	BA	2304	G	C6-N1-C2	-7.90	120.36	125.10
23	BA	2303	G	C4-C5-N7	-7.90	107.64	110.80
23	DA	2744	G	C2-N3-C4	-7.90	107.95	111.90
23	BA	944	G	C8-N9-C4	-7.90	103.24	106.40
23	BA	2206	G	C8-N9-C4	7.90	109.56	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2585	U	C2-N1-C1'	7.90	127.18	117.70
1	CA	1003	G	C8-N9-C4	-7.90	103.24	106.40
1	CA	1006	C	C5-C6-N1	7.90	124.95	121.00
23	DA	204	A	C5-C6-N1	7.89	121.65	117.70
23	DA	2028	U	C5-C6-N1	-7.88	118.76	122.70
23	BA	961	C	C5-C4-N4	-7.88	114.69	120.20
23	DA	1256	G	C8-N9-C4	7.88	109.55	106.40
23	DA	2304	G	C6-C5-N7	7.87	135.12	130.40
23	BA	429	A	N1-C6-N6	-7.87	113.88	118.60
23	BA	2454	G	C5-C6-N1	7.87	115.43	111.50
23	BA	1678	G	N3-C2-N2	-7.86	114.40	119.90
23	BA	970	C	N1-C2-O2	-7.86	114.18	118.90
1	AA	45	U	C2-N3-C4	-7.86	122.28	127.00
1	CA	1267	C	C5-C6-N1	7.86	124.93	121.00
23	BA	1998	G	C5-C6-O6	7.86	133.32	128.60
23	BA	298	G	N1-C6-O6	-7.86	115.19	119.90
23	DA	2079	U	N1-C2-N3	7.86	119.61	114.90
23	BA	2319	G	C8-N9-C4	-7.85	103.26	106.40
1	CA	399	G	N1-C6-O6	7.85	124.61	119.90
23	DA	2585	U	C6-N1-C1'	-7.85	110.21	121.20
23	BA	986	C	N1-C2-O2	-7.85	114.19	118.90
1	CA	39	G	C5-C6-N1	7.84	115.42	111.50
1	AA	1460	A	C4-C5-N7	-7.83	106.78	110.70
23	BA	530	G	N7-C8-N9	7.83	117.02	113.10
23	BA	847	U	C5-C4-O4	7.83	130.60	125.90
23	BA	944	G	N1-C6-O6	-7.83	115.20	119.90
23	BA	1586	A	N1-C6-N6	-7.83	113.90	118.60
23	BA	2491	U	N3-C4-C5	7.83	119.30	114.60
23	BA	1187	G	N3-C2-N2	7.83	125.38	119.90
23	DA	1226	A	C8-N9-C4	7.83	108.93	105.80
23	BA	2879	C	N1-C2-O2	-7.83	114.20	118.90
23	DA	1681	G	N9-C4-C5	-7.83	102.27	105.40
23	DA	1776	G	N9-C4-C5	-7.83	102.27	105.40
23	BA	2312	U	C5-C6-N1	7.82	126.61	122.70
23	BA	2200	C	N1-C2-O2	7.81	123.59	118.90
23	BA	1764	G	C5-C6-O6	7.81	133.29	128.60
23	DA	2137	C	N1-C2-O2	7.81	123.58	118.90
1	CA	299	G	C2-N3-C4	-7.80	108.00	111.90
23	DA	2644	G	C2-N3-C4	-7.80	108.00	111.90
1	AA	1527	C	C6-N1-C2	7.80	123.42	120.30
23	BA	90	U	C5-C6-N1	7.79	126.60	122.70
23	DA	1638	C	C2-N3-C4	-7.79	116.00	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1757	U	C2-N3-C4	-7.79	122.33	127.00
23	BA	677	A	C5-C6-N6	7.79	129.93	123.70
23	DA	1957	C	C5-C4-N4	7.79	125.65	120.20
23	BA	2545	G	C5-C6-O6	-7.78	123.93	128.60
23	DA	570	G	C5-C6-N1	7.78	115.39	111.50
23	BA	1934	C	C6-N1-C2	7.77	123.41	120.30
23	BA	1992	G	C8-N9-C4	-7.77	103.29	106.40
23	DA	1757	U	C5-C6-N1	-7.77	118.82	122.70
23	DA	2625	G	C8-N9-C4	7.77	109.51	106.40
23	BA	70	G	N1-C6-O6	-7.77	115.24	119.90
23	DA	527	C	C5-C4-N4	7.76	125.64	120.20
23	BA	1698	A	C4-C5-N7	7.76	114.58	110.70
23	DA	847	U	C6-N1-C1'	7.76	132.06	121.20
23	BA	2645	G	N3-C4-N9	-7.76	121.34	126.00
23	DA	2318	G	C4-C5-N7	-7.75	107.70	110.80
23	BA	1672	C	C2-N3-C4	-7.75	116.02	119.90
23	DA	1488	G	N7-C8-N9	7.75	116.98	113.10
23	BA	729	G	N7-C8-N9	7.75	116.98	113.10
23	DA	2143	C	C5-C6-N1	7.75	124.88	121.00
23	DA	2154	G	C5-C6-O6	7.75	133.25	128.60
23	DA	2609	U	C5-C6-N1	-7.75	118.83	122.70
23	BA	614	U	C5-C4-O4	7.75	130.55	125.90
23	BA	1223	G	C5-C6-O6	7.75	133.25	128.60
1	CA	893	C	C6-N1-C2	7.75	123.40	120.30
23	DA	915	C	C6-N1-C2	-7.75	117.20	120.30
23	DA	2624	G	N7-C8-N9	-7.74	109.23	113.10
23	DA	2253	G	C5-C6-O6	-7.74	123.95	128.60
23	BA	132	G	C4-C5-N7	-7.74	107.70	110.80
23	DA	139(A)	G	N3-C4-N9	7.74	130.64	126.00
1	AA	1363	C	C6-N1-C2	-7.74	117.21	120.30
1	AA	1227	A	N3-C4-C5	7.73	132.21	126.80
1	AA	523	A	C5-N7-C8	-7.73	100.03	103.90
23	DA	560	C	N3-C4-C5	7.73	124.99	121.90
23	BA	649	G	N1-C6-O6	-7.72	115.27	119.90
23	BA	2585	U	C6-N1-C1'	-7.71	110.40	121.20
23	DA	945	A	N3-C4-C5	7.71	132.20	126.80
23	BA	271(M)	G	C4-N9-C1'	7.71	136.52	126.50
23	DA	546	C	C2-N1-C1'	7.70	127.27	118.80
23	DA	12	U	N3-C2-O2	-7.70	116.81	122.20
23	DA	798	G	C5-C6-O6	7.70	133.22	128.60
23	DA	2304	G	C2-N3-C4	7.69	115.75	111.90
23	BA	1126	A	N1-C6-N6	7.69	123.21	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	509	A	C8-N9-C4	-7.69	102.72	105.80
1	AA	403	C	C2-N3-C4	7.69	123.74	119.90
1	CA	1502	A	N1-C2-N3	7.69	133.14	129.30
23	BA	2303	G	N9-C4-C5	7.68	108.47	105.40
23	BA	2512	C	C2-N3-C4	-7.67	116.06	119.90
23	BA	2552	U	N1-C2-O2	-7.67	117.43	122.80
23	BA	847	U	N3-C4-O4	-7.67	114.03	119.40
1	CA	1029	C	C6-N1-C2	-7.67	117.23	120.30
23	DA	587	C	N1-C2-O2	7.67	123.50	118.90
23	BA	943	U	N3-C2-O2	-7.67	116.83	122.20
23	BA	1200	C	C2-N3-C4	-7.66	116.07	119.90
23	BA	2249	U	N3-C4-C5	7.66	119.20	114.60
23	DA	847	U	C5-C4-O4	7.66	130.50	125.90
23	BA	1050	A	C8-N9-C4	-7.66	102.73	105.80
23	DA	139(A)	G	N3-C4-C5	-7.66	124.77	128.60
23	DA	2304	G	C5-C6-N1	7.66	115.33	111.50
23	BA	2791	C	C2-N1-C1'	7.66	127.22	118.80
23	DA	912	C	C6-N1-C2	-7.66	117.24	120.30
23	DA	2791	C	C2-N1-C1'	7.66	127.22	118.80
1	CA	1443	G	N1-C6-O6	-7.66	115.31	119.90
23	BA	2609	U	N1-C2-N3	7.65	119.49	114.90
1	AA	1442(A)	G	N3-C2-N2	7.65	125.25	119.90
23	BA	204	A	C2-N3-C4	7.65	114.42	110.60
23	BA	944	G	N7-C8-N9	7.65	116.92	113.10
23	BA	1230	C	C5-C6-N1	-7.65	117.18	121.00
1	AA	1443	G	C4-C5-C6	-7.65	114.21	118.80
23	BA	1878	G	N1-C6-O6	7.65	124.49	119.90
23	DA	2626	C	C6-N1-C2	7.64	123.36	120.30
1	CA	365	U	N3-C4-O4	-7.64	114.05	119.40
23	DA	1785	A	N9-C4-C5	7.64	108.86	105.80
1	AA	1507	A	N1-C6-N6	7.64	123.18	118.60
23	BA	2319	G	C5-N7-C8	-7.63	100.48	104.30
51	B7	39	ARG	NE-CZ-NH2	-7.63	116.48	120.30
23	BA	2228	G	N1-C6-O6	-7.63	115.32	119.90
23	DA	265	A	N7-C8-N9	7.63	117.61	113.80
23	DA	646	A	C8-N9-C4	-7.62	102.75	105.80
23	DA	2502	G	C5-C6-N1	7.62	115.31	111.50
23	DA	2032	G	C5-N7-C8	7.62	108.11	104.30
23	BA	571	A	N1-C2-N3	-7.62	125.49	129.30
23	BA	2062	A	C5-C6-N1	-7.61	113.89	117.70
1	CA	53	A	C6-N1-C2	-7.61	114.03	118.60
23	DA	1948	G	N9-C4-C5	7.61	108.44	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	420	C	N3-C4-N4	-7.61	112.67	118.00
1	CA	925	G	C8-N9-C4	7.61	109.44	106.40
23	DA	1775	U	N1-C2-O2	-7.61	117.48	122.80
23	DA	2611	U	N1-C2-N3	7.61	119.46	114.90
23	BA	2866	U	C4-C5-C6	7.60	124.26	119.70
1	CA	40	C	N3-C2-O2	-7.60	116.58	121.90
23	DA	2287	A	C5-C6-N1	-7.60	113.90	117.70
23	BA	1109	C	C4-C5-C6	7.60	121.20	117.40
23	DA	2312	U	C5-C6-N1	7.60	126.50	122.70
23	BA	1776	G	N3-C4-N9	7.60	130.56	126.00
23	DA	2697	G	C8-N9-C4	7.59	109.44	106.40
23	DA	2206	G	N3-C4-C5	7.59	132.39	128.60
23	DA	1778	U	C5-C4-O4	-7.58	121.35	125.90
36	BS	96	GLY	N-CA-C	-7.58	94.14	113.10
23	DA	2437	U	C5-C4-O4	7.58	130.45	125.90
23	BA	271(M)	G	C8-N9-C1'	-7.58	117.15	127.00
1	CA	1267	C	C6-N1-C1'	-7.57	111.71	120.80
23	DA	1653	G	N3-C4-C5	-7.57	124.81	128.60
23	BA	2322	A	C4-C5-N7	-7.57	106.91	110.70
1	AA	1030	C	N1-C2-O2	7.57	123.44	118.90
23	BA	1757	U	C5-C6-N1	-7.57	118.92	122.70
23	BA	2646	C	C6-N1-C2	7.57	123.33	120.30
23	DA	1821	A	N7-C8-N9	-7.57	110.02	113.80
23	DA	265	A	C2-N3-C4	-7.56	106.82	110.60
1	AA	53	A	N1-C2-N3	-7.56	125.52	129.30
1	CA	893	C	N1-C2-O2	7.56	123.44	118.90
23	DA	728	G	C5-C6-O6	7.56	133.13	128.60
23	BA	2033	A	N1-C6-N6	-7.55	114.07	118.60
23	BA	1109	C	N3-C4-C5	-7.55	118.88	121.90
23	DA	802	A	N1-C6-N6	-7.55	114.07	118.60
23	DA	1791	A	C2-N3-C4	7.55	114.37	110.60
1	AA	974	A	C8-N9-C4	-7.54	102.78	105.80
23	BA	1123	C	N3-C4-C5	7.54	124.92	121.90
23	DA	2322	A	C6-C5-N7	7.54	137.58	132.30
23	BA	1475	G	N3-C4-N9	-7.54	121.48	126.00
23	DA	271(M)	G	N3-C4-C5	-7.54	124.83	128.60
23	DA	728	G	C5-N7-C8	7.53	108.06	104.30
23	BA	141	A	C6-C5-N7	-7.53	127.03	132.30
23	BA	614	U	N1-C2-N3	7.53	119.42	114.90
23	DA	141	A	C6-C5-N7	-7.53	127.03	132.30
23	BA	1488	G	C8-N9-C4	-7.52	103.39	106.40
23	BA	205	G	N9-C4-C5	-7.52	102.39	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	527	C	N3-C4-C5	-7.52	118.89	121.90
23	DA	330	A	N3-C4-C5	7.52	132.06	126.80
23	BA	113	G	N3-C4-N9	-7.52	121.49	126.00
23	DA	2385	C	N3-C2-O2	7.52	127.16	121.90
1	CA	1381	U	N3-C2-O2	-7.51	116.94	122.20
23	BA	1959	G	C8-N9-C4	-7.51	103.39	106.40
23	DA	2137	C	N3-C4-C5	-7.51	118.89	121.90
24	DB	49	C	C5-C6-N1	7.51	124.75	121.00
1	AA	40	C	N1-C2-N3	-7.51	113.94	119.20
1	AA	1181	G	C8-N9-C1'	7.51	136.76	127.00
23	BA	2286	A	C4-C5-C6	7.51	120.75	117.00
1	AA	1058	G	C5-C6-O6	-7.50	124.10	128.60
23	BA	1108	U	C2-N1-C1'	7.50	126.70	117.70
23	BA	1261	C	C2-N3-C4	-7.50	116.15	119.90
23	BA	2056	G	N9-C4-C5	-7.50	102.40	105.40
23	DA	2579	C	C5-C6-N1	-7.50	117.25	121.00
1	AA	795	C	C6-N1-C2	-7.50	117.30	120.30
23	BA	2040	C	C6-N1-C2	7.50	123.30	120.30
1	AA	1468	A	C5-C6-N6	-7.50	117.70	123.70
23	DA	1653	G	N9-C4-C5	7.50	108.40	105.40
23	BA	2051	A	C5-N7-C8	7.49	107.65	103.90
1	CA	300	A	C6-N1-C2	-7.49	114.11	118.60
23	BA	278	A	N1-C2-N3	7.49	133.04	129.30
23	BA	746	A	C2-N3-C4	7.49	114.34	110.60
23	DA	691	C	C4-C5-C6	7.49	121.14	117.40
23	DA	2303	G	N9-C4-C5	7.48	108.39	105.40
23	DA	2611	U	N1-C2-O2	-7.48	117.56	122.80
23	DA	803	U	N3-C2-O2	-7.48	116.97	122.20
1	AA	1029	C	N3-C2-O2	-7.48	116.67	121.90
1	CA	365	U	C5-C4-O4	7.48	130.38	125.90
23	DA	1779	U	C6-N1-C2	7.47	125.48	121.00
1	AA	1003	G	N1-C6-O6	-7.47	115.42	119.90
1	AA	39	G	N1-C2-N2	7.47	122.92	116.20
23	BA	2270	G	C5-C6-O6	-7.47	124.12	128.60
23	DA	2335	A	N9-C4-C5	-7.47	102.81	105.80
23	DA	2516	G	N1-C2-N2	-7.46	109.48	116.20
1	CA	413	G	C4-C5-N7	-7.46	107.81	110.80
1	CA	1126	U	C5-C6-N1	7.46	126.43	122.70
23	DA	2206	G	C4-N9-C1'	-7.46	116.80	126.50
23	BA	139(A)	G	C5-C6-N1	7.46	115.23	111.50
1	CA	912	C	C5-C6-N1	-7.46	117.27	121.00
23	DA	407	G	C8-N9-C4	7.46	109.38	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	208	C	C5-C4-N4	-7.45	114.98	120.20
23	DA	1828	G	N1-C6-O6	7.45	124.37	119.90
23	BA	1695	G	N7-C8-N9	7.45	116.83	113.10
23	DA	1029	A	N1-C6-N6	7.45	123.07	118.60
27	DF	22	ALA	CB-CA-C	-7.44	98.94	110.10
23	BA	1764	G	N1-C6-O6	-7.44	115.44	119.90
23	DA	2375	G	N9-C4-C5	-7.44	102.42	105.40
23	BA	652(H)	C	C5-C6-N1	7.44	124.72	121.00
4	CD	12	CYS	CA-CB-SG	7.44	127.39	114.00
1	AA	1037	C	N3-C4-C5	-7.44	118.93	121.90
23	DA	2304	G	C4-C5-N7	-7.44	107.83	110.80
23	BA	1745	C	N3-C2-O2	7.43	127.10	121.90
23	BA	278	A	C5-C6-N1	7.43	121.42	117.70
23	BA	565	C	N1-C2-N3	7.43	124.40	119.20
23	DA	2017	U	C4-C5-C6	7.43	124.16	119.70
23	BA	2191	G	N1-C6-O6	7.42	124.36	119.90
23	DA	1204	A	N7-C8-N9	7.42	117.51	113.80
23	DA	2253	G	C4-C5-N7	7.42	113.77	110.80
1	AA	403	C	C6-N1-C2	-7.42	117.33	120.30
23	BA	1347	G	C8-N9-C4	-7.42	103.43	106.40
23	DA	1948	G	N3-C2-N2	-7.42	114.71	119.90
23	BA	2375	G	C5-C6-O6	-7.41	124.15	128.60
23	DA	768	G	C8-N9-C4	-7.41	103.44	106.40
23	DA	2729	G	N9-C4-C5	-7.41	102.44	105.40
20	AT	10	LEU	CA-CB-CG	7.41	132.34	115.30
23	BA	681	G	C4-C5-N7	-7.41	107.84	110.80
23	DA	2057	A	N1-C2-N3	7.41	133.00	129.30
23	BA	1801	G	C5-C6-O6	-7.40	124.16	128.60
23	DA	236	C	C6-N1-C2	7.40	123.26	120.30
23	BA	330	A	C8-N9-C4	-7.39	102.84	105.80
1	CA	1181	G	C8-N9-C1'	7.39	136.61	127.00
23	DA	568	U	C2-N3-C4	-7.39	122.57	127.00
1	CA	722	A	N1-C6-N6	7.39	123.03	118.60
23	DA	2463	C	C5-C4-N4	-7.38	115.03	120.20
23	BA	409	C	C6-N1-C2	7.38	123.25	120.30
23	DA	265	A	C5-N7-C8	-7.38	100.21	103.90
23	DA	2324	C	C2-N3-C4	-7.38	116.21	119.90
24	DB	115	G	N9-C4-C5	-7.38	102.45	105.40
23	DA	588	U	C5-C6-N1	7.37	126.39	122.70
1	AA	366	C	C6-N1-C2	7.37	123.25	120.30
23	DA	390	A	C8-N9-C4	7.37	108.75	105.80
23	DA	2003	G	N1-C6-O6	-7.36	115.48	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	776	G	C8-N9-C4	-7.36	103.45	106.40
23	DA	1204	A	N1-C6-N6	7.36	123.02	118.60
23	DA	1790	C	C2-N3-C4	7.36	123.58	119.90
23	BA	481	G	N3-C4-C5	-7.36	124.92	128.60
23	BA	1934	C	C4-C5-C6	7.36	121.08	117.40
23	BA	508	G	C5-C6-O6	-7.35	124.19	128.60
1	CA	1370	G	C8-N9-C4	-7.35	103.46	106.40
23	DA	933	A	C8-N9-C4	-7.35	102.86	105.80
23	DA	530	G	C5-N7-C8	-7.35	100.62	104.30
23	DA	1612	C	C2-N3-C4	-7.35	116.22	119.90
23	DA	1675	C	N3-C2-O2	7.35	127.04	121.90
23	BA	1524	G	C6-C5-N7	7.34	134.81	130.40
23	BA	141	A	C2-N3-C4	-7.34	106.93	110.60
23	DA	271(M)	G	C6-C5-N7	-7.34	126.00	130.40
23	BA	139(A)	G	N3-C4-N9	7.34	130.40	126.00
1	CA	365	U	N1-C2-N3	7.34	119.30	114.90
23	BA	253	C	N3-C2-O2	-7.33	116.77	121.90
23	DA	1826	G	N1-C6-O6	-7.33	115.50	119.90
23	DA	614	U	C5-C4-O4	7.33	130.30	125.90
23	BA	746	A	N1-C2-N3	-7.33	125.64	129.30
23	DA	2287	A	C6-N1-C2	7.33	123.00	118.60
23	BA	1142(A)	A	C6-N1-C2	7.33	123.00	118.60
1	CA	47	C	N1-C2-N3	-7.33	114.07	119.20
1	AA	839	U	N3-C2-O2	-7.32	117.07	122.20
23	DA	2022	U	C5-C4-O4	-7.32	121.51	125.90
23	DA	114	U	C5-C4-O4	-7.32	121.51	125.90
1	CA	396	G	N1-C6-O6	7.31	124.29	119.90
1	CA	896	C	C6-N1-C2	7.31	123.23	120.30
23	DA	1294	U	N1-C2-N3	7.31	119.29	114.90
1	AA	1058	G	C8-N9-C4	7.31	109.32	106.40
23	DA	1155	A	N1-C2-N3	-7.31	125.65	129.30
23	BA	313	C	N1-C2-O2	-7.30	114.52	118.90
23	DA	2028	U	C6-N1-C2	7.30	125.38	121.00
23	BA	2322	A	C6-C5-N7	7.30	137.41	132.30
23	BA	563	G	C5-C6-O6	-7.30	124.22	128.60
1	CA	1322	C	C6-N1-C2	-7.30	117.38	120.30
1	AA	1029	C	N3-C4-N4	-7.30	112.89	118.00
23	DA	1126	A	N1-C6-N6	7.30	122.98	118.60
23	BA	2701	C	N1-C2-O2	-7.29	114.52	118.90
1	AA	1024	G	C8-N9-C4	-7.29	103.48	106.40
23	BA	839	U	C5-C4-O4	7.29	130.27	125.90
23	DA	518	G	N1-C6-O6	-7.29	115.53	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1676	A	C2-N3-C4	7.29	114.25	110.60
23	BA	1475	G	N3-C2-N2	-7.29	114.80	119.90
23	DA	776	G	N1-C6-O6	-7.29	115.53	119.90
23	BA	1021	A	N1-C6-N6	7.29	122.97	118.60
23	BA	2000	G	C8-N9-C4	-7.28	103.49	106.40
23	BA	2510	C	C6-N1-C2	-7.28	117.39	120.30
23	DA	2646	C	C6-N1-C2	7.28	123.21	120.30
23	BA	763	G	N3-C2-N2	7.28	125.00	119.90
23	BA	236	C	C6-N1-C2	7.28	123.21	120.30
23	DA	2464	C	C6-N1-C1'	-7.28	112.07	120.80
23	DA	1351	C	N1-C2-O2	-7.28	114.53	118.90
23	BA	583	G	N3-C2-N2	7.27	124.99	119.90
23	DA	1834	U	N3-C2-O2	-7.27	117.11	122.20
23	BA	2074	U	N1-C2-O2	-7.27	117.71	122.80
1	AA	54	C	N3-C4-C5	-7.26	118.99	121.90
23	DA	2622	C	N3-C4-C5	7.26	124.81	121.90
23	BA	2866	U	C2-N3-C4	-7.26	122.64	127.00
23	BA	1792	G	C2-N3-C4	-7.26	108.27	111.90
23	BA	2493	U	N3-C4-C5	7.26	118.95	114.60
1	AA	1159	U	C5-C4-O4	7.25	130.25	125.90
1	CA	1456	G	C4-N9-C1'	-7.25	117.07	126.50
1	AA	1357	A	N7-C8-N9	7.25	117.42	113.80
23	BA	539	G	N1-C6-O6	-7.25	115.55	119.90
23	BA	2028	U	C5-C6-N1	-7.24	119.08	122.70
23	BA	2745	C	C6-N1-C2	-7.24	117.40	120.30
23	DA	2260	C	C2-N3-C4	-7.24	116.28	119.90
1	AA	355	C	C6-N1-C2	-7.23	117.41	120.30
23	BA	2714	G	C5-C6-O6	-7.23	124.26	128.60
1	CA	1267	C	N1-C2-O2	7.23	123.24	118.90
1	AA	1520	G	C8-N9-C4	7.23	109.29	106.40
1	CA	1391	U	N3-C4-O4	-7.23	114.34	119.40
23	BA	2137	C	C6-N1-C2	-7.22	117.41	120.30
23	BA	2461	C	C6-N1-C2	-7.22	117.41	120.30
23	DA	2543	G	C8-N9-C4	7.22	109.29	106.40
23	DA	2689	U	C2-N3-C4	-7.22	122.67	127.00
23	DA	1638	C	C5-C6-N1	-7.22	117.39	121.00
23	BA	1266	G	C4-C5-N7	7.22	113.69	110.80
23	BA	1774	C	N1-C2-O2	-7.22	114.57	118.90
1	CA	1443	G	C4-C5-C6	-7.22	114.47	118.80
1	CA	1504	G	C4-N9-C1'	-7.22	117.12	126.50
23	DA	2240	C	N3-C4-C5	7.22	124.79	121.90
23	DA	2615	U	N3-C4-O4	-7.22	114.35	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	481	G	C8-N9-C4	-7.21	103.52	106.40
1	AA	992	U	C6-N1-C2	-7.21	116.67	121.00
23	BA	72	U	C5-C4-O4	-7.21	121.58	125.90
23	BA	745	G	N3-C2-N2	-7.21	114.85	119.90
23	BA	1787	A	N9-C4-C5	-7.21	102.92	105.80
1	CA	1277	C	C2-N3-C4	7.21	123.50	119.90
23	DA	139(A)	G	C2-N3-C4	7.21	115.50	111.90
23	DA	2218	U	N1-C2-O2	7.21	127.85	122.80
1	AA	1357	A	C8-N9-C4	-7.21	102.92	105.80
1	AA	1442	G	C5-N7-C8	7.21	107.90	104.30
23	BA	139(A)	G	C2-N3-C4	7.21	115.50	111.90
23	BA	1261	C	C5-C6-N1	-7.21	117.40	121.00
23	BA	1212	G	N1-C6-O6	7.21	124.22	119.90
1	CA	1504	G	C8-N9-C4	7.21	109.28	106.40
23	BA	236	C	N3-C4-C5	7.20	124.78	121.90
1	CA	365	U	C2-N3-C4	-7.20	122.68	127.00
23	BA	193	U	N1-C2-O2	-7.20	117.76	122.80
23	BA	1558	A	N1-C2-N3	7.20	132.90	129.30
23	BA	2430	A	N7-C8-N9	7.20	117.40	113.80
23	BA	2872	G	C5-C6-O6	7.20	132.92	128.60
23	BA	1131	G	N3-C2-N2	7.19	124.94	119.90
23	BA	2467	C	C6-N1-C2	-7.19	117.42	120.30
23	DA	2063	C	C2-N3-C4	-7.19	116.31	119.90
1	AA	1003	G	N9-C4-C5	7.18	108.27	105.40
1	CA	403	C	N3-C4-C5	7.18	124.77	121.90
23	DA	1807	G	C8-N9-C4	7.18	109.27	106.40
23	BA	1142(A)	A	C8-N9-C4	-7.18	102.93	105.80
23	BA	1792	G	C5-C6-O6	7.18	132.91	128.60
23	BA	1992	G	P-O3'-C3'	7.18	128.31	119.70
1	AA	858	G	C8-N9-C4	-7.17	103.53	106.40
23	BA	793	A	N1-C2-N3	-7.17	125.71	129.30
23	DA	1799	G	N3-C4-C5	-7.17	125.02	128.60
23	BA	2017	U	N3-C2-O2	-7.17	117.18	122.20
14	CN	13	THR	C-N-CD	-7.17	104.84	120.60
23	DA	2161	C	C5-C4-N4	7.16	125.22	120.20
1	AA	1224	G	C4-C5-N7	-7.16	107.94	110.80
23	DA	2249	U	N3-C4-C5	7.16	118.90	114.60
1	AA	1504	G	C4-N9-C1'	-7.16	117.19	126.50
23	BA	462	C	C6-N1-C2	-7.16	117.44	120.30
23	BA	1343	G	N1-C6-O6	-7.16	115.60	119.90
23	BA	1107	G	C8-N9-C1'	-7.16	117.69	127.00
1	CA	910	C	N1-C2-O2	-7.15	114.61	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2003	G	C5-C6-O6	7.15	132.89	128.60
23	DA	2625	G	N7-C8-N9	-7.15	109.53	113.10
1	AA	1518	A	C5-C6-N6	7.15	129.42	123.70
23	BA	1939	U	N3-C4-O4	-7.15	114.40	119.40
23	BA	2579	C	N3-C4-C5	7.15	124.76	121.90
23	DA	2454	G	N1-C6-O6	-7.15	115.61	119.90
23	DA	1490	A	N1-C6-N6	-7.15	114.31	118.60
23	BA	2286	A	C5-C6-N1	-7.14	114.13	117.70
23	BA	1162	G	C4-C5-N7	-7.14	107.94	110.80
1	CA	1081	G	C8-N9-C4	7.14	109.26	106.40
23	BA	2437	U	N1-C2-N3	7.14	119.19	114.90
23	BA	2371	G	C5-C6-N1	7.14	115.07	111.50
1	AA	1091	U	N3-C2-O2	-7.14	117.20	122.20
41	DX	57	LEU	CA-CB-CG	7.14	131.71	115.30
23	BA	546	C	C2-N1-C1'	7.13	126.65	118.80
23	BA	1650	G	N1-C6-O6	-7.13	115.62	119.90
23	DA	2042	A	C8-N9-C4	7.13	108.65	105.80
27	DF	22	ALA	N-CA-C	7.13	130.25	111.00
23	BA	460	A	C2-N3-C4	7.12	114.16	110.60
23	BA	803	U	N3-C4-O4	-7.12	114.41	119.40
23	BA	2699	C	N1-C2-O2	-7.12	114.63	118.90
1	CA	1089	G	N9-C4-C5	7.12	108.25	105.40
1	AA	1530	G	N1-C6-O6	7.12	124.17	119.90
23	BA	1170	G	C8-N9-C4	-7.12	103.55	106.40
23	BA	1612	C	C4-C5-C6	7.12	120.96	117.40
23	DA	2191	G	N1-C6-O6	7.12	124.17	119.90
23	BA	933	A	N1-C6-N6	7.11	122.87	118.60
23	BA	1985	G	C8-N9-C4	7.11	109.25	106.40
23	DA	1363	C	N3-C4-C5	7.11	124.74	121.90
1	CA	361	G	C5-C6-N1	-7.11	107.95	111.50
1	CA	1281	U	C5-C6-N1	7.11	126.25	122.70
1	CA	1502	A	C2-N3-C4	-7.11	107.05	110.60
23	DA	2607	G	C5-C6-N1	7.11	115.05	111.50
1	AA	1066	C	N1-C2-O2	7.10	123.16	118.90
1	AA	1518	A	N9-C4-C5	7.10	108.64	105.80
23	BA	139(A)	G	C5-N7-C8	-7.10	100.75	104.30
1	CA	1119	C	C6-N1-C2	-7.10	117.46	120.30
1	AA	39	G	C4-C5-C6	-7.10	114.54	118.80
1	AA	40	C	C2-N1-C1'	-7.10	110.99	118.80
23	DA	271(M)	G	C8-N9-C1'	-7.10	117.77	127.00
23	DA	1698	A	N1-C6-N6	7.10	122.86	118.60
23	BA	2041	U	C2-N3-C4	-7.09	122.74	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1997	G	N3-C4-C5	-7.09	125.05	128.60
23	DA	2322	A	C4-C5-N7	-7.09	107.15	110.70
23	BA	2371	G	N9-C4-C5	-7.09	102.56	105.40
23	DA	1142(A)	A	N1-C2-N3	7.09	132.85	129.30
1	CA	824	C	C2-N1-C1'	-7.09	111.00	118.80
23	DA	2074	U	N1-C2-N3	7.09	119.15	114.90
23	BA	262	A	C6-N1-C2	-7.09	114.35	118.60
1	AA	150	C	C5-C6-N1	7.08	124.54	121.00
23	BA	571	A	C8-N9-C4	7.08	108.63	105.80
23	BA	2371	G	C8-N9-C4	7.08	109.23	106.40
23	DA	1359	A	C2-N3-C4	7.08	114.14	110.60
1	AA	523	A	N7-C8-N9	7.08	117.34	113.80
23	DA	2894	G	C6-C5-N7	-7.08	126.15	130.40
23	DA	961	C	N3-C2-O2	7.08	126.86	121.90
23	BA	1753	G	C4-C5-N7	7.08	113.63	110.80
23	BA	2875	C	C5-C6-N1	-7.08	117.46	121.00
45	D1	21	ARG	NE-CZ-NH1	7.07	123.84	120.30
23	BA	1488	G	N7-C8-N9	7.07	116.64	113.10
23	DA	1785	A	C8-N9-C4	-7.07	102.97	105.80
23	DA	1524	G	C6-C5-N7	7.07	134.64	130.40
23	DA	659	C	C6-N1-C2	7.07	123.13	120.30
23	DA	2500	U	N3-C4-O4	-7.06	114.45	119.40
1	AA	754	C	N1-C2-O2	7.06	123.14	118.90
23	BA	1813	G	N1-C6-O6	7.06	124.14	119.90
23	DA	1830	C	C5-C4-N4	-7.06	115.26	120.20
1	AA	1502	A	C6-C5-N7	-7.06	127.36	132.30
23	BA	1575	C	C2-N3-C4	-7.06	116.37	119.90
23	BA	856	C	C5-C6-N1	7.06	124.53	121.00
1	AA	359	U	N1-C2-O2	-7.05	117.86	122.80
1	CA	361	G	C6-N1-C2	7.05	129.33	125.10
23	BA	1204	A	N1-C6-N6	7.05	122.83	118.60
23	DA	465	G	N7-C8-N9	7.05	116.62	113.10
23	DA	1813	G	C8-N9-C4	7.05	109.22	106.40
23	BA	2237	G	N3-C2-N2	7.05	124.83	119.90
1	AA	1281	U	C5-C6-N1	7.04	126.22	122.70
1	AA	754	C	N3-C2-O2	-7.04	116.97	121.90
23	DA	330	A	C4-C5-N7	7.04	114.22	110.70
23	DA	798	G	C4-C5-N7	-7.04	107.98	110.80
23	DA	1652	A	N1-C6-N6	7.04	122.82	118.60
1	CA	1502	A	N7-C8-N9	7.04	117.32	113.80
23	DA	2818	G	N7-C8-N9	-7.03	109.58	113.10
23	BA	527	C	N3-C4-N4	-7.03	113.08	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1679	U	C4-C5-C6	7.03	123.92	119.70
23	BA	139(A)	G	C4-N9-C1'	7.03	135.63	126.50
23	BA	776	G	N1-C6-O6	-7.03	115.68	119.90
1	AA	52	G	C5-C6-N1	-7.03	107.99	111.50
1	CA	1077	G	C8-N9-C4	7.03	109.21	106.40
23	DA	933	A	C2-N3-C4	-7.03	107.09	110.60
23	BA	143	G	N3-C4-C5	7.02	132.11	128.60
1	CA	361	G	C5-C6-O6	-7.02	124.39	128.60
1	CA	1293	G	C4-C5-N7	-7.02	107.99	110.80
23	DA	645	C	C2-N1-C1'	7.02	126.53	118.80
23	BA	1882	C	C2-N1-C1'	7.02	126.53	118.80
23	BA	1973	G	C5-C6-O6	7.02	132.81	128.60
1	CA	40	C	N3-C4-C5	7.02	124.71	121.90
23	DA	525	U	N3-C2-O2	7.02	127.11	122.20
23	DA	2729	G	N1-C6-O6	7.01	124.11	119.90
23	BA	2161	C	C5-C4-N4	7.01	125.11	120.20
23	DA	2784	C	C2-N3-C4	-7.01	116.39	119.90
1	CA	1502	A	C5-N7-C8	-7.01	100.40	103.90
23	BA	1311	G	C5-C6-O6	7.00	132.80	128.60
23	DA	1779	U	C5-C6-N1	-7.00	119.20	122.70
1	CA	1216	G	C8-N9-C4	7.00	109.20	106.40
23	DA	1611	C	C6-N1-C2	-7.00	117.50	120.30
23	DA	2375	G	C5-C6-O6	-7.00	124.40	128.60
23	BA	645	C	N1-C2-O2	7.00	123.10	118.90
23	BA	1928	A	C2-N3-C4	7.00	114.10	110.60
23	BA	1799	G	N3-C2-N2	6.99	124.80	119.90
1	CA	1061	G	N3-C4-C5	-6.99	125.10	128.60
23	BA	463	G	C2-N3-C4	6.99	115.39	111.90
1	AA	92	C	N3-C4-N4	6.99	122.89	118.00
1	AA	1397	C	C2-N1-C1'	6.99	126.49	118.80
1	CA	770	C	C6-N1-C2	6.99	123.09	120.30
1	AA	839	U	C2-N1-C1'	6.98	126.08	117.70
1	CA	1079	G	C8-N9-C4	-6.98	103.61	106.40
23	DA	2030	A	N1-C6-N6	6.98	122.79	118.60
23	BA	1021	A	C4-C5-N7	6.98	114.19	110.70
23	BA	2073	C	C6-N1-C2	6.98	123.09	120.30
23	BA	23	G	C4-C5-N7	-6.98	108.01	110.80
23	BA	512	G	C2-N3-C4	6.98	115.39	111.90
23	BA	528	A	C4-N9-C1'	-6.98	113.74	126.30
23	BA	2318	G	N3-C4-C5	-6.98	125.11	128.60
23	DA	427	U	N3-C2-O2	-6.98	117.31	122.20
23	DA	791	C	C2-N3-C4	-6.98	116.41	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1756	G	C2-N3-C4	6.98	115.39	111.90
23	BA	1977	A	C8-N9-C4	6.98	108.59	105.80
23	DA	1571	A	C6-N1-C2	-6.98	114.41	118.60
23	DA	2084	C	C5-C6-N1	-6.98	117.51	121.00
23	DA	141	A	N1-C6-N6	6.98	122.78	118.60
23	BA	2608	G	C6-N1-C2	-6.97	120.92	125.10
23	DA	1625	C	N3-C4-N4	-6.97	113.12	118.00
23	BA	781	A	C6-N1-C2	-6.97	114.42	118.60
23	DA	528	A	C4-C5-N7	6.97	114.19	110.70
23	DA	587	C	C6-N1-C2	-6.97	117.51	120.30
23	DA	1493	C	C2-N1-C1'	6.97	126.47	118.80
23	DA	2373	G	C5-C6-N1	-6.97	108.01	111.50
1	AA	695	A	C8-N9-C4	-6.97	103.01	105.80
23	DA	766	C	C5-C6-N1	-6.97	117.52	121.00
23	BA	1819	A	C8-N9-C4	-6.96	103.02	105.80
23	BA	1409	C	C6-N1-C2	6.96	123.08	120.30
23	BA	2024	G	C8-N9-C4	6.96	109.18	106.40
23	BA	2432	A	C2-N3-C4	-6.96	107.12	110.60
23	BA	2576	G	C2-N3-C4	6.96	115.38	111.90
23	DA	2699	C	C6-N1-C2	6.96	123.08	120.30
23	BA	524	U	N3-C2-O2	-6.96	117.33	122.20
23	BA	1017	G	C8-N9-C4	-6.96	103.62	106.40
23	DA	758	C	C6-N1-C2	-6.96	117.52	120.30
23	DA	2074	U	C6-N1-C2	-6.96	116.83	121.00
1	CA	1486	G	C5-C6-O6	-6.95	124.43	128.60
1	AA	40	C	C4-C5-C6	-6.95	113.93	117.40
1	AA	227	G	C8-N9-C4	6.95	109.18	106.40
23	BA	2731	G	N1-C6-O6	6.95	124.07	119.90
1	CA	925	G	C5-C6-O6	-6.95	124.43	128.60
23	BA	981	A	N1-C2-N3	-6.94	125.83	129.30
23	DA	568	U	C5-C4-O4	-6.94	121.73	125.90
1	AA	1181	G	N3-C4-C5	6.94	132.07	128.60
1	CA	1158	C	C2-N1-C1'	6.94	126.44	118.80
23	DA	2062	A	C2-N3-C4	-6.94	107.13	110.60
23	BA	1998	G	N1-C6-O6	-6.94	115.74	119.90
23	DA	2279	G	C8-N9-C4	6.94	109.17	106.40
23	BA	1037	G	N1-C6-O6	6.94	124.06	119.90
23	DA	1313	U	C6-N1-C2	-6.94	116.84	121.00
23	DA	1475	G	N3-C2-N2	-6.94	115.05	119.90
23	DA	2296	U	O4'-C1'-N1	6.94	113.75	108.20
23	BA	2354	G	C2-N3-C4	-6.93	108.43	111.90
23	DA	1123	C	C6-N1-C2	6.93	123.07	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	208	C	N3-C4-N4	6.93	122.85	118.00
24	BB	115	G	C8-N9-C4	6.93	109.17	106.40
1	AA	560	U	C5-C6-N1	6.93	126.17	122.70
23	BA	370	G	N1-C6-O6	-6.93	115.74	119.90
23	BA	1403	C	C2-N3-C4	-6.93	116.44	119.90
23	BA	1807	G	C8-N9-C4	6.93	109.17	106.40
1	CA	839	U	N3-C2-O2	-6.93	117.35	122.20
23	BA	186	G	C4-C5-N7	-6.93	108.03	110.80
23	DA	2026	C	C6-N1-C2	6.93	123.07	120.30
23	BA	2894	G	C6-C5-N7	-6.92	126.25	130.40
23	DA	803	U	N3-C4-C5	6.92	118.75	114.60
23	DA	2838	G	C8-N9-C4	6.92	109.17	106.40
1	CA	1442	G	N7-C8-N9	-6.92	109.64	113.10
1	AA	1442(A)	G	N7-C8-N9	6.92	116.56	113.10
23	BA	2137	C	N3-C4-C5	-6.92	119.13	121.90
23	BA	2464	C	C6-N1-C1'	-6.92	112.50	120.80
23	BA	945	A	C5-C6-N1	-6.92	114.24	117.70
23	BA	2623	G	C8-N9-C4	-6.91	103.64	106.40
33	BP	148	LEU	CA-CB-CG	6.91	131.20	115.30
23	DA	1757	U	N3-C4-C5	6.91	118.75	114.60
31	DN	46	VAL	N-CA-C	6.91	129.66	111.00
23	DA	530	G	C4-C5-C6	-6.91	114.65	118.80
23	DA	804	A	N1-C2-N3	6.91	132.76	129.30
23	BA	2304	G	C2-N3-C4	6.91	115.36	111.90
51	B7	9	ARG	NE-CZ-NH1	6.91	123.75	120.30
23	DA	1029	A	C5-C6-N6	-6.91	118.17	123.70
23	DA	2789	C	C6-N1-C2	6.91	123.06	120.30
23	BA	2154	G	C5-C6-O6	6.91	132.75	128.60
24	DB	71	C	C6-N1-C2	6.91	123.06	120.30
23	DA	311	A	C8-N9-C4	6.91	108.56	105.80
23	DA	1012	U	C5-C6-N1	-6.91	119.25	122.70
23	BA	762	U	C5-C4-O4	-6.91	121.76	125.90
1	AA	521	G	N1-C6-O6	-6.90	115.76	119.90
1	AA	402	G	C6-C5-N7	-6.90	126.26	130.40
23	BA	1132	A	C8-N9-C4	-6.90	103.04	105.80
23	BA	2504	U	N3-C4-O4	-6.90	114.57	119.40
1	AA	1227	A	N3-C4-N9	-6.90	121.88	127.40
23	BA	2894	G	N7-C8-N9	6.90	116.55	113.10
23	DA	1935	G	C5-C6-O6	-6.90	124.46	128.60
23	BA	330	A	C4-C5-N7	6.89	114.15	110.70
23	DA	2689	U	N1-C2-N3	6.89	119.04	114.90
1	CA	1322	C	N3-C4-C5	-6.89	119.14	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2698	U	C2-N3-C4	-6.89	122.86	127.00
23	BA	1612	C	C5-C6-N1	-6.89	117.56	121.00
23	BA	1810	A	N1-C6-N6	-6.89	114.47	118.60
23	BA	530	G	C8-N9-C1'	6.89	135.95	127.00
1	AA	579	G	C8-N9-C4	-6.89	103.65	106.40
1	AA	1123	A	N3-C4-N9	-6.89	121.89	127.40
23	BA	41	C	C5-C6-N1	-6.88	117.56	121.00
23	DA	203	C	N1-C2-O2	-6.88	114.77	118.90
23	BA	1140	C	N3-C4-C5	-6.88	119.15	121.90
23	BA	1288	U	C5-C4-O4	6.88	130.03	125.90
1	AA	1158	C	C4-C5-C6	6.88	120.84	117.40
23	BA	130	C	N3-C4-C5	6.88	124.65	121.90
23	BA	2073	C	C5-C6-N1	-6.88	117.56	121.00
23	BA	2559	C	N3-C4-N4	-6.88	113.18	118.00
23	BA	2864	G	C5-C6-O6	6.88	132.73	128.60
23	DA	2137	C	C2-N1-C1'	6.88	126.37	118.80
23	BA	2574	G	C5-C6-N1	6.88	114.94	111.50
24	BB	14	U	N3-C2-O2	-6.88	117.38	122.20
23	DA	2226	C	C2-N3-C4	-6.88	116.46	119.90
1	AA	1386	G	C2-N3-C4	6.88	115.34	111.90
23	BA	1524	G	N1-C6-O6	-6.88	115.77	119.90
23	DA	528	A	C4-N9-C1'	-6.88	113.92	126.30
23	BA	2206	G	C4-N9-C1'	-6.88	117.56	126.50
24	BB	71	C	C6-N1-C2	6.88	123.05	120.30
23	DA	472	A	C8-N9-C4	-6.88	103.05	105.80
1	AA	509	A	C8-N9-C4	-6.87	103.05	105.80
1	CA	1096	C	C6-N1-C1'	6.87	129.04	120.80
1	AA	54	C	N1-C2-O2	-6.87	114.78	118.90
23	BA	328	U	N1-C2-N3	6.87	119.02	114.90
23	BA	1335	U	C2-N3-C4	-6.87	122.88	127.00
1	CA	1076	C	N3-C4-C5	6.87	124.65	121.90
23	BA	2595	G	N1-C6-O6	-6.87	115.78	119.90
23	BA	1288	U	N3-C2-O2	-6.86	117.39	122.20
23	BA	2154	G	C6-N1-C2	6.86	129.22	125.10
23	DA	781	A	C2-N3-C4	6.86	114.03	110.60
1	AA	77	G	N9-C4-C5	-6.86	102.66	105.40
23	BA	2239	G	C2-N3-C4	6.86	115.33	111.90
23	BA	2848	G	N1-C6-O6	-6.86	115.78	119.90
23	DA	508	G	N1-C6-O6	6.86	124.02	119.90
23	BA	2700	C	C5-C4-N4	-6.86	115.40	120.20
1	AA	1129	C	C6-N1-C2	-6.85	117.56	120.30
23	DA	1787	A	N9-C4-C5	-6.85	103.06	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2615	U	C4-C5-C6	-6.85	115.59	119.70
23	BA	2103	C	N1-C2-O2	6.85	123.01	118.90
1	CA	1460	A	C6-C5-N7	6.85	137.09	132.30
1	AA	1074	G	N1-C6-O6	6.85	124.01	119.90
1	AA	1154	G	C8-N9-C4	6.85	109.14	106.40
23	DA	2375	G	C4-C5-N7	6.84	113.54	110.80
23	DA	2238	G	N3-C4-N9	6.84	130.10	126.00
23	DA	2422	A	N1-C2-N3	6.84	132.72	129.30
52	D8	13	ARG	NE-CZ-NH2	-6.84	116.88	120.30
23	BA	1154	G	C5-C6-O6	-6.84	124.50	128.60
31	BN	46	VAL	N-CA-C	6.84	129.46	111.00
23	DA	2503	A	N1-C2-N3	-6.84	125.88	129.30
23	DA	1997	G	N1-C6-O6	-6.84	115.80	119.90
23	BA	734	A	C2-N3-C4	-6.83	107.18	110.60
23	BA	2322	A	N3-C4-C5	-6.83	122.02	126.80
23	DA	1948	G	C8-N9-C4	-6.83	103.67	106.40
23	BA	2581	G	N1-C6-O6	-6.83	115.80	119.90
23	BA	2743	C	C5-C6-N1	-6.83	117.58	121.00
23	DA	1383	C	N1-C2-O2	-6.83	114.80	118.90
23	DA	1826	G	C4-C5-N7	-6.83	108.07	110.80
23	DA	2303	G	C4-C5-N7	-6.83	108.07	110.80
1	CA	27	G	C5-C6-O6	-6.83	124.50	128.60
1	CA	1442(B)	A	C2-N3-C4	-6.83	107.19	110.60
23	BA	1609	A	C8-N9-C4	6.82	108.53	105.80
1	CA	1514	C	N1-C2-O2	-6.82	114.81	118.90
23	DA	121	G	C5-C6-N1	6.82	114.91	111.50
23	BA	1049	C	C6-N1-C2	-6.82	117.57	120.30
23	BA	741	G	C5-C6-O6	6.82	132.69	128.60
23	BA	585	G	N3-C4-C5	-6.82	125.19	128.60
23	DA	1379	A	C5-C6-N6	-6.82	118.25	123.70
23	BA	2352	A	C8-N9-C4	6.81	108.53	105.80
23	BA	12	U	N3-C2-O2	-6.81	117.43	122.20
23	BA	265	A	C6-C5-N7	-6.81	127.53	132.30
23	BA	2296	U	O4'-C1'-N1	6.81	113.65	108.20
23	DA	448	U	C5-C6-N1	-6.81	119.29	122.70
23	DA	1331	A	C5-N7-C8	6.81	107.31	103.90
23	DA	2385	C	N1-C2-O2	-6.81	114.81	118.90
23	BA	1774	C	C6-N1-C2	-6.81	117.58	120.30
1	CA	1527	C	C6-N1-C2	6.81	123.02	120.30
23	DA	729	G	C4-N9-C1'	6.81	135.35	126.50
23	DA	1753	G	N3-C2-N2	6.81	124.67	119.90
1	AA	40	C	C5-C4-N4	-6.81	115.44	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1286	A	C8-N9-C4	-6.81	103.08	105.80
23	DA	1331	A	N7-C8-N9	-6.81	110.40	113.80
1	AA	1054	C	C2-N3-C4	-6.80	116.50	119.90
27	BF	188	ARG	NE-CZ-NH2	-6.80	116.90	120.30
23	DA	2286	A	C4-N9-C1'	6.80	138.55	126.30
23	BA	1819	A	N9-C4-C5	6.80	108.52	105.80
1	AA	365	U	C2-N3-C4	-6.80	122.92	127.00
23	BA	107	C	N3-C4-C5	6.80	124.62	121.90
23	BA	1162	G	N1-C6-O6	-6.80	115.82	119.90
23	BA	1899	G	C5-C6-O6	-6.80	124.52	128.60
23	DA	2332	U	C5-C6-N1	-6.80	119.30	122.70
23	DA	2375	G	C5-N7-C8	-6.80	100.90	104.30
23	BA	565	C	N1-C2-O2	-6.80	114.82	118.90
23	DA	213	A	C8-N9-C4	6.80	108.52	105.80
23	DA	2028	U	N3-C4-C5	6.80	118.68	114.60
23	BA	1008	C	C6-N1-C2	-6.79	117.58	120.30
1	CA	1381	U	N1-C2-O2	6.79	127.56	122.80
23	DA	1524	G	N1-C6-O6	-6.79	115.82	119.90
23	BA	1223	G	N9-C4-C5	6.79	108.12	105.40
27	BF	89	VAL	C-N-CA	-6.79	104.72	121.70
1	AA	1442(A)	G	C5-C6-O6	-6.79	124.53	128.60
23	BA	189	G	N1-C6-O6	6.79	123.97	119.90
23	DA	1826	G	N9-C4-C5	6.79	108.11	105.40
23	DA	1997	G	C5-N7-C8	6.79	107.69	104.30
1	CA	266	G	C5-N7-C8	-6.78	100.91	104.30
1	CA	560	U	C2-N1-C1'	6.78	125.83	117.70
23	DA	2729	G	C8-N9-C4	6.78	109.11	106.40
23	BA	571	A	N1-C6-N6	6.78	122.67	118.60
23	DA	141	A	C2-N3-C4	-6.78	107.21	110.60
23	DA	1448	G	N1-C6-O6	6.78	123.97	119.90
23	BA	528	A	N7-C8-N9	6.78	117.19	113.80
23	DA	2866	U	C4-C5-C6	6.77	123.76	119.70
23	DA	139(A)	G	C4-N9-C1'	6.77	135.30	126.50
23	DA	205	G	N7-C8-N9	-6.77	109.71	113.10
23	BA	2304	G	C8-N9-C1'	6.77	135.80	127.00
23	DA	570	G	N3-C2-N2	6.77	124.64	119.90
23	DA	92	A	C8-N9-C4	-6.77	103.09	105.80
1	AA	44	G	C5-C6-O6	6.76	132.66	128.60
23	BA	585	G	C5-C6-N1	6.76	114.88	111.50
23	DA	1640	C	C5-C6-N1	6.76	124.38	121.00
23	DA	1757	U	C6-N1-C2	6.76	125.06	121.00
1	AA	403	C	N3-C2-O2	6.76	126.63	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1939	U	N3-C4-C5	6.76	118.66	114.60
1	AA	1442(B)	A	C6-N1-C2	-6.76	114.54	118.60
23	DA	2335	A	C8-N9-C4	6.76	108.50	105.80
23	BA	702	G	C5-N7-C8	6.76	107.68	104.30
23	BA	1649	G	C5-C6-O6	6.76	132.66	128.60
23	BA	2218	U	N1-C2-O2	6.76	127.53	122.80
23	DA	2260	C	N1-C2-N3	6.76	123.93	119.20
1	AA	326	G	C5-C6-O6	6.76	132.65	128.60
23	BA	128	C	N1-C2-O2	-6.76	114.85	118.90
1	CA	1044	A	C5-C6-N6	6.76	129.10	123.70
23	DA	1977	A	C8-N9-C4	6.76	108.50	105.80
1	AA	1290	G	C8-N9-C4	-6.75	103.70	106.40
1	AA	1460	A	C6-C5-N7	6.75	137.03	132.30
1	AA	1197	G	C4-N9-C1'	6.75	135.28	126.50
23	DA	574	C	N3-C4-C5	-6.75	119.20	121.90
23	DA	645	C	C6-N1-C2	-6.75	117.60	120.30
23	DA	1776	G	C6-C5-N7	-6.75	126.35	130.40
1	CA	266	G	C2-N3-C4	-6.75	108.53	111.90
23	DA	1963	U	N1-C2-O2	6.75	127.52	122.80
1	AA	1493	A	C8-N9-C4	-6.75	103.10	105.80
23	BA	515	A	C6-N1-C2	-6.75	114.55	118.60
1	CA	39	G	N1-C2-N2	-6.74	110.13	116.20
23	DA	791	C	C4-C5-C6	6.74	120.77	117.40
23	BA	1200	C	N3-C2-O2	-6.74	117.18	121.90
23	DA	2063	C	C5-C4-N4	-6.74	115.48	120.20
23	DA	192	C	N1-C2-O2	-6.74	114.86	118.90
23	DA	2032	G	N7-C8-N9	-6.74	109.73	113.10
23	BA	469	G	N3-C4-C5	-6.74	125.23	128.60
23	BA	2014	A	C2-N3-C4	-6.74	107.23	110.60
23	DA	199	A	N9-C4-C5	6.74	108.49	105.80
23	DA	1997	G	C4-C5-N7	-6.74	108.11	110.80
23	BA	2016	U	C2-N3-C4	6.73	131.04	127.00
23	BA	2287	A	C6-N1-C2	6.73	122.64	118.60
23	DA	1140	C	C6-N1-C2	-6.73	117.61	120.30
23	DA	2687	U	N3-C2-O2	6.73	126.91	122.20
1	CA	945	G	N1-C6-O6	6.73	123.94	119.90
23	DA	1998	G	N1-C6-O6	-6.73	115.86	119.90
1	AA	913	A	N9-C4-C5	6.72	108.49	105.80
23	BA	2289	G	C5-N7-C8	-6.72	100.94	104.30
23	BA	546	C	N1-C2-O2	6.72	122.93	118.90
23	BA	2324	C	C5-C4-N4	-6.72	115.49	120.20
1	CA	839	U	C2-N1-C1'	6.72	125.77	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1404	C	C6-N1-C2	-6.72	117.61	120.30
23	DA	2029	G	N9-C4-C5	6.72	108.09	105.40
23	DA	448	U	C2-N3-C4	-6.72	122.97	127.00
40	DW	92	ARG	NE-CZ-NH1	-6.72	116.94	120.30
1	AA	1519	A	C8-N9-C4	-6.72	103.11	105.80
23	DA	1612	C	C5-C6-N1	-6.72	117.64	121.00
1	CA	396	G	C6-N1-C2	6.71	129.13	125.10
23	DA	504	U	C5-C4-O4	6.71	129.93	125.90
23	BA	963	U	C5-C6-N1	-6.71	119.34	122.70
23	DA	2070	G	N1-C6-O6	-6.71	115.87	119.90
23	DA	933	A	N1-C6-N6	6.71	122.62	118.60
23	DA	1248	G	N9-C4-C5	-6.71	102.72	105.40
1	CA	1076	C	C6-N1-C2	6.70	122.98	120.30
23	DA	2330	G	C5-C6-N1	-6.70	108.15	111.50
1	CA	890	G	C8-N9-C4	6.70	109.08	106.40
1	AA	621	A	N1-C6-N6	-6.70	114.58	118.60
23	DA	2286	A	C4-C5-N7	6.70	114.05	110.70
23	DA	2608	G	C6-N1-C2	-6.70	121.08	125.10
1	CA	1504	G	N3-C4-C5	6.70	131.95	128.60
23	BA	2304	G	C6-C5-N7	6.70	134.42	130.40
23	DA	2318	G	N7-C8-N9	-6.70	109.75	113.10
23	BA	202	U	C5-C6-N1	-6.69	119.35	122.70
23	BA	834	C	C2-N3-C4	-6.69	116.55	119.90
23	BA	2848	G	C5-C6-O6	6.69	132.62	128.60
1	CA	836	G	N1-C6-O6	6.69	123.91	119.90
23	DA	2408	U	N3-C2-O2	-6.69	117.52	122.20
23	DA	785	G	C5-C6-N1	6.69	114.84	111.50
23	DA	2330	G	N1-C6-O6	6.69	123.91	119.90
1	AA	560	U	C2-N1-C1'	6.69	125.72	117.70
23	BA	1792	G	C5-C6-N1	-6.69	108.16	111.50
23	BA	1813	G	C8-N9-C4	6.69	109.07	106.40
1	AA	927	G	C8-N9-C4	6.68	109.07	106.40
1	AA	1518	A	C4-C5-N7	-6.68	107.36	110.70
23	BA	1541	G	C8-N9-C4	-6.68	103.73	106.40
23	DA	2448	A	C5-C6-N6	-6.68	118.35	123.70
23	BA	2549	G	C8-N9-C4	-6.68	103.73	106.40
1	CA	1020	U	C2-N3-C4	-6.68	122.99	127.00
1	AA	54	C	N3-C2-O2	6.68	126.58	121.90
23	BA	139(A)	G	C8-N9-C4	-6.68	103.73	106.40
23	BA	1471	A	C8-N9-C4	-6.68	103.13	105.80
23	BA	720	C	C6-N1-C2	6.68	122.97	120.30
1	CA	1307	U	C5-C6-N1	6.68	126.04	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	47	C	N3-C4-N4	-6.67	113.33	118.00
1	AA	297	G	C8-N9-C4	6.67	109.07	106.40
1	AA	893	C	N3-C4-C5	6.67	124.57	121.90
23	BA	2538	C	N3-C2-O2	-6.67	117.23	121.90
1	CA	927	G	N1-C6-O6	-6.67	115.90	119.90
23	BA	753	C	N3-C2-O2	-6.67	117.23	121.90
23	BA	20	C	C2-N3-C4	-6.67	116.56	119.90
23	BA	271(J)	C	N1-C2-O2	6.67	122.90	118.90
23	DA	1668	A	N1-C6-N6	-6.67	114.60	118.60
1	AA	1456	G	C4-N9-C1'	-6.67	117.83	126.50
23	BA	2778	A	C8-N9-C4	-6.67	103.13	105.80
23	BA	809	G	C5-C6-O6	6.66	132.60	128.60
23	BA	2296	U	C4-C5-C6	6.66	123.70	119.70
23	DA	2543	G	N7-C8-N9	-6.66	109.77	113.10
1	AA	899	C	C6-N1-C2	6.66	122.97	120.30
23	DA	2467	C	N3-C4-C5	-6.66	119.24	121.90
23	BA	1475	G	N9-C4-C5	6.66	108.06	105.40
23	BA	2740	A	C2-N3-C4	6.66	113.93	110.60
1	CA	1056	U	C2-N3-C4	6.66	131.00	127.00
23	BA	1894	C	C6-N1-C2	-6.66	117.64	120.30
25	BD	239	ARG	NE-CZ-NH2	-6.66	116.97	120.30
24	BB	73	A	C8-N9-C4	-6.65	103.14	105.80
1	CA	1460	A	C4-C5-N7	-6.65	107.37	110.70
31	BN	25	ARG	NE-CZ-NH1	-6.65	116.97	120.30
23	DA	2306	C	C5-C6-N1	6.65	124.33	121.00
23	DA	777	A	C8-N9-C4	-6.65	103.14	105.80
23	BA	1170	G	N7-C8-N9	6.65	116.42	113.10
23	BA	1815	A	C8-N9-C4	6.65	108.46	105.80
23	DA	740	U	N3-C4-O4	-6.65	114.75	119.40
23	DA	796	C	N1-C2-O2	6.65	122.89	118.90
23	DA	2805	G	N3-C4-C5	-6.65	125.28	128.60
23	BA	1382	G	N1-C6-O6	6.64	123.89	119.90
23	BA	2548	G	N3-C4-C5	-6.64	125.28	128.60
23	BA	1229	G	C8-N9-C4	6.64	109.06	106.40
23	DA	271(X)	G	C4-C5-N7	-6.64	108.14	110.80
23	BA	2597	G	C2-N3-C4	6.64	115.22	111.90
23	DA	199	A	C5-N7-C8	6.64	107.22	103.90
23	BA	1142(A)	A	C4-C5-N7	6.64	114.02	110.70
23	DA	759	G	C2-N3-C4	6.64	115.22	111.90
23	DA	2888	C	C6-N1-C2	-6.64	117.64	120.30
23	BA	1787	A	C8-N9-C4	6.63	108.45	105.80
1	AA	318	G	N3-C2-N2	-6.63	115.26	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2243	U	C5-C6-N1	6.63	126.02	122.70
23	DA	2103	C	N1-C2-O2	6.63	122.88	118.90
23	BA	1050	A	N7-C8-N9	6.63	117.11	113.80
23	DA	2506	U	N3-C4-O4	-6.63	114.76	119.40
23	BA	793	A	C6-N1-C2	6.63	122.58	118.60
23	BA	987	G	C8-N9-C4	-6.63	103.75	106.40
23	BA	1930	G	N1-C2-N3	-6.63	119.92	123.90
23	BA	2011	U	N1-C2-N3	6.63	118.88	114.90
23	DA	529	A	C4-C5-N7	6.63	114.01	110.70
23	DA	2253	G	C6-C5-N7	-6.62	126.42	130.40
1	CA	495	A	N1-C6-N6	-6.62	114.63	118.60
1	AA	1276	G	C8-N9-C4	-6.62	103.75	106.40
23	BA	582	G	C5-C6-O6	6.62	132.57	128.60
23	BA	1031	G	C5-C6-N1	6.62	114.81	111.50
23	DA	1609	A	C8-N9-C4	6.62	108.45	105.80
1	CA	1395	C	N3-C4-C5	-6.62	119.25	121.90
1	AA	814	A	C8-N9-C4	6.62	108.45	105.80
37	BT	127	ALA	N-CA-C	-6.62	93.13	111.00
1	CA	54	C	N3-C2-O2	-6.62	117.27	121.90
20	CT	10	LEU	CA-CB-CG	6.62	130.52	115.30
23	DA	1758	G	C5-C6-O6	-6.62	124.63	128.60
23	DA	1948	G	N3-C4-N9	-6.62	122.03	126.00
1	CA	1029	C	C5-C6-N1	6.62	124.31	121.00
1	AA	357	G	N3-C4-C5	6.62	131.91	128.60
38	BU	50	ARG	NE-CZ-NH2	6.62	123.61	120.30
23	DA	1379	A	N9-C4-C5	-6.62	103.15	105.80
23	BA	1308	A	C5-N7-C8	6.61	107.21	103.90
1	CA	817	C	N1-C2-O2	-6.61	114.93	118.90
24	DB	63	G	C8-N9-C4	6.61	109.05	106.40
1	CA	53	A	N1-C2-N3	6.61	132.61	129.30
23	DA	2699	C	C2-N1-C1'	-6.61	111.53	118.80
1	AA	187	C	N1-C2-O2	6.61	122.87	118.90
23	BA	486	C	C5-C6-N1	-6.61	117.69	121.00
23	BA	1192	G	C8-N9-C4	6.61	109.04	106.40
23	BA	2645	G	N3-C4-C5	6.61	131.91	128.60
25	BD	13	ARG	NE-CZ-NH1	6.61	123.60	120.30
24	DB	105	A	C8-N9-C4	6.61	108.44	105.80
1	AA	402	G	C2-N3-C4	-6.61	108.60	111.90
23	BA	1127	A	N1-C2-N3	-6.61	126.00	129.30
1	CA	1397	C	C2-N1-C1'	6.61	126.06	118.80
23	DA	390	A	N7-C8-N9	-6.61	110.50	113.80
1	AA	1099	G	N9-C4-C5	6.60	108.04	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2345	G	N3-C2-N2	6.60	124.52	119.90
23	DA	2453	A	C5-N7-C8	6.60	107.20	103.90
23	DA	1022	G	N3-C2-N2	-6.60	115.28	119.90
23	DA	2894	G	N7-C8-N9	6.60	116.40	113.10
1	AA	836	G	N1-C6-O6	6.60	123.86	119.90
23	BA	2191	G	C6-C5-N7	-6.60	126.44	130.40
1	CA	150	C	C5-C6-N1	6.60	124.30	121.00
1	CA	1442(A)	G	N1-C6-O6	-6.60	115.94	119.90
23	BA	109	G	N1-C6-O6	-6.60	115.94	119.90
23	BA	1748	G	C8-N9-C4	6.60	109.04	106.40
23	DA	948	G	N9-C4-C5	6.60	108.04	105.40
23	BA	2877	G	C5-C6-N1	6.59	114.80	111.50
23	DA	2379	G	C5-C6-O6	-6.59	124.64	128.60
1	CA	1293	G	N9-C4-C5	6.59	108.04	105.40
23	DA	2506	U	C5-C4-O4	6.59	129.85	125.90
24	DB	114	C	C5-C6-N1	-6.59	117.70	121.00
23	BA	465	G	C8-N9-C4	-6.59	103.77	106.40
23	BA	1246	A	N7-C8-N9	-6.59	110.51	113.80
23	BA	1429	G	N3-C2-N2	6.59	124.51	119.90
23	BA	1878	G	C5-C6-N1	-6.59	108.21	111.50
23	DA	781	A	C6-N1-C2	-6.59	114.65	118.60
23	DA	2236	C	C5-C6-N1	-6.59	117.71	121.00
23	BA	1248	G	C5-N7-C8	-6.59	101.01	104.30
1	CA	481	G	N3-C4-C5	-6.59	125.31	128.60
23	DA	2042	A	C2-N3-C4	-6.59	107.31	110.60
23	BA	2456	C	C5-C6-N1	6.58	124.29	121.00
23	BA	1761	C	C5-C4-N4	-6.58	115.59	120.20
23	BA	1817	G	N9-C4-C5	-6.58	102.77	105.40
23	BA	1248	G	N9-C4-C5	-6.58	102.77	105.40
23	BA	1257	C	N3-C4-N4	-6.58	113.39	118.00
23	BA	1942	C	C4-C5-C6	-6.58	114.11	117.40
1	CA	1148	U	C5-C4-O4	-6.58	121.95	125.90
1	AA	1519	A	C5-C6-N1	-6.58	114.41	117.70
23	BA	1899	G	C4-C5-N7	6.58	113.43	110.80
23	BA	2143	C	C5-C6-N1	6.58	124.29	121.00
23	DA	1558	A	C5-C6-N1	-6.58	114.41	117.70
23	BA	250	G	C5-C6-N1	6.57	114.79	111.50
23	BA	809	G	C6-N1-C2	6.57	129.04	125.10
1	CA	44	G	N3-C4-N9	-6.57	122.06	126.00
40	BW	92	ARG	NE-CZ-NH1	-6.57	117.01	120.30
23	DA	133	C	C5-C6-N1	-6.57	117.71	121.00
23	DA	2441	C	C2-N3-C4	-6.57	116.61	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	295	G	C5-C6-O6	-6.57	124.66	128.60
23	BA	1246	A	C5-N7-C8	6.57	107.19	103.90
23	BA	2743	C	C2-N3-C4	-6.57	116.61	119.90
23	BA	1120	G	C6-N1-C2	6.57	129.04	125.10
23	DA	2689	U	N3-C2-O2	-6.57	117.60	122.20
1	AA	893	C	N1-C2-O2	6.57	122.84	118.90
23	BA	2045	C	C4-C5-C6	6.57	120.68	117.40
1	AA	396	G	C4-C5-N7	-6.56	108.17	110.80
23	BA	1796	U	C5-C6-N1	-6.56	119.42	122.70
23	BA	2555	U	N1-C2-O2	-6.56	118.21	122.80
1	CA	1057	G	C8-N9-C4	6.56	109.03	106.40
23	DA	834	C	N3-C4-C5	6.56	124.53	121.90
23	DA	2078	C	N1-C2-O2	-6.56	114.96	118.90
24	DB	115	G	C2-N3-C4	-6.56	108.62	111.90
23	BA	1180	C	C6-N1-C2	6.56	122.92	120.30
1	CA	968	A	N1-C6-N6	6.56	122.54	118.60
23	BA	2539	C	N3-C4-C5	6.56	124.52	121.90
23	BA	481	G	N9-C4-C5	6.56	108.02	105.40
23	BA	701	G	N1-C6-O6	-6.56	115.97	119.90
23	DA	82	G	N3-C4-N9	6.56	129.93	126.00
23	BA	2286	A	C4-N9-C1'	6.55	138.10	126.30
23	BA	2503	A	C2-N3-C4	6.55	113.88	110.60
23	BA	1431	U	C5-C6-N1	6.55	125.97	122.70
1	CA	1145	C	C2-N3-C4	6.55	123.17	119.90
23	BA	2336	A	N9-C4-C5	-6.55	103.18	105.80
23	DA	56	A	N1-C6-N6	-6.55	114.67	118.60
23	DA	231	C	C6-N1-C2	-6.55	117.68	120.30
23	DA	915	C	N3-C2-O2	-6.55	117.32	121.90
23	DA	1289	C	C2-N3-C4	-6.55	116.63	119.90
23	DA	1997	G	C2-N3-C4	6.55	115.17	111.90
23	DA	2003	G	N1-C2-N3	6.55	127.83	123.90
33	DP	50	ARG	NE-CZ-NH1	-6.55	117.03	120.30
23	BA	732	C	N3-C4-C5	-6.54	119.28	121.90
23	BA	2866	U	N1-C2-N3	6.54	118.83	114.90
23	DA	1978	A	C8-N9-C4	-6.54	103.18	105.80
23	BA	271(M)	G	C6-C5-N7	-6.54	126.48	130.40
23	DA	803	U	C2-N3-C4	-6.54	123.08	127.00
3	AC	52	LEU	CA-CB-CG	6.54	130.34	115.30
23	BA	2062	A	C2-N3-C4	-6.54	107.33	110.60
23	BA	1334	G	C8-N9-C4	-6.54	103.78	106.40
23	DA	2489	G	C8-N9-C4	6.54	109.02	106.40
1	CA	912	C	C6-N1-C2	6.54	122.92	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1777	U	N1-C2-N3	6.54	118.82	114.90
23	DA	1609	A	N7-C8-N9	-6.54	110.53	113.80
23	BA	1790	C	C6-N1-C2	6.53	122.91	120.30
1	CA	850	U	C5-C4-O4	6.53	129.82	125.90
23	DA	1882	C	N1-C2-O2	6.53	122.82	118.90
1	AA	44	G	C6-N1-C2	-6.53	121.18	125.10
23	DA	197	A	N1-C2-N3	-6.53	126.03	129.30
23	BA	846	C	C5-C6-N1	-6.53	117.73	121.00
1	AA	1030	C	C2-N3-C4	6.53	123.16	119.90
1	AA	1430	C	N3-C4-C5	6.53	124.51	121.90
23	BA	1343	G	C8-N9-C4	-6.53	103.79	106.40
24	DB	6	C	C6-N1-C2	6.53	122.91	120.30
1	AA	1530	G	C5-C6-O6	-6.52	124.69	128.60
1	AA	1502	A	C8-N9-C4	-6.52	103.19	105.80
23	BA	351	G	C5-C6-O6	-6.52	124.69	128.60
23	BA	588	U	C4-C5-C6	-6.52	115.79	119.70
23	BA	1944	U	C5-C6-N1	-6.52	119.44	122.70
23	BA	2700	C	C5-C6-N1	-6.52	117.74	121.00
23	BA	2866	U	N3-C2-O2	-6.52	117.63	122.20
23	DA	1289	C	C5-C6-N1	-6.52	117.74	121.00
23	BA	34	C	N3-C4-C5	-6.52	119.29	121.90
1	CA	361	G	C6-C5-N7	-6.52	126.49	130.40
1	CA	1003	G	N3-C4-N9	6.52	129.91	126.00
23	DA	2517	C	N3-C2-O2	6.52	126.46	121.90
23	BA	1745	C	N1-C2-O2	-6.52	114.99	118.90
23	BA	2605	U	N1-C2-O2	6.52	127.36	122.80
1	CA	372	C	N1-C2-O2	6.52	122.81	118.90
25	DD	218	ARG	NE-CZ-NH2	-6.52	117.04	120.30
24	BB	94	C	N3-C2-O2	-6.51	117.34	121.90
43	BZ	5	LEU	CA-CB-CG	6.51	130.28	115.30
23	BA	593	G	N9-C4-C5	6.51	108.00	105.40
23	BA	2579	C	C5-C4-N4	-6.51	115.64	120.20
23	DA	2335	A	C4-C5-N7	6.51	113.96	110.70
1	AA	1123	A	C5-C6-N1	-6.51	114.44	117.70
23	BA	1018	C	C6-N1-C2	6.51	122.90	120.30
23	BA	1997	G	C6-N1-C2	-6.51	121.19	125.10
23	DA	1248	G	C4-C5-N7	6.51	113.40	110.80
23	DA	1124	C	C5-C4-N4	-6.51	115.64	120.20
23	BA	1757	U	C6-N1-C2	6.50	124.90	121.00
23	BA	1939	U	C2-N3-C4	-6.50	123.10	127.00
1	AA	1022	G	N3-C2-N2	6.50	124.45	119.90
23	BA	1254	A	N9-C4-C5	6.50	108.40	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	113	G	C4-N9-C1'	-6.50	118.05	126.50
1	AA	1149	C	N1-C2-O2	6.50	122.80	118.90
23	BA	1366	A	N9-C4-C5	6.50	108.40	105.80
1	CA	1096	C	N1-C2-O2	-6.50	115.00	118.90
23	BA	1586	A	C5-C6-N6	6.50	128.90	123.70
1	CA	1108	G	C5-C6-O6	6.50	132.50	128.60
23	BA	2016	U	C5-C4-O4	6.50	129.80	125.90
23	DA	2441	C	C4-C5-C6	6.50	120.65	117.40
1	AA	44	G	N1-C2-N3	6.50	127.80	123.90
23	DA	673	C	C6-N1-C2	6.49	122.90	120.30
23	DA	1187	G	N1-C6-O6	-6.49	116.00	119.90
23	BA	112	U	N3-C2-O2	-6.49	117.66	122.20
23	BA	279	C	C6-N1-C2	-6.49	117.70	120.30
23	DA	427	U	N1-C2-O2	6.49	127.34	122.80
1	CA	1499	A	C8-N9-C4	6.49	108.39	105.80
23	DA	2237	G	C8-N9-C4	6.49	109.00	106.40
23	BA	529	A	C5-N7-C8	-6.48	100.66	103.90
23	BA	2570	G	C2-N3-C4	6.48	115.14	111.90
23	DA	635	C	C6-N1-C2	-6.48	117.71	120.30
23	DA	1141	U	C2-N3-C4	-6.48	123.11	127.00
23	BA	2593	U	N3-C4-O4	-6.48	114.86	119.40
23	BA	2820	A	C2-N3-C4	-6.48	107.36	110.60
33	BP	55	ARG	NE-CZ-NH1	6.48	123.54	120.30
23	DA	923	C	C6-N1-C2	-6.48	117.71	120.30
1	AA	1290	G	N3-C4-C5	-6.48	125.36	128.60
23	BA	773	U	N3-C4-C5	6.48	118.49	114.60
23	BA	2358	G	N1-C6-O6	-6.48	116.01	119.90
23	DA	530	G	N3-C4-C5	6.48	131.84	128.60
23	DA	1977	A	N7-C8-N9	-6.48	110.56	113.80
23	BA	2791	C	C6-N1-C2	-6.47	117.71	120.30
1	CA	1002	G	C8-N9-C4	-6.47	103.81	106.40
19	AS	8	GLY	N-CA-C	-6.47	96.92	113.10
23	BA	593	G	C5-C6-O6	6.47	132.48	128.60
23	DA	756	C	N1-C2-O2	-6.47	115.02	118.90
23	BA	486	C	C6-N1-C2	6.47	122.89	120.30
23	BA	571	A	C5-C6-N6	-6.47	118.52	123.70
23	BA	688	U	N1-C2-N3	6.47	118.78	114.90
23	BA	1564	C	C5-C4-N4	6.47	124.73	120.20
23	DA	693	C	C5-C6-N1	-6.47	117.77	121.00
23	DA	1126	A	N9-C4-C5	-6.47	103.21	105.80
23	DA	2207	G	N1-C6-O6	6.47	123.78	119.90
23	BA	2071	A	N7-C8-N9	-6.47	110.57	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1126	U	C6-N1-C1'	-6.46	112.15	121.20
23	BA	454	A	C8-N9-C4	-6.46	103.21	105.80
23	BA	1234	U	C5-C4-O4	-6.46	122.02	125.90
23	DA	1904	G	C5-C6-N1	6.46	114.73	111.50
23	DA	2161	C	N3-C4-N4	-6.46	113.48	118.00
23	BA	681	G	C5-N7-C8	6.46	107.53	104.30
23	BA	959	A	N7-C8-N9	6.46	117.03	113.80
23	BA	950	G	N1-C6-O6	-6.46	116.02	119.90
1	AA	1460	A	C5-C6-N6	6.46	128.87	123.70
23	BA	2028	U	N3-C4-O4	-6.46	114.88	119.40
25	BD	13	ARG	NE-CZ-NH2	-6.46	117.07	120.30
23	DA	199	A	C4-C5-N7	-6.46	107.47	110.70
23	BA	132	G	N7-C8-N9	-6.46	109.87	113.10
23	BA	670	A	C2-N3-C4	6.46	113.83	110.60
23	BA	1135	C	N1-C2-O2	-6.46	115.03	118.90
23	BA	1457	A	N1-C6-N6	6.46	122.47	118.60
23	BA	1700	A	N1-C6-N6	-6.46	114.73	118.60
23	BA	2877	G	C8-N9-C4	6.46	108.98	106.40
23	BA	2001	A	C5-N7-C8	6.46	107.13	103.90
1	AA	1037	C	C6-N1-C2	-6.45	117.72	120.30
23	DA	2829	C	N1-C2-O2	-6.45	115.03	118.90
1	AA	1010	G	C8-N9-C4	-6.45	103.82	106.40
23	BA	1597	A	C5-N7-C8	6.45	107.12	103.90
23	DA	833	U	N3-C4-O4	6.45	123.92	119.40
1	AA	1028	C	C6-N1-C2	-6.45	117.72	120.30
23	BA	562	U	N3-C2-O2	-6.45	117.69	122.20
23	BA	2437	U	C5-C4-O4	6.45	129.77	125.90
1	CA	1356	G	C8-N9-C4	-6.45	103.82	106.40
23	DA	2483	C	C6-N1-C2	-6.45	117.72	120.30
23	BA	271(H)	G	N3-C4-N9	6.45	129.87	126.00
23	BA	298	G	N3-C4-C5	-6.45	125.38	128.60
23	BA	2592	G	C8-N9-C4	-6.45	103.82	106.40
23	BA	2182	G	N3-C4-N9	-6.44	122.13	126.00
1	CA	1446	U	N1-C2-O2	6.44	127.31	122.80
23	DA	688	U	N1-C2-N3	6.44	118.77	114.90
1	AA	458	C	C6-N1-C2	-6.44	117.72	120.30
23	BA	139(A)	G	N3-C4-C5	-6.44	125.38	128.60
23	DA	34	C	N3-C4-C5	-6.44	119.32	121.90
23	BA	1785	A	C8-N9-C4	-6.44	103.22	105.80
23	DA	1631	C	N1-C2-O2	-6.44	115.04	118.90
23	BA	803	U	C5-C6-N1	-6.44	119.48	122.70
23	BA	2079	U	C4-C5-C6	6.44	123.56	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	348	G	N7-C8-N9	-6.44	109.88	113.10
23	BA	1165	U	N3-C2-O2	-6.43	117.69	122.20
20	CT	10	LEU	N-CA-C	6.43	128.38	111.00
32	DO	8	LEU	CA-CB-CG	6.43	130.10	115.30
1	AA	1323	G	N1-C6-O6	6.43	123.76	119.90
23	BA	778	G	N3-C2-N2	6.43	124.40	119.90
23	DA	1021	A	N7-C8-N9	6.43	117.02	113.80
23	DA	2191	G	C4-C5-N7	6.43	113.37	110.80
1	CA	34	C	C6-N1-C2	6.43	122.87	120.30
23	DA	2464	C	C5-C4-N4	-6.43	115.70	120.20
1	AA	357	G	C5-C6-N1	-6.43	108.29	111.50
1	CA	442	C	C6-N1-C2	-6.42	117.73	120.30
23	BA	1107	G	C2-N3-C4	6.42	115.11	111.90
23	DA	495	G	N7-C8-N9	-6.42	109.89	113.10
23	BA	2050	C	N1-C2-O2	-6.42	115.05	118.90
23	DA	2335	A	C2-N3-C4	6.42	113.81	110.60
23	BA	1301	A	N7-C8-N9	6.42	117.01	113.80
1	CA	732	C	C5-C6-N1	-6.42	117.79	121.00
1	AA	1363	C	C6-N1-C1'	6.41	128.50	120.80
23	BA	802	A	N1-C6-N6	-6.41	114.75	118.60
23	BA	1037	G	C5-C6-O6	-6.41	124.75	128.60
23	DA	1679	U	C4-C5-C6	6.41	123.55	119.70
23	BA	945	A	N1-C2-N3	6.41	132.50	129.30
23	DA	1252	G	N7-C8-N9	-6.41	109.89	113.10
23	DA	2612	C	C6-N1-C2	6.41	122.86	120.30
33	DP	148	LEU	CA-CB-CG	6.41	130.05	115.30
1	AA	1007	C	C2-N3-C4	6.41	123.10	119.90
1	CA	266	G	N3-C4-C5	6.41	131.80	128.60
23	DA	809	G	C5-N7-C8	6.41	107.50	104.30
1	AA	749	C	C6-N1-C2	-6.41	117.74	120.30
1	AA	974	A	N7-C8-N9	6.41	117.00	113.80
1	AA	1299	A	C8-N9-C4	-6.41	103.24	105.80
23	BA	72	U	N1-C2-O2	-6.41	118.32	122.80
23	BA	205	G	N3-C2-N2	6.41	124.38	119.90
23	DA	2284	C	C6-N1-C2	6.41	122.86	120.30
23	BA	125	G	C5-C6-O6	-6.40	124.76	128.60
23	BA	2137	C	C2-N1-C1'	6.40	125.84	118.80
23	DA	652(T)	C	N1-C2-O2	6.40	122.74	118.90
51	B7	34	ARG	NE-CZ-NH2	6.40	123.50	120.30
1	CA	925	G	N7-C8-N9	-6.40	109.90	113.10
23	BA	2321	G	C8-N9-C4	-6.40	103.84	106.40
1	CA	399	G	C5-C6-O6	-6.40	124.76	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	114	U	C2-N1-C1'	6.40	125.38	117.70
23	BA	2605	U	N3-C2-O2	-6.39	117.72	122.20
23	DA	646	A	N7-C8-N9	6.39	117.00	113.80
23	DA	728	G	C4-C5-N7	-6.39	108.24	110.80
23	BA	1025	G	C8-N9-C4	-6.39	103.84	106.40
23	BA	1298	C	N3-C4-N4	-6.39	113.53	118.00
23	DA	1670	C	N3-C4-C5	-6.39	119.34	121.90
23	DA	1721	G	C4-C5-N7	6.39	113.36	110.80
52	D8	34	TRP	O-C-N	-6.39	112.47	122.70
23	DA	1037	G	N1-C6-O6	6.39	123.73	119.90
23	DA	1695	G	N7-C8-N9	6.39	116.30	113.10
23	DA	1992	G	C8-N9-C4	-6.39	103.84	106.40
23	DA	2870	C	N1-C2-O2	-6.39	115.07	118.90
23	BA	672	C	C6-N1-C2	6.39	122.86	120.30
23	DA	1796	U	N1-C2-O2	6.39	127.27	122.80
23	BA	2233	U	N1-C2-O2	-6.39	118.33	122.80
23	DA	1835	G	N3-C4-N9	6.38	129.83	126.00
1	AA	1224	G	N3-C4-C5	-6.38	125.41	128.60
1	CA	1442(A)	G	N3-C2-N2	6.38	124.37	119.90
23	DA	361	G	N1-C6-O6	6.38	123.73	119.90
23	DA	812	C	C6-N1-C2	-6.38	117.75	120.30
23	DA	1774	C	N3-C4-C5	-6.38	119.35	121.90
23	DA	1990	C	C6-N1-C2	-6.38	117.75	120.30
23	BA	2789	C	C6-N1-C2	6.38	122.85	120.30
23	DA	107	C	N3-C4-C5	6.38	124.45	121.90
23	DA	330	A	N1-C6-N6	6.38	122.43	118.60
23	BA	20	C	C5-C6-N1	-6.38	117.81	121.00
23	BA	2791	C	N1-C2-O2	6.38	122.73	118.90
23	DA	1683	C	N3-C2-O2	6.38	126.36	121.90
1	CA	43	C	N3-C2-O2	6.37	126.36	121.90
23	DA	2791	C	N1-C2-O2	6.37	122.72	118.90
23	BA	2041	U	N1-C2-N3	6.37	118.72	114.90
23	BA	2079	U	N1-C2-N3	6.37	118.72	114.90
23	DA	2087	G	N1-C6-O6	6.37	123.72	119.90
23	BA	1826	G	C8-N9-C4	-6.37	103.85	106.40
23	BA	2196	C	C6-N1-C2	6.37	122.85	120.30
23	BA	2449	U	N3-C2-O2	-6.37	117.74	122.20
23	DA	1345	C	C4-C5-C6	6.37	120.58	117.40
23	BA	2525	G	N3-C2-N2	6.37	124.36	119.90
23	DA	121	G	C5-C6-O6	-6.37	124.78	128.60
23	BA	587	C	C5-C4-N4	6.36	124.65	120.20
23	BA	1367	A	N7-C8-N9	-6.36	110.62	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2620	C	N3-C4-N4	-6.36	113.55	118.00
24	DB	91	C	C5-C4-N4	-6.36	115.75	120.20
23	BA	478	A	C8-N9-C4	-6.36	103.25	105.80
23	BA	645	C	C2-N1-C1'	6.36	125.80	118.80
1	AA	496	A	C8-N9-C4	-6.36	103.26	105.80
23	BA	2352	A	N9-C4-C5	-6.36	103.26	105.80
23	BA	2608	G	N1-C2-N3	6.36	127.72	123.90
23	DA	757	U	C2-N3-C4	-6.36	123.19	127.00
1	CA	699	C	C6-N1-C2	-6.36	117.76	120.30
1	CA	1129	C	C6-N1-C2	-6.36	117.76	120.30
23	DA	750	A	N9-C4-C5	-6.36	103.26	105.80
23	BA	474	G	N1-C6-O6	-6.35	116.09	119.90
49	B5	15	ARG	NE-CZ-NH2	-6.35	117.12	120.30
23	BA	788	A	N1-C6-N6	6.35	122.41	118.60
23	BA	830	G	C8-N9-C4	-6.35	103.86	106.40
23	BA	2371	G	N3-C4-N9	6.35	129.81	126.00
23	DA	883	G	C5-C6-O6	-6.35	124.79	128.60
23	BA	827	U	N1-C2-O2	-6.35	118.36	122.80
23	BA	945	A	C5-C6-N6	-6.35	118.62	123.70
1	AA	911	U	N3-C4-O4	-6.35	114.95	119.40
23	BA	40	C	C2-N3-C4	-6.35	116.72	119.90
23	BA	2084	C	C6-N1-C2	6.35	122.84	120.30
23	BA	2272	U	N3-C2-O2	-6.35	117.76	122.20
23	BA	2501	C	C2-N3-C4	-6.35	116.73	119.90
23	DA	2454	G	N3-C2-N2	6.35	124.34	119.90
1	AA	44	G	N1-C2-N2	-6.35	110.49	116.20
23	BA	2705	A	N1-C6-N6	6.35	122.41	118.60
23	DA	2645	G	N3-C4-N9	-6.35	122.19	126.00
1	AA	357	G	N3-C4-N9	-6.34	122.19	126.00
20	AT	10	LEU	N-CA-C	6.34	128.13	111.00
23	DA	115	C	N3-C2-O2	6.34	126.34	121.90
1	AA	1502	A	C4-C5-N7	6.34	113.87	110.70
23	DA	2284	C	C5-C6-N1	-6.34	117.83	121.00
23	BA	709	U	C5-C6-N1	-6.34	119.53	122.70
23	DA	936	C	N1-C2-O2	-6.34	115.10	118.90
41	BX	57	LEU	CA-CB-CG	6.34	129.88	115.30
1	CA	358	U	N3-C4-O4	-6.34	114.96	119.40
23	DA	720	C	C6-N1-C2	6.34	122.83	120.30
1	AA	836	G	C5-C6-O6	-6.34	124.80	128.60
23	BA	1597	A	C4-C5-N7	-6.34	107.53	110.70
23	DA	1984	G	C8-N9-C4	-6.34	103.87	106.40
23	BA	193	U	N3-C4-C5	-6.33	110.80	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1248	G	C6-C5-N7	-6.33	126.60	130.40
1	AA	1334	G	N9-C4-C5	6.33	107.93	105.40
23	BA	847	U	N1-C2-O2	-6.33	118.37	122.80
23	BA	2619	C	C5-C6-N1	-6.33	117.83	121.00
23	DA	1399	C	C2-N3-C4	-6.33	116.73	119.90
23	DA	1882	C	C2-N1-C1'	6.33	125.77	118.80
23	DA	2864	G	C5-C6-O6	6.33	132.40	128.60
24	DB	13	A	C8-N9-C4	6.33	108.33	105.80
23	BA	1565	C	N1-C2-O2	-6.33	115.10	118.90
1	AA	1029	C	C5-C4-N4	6.33	124.63	120.20
23	BA	663	G	N1-C6-O6	-6.33	116.10	119.90
23	BA	2041	U	C5-C4-O4	-6.33	122.10	125.90
23	BA	2426	A	N1-C6-N6	6.33	122.40	118.60
23	DA	530	G	C8-N9-C1'	6.33	135.23	127.00
1	AA	795	C	N3-C4-C5	-6.33	119.37	121.90
23	DA	562	U	N3-C2-O2	-6.33	117.77	122.20
1	AA	801	U	C2-N3-C4	-6.33	123.20	127.00
23	BA	121	G	C5-C6-O6	-6.32	124.81	128.60
23	BA	463	G	N1-C6-O6	-6.32	116.11	119.90
23	BA	2238	G	N9-C4-C5	-6.32	102.87	105.40
1	CA	1067	A	N7-C8-N9	6.32	116.96	113.80
23	DA	1776	G	N3-C2-N2	6.32	124.33	119.90
23	DA	2486	G	N1-C6-O6	6.32	123.69	119.90
24	BB	115	G	C5-C6-O6	-6.32	124.81	128.60
23	DA	2453	A	C2-N3-C4	6.32	113.76	110.60
1	CA	47	C	N3-C2-O2	6.32	126.32	121.90
1	CA	303	A	N7-C8-N9	-6.32	110.64	113.80
23	DA	317	G	N1-C6-O6	6.32	123.69	119.90
1	AA	805	C	C5-C6-N1	6.32	124.16	121.00
1	CA	927	G	C5-C6-O6	6.32	132.39	128.60
1	CA	1158	C	N3-C2-O2	-6.32	117.48	121.90
23	BA	2286	A	C4-C5-N7	6.31	113.86	110.70
23	DA	739	G	C2-N3-C4	6.31	115.06	111.90
23	BA	41	C	C2-N3-C4	-6.31	116.74	119.90
23	BA	1110	G	N9-C4-C5	6.31	107.92	105.40
23	BA	2322	A	N1-C2-N3	6.31	132.46	129.30
1	CA	1527	C	C5-C6-N1	-6.31	117.84	121.00
23	DA	2154	G	C6-N1-C2	6.31	128.89	125.10
1	CA	1001	A	C8-N9-C4	-6.31	103.28	105.80
23	DA	1647	G	C5-C6-O6	-6.31	124.81	128.60
23	DA	1778	U	N3-C4-O4	6.31	123.82	119.40
23	DA	1822	G	N9-C4-C5	6.31	107.92	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	259	G	C5-C6-O6	-6.31	124.81	128.60
1	CA	912	C	C4-C5-C6	6.31	120.56	117.40
23	DA	229	A	C8-N9-C4	-6.31	103.28	105.80
23	DA	1807	G	N7-C8-N9	-6.31	109.95	113.10
1	CA	1372	U	C6-N1-C2	-6.30	117.22	121.00
23	DA	537	C	N3-C4-C5	6.30	124.42	121.90
23	BA	809	G	N1-C2-N3	-6.30	120.12	123.90
1	CA	1395	C	C2-N3-C4	6.30	123.05	119.90
23	DA	2371	G	N9-C4-C5	-6.30	102.88	105.40
1	AA	1003	G	C5-C6-O6	6.30	132.38	128.60
1	AA	1107	C	C6-N1-C2	-6.30	117.78	120.30
23	BA	201	C	C2-N3-C4	-6.30	116.75	119.90
23	BA	1440	G	C5-N7-C8	6.30	107.45	104.30
1	CA	1030(A)	G	N9-C4-C5	6.30	107.92	105.40
23	DA	826	U	N1-C2-O2	-6.30	118.39	122.80
23	BA	1609	A	C5-N7-C8	6.30	107.05	103.90
23	BA	2585	U	N1-C2-N3	-6.30	111.12	114.90
1	CA	1100	C	C2-N1-C1'	-6.30	111.87	118.80
23	DA	752	A	N7-C8-N9	6.30	116.95	113.80
23	DA	1558	A	N7-C8-N9	6.30	116.95	113.80
1	AA	1269	A	N1-C6-N6	-6.30	114.82	118.60
1	AA	1417	G	C8-N9-C4	6.30	108.92	106.40
23	BA	564	C	N1-C2-O2	-6.30	115.12	118.90
23	BA	1799	G	N3-C4-C5	-6.30	125.45	128.60
23	DA	1239	G	C5-C6-O6	-6.29	124.82	128.60
23	DA	1302	A	C5-N7-C8	6.29	107.05	103.90
23	BA	752	A	C2-N3-C4	-6.29	107.45	110.60
23	DA	2280	G	C5-C6-O6	-6.29	124.82	128.60
1	AA	1199	U	C5-C4-O4	6.29	129.68	125.90
23	BA	652(T)	C	C2-N3-C4	6.29	123.05	119.90
23	BA	1185	C	C6-N1-C2	-6.29	117.78	120.30
23	BA	2296	U	C1'-O4'-C4'	-6.29	104.87	109.90
23	BA	1663	C	C6-N1-C2	-6.29	117.78	120.30
23	BA	887	A	C2-N3-C4	6.29	113.74	110.60
23	BA	2678	C	C5-C4-N4	6.29	124.60	120.20
1	CA	281	G	C8-N9-C4	-6.29	103.89	106.40
1	CA	1006	C	C2-N3-C4	6.29	123.04	119.90
23	DA	2283	C	N1-C2-O2	-6.29	115.13	118.90
23	BA	518	G	C5-C6-O6	6.28	132.37	128.60
23	BA	1141	U	C2-N3-C4	-6.28	123.23	127.00
23	BA	2057	A	N1-C2-N3	6.28	132.44	129.30
1	AA	190	U	C5-C6-N1	6.28	125.84	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	525	U	N1-C2-O2	-6.28	118.40	122.80
23	DA	981	A	N1-C2-N3	-6.28	126.16	129.30
23	BA	35	G	N1-C6-O6	-6.28	116.13	119.90
23	BA	82	G	N1-C2-N2	-6.28	110.55	116.20
23	BA	469	G	C6-N1-C2	-6.28	121.33	125.10
23	BA	1126	A	N9-C4-C5	-6.28	103.29	105.80
23	BA	2015	A	N7-C8-N9	-6.28	110.66	113.80
23	BA	2613	U	C5-C4-O4	-6.28	122.13	125.90
23	BA	2624	G	C8-N9-C4	6.28	108.91	106.40
23	DA	1475	G	N3-C4-N9	-6.28	122.23	126.00
23	DA	2705	A	N9-C4-C5	-6.28	103.29	105.80
23	BA	2820	A	N1-C2-N3	6.28	132.44	129.30
23	DA	964	C	N3-C4-C5	-6.28	119.39	121.90
1	AA	1058	G	C4-C5-N7	6.28	113.31	110.80
23	BA	683	C	N3-C4-C5	6.28	124.41	121.90
23	BA	589	C	N3-C2-O2	-6.28	117.51	121.90
23	BA	1142(A)	A	N1-C6-N6	6.28	122.37	118.60
23	DA	444	C	C2-N3-C4	-6.28	116.76	119.90
23	DA	2463	C	N3-C4-N4	6.28	122.39	118.00
23	BA	223	A	N7-C8-N9	6.27	116.94	113.80
23	BA	2443	C	C2-N3-C4	-6.27	116.76	119.90
24	BB	97	G	N1-C2-N2	6.27	121.84	116.20
1	CA	27	G	N1-C6-O6	6.27	123.66	119.90
23	DA	738	G	N1-C6-O6	-6.27	116.14	119.90
23	BA	729	G	C4-N9-C1'	6.27	134.65	126.50
1	CA	47	C	C4-C5-C6	-6.27	114.27	117.40
1	AA	1518	A	N1-C2-N3	6.27	132.43	129.30
23	BA	1811	G	C4-C5-N7	-6.27	108.29	110.80
23	BA	1899	G	N3-C4-N9	6.27	129.76	126.00
23	BA	2637	U	C2-N3-C4	-6.27	123.24	127.00
23	BA	1788	C	N3-C4-C5	-6.26	119.39	121.90
1	CA	1020	U	N1-C2-N3	6.26	118.66	114.90
23	DA	1635	G	C5-C6-O6	-6.26	124.84	128.60
1	AA	1224	G	C2-N3-C4	6.26	115.03	111.90
24	DB	117	G	C5-C6-O6	-6.26	124.84	128.60
23	BA	1122	G	C5-C6-O6	-6.26	124.84	128.60
23	BA	2071	A	C5-N7-C8	6.26	107.03	103.90
1	CA	28	G	C8-N9-C4	-6.26	103.90	106.40
23	DA	1958	C	N1-C2-O2	-6.26	115.14	118.90
1	AA	1325	C	C6-N1-C2	6.26	122.80	120.30
23	BA	1573	G	N7-C8-N9	-6.26	109.97	113.10
1	CA	353	A	N7-C8-N9	6.26	116.93	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1678	G	C4-C5-C6	6.26	122.55	118.80
1	CA	288	A	C2-N3-C4	-6.26	107.47	110.60
23	DA	1973	G	N1-C6-O6	-6.26	116.15	119.90
23	BA	1607	C	C5-C4-N4	-6.25	115.82	120.20
23	DA	2567	G	C6-N1-C2	-6.25	121.35	125.10
23	BA	585	G	C4-C5-N7	-6.25	108.30	110.80
24	BB	81	G	C6-C5-N7	-6.25	126.65	130.40
23	DA	546	C	C5-C6-N1	6.25	124.13	121.00
23	BA	2066	C	C2-N3-C4	-6.25	116.77	119.90
23	BA	1355	G	C5-C6-N1	6.25	114.62	111.50
23	BA	588	U	C5-C6-N1	6.25	125.82	122.70
23	BA	2519	U	N1-C2-O2	-6.25	118.43	122.80
23	BA	2697	G	C5-N7-C8	6.25	107.42	104.30
23	DA	1625	C	N3-C2-O2	-6.25	117.53	121.90
23	DA	2335	A	N3-C4-N9	6.25	132.40	127.40
23	DA	2866	U	C5-C4-O4	6.25	129.65	125.90
23	BA	2894	G	N1-C2-N2	-6.25	110.58	116.20
23	DA	425	G	N3-C2-N2	6.25	124.27	119.90
23	BA	1396	U	N1-C2-N3	6.25	118.65	114.90
23	DA	520	G	C5-C6-O6	6.25	132.35	128.60
23	DA	2029	G	C8-N9-C4	-6.25	103.90	106.40
23	DA	1317	A	N9-C4-C5	6.24	108.30	105.80
23	BA	959	A	C8-N9-C4	-6.24	103.30	105.80
23	DA	2007	C	N1-C2-O2	-6.24	115.16	118.90
23	DA	2013	A	N1-C2-N3	6.24	132.42	129.30
23	DA	2063	C	N3-C4-C5	6.24	124.40	121.90
24	DB	91	C	C6-N1-C2	6.24	122.80	120.30
37	DT	95	ARG	NE-CZ-NH2	-6.24	117.18	120.30
1	AA	1123	A	N3-C4-C5	6.24	131.17	126.80
23	BA	512	G	N3-C4-C5	-6.24	125.48	128.60
23	BA	2636	U	C5-C4-O4	6.24	129.64	125.90
23	BA	2881	C	C6-N1-C2	-6.24	117.81	120.30
23	BA	1307	A	N7-C8-N9	-6.24	110.68	113.80
23	BA	1433	U	C5-C4-O4	6.24	129.64	125.90
23	BA	2235	G	N1-C2-N2	-6.24	110.59	116.20
23	BA	2623	G	N9-C4-C5	6.23	107.89	105.40
23	BA	2304	G	N1-C6-O6	-6.23	116.16	119.90
1	CA	824	C	N1-C2-O2	-6.23	115.16	118.90
1	CA	1373	G	C8-N9-C4	-6.23	103.91	106.40
1	AA	402	G	N3-C2-N2	-6.23	115.54	119.90
23	BA	13	A	N1-C2-N3	6.23	132.41	129.30
1	AA	1341	U	C2-N3-C4	-6.23	123.26	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2304	G	N1-C6-O6	-6.23	116.16	119.90
23	BA	870	A	C8-N9-C4	6.23	108.29	105.80
23	BA	2500	U	N3-C2-O2	-6.23	117.84	122.20
1	CA	1267	C	C6-N1-C2	-6.23	117.81	120.30
23	BA	40	C	N3-C4-C5	6.22	124.39	121.90
1	AA	523	A	C8-N9-C4	-6.22	103.31	105.80
23	BA	271(M)	G	N3-C4-C5	-6.22	125.49	128.60
23	DA	243	U	N3-C2-O2	-6.22	117.84	122.20
23	DA	113	G	N1-C2-N2	6.22	121.80	116.20
23	DA	692	C	C6-N1-C2	6.22	122.79	120.30
1	AA	429	U	C5-C6-N1	-6.22	119.59	122.70
23	BA	1493	C	C2-N1-C1'	6.22	125.64	118.80
23	DA	2017	U	C5-C6-N1	-6.22	119.59	122.70
23	BA	2574	G	C6-N1-C2	-6.22	121.37	125.10
1	AA	1160	G	N3-C4-N9	6.22	129.73	126.00
23	DA	2296	U	C4-C5-C6	6.22	123.43	119.70
23	BA	461	C	C4-C5-C6	6.21	120.51	117.40
23	BA	776	G	C5-C6-O6	6.21	132.33	128.60
1	CA	1373	G	N3-C4-C5	-6.21	125.49	128.60
23	DA	139(A)	G	C5-C6-O6	-6.21	124.87	128.60
1	AA	365	U	N1-C2-N3	6.21	118.63	114.90
23	DA	1343	G	N1-C6-O6	-6.21	116.17	119.90
1	AA	1053	G	C8-N9-C4	6.21	108.89	106.40
23	BA	193	U	N3-C4-O4	6.21	123.75	119.40
23	BA	474	G	P-O3'-C3'	6.21	127.15	119.70
23	BA	1203	G	C4-C5-N7	-6.21	108.32	110.80
23	DA	1284	A	N1-C6-N6	6.21	122.33	118.60
23	BA	256	A	C8-N9-C4	6.21	108.28	105.80
1	AA	1088	G	N1-C6-O6	6.21	123.62	119.90
23	BA	99	U	N3-C2-O2	-6.21	117.85	122.20
23	BA	677	A	C5-C6-N1	-6.21	114.60	117.70
23	BA	1290	C	C6-N1-C2	-6.21	117.82	120.30
23	BA	2065	C	C4-C5-C6	6.21	120.50	117.40
23	DA	1901	A	C6-N1-C2	-6.21	114.88	118.60
23	DA	2817	G	C6-N1-C2	-6.21	121.38	125.10
23	BA	470	A	N7-C8-N9	6.21	116.90	113.80
23	BA	2207	G	N1-C6-O6	6.21	123.62	119.90
23	BA	2524	G	N1-C6-O6	-6.21	116.18	119.90
23	DA	2866	U	N1-C2-N3	6.21	118.62	114.90
23	BA	119	A	N1-C2-N3	6.20	132.40	129.30
23	BA	1288	U	N1-C2-N3	6.20	118.62	114.90
23	DA	527	C	C2-N3-C4	-6.20	116.80	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1992	G	P-O3'-C3'	6.20	127.14	119.70
1	CA	1442(A)	G	N7-C8-N9	6.20	116.20	113.10
23	DA	1040	C	N3-C4-C5	6.20	124.38	121.90
1	CA	971	G	C8-N9-C4	6.20	108.88	106.40
1	CA	1292	U	C6-N1-C2	6.20	124.72	121.00
23	DA	2694	G	C8-N9-C4	6.20	108.88	106.40
23	BA	1557	C	N3-C4-C5	6.20	124.38	121.90
23	DA	2364	C	C5-C6-N1	-6.20	117.90	121.00
23	BA	809	G	N1-C6-O6	-6.20	116.18	119.90
23	BA	1792	G	C6-N1-C2	6.20	128.82	125.10
23	BA	1998	G	C4-C5-N7	-6.20	108.32	110.80
23	BA	2069	G	C4-C5-N7	-6.20	108.32	110.80
23	DA	2040	C	C6-N1-C2	6.20	122.78	120.30
1	AA	823	G	C8-N9-C4	6.19	108.88	106.40
23	BA	1963	U	N1-C2-O2	6.19	127.14	122.80
23	BA	92	A	C8-N9-C4	-6.19	103.32	105.80
23	DA	596	G	N1-C6-O6	-6.19	116.18	119.90
23	DA	1204	A	N1-C2-N3	6.19	132.40	129.30
23	DA	1247	A	C2-N3-C4	-6.19	107.50	110.60
23	DA	2791	C	C6-N1-C2	-6.19	117.82	120.30
23	DA	529	A	N1-C6-N6	6.19	122.31	118.60
23	DA	571	A	C8-N9-C4	6.19	108.28	105.80
23	BA	438	G	C8-N9-C4	-6.19	103.92	106.40
23	DA	113	G	N3-C2-N2	-6.19	115.57	119.90
23	DA	1665	A	N7-C8-N9	-6.19	110.71	113.80
23	DA	2828	C	N3-C4-C5	6.19	124.38	121.90
23	DA	448	U	N1-C2-N3	6.18	118.61	114.90
23	BA	474	G	C8-N9-C4	-6.18	103.93	106.40
23	BA	996	A	C2-N3-C4	6.18	113.69	110.60
1	CA	413	G	C5-C6-O6	6.18	132.31	128.60
23	DA	530	G	N7-C8-N9	6.18	116.19	113.10
23	BA	829	A	C2-N3-C4	-6.18	107.51	110.60
23	BA	518	G	N1-C6-O6	-6.18	116.19	119.90
1	CA	824	C	C6-N1-C2	6.18	122.77	120.30
1	CA	1069	C	C6-N1-C2	-6.18	117.83	120.30
23	DA	645	C	N3-C2-O2	-6.18	117.58	121.90
23	DA	1854	A	N1-C6-N6	-6.18	114.89	118.60
23	BA	2692	C	N3-C2-O2	-6.17	117.58	121.90
24	BB	115	G	N1-C6-O6	6.17	123.61	119.90
1	CA	1260	C	C5-C6-N1	6.17	124.09	121.00
23	DA	2127	G	C6-N1-C2	6.17	128.80	125.10
1	AA	1030	C	C5-C6-N1	6.17	124.09	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1276	A	C8-N9-C4	6.17	108.27	105.80
23	DA	1640	C	C6-N1-C2	-6.17	117.83	120.30
23	BA	104	U	C2-N3-C4	-6.17	123.30	127.00
23	DA	2303	G	N3-C2-N2	-6.17	115.58	119.90
23	BA	649	G	C5-C6-O6	6.17	132.30	128.60
23	DA	607	U	C5-C6-N1	-6.17	119.61	122.70
23	DA	1226	A	N7-C8-N9	-6.17	110.72	113.80
23	DA	1318	C	N1-C2-O2	-6.17	115.20	118.90
23	BA	132	G	C5-N7-C8	6.17	107.38	104.30
23	BA	395	U	N1-C2-O2	6.17	127.12	122.80
24	BB	74	U	N1-C2-N3	6.17	118.60	114.90
23	DA	2028	U	N3-C4-O4	-6.17	115.08	119.40
23	DA	2611	U	C6-N1-C2	-6.17	117.30	121.00
23	BA	512	G	O4'-C1'-N9	6.17	113.13	108.20
1	AA	47	C	C2-N3-C4	-6.16	116.82	119.90
1	AA	992	U	C2-N1-C1'	6.16	125.10	117.70
23	BA	973	A	N7-C8-N9	6.16	116.88	113.80
23	BA	1124	C	C5-C4-N4	-6.16	115.89	120.20
23	BA	2872	G	C8-N9-C4	-6.16	103.94	106.40
1	CA	189(C)	C	C6-N1-C2	-6.16	117.83	120.30
1	CA	1514	C	N3-C4-C5	-6.16	119.44	121.90
23	DA	1340	U	C5-C6-N1	-6.16	119.62	122.70
1	AA	92	C	C5-C4-N4	-6.16	115.89	120.20
1	AA	358	U	N1-C2-N3	-6.16	111.20	114.90
15	AO	17	ARG	NE-CZ-NH1	6.16	123.38	120.30
1	AA	1029	C	N1-C2-O2	6.16	122.59	118.90
23	BA	1155	A	C2-N3-C4	6.16	113.68	110.60
23	BA	2053	G	C5-C6-O6	-6.16	124.91	128.60
1	CA	44	G	C5-C6-O6	-6.16	124.90	128.60
23	DA	265	A	C8-N9-C4	-6.16	103.34	105.80
23	DA	1359	A	C8-N9-C4	6.16	108.26	105.80
23	DA	2304	G	C8-N9-C1'	6.16	135.01	127.00
1	AA	1123	A	N1-C2-N3	-6.16	126.22	129.30
23	DA	686	G	C8-N9-C4	6.16	108.86	106.40
23	BA	2032	G	C5-N7-C8	6.16	107.38	104.30
23	BA	237	C	C5-C6-N1	-6.15	117.92	121.00
1	CA	1158	C	C5-C6-N1	6.15	124.08	121.00
1	CA	361	G	C4-C5-N7	6.15	113.26	110.80
1	CA	925	G	N3-C4-N9	6.15	129.69	126.00
23	DA	526	A	N1-C6-N6	-6.15	114.91	118.60
23	DA	781	A	C5-N7-C8	6.15	106.98	103.90
36	DS	96	GLY	N-CA-C	-6.15	97.72	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1779	U	C6-N1-C2	6.15	124.69	121.00
24	BB	118	G	N3-C4-C5	6.15	131.68	128.60
1	CA	881	G	N1-C6-O6	-6.15	116.21	119.90
23	DA	803	U	C5-C6-N1	-6.15	119.62	122.70
23	DA	347	A	C8-N9-C4	6.15	108.26	105.80
23	DA	587	C	C5-C4-N4	6.15	124.50	120.20
1	AA	912	C	C2-N1-C1'	-6.15	112.04	118.80
23	BA	2548	G	N1-C6-O6	-6.15	116.21	119.90
23	DA	223	A	C8-N9-C4	-6.15	103.34	105.80
1	AA	1281	U	C6-N1-C2	-6.14	117.31	121.00
23	BA	2545	G	N1-C6-O6	6.14	123.59	119.90
23	BA	2894	G	C5-C6-N1	-6.14	108.43	111.50
1	CA	912	C	C2-N1-C1'	-6.14	112.04	118.80
23	DA	1541	G	C8-N9-C4	-6.14	103.94	106.40
23	BA	116	C	C5-C6-N1	-6.14	117.93	121.00
23	BA	998	C	N3-C2-O2	-6.14	117.60	121.90
23	BA	1160	G	C8-N9-C4	-6.14	103.94	106.40
23	BA	2606	C	C2-N3-C4	-6.14	116.83	119.90
23	BA	2713	A	N1-C2-N3	-6.14	126.23	129.30
23	BA	123	G	N7-C8-N9	-6.14	110.03	113.10
23	BA	1697	G	C5-C6-O6	-6.14	124.92	128.60
23	BA	1304	C	C6-N1-C2	6.14	122.75	120.30
23	BA	2022	U	N1-C2-O2	-6.14	118.50	122.80
23	BA	2524	G	C5-C6-N1	6.14	114.57	111.50
23	BA	2807	G	C8-N9-C4	-6.14	103.94	106.40
23	DA	494	G	C2-N3-C4	-6.14	108.83	111.90
23	BA	214	G	C8-N9-C4	6.13	108.85	106.40
23	DA	429	A	N1-C6-N6	-6.13	114.92	118.60
23	DA	1681	G	N3-C4-C5	6.13	131.67	128.60
23	DA	2260	C	C4-C5-C6	6.13	120.47	117.40
1	CA	1320	C	C6-N1-C2	-6.13	117.85	120.30
1	CA	356	A	C6-N1-C2	-6.13	114.92	118.60
1	CA	881	G	C5-C6-O6	6.13	132.28	128.60
1	CA	1290	G	C8-N9-C4	-6.13	103.95	106.40
23	DA	532	A	C5-C6-N1	-6.13	114.63	117.70
23	DA	2304	G	C6-N1-C2	-6.13	121.42	125.10
23	DA	1192	G	C8-N9-C4	6.13	108.85	106.40
23	DA	1945	G	C8-N9-C4	6.13	108.85	106.40
23	BA	122	G	C5-C6-O6	-6.13	124.92	128.60
23	BA	1551	C	C6-N1-C2	-6.13	117.85	120.30
23	BA	2769	C	C5-C6-N1	-6.13	117.94	121.00
23	DA	933	A	C6-C5-N7	-6.13	128.01	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	774	A	C8-N9-C4	-6.13	103.35	105.80
32	BO	8	LEU	CA-CB-CG	6.13	129.39	115.30
23	DA	776	G	C5-C6-O6	6.13	132.28	128.60
23	BA	2415	G	N3-C2-N2	-6.12	115.61	119.90
1	AA	738	C	C6-N1-C2	-6.12	117.85	120.30
23	BA	2053	G	C5-N7-C8	6.12	107.36	104.30
23	BA	2061	G	N1-C6-O6	-6.12	116.22	119.90
23	BA	2585	U	N1-C2-O2	6.12	127.09	122.80
23	DA	823	G	C4-C5-N7	-6.12	108.35	110.80
23	DA	1010	A	N1-C2-N3	-6.12	126.24	129.30
23	DA	1339	G	C8-N9-C4	6.12	108.85	106.40
23	BA	143	G	N3-C4-N9	-6.12	122.33	126.00
23	BA	706	A	C8-N9-C4	-6.12	103.35	105.80
23	BA	745	G	C6-N1-C2	-6.12	121.43	125.10
23	DA	1022	G	N9-C4-C5	6.12	107.85	105.40
23	BA	195	A	N7-C8-N9	-6.12	110.74	113.80
23	BA	987	G	N7-C8-N9	6.12	116.16	113.10
23	BA	2103	C	N3-C4-C5	-6.12	119.45	121.90
23	BA	1295	C	N3-C2-O2	-6.12	117.62	121.90
23	BA	1602	U	C5-C6-N1	-6.12	119.64	122.70
23	DA	2567	G	C4-C5-N7	-6.12	108.35	110.80
1	AA	1054	C	N3-C2-O2	-6.12	117.62	121.90
23	BA	1266	G	C5-C6-O6	-6.12	124.93	128.60
23	BA	1638	C	C5-C6-N1	-6.12	117.94	121.00
23	BA	2453	A	N1-C6-N6	-6.12	114.93	118.60
23	BA	2554	U	N1-C2-O2	-6.11	118.52	122.80
1	CA	929	G	C8-N9-C4	-6.11	103.95	106.40
23	DA	2526	G	C5-C6-N1	-6.11	108.44	111.50
23	BA	690	G	C5-N7-C8	6.11	107.36	104.30
23	BA	2288	A	C8-N9-C4	-6.11	103.36	105.80
23	DA	2697	G	N7-C8-N9	-6.11	110.04	113.10
23	BA	1770	G	N1-C2-N3	-6.11	120.23	123.90
23	DA	236	C	N1-C2-O2	-6.11	115.23	118.90
23	DA	825	C	C6-N1-C2	6.11	122.74	120.30
1	AA	442	C	C6-N1-C2	-6.11	117.86	120.30
1	AA	507	C	C6-N1-C2	-6.11	117.86	120.30
23	BA	1580	A	N9-C4-C5	-6.11	103.36	105.80
23	DA	535	C	C2-N1-C1'	-6.11	112.08	118.80
23	DA	2044	C	C2-N3-C4	-6.11	116.85	119.90
1	AA	1504	G	N3-C4-C5	6.10	131.65	128.60
23	BA	1117	G	N1-C6-O6	6.10	123.56	119.90
23	DA	1002	G	N3-C2-N2	6.10	124.17	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2127	G	C6-N1-C2	6.10	128.76	125.10
23	BA	116	C	N1-C2-N3	6.10	123.47	119.20
23	BA	2891	G	C5-C6-O6	-6.10	124.94	128.60
23	DA	192	C	C5-C6-N1	-6.10	117.95	121.00
23	DA	530	G	N9-C4-C5	6.10	107.84	105.40
23	DA	680	G	C8-N9-C4	6.10	108.84	106.40
23	BA	805	G	N9-C4-C5	-6.10	102.96	105.40
1	CA	1352	C	N3-C4-C5	-6.10	119.46	121.90
23	DA	2027	G	C4-C5-N7	-6.09	108.36	110.80
23	DA	2237	G	N9-C4-C5	-6.09	102.96	105.40
23	DA	92	A	N7-C8-N9	6.09	116.85	113.80
23	DA	250	G	C5-C6-N1	6.09	114.55	111.50
23	DA	982	C	N3-C4-N4	6.09	122.26	118.00
23	DA	2604	U	C5-C6-N1	-6.09	119.65	122.70
23	BA	2243	U	N3-C2-O2	6.09	126.46	122.20
23	DA	1311	G	N1-C6-O6	-6.09	116.25	119.90
23	BA	752	A	N1-C2-N3	6.09	132.34	129.30
23	BA	1650	G	C8-N9-C4	-6.09	103.97	106.40
23	BA	2360	A	N1-C2-N3	6.09	132.34	129.30
1	CA	458	C	N3-C4-C5	-6.09	119.47	121.90
23	DA	2033	A	C4-C5-N7	-6.09	107.66	110.70
23	BA	206	U	C5-C6-N1	-6.09	119.66	122.70
23	BA	1443	G	C8-N9-C4	-6.09	103.97	106.40
23	DA	1541	G	C5-C6-O6	6.09	132.25	128.60
23	DA	1800	C	N3-C2-O2	-6.09	117.64	121.90
23	DA	1995	U	N3-C2-O2	-6.09	117.94	122.20
23	BA	569	U	C5-C4-O4	-6.08	122.25	125.90
23	BA	2681	C	C4-C5-C6	6.08	120.44	117.40
1	CA	1205	U	C5-C6-N1	6.08	125.74	122.70
23	DA	568	U	N1-C2-O2	-6.08	118.54	122.80
23	DA	2207	G	C6-C5-N7	-6.08	126.75	130.40
23	DA	124	G	C5-C6-O6	-6.08	124.95	128.60
23	DA	207	A	C2-N3-C4	-6.08	107.56	110.60
23	DA	574	C	C2-N3-C4	6.08	122.94	119.90
23	DA	1975	G	N1-C6-O6	-6.08	116.25	119.90
23	DA	2709	G	N3-C2-N2	6.08	124.16	119.90
23	DA	2877	G	C8-N9-C4	6.08	108.83	106.40
23	BA	1188	U	C5-C4-O4	6.08	129.55	125.90
23	BA	2714	G	C5-C6-N1	6.08	114.54	111.50
1	CA	1190	G	C8-N9-C4	6.08	108.83	106.40
1	AA	1442	G	C4-C5-N7	-6.08	108.37	110.80
23	BA	82	G	N3-C4-N9	6.08	129.65	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1675	C	C5-C6-N1	-6.08	117.96	121.00
23	DA	1963	U	C6-N1-C1'	-6.08	112.69	121.20
23	BA	262	A	N1-C2-N3	6.08	132.34	129.30
1	AA	42	G	N1-C6-O6	-6.08	116.25	119.90
23	DA	217	G	C8-N9-C4	6.08	108.83	106.40
23	DA	271(H)	G	N3-C4-N9	6.08	129.65	126.00
23	BA	204	A	C5-C6-N1	6.07	120.74	117.70
23	BA	474	G	N7-C8-N9	6.07	116.14	113.10
23	BA	753	C	N3-C4-N4	-6.07	113.75	118.00
23	BA	2226	C	C5-C6-N1	-6.07	117.96	121.00
1	CA	1181	G	N3-C4-N9	-6.07	122.36	126.00
23	DA	693	C	C2-N3-C4	-6.07	116.86	119.90
38	BU	10	ARG	NE-CZ-NH2	-6.07	117.26	120.30
23	DA	1243	G	N9-C4-C5	6.07	107.83	105.40
23	BA	1256	G	C8-N9-C4	6.07	108.83	106.40
23	BA	1406	U	C6-N1-C2	-6.07	117.36	121.00
23	BA	2303	G	N3-C2-N2	-6.07	115.65	119.90
23	BA	2493	U	C2-N3-C4	-6.07	123.36	127.00
23	BA	1825	A	C8-N9-C4	-6.07	103.37	105.80
23	BA	71	A	N7-C8-N9	6.07	116.83	113.80
23	BA	1307	A	C8-N9-C4	6.07	108.23	105.80
1	CA	1096	C	C6-N1-C2	-6.07	117.87	120.30
23	DA	737	C	C4-C5-C6	6.07	120.43	117.40
23	BA	281	G	C8-N9-C4	6.07	108.83	106.40
23	DA	1620	G	N9-C4-C5	6.07	107.83	105.40
23	DA	2869	G	C8-N9-C4	-6.07	103.97	106.40
23	BA	2821	A	N1-C2-N3	6.06	132.33	129.30
23	DA	2059	A	N9-C4-C5	-6.06	103.38	105.80
23	BA	846	C	C6-N1-C2	6.06	122.72	120.30
1	CA	754	C	N1-C2-O2	6.06	122.54	118.90
23	DA	1313	U	C2-N1-C1'	6.06	124.97	117.70
23	DA	945	A	C8-N9-C4	-6.06	103.38	105.80
23	DA	2191	G	C6-C5-N7	-6.06	126.77	130.40
1	AA	52	G	C6-N1-C2	6.06	128.73	125.10
23	BA	792	G	N3-C4-C5	-6.06	125.57	128.60
23	BA	1780	A	N1-C2-N3	6.06	132.33	129.30
1	CA	117	G	C5-C6-O6	-6.06	124.97	128.60
23	DA	772	C	N3-C2-O2	6.06	126.14	121.90
23	DA	1126	A	C5-C6-N6	-6.06	118.86	123.70
23	BA	2454	G	C2-N3-C4	6.05	114.93	111.90
1	CA	1100	C	C6-N1-C1'	6.05	128.06	120.80
23	DA	935	C	C6-N1-C2	6.05	122.72	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1005	C	N3-C2-O2	-6.05	117.66	121.90
1	AA	1305	G	N3-C4-N9	-6.05	122.37	126.00
1	CA	913	A	N9-C4-C5	6.05	108.22	105.80
1	CA	1375	A	C8-N9-C4	-6.05	103.38	105.80
23	DA	1698	A	C6-C5-N7	-6.05	128.06	132.30
23	DA	1828	G	N9-C4-C5	-6.05	102.98	105.40
23	DA	2441	C	C5-C6-N1	-6.05	117.97	121.00
23	DA	139(A)	G	C5-C6-N1	6.05	114.53	111.50
23	DA	208	C	N1-C2-O2	-6.05	115.27	118.90
23	DA	817	C	N1-C2-O2	6.05	122.53	118.90
23	BA	1698	A	C6-N1-C2	6.05	122.23	118.60
1	AA	1305	G	N9-C4-C5	6.05	107.82	105.40
23	BA	1021	A	C6-N1-C2	6.04	122.23	118.60
23	BA	2331	G	N1-C6-O6	6.04	123.53	119.90
23	BA	2892	A	C8-N9-C4	-6.04	103.38	105.80
23	DA	2622	C	C4-C5-C6	-6.04	114.38	117.40
23	BA	212	G	N7-C8-N9	6.04	116.12	113.10
23	DA	1377	G	N1-C2-N2	-6.04	110.76	116.20
23	DA	2453	A	N7-C8-N9	-6.04	110.78	113.80
23	BA	1194	A	N1-C2-N3	-6.04	126.28	129.30
23	BA	893	C	C2-N1-C1'	6.04	125.44	118.80
1	CA	365	U	C6-N1-C1'	6.04	129.65	121.20
23	DA	149	A	N1-C6-N6	6.04	122.22	118.60
37	DT	127	ALA	N-CA-C	-6.04	94.70	111.00
23	BA	1636	C	C4-C5-C6	6.04	120.42	117.40
23	DA	2436	G	N1-C6-O6	-6.04	116.28	119.90
23	BA	2029	G	C2-N3-C4	6.03	114.92	111.90
1	AA	754	C	C2-N1-C1'	6.03	125.44	118.80
23	BA	1038	C	C5-C4-N4	-6.03	115.98	120.20
23	BA	2553	G	N3-C2-N2	6.03	124.12	119.90
23	BA	2601	C	C6-N1-C2	-6.03	117.89	120.30
23	BA	90	U	C2-N3-C4	6.03	130.62	127.00
23	BA	787	U	C6-N1-C2	-6.03	117.38	121.00
23	BA	2041	U	N1-C2-O2	-6.03	118.58	122.80
23	DA	1313	U	N1-C2-N3	6.03	118.52	114.90
23	BA	298	G	C4-C5-N7	-6.03	108.39	110.80
23	BA	552	G	C8-N9-C4	6.03	108.81	106.40
23	BA	950	G	C5-C6-O6	6.03	132.22	128.60
23	BA	1047	G	N3-C4-C5	-6.03	125.59	128.60
1	CA	745	C	C6-N1-C2	-6.03	117.89	120.30
23	DA	2065	C	C5-C4-N4	6.03	124.42	120.20
1	AA	1099	G	C5-C6-O6	6.03	132.22	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1257	C	C5-C4-N4	6.03	124.42	120.20
23	BA	2270	G	N1-C6-O6	6.03	123.52	119.90
23	DA	195	A	C8-N9-C4	6.03	108.21	105.80
23	DA	944	G	N7-C8-N9	6.03	116.11	113.10
23	DA	2515	C	C2-N3-C4	-6.03	116.89	119.90
1	AA	1442	G	N7-C8-N9	-6.02	110.09	113.10
23	BA	655	A	C8-N9-C4	-6.02	103.39	105.80
24	BB	63	G	C8-N9-C4	6.02	108.81	106.40
23	DA	2087	G	C8-N9-C4	6.02	108.81	106.40
23	DA	2624	G	C5-N7-C8	6.02	107.31	104.30
23	BA	242	G	N1-C6-O6	-6.02	116.29	119.90
23	BA	803	U	C5-C4-O4	6.02	129.51	125.90
1	AA	926	G	N1-C6-O6	6.02	123.51	119.90
23	BA	1157	G	C5-C6-O6	6.02	132.21	128.60
23	BA	966	G	N3-C2-N2	6.02	124.11	119.90
23	BA	1198	U	N1-C2-N3	6.02	118.51	114.90
23	BA	1308	A	C4-C5-N7	-6.01	107.69	110.70
23	BA	1653	G	N3-C2-N2	-6.01	115.69	119.90
23	DA	1755	A	C2-N3-C4	-6.01	107.59	110.60
1	AA	44	G	N9-C4-C5	6.01	107.81	105.40
1	AA	1006	C	C2-N3-C4	6.01	122.91	119.90
1	AA	1279	A	C8-N9-C4	-6.01	103.39	105.80
23	BA	2233	U	C5-C4-O4	6.01	129.51	125.90
23	DA	139(A)	G	C8-N9-C4	-6.01	104.00	106.40
23	DA	2260	C	C5-C6-N1	-6.01	118.00	121.00
23	BA	584	C	C2-N3-C4	-6.01	116.89	119.90
23	BA	800	A	N7-C8-N9	-6.01	110.80	113.80
23	BA	539	G	C5-C6-O6	6.01	132.21	128.60
23	BA	1814	G	N1-C2-N2	-6.01	110.79	116.20
23	BA	749	C	C2-N3-C4	-6.01	116.90	119.90
1	AA	1390	U	C5-C6-N1	-6.00	119.70	122.70
23	BA	80	G	C5-C6-O6	6.00	132.20	128.60
23	BA	1274	A	C8-N9-C4	-6.00	103.40	105.80
23	BA	2610	C	C2-N3-C4	-6.00	116.90	119.90
1	CA	1460	A	C5-C6-N6	6.00	128.50	123.70
23	DA	1828	G	C5-C6-O6	-6.00	125.00	128.60
1	CA	1350	A	C5-C6-N6	6.00	128.50	123.70
23	BA	196	A	C5-N7-C8	-6.00	100.90	103.90
1	CA	1356	G	N7-C8-N9	6.00	116.10	113.10
23	DA	1602	U	N1-C2-O2	-6.00	118.60	122.80
23	DA	893	C	C2-N1-C1'	6.00	125.39	118.80
23	DA	2467	C	C6-N1-C2	-6.00	117.90	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1326	U	N1-C2-O2	5.99	127.00	122.80
23	BA	2271	G	N3-C2-N2	5.99	124.09	119.90
23	BA	2376	A	C6-N1-C2	-5.99	115.00	118.60
23	DA	2502	G	C5-C6-O6	-5.99	125.00	128.60
23	BA	2238	G	N3-C4-N9	5.99	129.59	126.00
23	BA	2319	G	C4-C5-N7	5.99	113.20	110.80
23	DA	1260	G	N7-C8-N9	-5.99	110.11	113.10
23	BA	113	G	N3-C2-N2	-5.99	115.71	119.90
23	BA	2161	C	N3-C4-N4	-5.99	113.81	118.00
23	DA	348	G	C5-N7-C8	5.99	107.29	104.30
23	BA	125	G	C5-C6-N1	5.99	114.49	111.50
23	BA	649	G	C8-N9-C4	-5.99	104.00	106.40
24	BB	115	G	N9-C4-C5	-5.99	103.00	105.40
23	DA	214	G	C5-C6-N1	5.99	114.49	111.50
1	AA	850	U	C5-C4-O4	5.98	129.49	125.90
23	BA	2335	A	N9-C4-C5	-5.98	103.41	105.80
23	DA	219	G	C6-N1-C2	5.98	128.69	125.10
23	DA	2875	C	C2-N3-C4	-5.98	116.91	119.90
1	AA	104	G	C8-N9-C4	5.98	108.79	106.40
23	BA	1654	A	C5-N7-C8	5.98	106.89	103.90
1	CA	1277	C	C6-N1-C2	-5.98	117.91	120.30
23	BA	690	G	N7-C8-N9	-5.98	110.11	113.10
23	BA	2124	G	C6-N1-C2	5.98	128.69	125.10
1	CA	740	U	C5-C6-N1	-5.98	119.71	122.70
23	BA	1697	G	N1-C6-O6	5.98	123.49	119.90
23	DA	438	G	N1-C6-O6	5.98	123.49	119.90
23	DA	737	C	C5-C6-N1	-5.98	118.01	121.00
23	DA	1697	G	N1-C6-O6	5.98	123.49	119.90
23	BA	470	A	C8-N9-C4	-5.98	103.41	105.80
23	BA	531	C	N3-C4-C5	5.98	124.29	121.90
23	DA	2505	G	N1-C6-O6	-5.98	116.31	119.90
23	BA	389	G	C8-N9-C4	5.97	108.79	106.40
23	BA	2363	C	C2-N1-C1'	-5.97	112.23	118.80
23	DA	1021	A	C4-C5-N7	5.97	113.69	110.70
1	CA	1442(B)	A	C5-C6-N6	5.97	128.48	123.70
23	DA	271(H)	G	C8-N9-C1'	-5.97	119.24	127.00
23	DA	1651	G	C2-N3-C4	5.97	114.89	111.90
23	DA	1990	C	C5-C4-N4	5.97	124.38	120.20
23	DA	2023	G	C8-N9-C4	-5.97	104.01	106.40
23	BA	1320	C	C5-C4-N4	5.97	124.38	120.20
23	BA	2438	U	N3-C4-C5	5.97	118.18	114.60
23	BA	80	G	N9-C4-C5	5.97	107.79	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1683	C	N1-C2-O2	-5.97	115.32	118.90
23	DA	2827	C	C6-N1-C2	5.97	122.69	120.30
23	DA	723	G	C8-N9-C4	-5.97	104.01	106.40
23	DA	1684	C	N1-C2-O2	-5.97	115.32	118.90
23	DA	2373	G	N1-C2-N3	5.97	127.48	123.90
23	DA	484	C	C2-N3-C4	-5.97	116.92	119.90
1	CA	1006	C	N1-C2-O2	5.96	122.48	118.90
23	DA	665	C	N3-C2-O2	-5.96	117.72	121.90
23	BA	1153	C	C6-N1-C2	-5.96	117.92	120.30
23	BA	1323	U	C6-N1-C2	5.96	124.58	121.00
1	AA	237	C	C5-C6-N1	-5.96	118.02	121.00
24	BB	20	C	C2-N1-C1'	5.96	125.36	118.80
23	DA	532	A	C2-N3-C4	-5.96	107.62	110.60
23	BA	1710	C	N3-C4-C5	5.96	124.28	121.90
23	BA	2869	G	C8-N9-C4	-5.96	104.02	106.40
23	DA	2192	G	C4-C5-N7	5.96	113.18	110.80
23	BA	2824	C	N3-C2-O2	-5.96	117.73	121.90
1	CA	1094	G	N3-C4-N9	5.96	129.57	126.00
23	DA	2059	A	C8-N9-C4	5.96	108.18	105.80
23	BA	767	U	N3-C2-O2	-5.96	118.03	122.20
23	BA	1808	U	C5-C4-O4	5.96	129.47	125.90
23	BA	114	U	C5-C4-O4	-5.95	122.33	125.90
23	BA	517	C	N3-C4-C5	5.95	124.28	121.90
23	BA	776	G	N9-C4-C5	5.95	107.78	105.40
23	BA	1443	G	N7-C8-N9	5.95	116.08	113.10
24	BB	56	G	C5-C6-O6	5.95	132.17	128.60
1	CA	52	G	N1-C6-O6	-5.95	116.33	119.90
1	CA	413	G	N3-C4-N9	-5.95	122.43	126.00
23	DA	738	G	N3-C4-C5	-5.95	125.62	128.60
1	AA	1334	G	C5-C6-O6	5.95	132.17	128.60
23	BA	1440	G	C4-C5-N7	-5.95	108.42	110.80
1	CA	964	A	C8-N9-C4	-5.95	103.42	105.80
1	AA	923	A	C8-N9-C4	-5.95	103.42	105.80
1	AA	1352	C	C6-N1-C2	-5.95	117.92	120.30
23	DA	481	G	N7-C8-N9	5.95	116.07	113.10
23	BA	1672	C	C4-C5-C6	5.95	120.37	117.40
23	BA	451	C	N3-C2-O2	-5.94	117.74	121.90
23	BA	772	C	C6-N1-C2	5.94	122.68	120.30
33	DP	27	HIS	CB-CA-C	-5.94	98.51	110.40
23	BA	131	G	N3-C2-N2	5.94	124.06	119.90
23	BA	1541	G	N9-C4-C5	5.94	107.78	105.40
23	BA	2271	G	N1-C2-N2	-5.94	110.85	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	BP	50	ARG	NE-CZ-NH2	5.94	123.27	120.30
1	CA	1399	C	N3-C4-N4	5.94	122.16	118.00
23	DA	2707	G	C6-N1-C2	-5.94	121.53	125.10
23	BA	2772	C	N3-C4-N4	-5.94	113.84	118.00
23	BA	2595	G	N1-C2-N3	-5.94	120.34	123.90
23	BA	2805	G	N3-C4-C5	-5.94	125.63	128.60
1	CA	398	C	N3-C2-O2	5.94	126.06	121.90
1	CA	697	U	C6-N1-C2	5.94	124.56	121.00
23	BA	2557	G	N3-C2-N2	5.93	124.05	119.90
23	BA	2715	C	C6-N1-C2	5.93	122.67	120.30
1	AA	1338	G	N1-C6-O6	-5.93	116.34	119.90
23	BA	735	A	C4-C5-N7	-5.93	107.73	110.70
23	BA	1570	A	C5-C6-N6	-5.93	118.95	123.70
23	DA	2049	G	C5-C6-O6	5.93	132.16	128.60
23	DA	2356	C	N1-C2-O2	-5.93	115.34	118.90
23	BA	2453	A	N1-C2-N3	-5.93	126.33	129.30
23	BA	739	G	N3-C2-N2	-5.93	115.75	119.90
1	CA	1518	A	C5-C6-N1	-5.93	114.73	117.70
23	DA	1650	G	N9-C4-C5	5.93	107.77	105.40
23	DA	1775	U	N3-C2-O2	5.93	126.35	122.20
23	DA	2322	A	N3-C4-C5	-5.93	122.65	126.80
35	DR	114	VAL	CB-CA-C	-5.93	100.13	111.40
23	BA	193	U	N3-C2-O2	5.93	126.35	122.20
1	AA	1281	U	C2-N1-C1'	5.93	124.81	117.70
23	BA	196	A	N7-C8-N9	5.93	116.76	113.80
23	BA	2877	G	C5-C6-O6	-5.93	125.04	128.60
23	DA	1530	C	C5-C4-N4	-5.93	116.05	120.20
1	AA	63	C	N1-C2-O2	5.92	122.45	118.90
1	AA	921	U	C5-C6-N1	5.92	125.66	122.70
23	BA	119	A	N1-C6-N6	-5.92	115.05	118.60
23	BA	752	A	N1-C6-N6	5.92	122.15	118.60
23	BA	834	C	C5-C6-N1	-5.92	118.04	121.00
23	BA	2820	A	N9-C4-C5	-5.92	103.43	105.80
24	BB	51	G	N1-C6-O6	-5.92	116.35	119.90
23	DA	2420	C	C5-C6-N1	-5.92	118.04	121.00
1	AA	286	G	N9-C4-C5	5.92	107.77	105.40
23	DA	2007	C	N1-C2-N3	5.92	123.35	119.20
23	DA	2627	G	C8-N9-C4	5.92	108.77	106.40
23	BA	1124	C	C2-N1-C1'	5.92	125.31	118.80
1	AA	1002	G	C8-N9-C1'	5.92	134.69	127.00
23	BA	116	C	C4-C5-C6	5.92	120.36	117.40
23	BA	188	G	N1-C6-O6	-5.92	116.35	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	951	C	N3-C4-N4	-5.92	113.86	118.00
23	BA	2441	C	C5-C6-N1	-5.92	118.04	121.00
1	AA	530	G	C5-N7-C8	-5.92	101.34	104.30
1	CA	1380	U	N1-C2-O2	5.92	126.94	122.80
23	DA	313	C	N3-C4-C5	-5.92	119.53	121.90
23	BA	2074	U	C2-N3-C4	-5.91	123.45	127.00
23	DA	2617	C	N3-C4-C5	5.91	124.27	121.90
23	BA	1753	G	N3-C2-N2	5.91	124.04	119.90
23	BA	90	U	C6-N1-C2	-5.91	117.45	121.00
23	BA	187	G	C5-C6-O6	-5.91	125.05	128.60
23	BA	944	G	C4-N9-C1'	5.91	134.18	126.50
23	DA	1654	A	C5-N7-C8	5.91	106.86	103.90
23	DA	2821	A	C5-N7-C8	-5.91	100.94	103.90
23	BA	1661	G	C5-C6-O6	5.91	132.15	128.60
23	BA	1799	G	P-O3'-C3'	5.91	126.79	119.70
24	DB	20	C	C6-N1-C1'	-5.91	113.71	120.80
1	CA	1366	C	N3-C2-O2	-5.91	117.77	121.90
1	AA	1224	G	N9-C4-C5	5.90	107.76	105.40
23	BA	141	A	N1-C6-N6	5.90	122.14	118.60
23	BA	1438	U	C5-C4-O4	-5.90	122.36	125.90
1	CA	63	C	C6-N1-C2	-5.90	117.94	120.30
23	DA	1826	G	C5-C6-O6	5.90	132.14	128.60
23	BA	681	G	C8-N9-C4	5.90	108.76	106.40
23	BA	1899	G	N3-C4-C5	-5.90	125.65	128.60
25	BD	239	ARG	N-CA-C	-5.90	95.06	111.00
23	DA	809	G	N7-C8-N9	-5.90	110.15	113.10
1	AA	1504	G	N7-C8-N9	-5.90	110.15	113.10
23	BA	1019	U	N1-C2-N3	5.90	118.44	114.90
23	BA	1779	U	N3-C4-C5	5.90	118.14	114.60
23	DA	1900	A	C6-N1-C2	-5.90	115.06	118.60
23	DA	1956	U	C2-N3-C4	-5.90	123.46	127.00
23	DA	2030	A	C5-C6-N6	-5.90	118.98	123.70
23	DA	2585	U	N1-C2-O2	5.90	126.93	122.80
23	BA	1373	A	N7-C8-N9	-5.90	110.85	113.80
23	BA	2354	G	N1-C6-O6	5.90	123.44	119.90
1	AA	921	U	C6-N1-C2	-5.90	117.46	121.00
23	BA	2559	C	C5-C4-N4	5.90	124.33	120.20
23	DA	601	C	C5-C6-N1	-5.90	118.05	121.00
23	DA	745	G	N3-C2-N2	-5.90	115.77	119.90
23	BA	38	A	C8-N9-C4	-5.89	103.44	105.80
23	BA	725	G	N3-C4-C5	-5.89	125.65	128.60
1	AA	43	C	C2-N3-C4	-5.89	116.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1313	U	C6-N1-C2	-5.89	117.47	121.00
23	DA	266	G	C8-N9-C4	5.89	108.76	106.40
1	AA	1061	G	N3-C2-N2	-5.89	115.78	119.90
23	BA	49	A	C2-N3-C4	5.89	113.55	110.60
1	CA	1392	G	C8-N9-C4	5.89	108.76	106.40
23	DA	530	G	N3-C2-N2	-5.89	115.78	119.90
23	DA	607	U	N3-C4-O4	-5.89	115.28	119.40
23	BA	296	C	N3-C2-O2	-5.89	117.78	121.90
23	BA	2430	A	C2-N3-C4	5.88	113.54	110.60
1	CA	41	G	C8-N9-C4	-5.88	104.05	106.40
23	DA	249	C	C6-N1-C2	5.88	122.65	120.30
23	DA	444	C	N3-C4-C5	5.88	124.25	121.90
23	DA	1721	G	N3-C4-N9	5.88	129.53	126.00
23	BA	206	U	C2-N3-C4	-5.88	123.47	127.00
23	BA	2230	G	N1-C2-N2	5.88	121.50	116.20
23	DA	2503	A	C8-N9-C4	5.88	108.15	105.80
23	DA	2582	G	N3-C2-N2	5.88	124.02	119.90
1	AA	328	C	C5-C6-N1	-5.88	118.06	121.00
23	BA	474	G	C5-C6-O6	5.88	132.13	128.60
23	BA	526	A	C8-N9-C4	-5.88	103.45	105.80
23	BA	535	C	N3-C4-C5	-5.88	119.55	121.90
23	BA	587	C	N3-C4-C5	-5.88	119.55	121.90
23	BA	766	C	C5-C6-N1	-5.88	118.06	121.00
1	CA	171	A	C8-N9-C4	-5.88	103.45	105.80
23	BA	66	C	C6-N1-C2	-5.88	117.95	120.30
23	BA	1038	C	N3-C4-C5	5.88	124.25	121.90
1	CA	39	G	N1-C2-N3	5.88	127.43	123.90
23	DA	645	C	C5-C6-N1	5.88	123.94	121.00
23	DA	2036	C	N3-C4-C5	5.88	124.25	121.90
24	BB	65	C	N3-C4-C5	5.88	124.25	121.90
23	DA	82	G	N9-C4-C5	-5.88	103.05	105.40
23	DA	961	C	C2-N3-C4	-5.88	116.96	119.90
23	DA	2036	C	C5-C4-N4	-5.88	116.09	120.20
23	BA	1963	U	C6-N1-C1'	-5.88	112.98	121.20
23	BA	2469	A	C8-N9-C4	-5.88	103.45	105.80
23	DA	468	G	N7-C8-N9	-5.88	110.16	113.10
23	DA	1776	G	N1-C2-N2	-5.88	110.91	116.20
1	AA	1123	A	C4-C5-C6	-5.87	114.06	117.00
23	BA	72	U	N3-C2-O2	5.87	126.31	122.20
23	BA	1298	C	N3-C4-C5	5.87	124.25	121.90
23	BA	2824	C	N1-C2-O2	5.87	122.42	118.90
23	DA	2712	U	N3-C4-C5	5.87	118.12	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	436	C	C6-N1-C2	5.87	122.65	120.30
1	CA	1395	C	C6-N1-C2	-5.87	117.95	120.30
23	BA	47	C	N3-C4-C5	5.87	124.25	121.90
1	CA	1522	U	C4-C5-C6	5.87	123.22	119.70
23	DA	265	A	C5-C6-N1	-5.87	114.77	117.70
23	DA	1678	G	N1-C2-N3	5.87	127.42	123.90
24	DB	117	G	N3-C4-C5	5.87	131.53	128.60
1	AA	1299	A	N7-C8-N9	5.87	116.73	113.80
23	BA	2454	G	N3-C2-N2	5.87	124.01	119.90
23	BA	2562	U	C2-N3-C4	-5.87	123.48	127.00
1	CA	972	C	C6-N1-C2	-5.87	117.95	120.30
23	DA	214	G	C5-C6-O6	-5.87	125.08	128.60
23	DA	1126	A	C8-N9-C4	5.87	108.15	105.80
23	BA	2706	G	C6-N1-C2	-5.87	121.58	125.10
24	BB	56	G	N1-C6-O6	-5.87	116.38	119.90
1	CA	1500	A	C2-N3-C4	-5.87	107.67	110.60
23	DA	1238	G	C8-N9-C4	5.87	108.75	106.40
23	DA	2332	U	N3-C2-O2	-5.87	118.09	122.20
23	BA	758	C	N3-C4-N4	-5.86	113.90	118.00
23	BA	2460	U	N1-C2-N3	5.86	118.42	114.90
23	DA	1288	U	N1-C2-O2	5.86	126.90	122.80
23	DA	1596	A	C8-N9-C4	5.86	108.15	105.80
23	BA	143(A)	C	C2-N3-C4	-5.86	116.97	119.90
23	BA	114	U	C2-N1-C1'	5.86	124.73	117.70
23	BA	2013	A	N7-C8-N9	5.86	116.73	113.80
23	DA	2279	G	N9-C4-C5	-5.86	103.06	105.40
1	AA	1363	C	N1-C2-O2	-5.86	115.39	118.90
23	BA	18	C	C6-N1-C2	-5.86	117.96	120.30
23	DA	2014	A	N1-C6-N6	5.86	122.11	118.60
23	BA	2700	C	N3-C4-C5	5.86	124.24	121.90
1	CA	356	A	C5-C6-N1	5.86	120.63	117.70
23	DA	2444	G	C4-C5-N7	-5.86	108.46	110.80
23	BA	702	G	C4-C5-N7	-5.85	108.46	110.80
23	BA	1300	U	N1-C2-N3	5.85	118.41	114.90
23	DA	333	G	N7-C8-N9	5.85	116.03	113.10
1	AA	1443	G	N1-C2-N3	-5.85	120.39	123.90
23	BA	266	G	C8-N9-C4	5.85	108.74	106.40
23	BA	822	U	N3-C4-O4	-5.85	115.30	119.40
1	CA	810	C	C6-N1-C2	5.85	122.64	120.30
23	DA	1997	G	N7-C8-N9	-5.85	110.17	113.10
1	AA	413	G	N3-C4-N9	-5.85	122.49	126.00
1	CA	1267	C	C2-N3-C4	5.85	122.83	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	204	U	C2-N1-C1'	5.85	124.72	117.70
23	BA	2714	G	C4-C5-N7	5.85	113.14	110.80
23	DA	923	C	C5-C6-N1	5.85	123.92	121.00
1	AA	1052	U	N3-C2-O2	-5.85	118.11	122.20
1	AA	1520	G	N9-C4-C5	-5.85	103.06	105.40
23	BA	2781	A	N1-C6-N6	-5.85	115.09	118.60
1	CA	423	G	N3-C4-N9	5.85	129.51	126.00
23	DA	966	G	C5-C6-O6	5.85	132.11	128.60
23	BA	762	U	C2-N1-C1'	5.85	124.72	117.70
24	BB	76	G	C8-N9-C4	5.85	108.74	106.40
23	DA	676	A	N1-C6-N6	5.85	122.11	118.60
23	DA	433	C	C6-N1-C2	-5.84	117.96	120.30
23	DA	1441	G	C8-N9-C4	5.84	108.74	106.40
23	BA	1031	G	C6-N1-C2	-5.84	121.59	125.10
1	AA	1091	U	N1-C2-O2	5.84	126.89	122.80
1	AA	1442	G	C8-N9-C4	5.84	108.74	106.40
23	BA	201	C	N3-C2-O2	-5.84	117.81	121.90
23	BA	933	A	N3-C4-N9	-5.84	122.73	127.40
23	BA	1288	U	C4-C5-C6	5.84	123.20	119.70
23	DA	2773	C	N3-C4-C5	5.84	124.24	121.90
1	AA	1506	U	N3-C2-O2	5.84	126.29	122.20
23	DA	546	C	C6-N1-C2	-5.84	117.97	120.30
23	BA	1260	G	C5-C6-O6	5.84	132.10	128.60
23	DA	495	G	C5-C6-O6	5.84	132.10	128.60
23	DA	2619	C	C5-C6-N1	-5.84	118.08	121.00
23	BA	127	A	C5-C6-N1	5.83	120.62	117.70
23	DA	948	G	N3-C2-N2	-5.83	115.81	119.90
23	DA	2296	U	C1'-O4'-C4'	-5.83	105.23	109.90
23	DA	2328	A	N9-C4-C5	5.83	108.13	105.80
1	AA	1317	C	N3-C2-O2	-5.83	117.82	121.90
1	AA	1506	U	N1-C2-O2	-5.83	118.72	122.80
23	BA	652(J)	G	C8-N9-C4	-5.83	104.07	106.40
1	CA	1296	C	C2-N1-C1'	5.83	125.22	118.80
1	CA	1520	G	C8-N9-C4	5.83	108.73	106.40
23	DA	1303	G	N3-C2-N2	5.83	123.98	119.90
24	DB	86	G	C8-N9-C4	5.83	108.73	106.40
23	BA	252	G	C8-N9-C4	-5.83	104.07	106.40
23	BA	271(M)	G	N9-C4-C5	-5.83	103.07	105.40
23	DA	847	U	C4-C5-C6	5.83	123.20	119.70
23	DA	1674	G	C4-N9-C1'	5.83	134.08	126.50
23	DA	1683	C	N1-C2-O2	-5.83	115.40	118.90
23	DA	1760	A	N1-C6-N6	-5.83	115.10	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2705	A	C5-C6-N6	-5.83	119.04	123.70
23	DA	1493	C	C6-N1-C1'	-5.83	113.80	120.80
23	BA	1347	G	N9-C4-C5	5.83	107.73	105.40
23	BA	1373	A	N1-C2-N3	5.83	132.21	129.30
23	BA	2105	C	N3-C4-C5	-5.83	119.57	121.90
23	DA	454	A	N1-C6-N6	5.83	122.10	118.60
1	AA	768	A	C5-C6-N6	-5.83	119.04	123.70
23	DA	1038	C	N1-C2-O2	5.83	122.39	118.90
23	DA	1782	C	N3-C4-C5	5.83	124.23	121.90
23	BA	2068	U	N1-C2-O2	-5.82	118.72	122.80
23	BA	2233	U	N3-C4-O4	-5.82	115.32	119.40
23	BA	2769	C	C2-N3-C4	-5.82	116.99	119.90
1	AA	442	C	C5-C6-N1	5.82	123.91	121.00
23	DA	750	A	N1-C6-N6	5.82	122.09	118.60
23	BA	2431	U	C5-C6-N1	-5.82	119.79	122.70
1	CA	400	C	C2-N3-C4	5.82	122.81	119.90
23	DA	1453	U	N1-C2-O2	-5.82	118.73	122.80
23	DA	1799	G	C8-N9-C4	-5.82	104.07	106.40
23	BA	2057	A	C4-C5-N7	-5.82	107.79	110.70
23	DA	1697	G	N3-C2-N2	-5.82	115.83	119.90
24	DB	104	U	C6-N1-C2	5.82	124.49	121.00
1	AA	668	G	N1-C6-O6	-5.82	116.41	119.90
43	BZ	77	ASP	CB-CG-OD1	5.82	123.53	118.30
1	CA	396	G	C5-C6-N1	-5.82	108.59	111.50
3	CC	78	GLY	N-CA-C	5.81	127.64	113.10
1	AA	1310	G	C5-C6-O6	-5.81	125.11	128.60
23	BA	701	G	C5-C6-O6	5.81	132.09	128.60
23	BA	1757	U	C2-N3-C4	-5.81	123.51	127.00
23	BA	2068	U	N1-C2-N3	5.81	118.39	114.90
23	BA	272(H)	C	N3-C4-C5	5.81	124.22	121.90
23	BA	1541	G	C4-C5-N7	-5.81	108.47	110.80
23	BA	1880	C	N3-C2-O2	-5.81	117.83	121.90
23	DA	608	A	N7-C8-N9	5.81	116.70	113.80
23	BA	2496	C	C2-N3-C4	-5.81	117.00	119.90
23	DA	1343	G	C5-C6-O6	5.81	132.09	128.60
1	AA	1404	C	C5-C4-N4	5.81	124.27	120.20
23	BA	614	U	C6-N1-C2	-5.81	117.52	121.00
23	DA	752	A	C8-N9-C4	-5.81	103.48	105.80
23	DA	1780	A	C5-C6-N1	-5.81	114.80	117.70
1	AA	286	G	C8-N9-C4	-5.81	104.08	106.40
23	BA	2556	C	N1-C2-O2	-5.81	115.42	118.90
1	CA	1204	A	C6-N1-C2	5.81	122.08	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	636	U	N3-C4-O4	5.80	123.46	119.40
23	BA	481	G	C5-C6-N1	5.80	114.40	111.50
23	BA	582	G	N3-C4-C5	-5.80	125.70	128.60
23	BA	2497	A	C5-C6-N6	5.80	128.34	123.70
23	BA	2606	C	C5-C6-N1	-5.80	118.10	121.00
1	CA	1522	U	N1-C2-N3	5.80	118.38	114.90
23	DA	1653	G	C6-N1-C2	-5.80	121.62	125.10
1	AA	621	A	N9-C4-C5	5.80	108.12	105.80
1	CA	42	G	N1-C6-O6	5.80	123.38	119.90
1	AA	39	G	C6-N1-C2	5.80	128.58	125.10
23	BA	645	C	C6-N1-C2	-5.80	117.98	120.30
23	BA	1189	A	N9-C4-C5	-5.80	103.48	105.80
23	BA	2161	C	C2-N3-C4	5.80	122.80	119.90
23	BA	2371	G	N3-C2-N2	5.80	123.96	119.90
23	DA	260	G	C4-C5-N7	-5.80	108.48	110.80
1	AA	403	C	N3-C4-N4	5.80	122.06	118.00
23	BA	36	G	N1-C2-N3	5.80	127.38	123.90
23	BA	681	G	N7-C8-N9	-5.80	110.20	113.10
23	DA	2495	G	C5-C6-N1	-5.80	108.60	111.50
23	DA	2543	G	C5-N7-C8	5.80	107.20	104.30
23	DA	2891	G	C5-C6-O6	-5.80	125.12	128.60
23	DA	784	A	C8-N9-C4	5.80	108.12	105.80
23	BA	527	C	C2-N3-C4	-5.80	117.00	119.90
25	BD	43	ARG	NE-CZ-NH2	5.80	123.20	120.30
23	DA	1249	U	C4-C5-C6	5.80	123.18	119.70
23	BA	1204	A	C8-N9-C4	-5.79	103.48	105.80
23	DA	425	G	C8-N9-C4	5.79	108.72	106.40
1	AA	235	C	N3-C2-O2	5.79	125.96	121.90
1	AA	1003	G	C6-C5-N7	5.79	133.88	130.40
23	BA	1140	C	C5-C4-N4	5.79	124.26	120.20
23	BA	1490	A	N7-C8-N9	-5.79	110.90	113.80
23	DA	1821	A	C5-C6-N6	-5.79	119.06	123.70
24	DB	49	C	C6-N1-C2	-5.79	117.98	120.30
1	AA	366	C	C5-C6-N1	-5.79	118.10	121.00
23	BA	1362	C	C6-N1-C2	-5.79	117.98	120.30
23	BA	1379	A	C8-N9-C4	5.79	108.12	105.80
44	B0	77	ARG	NE-CZ-NH1	-5.79	117.41	120.30
1	CA	65	U	P-O3'-C3'	5.79	126.65	119.70
23	DA	2399	G	N1-C6-O6	-5.79	116.42	119.90
23	BA	1595	G	C8-N9-C4	-5.79	104.08	106.40
1	CA	1009	G	C6-N1-C2	5.79	128.57	125.10
23	DA	1828	G	C8-N9-C4	5.79	108.72	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2134	A	N1-C6-N6	-5.79	115.13	118.60
23	DA	2304	G	C4-N9-C1'	-5.79	118.97	126.50
23	DA	62	C	C5-C6-N1	-5.79	118.11	121.00
23	DA	272(H)	C	N3-C4-C5	5.79	124.22	121.90
23	DA	1258	C	C5-C6-N1	-5.79	118.11	121.00
23	DA	1953	A	N9-C4-C5	-5.79	103.48	105.80
23	BA	10	G	N1-C6-O6	-5.79	116.43	119.90
23	BA	1170	G	C5-N7-C8	-5.79	101.41	104.30
23	BA	2249	U	N1-C2-O2	5.79	126.85	122.80
23	DA	395	U	N1-C2-O2	5.79	126.85	122.80
23	DA	1984	G	N7-C8-N9	5.79	115.99	113.10
15	AO	54	ARG	NE-CZ-NH2	-5.78	117.41	120.30
23	BA	1487	G	C8-N9-C4	-5.78	104.09	106.40
23	BA	2564	A	C2-N3-C4	5.78	113.49	110.60
1	CA	355	C	N3-C2-O2	-5.78	117.85	121.90
1	CA	997	U	C5-C4-O4	5.78	129.37	125.90
24	DB	29	A	N1-C6-N6	5.78	122.07	118.60
23	BA	71	A	C8-N9-C4	-5.78	103.49	105.80
23	BA	1817	G	C4-C5-N7	5.78	113.11	110.80
35	BR	17	ARG	NE-CZ-NH1	-5.78	117.41	120.30
1	AA	1151	A	N1-C6-N6	-5.78	115.13	118.60
23	BA	1475	G	C8-N9-C4	-5.78	104.09	106.40
23	DA	2828	C	N3-C4-N4	-5.78	113.95	118.00
23	BA	1654	A	C4-C5-N7	-5.78	107.81	110.70
23	DA	1841	U	N3-C4-O4	5.78	123.44	119.40
23	DA	2231	C	C6-N1-C2	5.78	122.61	120.30
24	DB	78	A	C5-C6-N6	-5.78	119.08	123.70
23	BA	795	C	C5-C4-N4	5.78	124.24	120.20
23	BA	2182	G	N9-C4-C5	5.78	107.71	105.40
23	BA	2875	C	C2-N3-C4	-5.78	117.01	119.90
42	BY	79	CYS	CB-CA-C	-5.78	98.85	110.40
23	DA	948	G	C8-N9-C4	-5.78	104.09	106.40
23	DA	1901	A	N9-C4-C5	5.78	108.11	105.80
23	DA	2600	A	N1-C6-N6	-5.78	115.13	118.60
23	BA	841	A	N1-C2-N3	5.77	132.19	129.30
23	BA	998	C	N1-C2-O2	5.77	122.36	118.90
23	BA	1653	G	C6-N1-C2	-5.77	121.64	125.10
23	BA	933	A	N3-C4-C5	5.77	130.84	126.80
23	BA	1204	A	C4-N9-C1'	5.77	136.69	126.30
23	BA	2045	C	C5-C6-N1	-5.77	118.11	121.00
23	DA	912	C	C5-C6-N1	5.77	123.89	121.00
23	DA	2053	G	C8-N9-C4	5.77	108.71	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2784	C	C5-C6-N1	-5.77	118.11	121.00
1	AA	604	G	C5-C6-N1	-5.77	108.61	111.50
1	CA	1281	U	C6-N1-C2	-5.77	117.54	121.00
23	BA	146	G	N3-C2-N2	5.77	123.94	119.90
23	BA	200	U	C4-C5-C6	5.77	123.16	119.70
23	BA	1110	G	N3-C2-N2	-5.77	115.86	119.90
23	BA	2437	U	C4-C5-C6	5.77	123.16	119.70
24	DB	118	G	N3-C4-C5	5.77	131.49	128.60
1	AA	77	G	C8-N9-C4	5.77	108.71	106.40
1	AA	1181	G	N3-C4-N9	-5.77	122.54	126.00
23	BA	1162	G	C5-N7-C8	5.77	107.18	104.30
23	DA	961	C	C6-N1-C2	5.77	122.61	120.30
23	DA	2304	G	N9-C4-C5	5.77	107.71	105.40
25	DD	239	ARG	N-CA-C	-5.77	95.43	111.00
1	AA	801	U	N3-C4-C5	5.77	118.06	114.60
23	BA	28	A	N7-C8-N9	5.77	116.68	113.80
23	BA	399	G	N1-C6-O6	5.77	123.36	119.90
23	BA	2552	U	N3-C2-O2	5.77	126.24	122.20
23	DA	2386	C	C5-C6-N1	-5.77	118.12	121.00
23	BA	208	C	C6-N1-C2	5.76	122.61	120.30
23	BA	295	G	N1-C6-O6	5.76	123.36	119.90
23	BA	481	G	C2-N3-C4	5.76	114.78	111.90
23	BA	1882	C	N1-C2-O2	5.76	122.36	118.90
1	AA	323	U	C5-C4-O4	-5.76	122.44	125.90
23	DA	406	G	C4-C5-N7	5.76	113.11	110.80
23	DA	2080	G	N1-C2-N3	5.76	127.36	123.90
23	DA	2487	G	N1-C6-O6	5.76	123.36	119.90
1	AA	423	G	C5-C6-O6	-5.76	125.14	128.60
1	AA	1260	C	C6-N1-C2	-5.76	118.00	120.30
23	BA	139	G	C5-C6-N1	5.76	114.38	111.50
23	BA	1575	C	C5-C4-N4	-5.76	116.17	120.20
23	DA	348	G	C8-N9-C4	5.76	108.70	106.40
23	DA	886	C	C5-C6-N1	5.76	123.88	121.00
23	DA	1453	U	C2-N3-C4	-5.76	123.54	127.00
23	DA	2124	G	C6-N1-C2	5.76	128.56	125.10
23	BA	650	C	N1-C2-O2	5.76	122.36	118.90
1	CA	1442(A)	G	C4-C5-C6	5.76	122.25	118.80
23	DA	2050	C	C5-C4-N4	-5.76	116.17	120.20
1	AA	73	G	C8-N9-C4	5.76	108.70	106.40
1	AA	100	C	C6-N1-C2	-5.76	118.00	120.30
23	DA	107	C	C2-N3-C4	-5.76	117.02	119.90
23	DA	680	G	N7-C8-N9	-5.76	110.22	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2897	U	C5-C6-N1	5.76	125.58	122.70
23	DA	791	C	C5-C6-N1	-5.75	118.12	121.00
1	AA	40	C	C2-N3-C4	5.75	122.78	119.90
23	BA	2410	G	C8-N9-C4	-5.75	104.10	106.40
23	BA	451	C	C5-C6-N1	-5.75	118.12	121.00
23	BA	1840	G	C5-C6-N1	5.75	114.38	111.50
23	BA	2892	A	N7-C8-N9	5.75	116.67	113.80
23	DA	2363	C	C2-N1-C1'	-5.75	112.47	118.80
1	CA	366	C	N3-C4-C5	5.75	124.20	121.90
23	DA	1653	G	N7-C8-N9	5.75	115.97	113.10
1	AA	768	A	C5-C6-N1	5.75	120.57	117.70
1	AA	1374	A	N1-C6-N6	-5.75	115.15	118.60
23	BA	1776	G	N9-C4-C5	-5.75	103.10	105.40
23	BA	2191	G	C4-C5-N7	5.75	113.10	110.80
23	BA	2445	G	N1-C6-O6	-5.75	116.45	119.90
1	CA	1225	A	N7-C8-N9	5.75	116.67	113.80
23	DA	191	A	N7-C8-N9	-5.75	110.92	113.80
23	DA	2068	U	N1-C2-N3	5.75	118.35	114.90
51	B7	34	ARG	NE-CZ-NH1	-5.75	117.43	120.30
1	AA	1317	C	C6-N1-C2	-5.75	118.00	120.30
1	CA	402	G	N3-C4-C5	-5.75	125.73	128.60
1	CA	1363	C	C2-N1-C1'	-5.75	112.48	118.80
23	DA	1558	A	N3-C4-N9	-5.75	122.80	127.40
1	AA	699	C	C6-N1-C2	-5.74	118.00	120.30
1	AA	1150	U	C6-N1-C2	-5.74	117.55	121.00
23	BA	1208	C	N1-C2-O2	-5.74	115.45	118.90
23	BA	2251	G	C2-N3-C4	5.74	114.77	111.90
23	DA	1939	U	N3-C4-O4	-5.74	115.38	119.40
43	DZ	151	HIS	N-CA-C	5.74	126.51	111.00
23	DA	640	C	C5-C6-N1	5.74	123.87	121.00
23	DA	1901	A	C8-N9-C4	-5.74	103.50	105.80
1	AA	1305	G	C6-C5-N7	5.74	133.84	130.40
23	BA	154(A)	C	N1-C2-O2	5.74	122.34	118.90
23	BA	820	A	N1-C6-N6	-5.74	115.16	118.60
23	BA	932	G	C5-C6-O6	5.74	132.04	128.60
23	BA	2070	G	N3-C2-N2	5.74	123.92	119.90
35	BR	114	VAL	CB-CA-C	-5.74	100.49	111.40
1	CA	754	C	C2-N1-C1'	5.74	125.11	118.80
23	DA	893	C	C6-N1-C1'	-5.74	113.91	120.80
23	DA	1204	A	N9-C4-C5	-5.74	103.50	105.80
24	DB	56	G	N1-C6-O6	-5.74	116.46	119.90
23	BA	382	G	C5-N7-C8	5.74	107.17	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	810	C	C5-C6-N1	-5.74	118.13	121.00
1	CA	928	G	N1-C6-O6	5.74	123.34	119.90
1	CA	1292	U	C5-C6-N1	-5.74	119.83	122.70
23	DA	1305	C	N1-C2-O2	5.74	122.34	118.90
1	AA	700	G	C8-N9-C4	5.74	108.69	106.40
23	DA	1886	C	N3-C4-C5	5.74	124.19	121.90
1	AA	266	G	N1-C6-O6	5.74	123.34	119.90
23	BA	1586	A	N9-C4-C5	5.74	108.09	105.80
23	BA	2483	C	N3-C4-C5	-5.74	119.61	121.90
23	BA	2491	U	C2-N3-C4	-5.74	123.56	127.00
1	CA	402	G	C5-C6-N1	5.74	114.37	111.50
23	DA	454	A	C5-C6-N6	-5.74	119.11	123.70
23	DA	2379	G	N1-C6-O6	5.74	123.34	119.90
23	BA	735	A	C5-C6-N6	5.73	128.29	123.70
23	BA	988	A	N9-C4-C5	-5.73	103.51	105.80
23	DA	444	C	N1-C2-O2	-5.73	115.46	118.90
23	BA	650	C	N3-C2-O2	-5.73	117.89	121.90
24	BB	24	G	N1-C6-O6	5.73	123.34	119.90
23	DA	71	A	N3-C4-C5	-5.73	122.79	126.80
23	DA	1022	G	N3-C4-N9	-5.73	122.56	126.00
23	DA	1490	A	C8-N9-C4	5.73	108.09	105.80
1	AA	912	C	C6-N1-C2	5.73	122.59	120.30
23	BA	1204	A	O4'-C1'-N9	5.73	112.78	108.20
23	BA	1618	A	C4-C5-N7	-5.73	107.84	110.70
23	BA	2261	C	C6-N1-C2	-5.73	118.01	120.30
23	BA	2499	C	N3-C4-C5	-5.73	119.61	121.90
1	CA	436	C	C6-N1-C1'	-5.73	113.93	120.80
23	BA	1900	A	C2-N3-C4	5.73	113.46	110.60
23	DA	961	C	N3-C4-C5	5.73	124.19	121.90
23	BA	1164	G	C5-C6-O6	5.72	132.03	128.60
23	BA	1221(A)	C	N3-C4-C5	5.72	124.19	121.90
23	BA	1611	C	C4-C5-C6	5.72	120.26	117.40
1	CA	568	G	C8-N9-C4	-5.72	104.11	106.40
23	DA	456	C	C6-N1-C2	5.72	122.59	120.30
23	DA	1541	G	C4-C5-N7	-5.72	108.51	110.80
23	DA	2743	C	C5-C6-N1	-5.72	118.14	121.00
1	AA	1160	G	N3-C4-C5	-5.72	125.74	128.60
24	BB	75	G	C8-N9-C4	-5.72	104.11	106.40
42	BY	2	ARG	CD-NE-CZ	5.72	131.61	123.60
23	DA	1681	G	C4-C5-N7	5.72	113.09	110.80
23	DA	1684	C	N3-C2-O2	5.72	125.90	121.90
1	CA	56	U	C2-N3-C4	-5.72	123.57	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2193	G	N1-C6-O6	5.72	123.33	119.90
23	DA	811	U	C5-C4-O4	5.72	129.33	125.90
23	DA	1750	G	C8-N9-C4	-5.72	104.11	106.40
23	DA	2584	U	C5-C4-O4	-5.72	122.47	125.90
23	BA	40	C	C5-C6-N1	-5.71	118.14	121.00
23	BA	2627	G	N9-C4-C5	-5.71	103.11	105.40
24	BB	56	G	C8-N9-C4	-5.71	104.11	106.40
1	CA	358	U	N3-C2-O2	-5.71	118.20	122.20
1	AA	1227	A	C5-N7-C8	-5.71	101.04	103.90
23	BA	12	U	C6-N1-C2	-5.71	117.57	121.00
23	DA	676	A	C5-N7-C8	-5.71	101.04	103.90
23	DA	1650	G	N3-C4-N9	-5.71	122.57	126.00
23	DA	2716	U	N3-C2-O2	-5.71	118.20	122.20
23	BA	616	G	C5-C6-O6	5.71	132.03	128.60
23	BA	646	A	N7-C8-N9	5.71	116.66	113.80
23	BA	1396	U	C4-C5-C6	5.71	123.13	119.70
23	BA	2233	U	C6-N1-C2	-5.71	117.57	121.00
1	CA	1044	A	C6-N1-C2	5.71	122.03	118.60
15	CO	17	ARG	NE-CZ-NH1	5.71	123.16	120.30
23	DA	33	U	C2-N3-C4	-5.71	123.57	127.00
23	DA	759	G	C4-C5-N7	-5.71	108.52	110.80
1	CA	278	G	N3-C2-N2	-5.71	115.90	119.90
1	CA	1104	G	N3-C4-C5	-5.71	125.75	128.60
23	BA	1189	A	N1-C6-N6	5.71	122.03	118.60
23	BA	2138	C	C2-N3-C4	5.71	122.75	119.90
23	BA	2483	C	C6-N1-C2	-5.71	118.02	120.30
24	BB	6	C	C6-N1-C2	5.71	122.58	120.30
23	DA	1478	G	N3-C4-C5	-5.71	125.75	128.60
23	DA	1975	G	C5-C6-O6	5.71	132.03	128.60
1	CA	1129	C	N1-C2-O2	5.71	122.32	118.90
23	DA	1657	C	C4-C5-C6	5.71	120.25	117.40
23	BA	1994	C	C5-C6-N1	-5.71	118.15	121.00
23	BA	2525	G	C8-N9-C4	5.71	108.68	106.40
3	CC	51	GLY	C-N-CA	5.71	135.96	121.70
23	DA	133	C	C2-N3-C4	-5.71	117.05	119.90
23	BA	117	G	C2-N3-C4	5.70	114.75	111.90
1	CA	1518	A	N1-C6-N6	-5.70	115.18	118.60
23	DA	1170	G	C8-N9-C4	-5.70	104.12	106.40
23	DA	2036	C	C2-N3-C4	-5.70	117.05	119.90
23	BA	2545	G	N3-C4-N9	5.70	129.42	126.00
1	CA	1089	G	C4-C5-N7	-5.70	108.52	110.80
24	DB	56	G	C5-C6-O6	5.70	132.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1933	G	C4-C5-N7	-5.70	108.52	110.80
1	CA	1158	C	N3-C4-C5	-5.70	119.62	121.90
1	CA	1459	C	C6-N1-C1'	-5.70	113.96	120.80
23	DA	1721	G	N9-C4-C5	-5.70	103.12	105.40
24	DB	78	A	N1-C6-N6	5.70	122.02	118.60
23	BA	1043	C	N3-C4-C5	-5.70	119.62	121.90
23	BA	2529	G	C5-C6-O6	-5.70	125.18	128.60
1	CA	400	C	N1-C2-N3	-5.70	115.21	119.20
23	DA	764	A	C2-N3-C4	5.70	113.45	110.60
23	DA	2743	C	C6-N1-C2	5.70	122.58	120.30
1	CA	1030(C)	G	C8-N9-C4	-5.70	104.12	106.40
23	DA	796	C	N3-C2-O2	-5.70	117.91	121.90
23	DA	1478	G	N3-C4-N9	5.70	129.42	126.00
23	BA	2435	A	C8-N9-C4	-5.70	103.52	105.80
1	CA	823	G	C8-N9-C4	5.70	108.68	106.40
1	CA	836	G	C5-C6-O6	-5.70	125.18	128.60
1	AA	1091	U	C6-N1-C2	-5.69	117.58	121.00
23	BA	135	G	C8-N9-C4	5.69	108.68	106.40
23	BA	2053	G	C4-C5-N7	-5.69	108.52	110.80
23	DA	684	G	C8-N9-C4	-5.69	104.12	106.40
24	DB	20	C	C2-N1-C1'	5.69	125.06	118.80
23	BA	41	C	C6-N1-C2	5.69	122.58	120.30
23	BA	582	G	C5-N7-C8	5.69	107.14	104.30
23	BA	582	G	C4-C5-N7	-5.69	108.52	110.80
23	DA	192	C	C4-C5-C6	5.69	120.25	117.40
23	DA	747	U	C6-N1-C2	5.69	124.41	121.00
23	DA	2320	A	C2-N3-C4	5.69	113.44	110.60
1	AA	611	A	C8-N9-C4	5.69	108.08	105.80
1	CA	1370	G	N7-C8-N9	5.69	115.94	113.10
23	DA	652(T)	C	C2-N3-C4	5.69	122.74	119.90
23	DA	1248	G	N1-C2-N2	-5.69	111.08	116.20
23	BA	479	A	C6-C5-N7	5.69	136.28	132.30
23	BA	589	C	N1-C2-O2	5.69	122.31	118.90
1	CA	400	C	C6-N1-C2	5.69	122.58	120.30
1	AA	1126	U	C4-C5-C6	-5.68	116.29	119.70
23	DA	272(H)	C	C6-N1-C2	5.68	122.57	120.30
23	DA	686	G	N1-C2-N3	5.68	127.31	123.90
23	DA	2598	A	C2-N3-C4	5.68	113.44	110.60
23	BA	1154	G	C6-N1-C2	-5.68	121.69	125.10
23	DA	1304	C	C5-C6-N1	-5.68	118.16	121.00
23	DA	2296	U	C6-N1-C2	5.68	124.41	121.00
23	DA	1394	U	N3-C2-O2	-5.68	118.22	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2474	C	N3-C4-C5	5.68	124.17	121.90
1	AA	189(C)	C	C6-N1-C2	-5.68	118.03	120.30
23	BA	1813	G	N9-C4-C5	-5.68	103.13	105.40
23	BA	1814	G	N3-C2-N2	5.68	123.88	119.90
23	BA	1886	C	N1-C2-O2	-5.68	115.49	118.90
23	BA	2318	G	N1-C6-O6	-5.68	116.49	119.90
23	DA	579	G	N1-C6-O6	5.68	123.31	119.90
23	DA	2304	G	C5-N7-C8	5.68	107.14	104.30
23	BA	1223	G	C6-C5-N7	5.68	133.81	130.40
23	DA	841	A	N9-C4-C5	5.68	108.07	105.80
23	DA	2228	G	N1-C6-O6	-5.68	116.49	119.90
23	DA	2773	C	C2-N3-C4	-5.68	117.06	119.90
1	AA	266	G	C5-N7-C8	-5.68	101.46	104.30
23	BA	677	A	N9-C4-C5	5.68	108.07	105.80
23	BA	1653	G	C4-N9-C1'	5.68	133.88	126.50
53	B9	35	ARG	NE-CZ-NH1	-5.68	117.46	120.30
1	CA	1207	G	N3-C4-N9	-5.68	122.59	126.00
23	DA	1901	A	N1-C6-N6	-5.68	115.19	118.60
23	BA	461	C	C5-C6-N1	-5.67	118.16	121.00
23	BA	1363	C	N3-C4-C5	5.67	124.17	121.90
23	BA	1582	C	N3-C2-O2	-5.67	117.93	121.90
23	DA	235	U	C5-C4-O4	-5.67	122.50	125.90
23	DA	507	A	C8-N9-C4	5.67	108.07	105.80
23	DA	706	A	C5-N7-C8	-5.67	101.06	103.90
23	DA	2345	G	N1-C2-N2	-5.67	111.09	116.20
23	DA	2817	G	N3-C4-C5	-5.67	125.76	128.60
23	BA	2356	C	N1-C2-O2	-5.67	115.50	118.90
23	DA	90	U	C5-C6-N1	5.67	125.54	122.70
23	DA	187	G	N7-C8-N9	-5.67	110.26	113.10
1	AA	1244	C	C6-N1-C2	5.67	122.57	120.30
1	AA	1459	C	N3-C4-N4	-5.67	114.03	118.00
23	BA	131	G	C5-C6-N1	5.67	114.34	111.50
23	BA	200	U	C5-C6-N1	-5.67	119.86	122.70
23	BA	1327	C	C6-N1-C2	-5.67	118.03	120.30
23	BA	1527	G	N3-C2-N2	-5.67	115.93	119.90
1	CA	357	G	C6-N1-C2	-5.67	121.70	125.10
23	DA	461	C	N1-C2-O2	-5.67	115.50	118.90
23	DA	1776	G	C4-C5-N7	5.67	113.07	110.80
23	DA	1799	G	N9-C4-C5	5.67	107.67	105.40
1	CA	927	G	C8-N9-C4	-5.67	104.13	106.40
1	CA	1006	C	C4-C5-C6	-5.67	114.56	117.40
23	DA	966	G	N1-C6-O6	-5.67	116.50	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2395	C	N3-C4-C5	5.67	124.17	121.90
1	AA	1518	A	C5-C6-N1	-5.67	114.87	117.70
23	BA	426	C	N1-C2-O2	5.67	122.30	118.90
23	BA	1379	A	N9-C4-C5	-5.67	103.53	105.80
1	CA	893	C	N3-C4-C5	5.67	124.17	121.90
1	CA	1443	G	C4-N9-C1'	-5.67	119.13	126.50
23	DA	1698	A	N1-C2-N3	5.67	132.13	129.30
1	AA	669	U	N3-C2-O2	-5.67	118.23	122.20
1	AA	1207	G	C6-C5-N7	5.67	133.80	130.40
23	BA	2627	G	C8-N9-C4	5.67	108.67	106.40
23	DA	663	G	C4-C5-N7	-5.67	108.53	110.80
23	DA	1266	G	C5-C6-N1	5.67	114.33	111.50
23	BA	658	C	C2-N3-C4	-5.67	117.07	119.90
23	BA	1674	G	C4-N9-C1'	5.67	133.86	126.50
1	CA	1521	G	C8-N9-C4	-5.67	104.13	106.40
23	DA	1638	C	N3-C4-C5	5.67	124.17	121.90
23	BA	393	C	N1-C2-N3	5.66	123.17	119.20
23	BA	652(S)	C	C2-N1-C1'	5.66	125.03	118.80
23	BA	839	U	N1-C2-N3	5.66	118.30	114.90
23	BA	1249	U	C5-C6-N1	-5.66	119.87	122.70
23	BA	2078	C	N1-C2-N3	5.66	123.16	119.20
23	BA	2869	G	N7-C8-N9	5.66	115.93	113.10
23	DA	53	A	N1-C2-N3	5.66	132.13	129.30
23	DA	2253	G	C2-N3-C4	-5.66	109.07	111.90
23	DA	2322	A	N1-C2-N3	5.66	132.13	129.30
23	BA	2363	C	N3-C4-N4	-5.66	114.04	118.00
23	DA	1676	A	C5-C6-N1	5.66	120.53	117.70
1	AA	336	C	C5-C6-N1	5.66	123.83	121.00
1	AA	1203	C	N1-C2-O2	-5.66	115.50	118.90
23	DA	68	G	C5-N7-C8	5.66	107.13	104.30
23	DA	1211	U	C6-N1-C2	5.66	124.40	121.00
23	DA	2864	G	N1-C6-O6	-5.66	116.50	119.90
23	BA	271(J)	C	N3-C4-C5	5.66	124.16	121.90
23	BA	737	C	C5-C6-N1	-5.66	118.17	121.00
23	BA	935	C	N1-C2-O2	-5.66	115.50	118.90
23	BA	1453	U	N1-C2-O2	-5.66	118.84	122.80
23	BA	1826	G	N9-C4-C5	5.66	107.66	105.40
23	BA	2617	C	N3-C4-N4	-5.66	114.04	118.00
23	DA	217	G	N9-C4-C5	-5.66	103.14	105.40
23	DA	2114	A	C8-N9-C4	-5.66	103.54	105.80
1	AA	45	U	N3-C4-C5	5.66	117.99	114.60
23	BA	1453	U	C2-N3-C4	-5.66	123.61	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1459	G	N1-C2-N2	-5.66	111.11	116.20
23	DA	503	A	N1-C6-N6	-5.66	115.21	118.60
23	DA	1453	U	C5-C6-N1	-5.66	119.87	122.70
23	DA	1793	C	N3-C2-O2	-5.66	117.94	121.90
23	BA	2438	U	N1-C2-O2	-5.66	118.84	122.80
23	BA	1189	A	C5-C6-N6	-5.65	119.18	123.70
23	DA	1803	A	N9-C4-C5	5.65	108.06	105.80
23	DA	2319	G	C8-N9-C4	-5.65	104.14	106.40
1	AA	769	G	C8-N9-C4	-5.65	104.14	106.40
23	BA	546	C	C5-C6-N1	5.65	123.83	121.00
23	BA	2079	U	C5-C6-N1	-5.65	119.87	122.70
1	CA	357	G	C4-C5-N7	-5.65	108.54	110.80
23	DA	2236	C	C2-N3-C4	-5.65	117.07	119.90
23	BA	475	U	C4-C5-C6	5.65	123.09	119.70
23	BA	2457	U	N1-C2-O2	-5.65	118.84	122.80
23	DA	2607	G	C5-C6-O6	-5.65	125.21	128.60
23	BA	1685	C	C5-C4-N4	-5.65	116.25	120.20
23	BA	2584	U	C4-C5-C6	-5.65	116.31	119.70
23	DA	1834	U	C5-C6-N1	-5.65	119.88	122.70
23	BA	1291	C	N3-C4-C5	-5.65	119.64	121.90
40	BW	15	ARG	NE-CZ-NH1	5.65	123.12	120.30
23	DA	1612	C	C4-C5-C6	5.65	120.22	117.40
23	DA	1799	G	C2-N3-C4	5.65	114.72	111.90
23	BA	1260	G	C5-C6-N1	-5.65	108.68	111.50
23	DA	2346	A	N1-C2-N3	5.65	132.12	129.30
23	BA	2249	U	N3-C2-O2	-5.64	118.25	122.20
23	BA	2335	A	N3-C4-N9	5.64	131.91	127.40
23	DA	474	G	P-O3'-C3'	5.64	126.47	119.70
23	BA	17	G	N3-C2-N2	-5.64	115.95	119.90
23	BA	812	C	C5-C6-N1	5.64	123.82	121.00
23	BA	823	G	N1-C6-O6	-5.64	116.51	119.90
23	DA	2042	A	C5-C6-N1	-5.64	114.88	117.70
1	AA	330	C	N1-C2-O2	5.64	122.28	118.90
23	BA	2208	A	C8-N9-C4	-5.64	103.54	105.80
24	DB	70	C	N1-C2-O2	5.64	122.28	118.90
1	AA	1502	A	C5-C6-N1	-5.64	114.88	117.70
23	BA	1200	C	N1-C2-N3	5.64	123.15	119.20
23	BA	2586	C	N1-C2-O2	-5.64	115.52	118.90
24	BB	49	C	C5-C6-N1	5.64	123.82	121.00
23	DA	2817	G	C8-N9-C4	-5.64	104.14	106.40
23	DA	2838	G	N7-C8-N9	-5.64	110.28	113.10
23	DA	1767	C	C6-N1-C2	5.64	122.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	45	C	N3-C4-C5	5.63	124.15	121.90
23	BA	578	A	N9-C4-C5	5.63	108.05	105.80
23	BA	2377	A	C2-N3-C4	-5.63	107.78	110.60
23	BA	2821	A	N9-C4-C5	-5.63	103.55	105.80
1	CA	1518	A	C4-C5-N7	-5.63	107.88	110.70
23	DA	752	A	C5-N7-C8	-5.63	101.08	103.90
1	AA	365	U	C6-N1-C1'	5.63	129.09	121.20
23	BA	2066	C	N3-C2-O2	-5.63	117.96	121.90
1	CA	1349	A	N1-C6-N6	5.63	121.98	118.60
23	DA	559	G	C2-N3-C4	-5.63	109.08	111.90
23	BA	123	G	C5-N7-C8	5.63	107.12	104.30
23	DA	1952	A	N7-C8-N9	-5.63	110.98	113.80
23	DA	176	G	C8-N9-C4	-5.63	104.15	106.40
23	DA	2237	G	N3-C2-N2	5.63	123.84	119.90
1	AA	1030(B)	C	C6-N1-C2	-5.63	118.05	120.30
1	AA	1486	G	N1-C6-O6	5.63	123.28	119.90
23	DA	1239	G	N1-C6-O6	5.63	123.28	119.90
23	DA	1624	G	C8-N9-C4	5.63	108.65	106.40
1	AA	44	G	C8-N9-C4	-5.63	104.15	106.40
1	AA	720	C	N1-C2-O2	5.63	122.28	118.90
1	CA	42	G	C5-C6-N1	-5.63	108.69	111.50
1	CA	345	C	N3-C4-C5	5.63	124.15	121.90
1	CA	1227	A	C2-N3-C4	-5.63	107.79	110.60
1	AA	1089	G	C4-N9-C1'	-5.62	119.19	126.50
23	BA	1377	G	N3-C4-C5	-5.62	125.79	128.60
23	DA	2543	G	N3-C2-N2	5.62	123.84	119.90
23	BA	1818	U	C5-C4-O4	-5.62	122.53	125.90
23	BA	2456	C	C6-N1-C2	-5.62	118.05	120.30
1	CA	43	C	N1-C2-O2	-5.62	115.53	118.90
1	CA	927	G	N9-C4-C5	5.62	107.65	105.40
1	CA	1364	U	C6-N1-C2	-5.62	117.62	121.00
23	DA	755	C	N1-C2-O2	5.62	122.27	118.90
1	AA	354	G	N3-C2-N2	-5.62	115.97	119.90
1	CA	754	C	N3-C2-O2	-5.62	117.97	121.90
23	DA	686	G	N7-C8-N9	-5.62	110.29	113.10
23	DA	2300	G	C8-N9-C4	-5.62	104.15	106.40
23	BA	192	C	C2-N1-C1'	-5.62	112.62	118.80
23	BA	2426	A	C5-C6-N6	-5.62	119.20	123.70
27	DF	20	LEU	N-CA-C	5.62	126.17	111.00
23	BA	778	G	N1-C6-O6	-5.62	116.53	119.90
23	BA	962	G	C5-N7-C8	5.62	107.11	104.30
23	BA	2475	C	C6-N1-C2	-5.62	118.05	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	BP	27	HIS	CB-CA-C	-5.62	99.17	110.40
23	DA	781	A	N7-C8-N9	-5.62	110.99	113.80
1	AA	805	C	C4-C5-C6	-5.62	114.59	117.40
23	BA	684	G	N7-C8-N9	5.62	115.91	113.10
23	DA	68	G	C5-C6-O6	5.62	131.97	128.60
23	DA	1721	G	C5-C6-N1	5.62	114.31	111.50
23	DA	1950	G	C4-C5-N7	-5.62	108.55	110.80
23	BA	732	C	N1-C2-O2	-5.61	115.53	118.90
1	CA	1181	G	N3-C2-N2	-5.61	115.97	119.90
1	CA	1510	U	C6-N1-C2	5.61	124.37	121.00
23	DA	260	G	C5-C6-O6	5.61	131.97	128.60
23	DA	847	U	N3-C4-O4	-5.61	115.47	119.40
23	DA	2334	G	N7-C8-N9	-5.61	110.29	113.10
23	BA	684	G	C8-N9-C4	-5.61	104.16	106.40
23	BA	271(H)	G	C8-N9-C1'	-5.61	119.71	127.00
23	BA	1300	U	P-O3'-C3'	5.61	126.43	119.70
1	CA	1108	G	C4-C5-N7	-5.61	108.56	110.80
23	DA	1678	G	N3-C4-C5	-5.61	125.80	128.60
23	DA	1816	G	C4-N9-C1'	-5.61	119.21	126.50
23	DA	2017	U	N1-C2-N3	5.61	118.27	114.90
23	DA	2375	G	N1-C6-O6	5.61	123.27	119.90
1	AA	435	C	C5-C6-N1	5.61	123.81	121.00
23	BA	56	A	N1-C6-N6	-5.61	115.23	118.60
23	DA	305	U	N3-C4-O4	5.61	123.33	119.40
23	DA	1756	G	N7-C8-N9	-5.61	110.30	113.10
1	AA	357	G	N3-C2-N2	-5.61	115.97	119.90
23	BA	1997	G	C5-N7-C8	5.61	107.10	104.30
1	CA	100	C	C6-N1-C2	-5.61	118.06	120.30
23	DA	371	A	C2-N3-C4	-5.61	107.80	110.60
23	DA	734	A	C2-N3-C4	-5.61	107.80	110.60
23	DA	2149	G	N1-C2-N2	5.61	121.25	116.20
23	DA	2416	C	C5-C4-N4	5.61	124.12	120.20
1	AA	991	U	C6-N1-C2	-5.61	117.64	121.00
23	BA	35	G	N3-C4-C5	-5.61	125.80	128.60
23	BA	1126	A	C5-C6-N6	-5.61	119.22	123.70
23	DA	2259	G	C2-N3-C4	-5.61	109.10	111.90
23	BA	1035	U	C2-N3-C4	-5.60	123.64	127.00
23	BA	2611	U	N3-C4-C5	-5.60	111.24	114.60
1	CA	40	C	N3-C4-N4	-5.60	114.08	118.00
23	DA	531	C	C2-N3-C4	-5.60	117.10	119.90
23	DA	1575	C	N3-C4-C5	5.60	124.14	121.90
1	AA	817	C	N1-C2-O2	-5.60	115.54	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1366	C	C2-N3-C4	5.60	122.70	119.90
23	DA	2050	C	N1-C2-O2	-5.60	115.54	118.90
23	BA	671	C	C6-N1-C1'	5.60	127.52	120.80
23	BA	2454	G	N3-C4-C5	-5.60	125.80	128.60
1	CA	1003	G	C4-N9-C1'	5.60	133.78	126.50
23	DA	2247	A	C8-N9-C4	5.60	108.04	105.80
1	AA	1521	G	C2-N3-C4	5.60	114.70	111.90
23	BA	2495	G	C2-N3-C4	-5.60	109.10	111.90
23	BA	2581	G	C5-C6-O6	5.60	131.96	128.60
23	DA	1304	C	N3-C4-C5	5.60	124.14	121.90
23	DA	1967	C	N3-C4-C5	5.60	124.14	121.90
49	D5	58	LEU	CA-CB-CG	5.60	128.18	115.30
1	AA	3	G	C4-N9-C1'	5.60	133.78	126.50
1	AA	286	G	C5-C6-O6	5.60	131.96	128.60
23	DA	1721	G	N3-C2-N2	5.60	123.82	119.90
23	DA	1816	G	N3-C4-N9	-5.60	122.64	126.00
1	AA	530	G	N7-C8-N9	5.60	115.90	113.10
1	AA	1058	G	N1-C6-O6	5.60	123.26	119.90
23	BA	545	G	C4-C5-N7	5.60	113.04	110.80
23	BA	655	A	N7-C8-N9	5.60	116.60	113.80
23	BA	1962	C	N3-C2-O2	5.60	125.82	121.90
23	DA	1019	U	N1-C2-N3	5.60	118.26	114.90
1	AA	810	C	C5-C6-N1	-5.59	118.20	121.00
24	BB	7	G	C5-C6-O6	-5.59	125.24	128.60
43	BZ	74	VAL	CB-CA-C	-5.59	100.77	111.40
53	B9	32	HIS	ND1-CG-CD2	-5.59	98.17	106.00
1	CA	322	C	N3-C2-O2	5.59	125.82	121.90
23	BA	1045	A	N1-C6-N6	-5.59	115.24	118.60
23	BA	2629	A	C2-N3-C4	-5.59	107.80	110.60
23	DA	1541	G	N9-C4-C5	5.59	107.64	105.40
23	DA	2332	U	N3-C4-O4	-5.59	115.49	119.40
23	DA	2710	C	C5-C6-N1	-5.59	118.20	121.00
23	DA	2791	C	C5-C6-N1	5.59	123.80	121.00
23	BA	347	A	C8-N9-C4	5.59	108.04	105.80
23	BA	1842	G	C8-N9-C4	-5.59	104.16	106.40
23	BA	1936	A	C5-N7-C8	-5.59	101.11	103.90
23	BA	2642	G	N3-C2-N2	5.59	123.81	119.90
23	BA	2041	U	N3-C4-O4	5.59	123.31	119.40
1	AA	1366	C	N3-C4-C5	-5.59	119.67	121.90
23	BA	426	C	N3-C2-O2	-5.59	117.99	121.90
23	BA	2072	G	C8-N9-C4	5.59	108.64	106.40
23	BA	2506	U	N3-C4-O4	-5.59	115.49	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BB	20	C	N3-C4-N4	5.59	121.91	118.00
23	DA	847	U	N1-C2-N3	5.59	118.25	114.90
23	DA	1945	G	N7-C8-N9	-5.59	110.31	113.10
23	DA	2733	A	C8-N9-C4	-5.59	103.56	105.80
23	BA	135	G	N7-C8-N9	-5.58	110.31	113.10
23	BA	370	G	C2-N3-C4	5.58	114.69	111.90
23	BA	741	G	N1-C6-O6	-5.58	116.55	119.90
24	BB	24	G	C5-C6-O6	-5.58	125.25	128.60
23	BA	1382	G	C5-C6-O6	-5.58	125.25	128.60
23	BA	1609	A	C5-C6-N1	5.58	120.49	117.70
23	BA	2549	G	N7-C8-N9	5.58	115.89	113.10
24	BB	29	A	N1-C6-N6	5.58	121.95	118.60
23	DA	2517	C	C5-C4-N4	-5.58	116.29	120.20
23	BA	244	A	C8-N9-C4	-5.58	103.57	105.80
23	BA	1333	C	C5-C4-N4	-5.58	116.29	120.20
23	BA	2066	C	N1-C2-N3	5.58	123.11	119.20
23	DA	2069	G	N9-C4-C5	5.58	107.63	105.40
1	CA	1112	C	C6-N1-C2	-5.58	118.07	120.30
23	DA	1625	C	C5-C4-N4	5.58	124.11	120.20
23	DA	2509	G	N1-C6-O6	5.58	123.25	119.90
23	BA	1977	A	N7-C8-N9	-5.58	111.01	113.80
1	CA	1443	G	C8-N9-C4	5.58	108.63	106.40
23	DA	71	A	C5-C6-N1	5.58	120.49	117.70
23	BA	529	A	C4-C5-N7	5.58	113.49	110.70
23	BA	893	C	C6-N1-C1'	-5.58	114.11	120.80
23	BA	1652	A	C5-C6-N1	-5.58	114.91	117.70
1	CA	340	U	C6-N1-C2	5.58	124.34	121.00
23	DA	1124	C	C6-N1-C1'	-5.58	114.11	120.80
23	BA	1122	G	C4-C5-N7	5.57	113.03	110.80
1	CA	1519	A	C8-N9-C4	-5.57	103.57	105.80
23	DA	2828	C	C5-C6-N1	-5.57	118.21	121.00
1	AA	1290	G	C4-N9-C1'	5.57	133.74	126.50
23	BA	1328	G	N1-C2-N2	-5.57	111.19	116.20
23	BA	1652	A	N1-C6-N6	5.57	121.94	118.60
23	DA	2249	U	N3-C4-O4	-5.57	115.50	119.40
1	AA	915	A	C5-N7-C8	5.57	106.69	103.90
1	CA	925	G	C6-N1-C2	-5.57	121.76	125.10
1	CA	932	C	C6-N1-C2	-5.57	118.07	120.30
23	DA	1260	G	C5-N7-C8	5.57	107.09	104.30
23	DA	2248	C	N3-C4-C5	5.57	124.13	121.90
23	BA	2704	C	C6-N1-C2	-5.57	118.07	120.30
23	BA	1681	G	C4-C5-N7	5.57	113.03	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2182	G	C8-N9-C1'	5.57	134.24	127.00
1	CA	1044	A	N1-C6-N6	-5.57	115.26	118.60
23	DA	530	G	N1-C6-O6	-5.57	116.56	119.90
23	DA	672	C	N3-C4-C5	5.57	124.13	121.90
23	DA	1261	C	C2-N1-C1'	-5.57	112.68	118.80
23	DA	2744	G	N1-C2-N3	5.57	127.24	123.90
1	AA	1334	G	C8-N9-C4	-5.57	104.17	106.40
23	BA	777	A	N1-C2-N3	5.57	132.08	129.30
23	BA	1721	G	N3-C2-N2	5.57	123.80	119.90
23	BA	2037	G	C8-N9-C4	-5.57	104.17	106.40
23	BA	2465	C	C5-C4-N4	-5.57	116.30	120.20
23	BA	2567	G	N7-C8-N9	-5.57	110.32	113.10
23	BA	2858	C	N3-C2-O2	5.57	125.80	121.90
23	DA	1339	G	C5-C6-O6	-5.57	125.26	128.60
1	AA	1004	A	N1-C6-N6	-5.56	115.26	118.60
23	BA	2777	G	N7-C8-N9	-5.56	110.32	113.10
23	BA	298	G	N1-C2-N2	-5.56	111.19	116.20
23	BA	1261	C	N3-C4-C5	5.56	124.12	121.90
23	BA	1578	U	N3-C2-O2	-5.56	118.31	122.20
23	DA	787	U	C6-N1-C2	-5.56	117.66	121.00
23	BA	883	G	C5-C6-O6	-5.56	125.26	128.60
23	BA	2228	G	C5-C6-O6	5.56	131.94	128.60
23	DA	208	C	C6-N1-C2	5.56	122.53	120.30
23	DA	236	C	N3-C4-C5	5.56	124.12	121.90
23	DA	945	A	C5-C6-N1	-5.56	114.92	117.70
23	BA	1490	A	C8-N9-C4	5.56	108.02	105.80
23	BA	1689	A	N1-C6-N6	-5.56	115.27	118.60
1	AA	52	G	C8-N9-C4	-5.56	104.18	106.40
23	BA	1650	G	N9-C4-C5	5.56	107.62	105.40
23	DA	555	U	C6-N1-C2	5.56	124.33	121.00
23	DA	1465	G	C8-N9-C4	-5.56	104.18	106.40
23	DA	1530	C	C5-C6-N1	5.56	123.78	121.00
23	DA	1956	U	N3-C2-O2	5.56	126.09	122.20
23	BA	1279	G	N1-C6-O6	-5.56	116.57	119.90
1	CA	356	A	C2-N3-C4	5.56	113.38	110.60
1	AA	99	U	N1-C2-O2	-5.55	118.91	122.80
1	AA	1197	G	C8-N9-C1'	-5.55	119.78	127.00
1	AA	858	G	N7-C8-N9	5.55	115.88	113.10
23	BA	65	C	C6-N1-C2	-5.55	118.08	120.30
23	BA	669	G	C8-N9-C4	5.55	108.62	106.40
23	BA	759	G	C2-N3-C4	5.55	114.68	111.90
23	BA	1284	A	C2-N3-C4	-5.55	107.82	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1326	U	N3-C2-O2	-5.55	118.31	122.20
1	CA	945	G	C5-C6-O6	-5.55	125.27	128.60
23	DA	252	G	N9-C4-C5	5.55	107.62	105.40
23	DA	1963	U	N3-C2-O2	-5.55	118.31	122.20
23	BA	1363	C	C2-N3-C4	-5.55	117.12	119.90
23	BA	1610	A	C5-C6-N1	5.55	120.47	117.70
23	DA	400	G	C8-N9-C4	5.55	108.62	106.40
23	DA	2698	U	C6-N1-C2	5.55	124.33	121.00
23	BA	298	G	C5-N7-C8	5.55	107.07	104.30
23	BA	575	A	N9-C4-C5	5.55	108.02	105.80
23	BA	1343	G	C2-N3-C4	5.55	114.67	111.90
23	BA	1627	G	N3-C2-N2	5.55	123.78	119.90
23	BA	2444	G	N1-C6-O6	-5.55	116.57	119.90
23	DA	236	C	N3-C2-O2	5.55	125.78	121.90
23	DA	1140	C	N3-C4-C5	-5.55	119.68	121.90
1	AA	773	G	N1-C6-O6	-5.54	116.57	119.90
1	AA	860	A	N7-C8-N9	5.54	116.57	113.80
33	BP	103	ALA	N-CA-C	-5.54	96.03	111.00
23	BA	1433	U	N3-C4-O4	-5.54	115.52	119.40
1	CA	1104	G	C8-N9-C4	-5.54	104.18	106.40
23	DA	1676	A	N1-C2-N3	-5.54	126.53	129.30
23	DA	2062	A	C5-C6-N1	-5.54	114.93	117.70
42	DY	2	ARG	CD-NE-CZ	5.54	131.36	123.60
23	BA	116	C	C5-C4-N4	5.54	124.08	120.20
23	BA	975	C	N3-C4-C5	5.54	124.12	121.90
23	BA	2304	G	C8-N9-C4	-5.54	104.18	106.40
23	DA	706	A	N7-C8-N9	5.54	116.57	113.80
23	DA	1448	G	C5-C6-O6	-5.54	125.28	128.60
1	AA	1442(A)	G	C4-C5-C6	5.54	122.12	118.80
23	BA	516	C	C6-N1-C2	5.54	122.52	120.30
1	AA	353	A	N1-C6-N6	5.54	121.92	118.60
1	AA	1404	C	N3-C4-N4	-5.54	114.12	118.00
23	BA	1541	G	C5-C6-O6	5.54	131.92	128.60
23	BA	1595	G	N7-C8-N9	5.54	115.87	113.10
23	BA	2591	C	C2-N3-C4	-5.54	117.13	119.90
23	DA	187	G	C8-N9-C4	5.54	108.61	106.40
23	DA	644	A	C8-N9-C4	-5.54	103.59	105.80
23	DA	1990	C	C4-C5-C6	5.54	120.17	117.40
23	DA	2325	G	C8-N9-C4	-5.54	104.19	106.40
1	AA	77	G	N3-C2-N2	5.53	123.77	119.90
1	AA	1341	U	N1-C2-N3	5.53	118.22	114.90
23	BA	1564	C	C2-N3-C4	5.53	122.67	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1838	C	C4-C5-C6	5.53	120.17	117.40
52	D8	57	ARG	NE-CZ-NH2	-5.53	117.53	120.30
23	DA	2473	U	N1-C2-O2	5.53	126.67	122.80
23	DA	2866	U	N3-C2-O2	-5.53	118.33	122.20
1	AA	1065	U	N3-C2-O2	-5.53	118.33	122.20
1	AA	1282	C	C2-N1-C1'	5.53	124.88	118.80
23	BA	265	A	N3-C4-C5	5.53	130.67	126.80
23	BA	517	C	C5-C4-N4	-5.53	116.33	120.20
23	BA	861	A	N1-C2-N3	-5.53	126.53	129.30
23	DA	2465	C	C5-C6-N1	5.53	123.77	121.00
23	DA	143(A)	C	C6-N1-C2	5.53	122.51	120.30
23	DA	1803	A	C8-N9-C4	-5.53	103.59	105.80
23	DA	2808	U	C6-N1-C2	5.53	124.32	121.00
1	AA	425	G	C8-N9-C4	-5.53	104.19	106.40
23	BA	1260	G	C4-C5-N7	-5.53	108.59	110.80
23	BA	1320	C	N3-C4-N4	-5.53	114.13	118.00
32	BO	78	ARG	NE-CZ-NH2	-5.53	117.54	120.30
23	DA	827	U	N3-C2-O2	5.53	126.07	122.20
23	BA	1835	G	N3-C4-N9	5.53	129.32	126.00
23	BA	2512	C	N1-C2-O2	-5.53	115.58	118.90
1	CA	1206	G	N9-C4-C5	-5.53	103.19	105.40
23	DA	1950	G	N9-C4-C5	5.52	107.61	105.40
23	DA	1955	U	C4-C5-C6	5.52	123.01	119.70
23	DA	2502	G	C6-N1-C2	-5.52	121.79	125.10
1	AA	52	G	N7-C8-N9	5.52	115.86	113.10
23	BA	132	G	C5-C6-N1	-5.52	108.74	111.50
23	BA	788	A	C6-N1-C2	5.52	121.91	118.60
23	BA	1256	G	N9-C4-C5	-5.52	103.19	105.40
52	B8	30	ARG	NE-CZ-NH2	5.52	123.06	120.30
1	CA	1456	G	C8-N9-C1'	5.52	134.18	127.00
23	DA	1338	G	C5-C6-O6	5.52	131.91	128.60
23	DA	2519	U	C5-C6-N1	-5.52	119.94	122.70
24	DB	118	G	C4-N9-C1'	-5.52	119.32	126.50
1	AA	1282	C	N1-C2-O2	5.52	122.21	118.90
23	BA	702	G	N7-C8-N9	-5.52	110.34	113.10
23	BA	1140	C	N1-C2-N3	5.52	123.06	119.20
23	BA	1963	U	N3-C2-O2	-5.52	118.33	122.20
23	BA	2394	C	N1-C2-O2	-5.52	115.59	118.90
24	BB	103	G	N1-C6-O6	5.52	123.21	119.90
1	CA	1290	G	N7-C8-N9	5.52	115.86	113.10
1	CA	1382	C	C6-N1-C2	-5.52	118.09	120.30
1	CA	343	U	C5-C6-N1	5.52	125.46	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2441	C	N3-C2-O2	-5.52	118.04	121.90
1	AA	122	G	C8-N9-C4	5.52	108.61	106.40
23	BA	562	U	C6-N1-C2	-5.52	117.69	121.00
23	BA	1558	A	C8-N9-C4	-5.52	103.59	105.80
23	DA	1958	C	C6-N1-C2	5.52	122.51	120.30
23	DA	2238	G	N9-C4-C5	-5.52	103.19	105.40
23	BA	2296	U	C3'-C2'-C1'	-5.52	97.09	101.50
23	BA	2304	G	C4-C5-N7	-5.52	108.59	110.80
23	DA	1493	C	N1-C2-O2	5.52	122.21	118.90
23	BA	1788	C	C2-N3-C4	5.51	122.66	119.90
23	BA	2207	G	C6-C5-N7	-5.51	127.09	130.40
1	CA	375	U	N3-C4-C5	-5.51	111.29	114.60
23	DA	599	G	C2-N3-C4	-5.51	109.14	111.90
23	DA	978	G	C8-N9-C4	5.51	108.61	106.40
24	DB	78	A	C8-N9-C4	-5.51	103.59	105.80
23	BA	53	A	C8-N9-C4	-5.51	103.59	105.80
23	BA	834	C	N1-C2-O2	-5.51	115.59	118.90
23	BA	1609	A	C2-N3-C4	5.51	113.36	110.60
1	AA	45	U	N3-C2-O2	-5.51	118.34	122.20
1	AA	769	G	N9-C4-C5	5.51	107.61	105.40
23	BA	1194	A	C4-C5-C6	-5.51	114.24	117.00
23	BA	1237	A	C8-N9-C4	-5.51	103.59	105.80
23	BA	1395	A	C2-N3-C4	5.51	113.36	110.60
23	BA	1565	C	N3-C2-O2	5.51	125.76	121.90
23	BA	1791	A	C8-N9-C4	-5.51	103.59	105.80
1	CA	106	C	C6-N1-C2	-5.51	118.09	120.30
1	CA	1395	C	C5-C6-N1	5.51	123.75	121.00
23	DA	266	G	N9-C4-C5	-5.51	103.20	105.40
24	DB	114	C	C2-N3-C4	-5.51	117.14	119.90
23	BA	1835	G	C6-C5-N7	-5.51	127.09	130.40
23	BA	1942	C	C5-C6-N1	5.51	123.75	121.00
1	CA	1030(C)	G	N7-C8-N9	5.51	115.86	113.10
1	CA	1288	A	N1-C6-N6	-5.51	115.29	118.60
23	DA	191	A	C8-N9-C4	5.51	108.00	105.80
23	BA	211	A	C8-N9-C4	5.51	108.00	105.80
23	BA	652(I)	C	C6-N1-C2	-5.51	118.10	120.30
23	BA	1403	C	N1-C2-N3	5.51	123.06	119.20
23	BA	2575	C	N3-C2-O2	-5.51	118.05	121.90
23	BA	2522	U	N3-C4-O4	5.50	123.25	119.40
23	DA	527	C	N3-C4-N4	-5.50	114.15	118.00
23	DA	1948	G	N1-C2-N2	5.50	121.16	116.20
1	AA	39	G	C2-N3-C4	5.50	114.65	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	764	A	C6-N1-C2	-5.50	115.30	118.60
23	BA	2615	U	N3-C4-O4	-5.50	115.55	119.40
1	CA	1025	U	N3-C2-O2	-5.50	118.35	122.20
23	DA	1939	U	C4-C5-C6	-5.50	116.40	119.70
23	DA	2448	A	C5-C6-N1	5.50	120.45	117.70
1	AA	942	G	C5-C6-O6	5.50	131.90	128.60
1	AA	1030(B)	C	C5-C6-N1	5.50	123.75	121.00
23	BA	187	G	C6-N1-C2	-5.50	121.80	125.10
23	BA	829	A	N9-C4-C5	-5.50	103.60	105.80
23	BA	2437	U	C5-C6-N1	-5.50	119.95	122.70
23	BA	2512	C	C5-C4-N4	-5.50	116.35	120.20
1	CA	203	U	C6-N1-C2	-5.50	117.70	121.00
1	CA	968	A	C5-C6-N6	-5.50	119.30	123.70
23	DA	2027	G	N1-C6-O6	-5.50	116.60	119.90
24	DB	117	G	C4-C5-N7	5.50	113.00	110.80
23	BA	1437	C	C6-N1-C2	-5.50	118.10	120.30
23	DA	1834	U	C2-N3-C4	-5.50	123.70	127.00
23	DA	2894	G	C4-N9-C1'	5.50	133.65	126.50
1	AA	824	C	C2-N1-C1'	-5.50	112.75	118.80
23	BA	1558	A	C5-C6-N1	-5.50	114.95	117.70
23	BA	1754	C	C2-N3-C4	-5.50	117.15	119.90
23	BA	2006	C	C5-C6-N1	5.50	123.75	121.00
23	BA	2318	G	N7-C8-N9	-5.50	110.35	113.10
1	CA	1124	G	N3-C4-C5	-5.50	125.85	128.60
23	DA	2409	G	C5-C6-O6	-5.50	125.30	128.60
23	BA	951	C	N1-C2-O2	5.50	122.20	118.90
23	BA	1401	G	N3-C4-N9	-5.50	122.70	126.00
23	BA	2597	G	N3-C2-N2	-5.50	116.05	119.90
37	BT	118	ARG	NE-CZ-NH1	5.50	123.05	120.30
23	DA	2526	G	C6-N1-C2	5.50	128.40	125.10
23	DA	2570	G	N1-C6-O6	5.50	123.20	119.90
23	BA	1391	U	N3-C2-O2	-5.50	118.35	122.20
23	BA	1901	A	C2-N3-C4	5.50	113.35	110.60
23	DA	1192	G	N7-C8-N9	-5.50	110.35	113.10
1	AA	1012	U	N1-C2-N3	5.49	118.20	114.90
1	AA	1036	G	N3-C2-N2	-5.49	116.06	119.90
23	BA	2198	A	C2-N3-C4	5.49	113.35	110.60
23	DA	1223	G	C5-C6-O6	5.49	131.90	128.60
23	DA	1559	G	N9-C4-C5	-5.49	103.20	105.40
23	DA	2182	G	C6-C5-N7	5.49	133.70	130.40
1	CA	342	C	N1-C2-O2	-5.49	115.61	118.90
23	BA	102	G	P-O3'-C3'	5.49	126.29	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	194	G	N1-C2-N2	-5.49	111.26	116.20
23	BA	2378	A	N1-C6-N6	5.49	121.89	118.60
23	BA	2397	G	N3-C2-N2	-5.49	116.06	119.90
23	DA	1835	G	N3-C2-N2	5.49	123.74	119.90
34	BQ	135	ASP	CB-CA-C	-5.49	99.42	110.40
1	CA	841	U	C5-C6-N1	5.49	125.44	122.70
1	CA	1074	G	N1-C6-O6	5.49	123.19	119.90
1	CA	1442	G	C5-C6-O6	5.49	131.89	128.60
23	DA	977	G	N1-C6-O6	-5.49	116.61	119.90
23	BA	1274	A	C5-C6-N1	-5.49	114.96	117.70
1	CA	1473	A	C8-N9-C4	5.49	107.99	105.80
23	DA	1377	G	N1-C6-O6	-5.49	116.61	119.90
23	DA	2062	A	C5-N7-C8	-5.49	101.16	103.90
1	AA	1237	C	C2-N3-C4	-5.48	117.16	119.90
23	BA	735	A	C5-N7-C8	5.48	106.64	103.90
23	BA	2613	U	C4-C5-C6	-5.48	116.41	119.70
23	DA	71	A	C5-C6-N6	-5.48	119.31	123.70
23	DA	444	C	C2-N1-C1'	-5.48	112.77	118.80
1	AA	369	C	C6-N1-C2	-5.48	118.11	120.30
23	BA	706	A	N7-C8-N9	5.48	116.54	113.80
23	BA	805	G	C5-C6-N1	5.48	114.24	111.50
23	BA	1813	G	N3-C2-N2	-5.48	116.06	119.90
23	DA	1926	U	C5-C6-N1	-5.48	119.96	122.70
24	DB	76	G	C8-N9-C4	5.48	108.59	106.40
23	BA	584	C	N3-C4-N4	5.48	121.83	118.00
23	BA	781	A	C2-N3-C4	5.48	113.34	110.60
23	DA	2540	C	N1-C2-O2	-5.48	115.61	118.90
1	CA	436	C	N1-C2-N3	-5.48	115.37	119.20
23	DA	1019	U	N3-C2-O2	-5.48	118.37	122.20
23	BA	1185	C	C5-C4-N4	5.47	124.03	120.20
23	BA	2039	C	C5-C6-N1	5.47	123.74	121.00
23	DA	1957	C	N3-C2-O2	-5.47	118.07	121.90
23	DA	2207	G	C4-N9-C1'	5.47	133.62	126.50
23	BA	1111	A	C8-N9-C4	5.47	107.99	105.80
23	BA	2570	G	N1-C2-N3	-5.47	120.62	123.90
43	BZ	151	HIS	N-CA-C	5.47	125.77	111.00
23	DA	1295	C	N3-C2-O2	-5.47	118.07	121.90
23	DA	1379	A	C8-N9-C4	5.47	107.99	105.80
23	DA	2053	G	C5-C6-N1	5.47	114.24	111.50
23	BA	1266	G	N9-C4-C5	-5.47	103.21	105.40
23	BA	1493	C	C6-N1-C1'	-5.47	114.23	120.80
23	DA	330	A	N1-C2-N3	5.47	132.04	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1342	A	C5-C6-N6	-5.47	119.32	123.70
23	BA	838	C	C4-C5-C6	5.47	120.14	117.40
23	BA	2588	G	N1-C2-N3	-5.47	120.62	123.90
1	CA	402	G	N1-C2-N2	-5.47	111.28	116.20
23	DA	521	G	N9-C4-C5	5.47	107.59	105.40
23	DA	781	A	C5-C6-N1	5.47	120.44	117.70
23	DA	975	C	C5-C4-N4	5.47	124.03	120.20
23	DA	1399	C	N3-C4-C5	5.47	124.09	121.90
23	DA	1835	G	C6-C5-N7	-5.47	127.12	130.40
23	BA	107	C	C6-N1-C2	5.47	122.49	120.30
1	AA	1468	A	N1-C6-N6	5.47	121.88	118.60
23	BA	506	G	C8-N9-C4	-5.47	104.21	106.40
23	BA	2500	U	N1-C2-O2	5.47	126.63	122.80
1	CA	1057	G	N9-C4-C5	-5.47	103.21	105.40
23	DA	2500	U	C4-C5-C6	-5.47	116.42	119.70
23	BA	1799	G	N1-C2-N2	-5.46	111.28	116.20
23	BA	2017	U	N1-C2-N3	5.46	118.18	114.90
24	DB	78	A	C5-N7-C8	-5.46	101.17	103.90
23	BA	325	G	C5-C6-N1	-5.46	108.77	111.50
23	BA	1777	U	C5-C4-O4	5.46	129.18	125.90
23	DA	1025	G	C8-N9-C4	-5.46	104.22	106.40
23	DA	1559	G	C4-C5-N7	5.46	112.98	110.80
1	CA	1204	A	C5-C6-N6	5.46	128.07	123.70
23	DA	371	A	N1-C6-N6	5.46	121.88	118.60
23	DA	1303	G	N1-C2-N2	-5.46	111.28	116.20
23	BA	672	C	N3-C4-C5	5.46	124.08	121.90
23	BA	2574	G	C8-N9-C4	-5.46	104.22	106.40
23	DA	2029	G	N1-C2-N2	5.46	121.11	116.20
23	BA	217	G	N9-C4-C5	-5.46	103.22	105.40
23	BA	362	U	N1-C2-O2	-5.46	118.98	122.80
23	BA	2615	U	N1-C2-O2	5.46	126.62	122.80
23	DA	139(A)	G	N7-C8-N9	5.46	115.83	113.10
23	DA	2514	U	N3-C2-O2	5.46	126.02	122.20
1	AA	949	A	C8-N9-C4	-5.46	103.62	105.80
23	BA	1328	G	N1-C6-O6	-5.46	116.63	119.90
23	BA	552	G	N7-C8-N9	-5.45	110.37	113.10
23	BA	565	C	C5-C4-N4	5.45	124.02	120.20
23	BA	1247	A	C8-N9-C4	5.45	107.98	105.80
24	BB	97	G	N1-C6-O6	5.45	123.17	119.90
1	CA	1148	U	C5-C6-N1	5.45	125.43	122.70
3	CC	52	LEU	N-CA-C	5.45	125.72	111.00
23	DA	528	A	N7-C8-N9	5.45	116.53	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2885	C	N3-C4-C5	-5.45	119.72	121.90
23	BA	643	A	C8-N9-C4	-5.45	103.62	105.80
23	BA	1339	G	C5-C6-O6	-5.45	125.33	128.60
23	BA	2036	C	N3-C2-O2	5.45	125.72	121.90
23	DA	2894	G	N1-C2-N2	-5.45	111.29	116.20
23	BA	1471	A	N7-C8-N9	5.45	116.53	113.80
23	DA	1017	G	C8-N9-C4	-5.45	104.22	106.40
23	DA	71	A	N3-C4-N9	5.45	131.76	127.40
23	DA	135	G	C5-C6-O6	-5.45	125.33	128.60
23	DA	1187	G	C5-C6-O6	5.45	131.87	128.60
23	DA	2791	C	C2-N3-C4	5.45	122.62	119.90
24	DB	116	G	C2-N3-C4	-5.45	109.17	111.90
23	BA	79	G	C5-C6-O6	-5.45	125.33	128.60
23	BA	822	U	C5-C6-N1	5.45	125.42	122.70
23	BA	829	A	N1-C6-N6	5.45	121.87	118.60
23	BA	1164	G	C4-C5-N7	-5.45	108.62	110.80
23	BA	2894	G	C4-N9-C1'	5.45	133.58	126.50
23	BA	1451	C	N3-C2-O2	-5.45	118.09	121.90
1	CA	361	G	C2-N3-C4	-5.45	109.18	111.90
1	CA	1170	A	N1-C6-N6	-5.45	115.33	118.60
23	DA	2303	G	C6-C5-N7	5.45	133.67	130.40
23	DA	1331	A	C8-N9-C4	5.44	107.98	105.80
45	D1	21	ARG	NE-CZ-NH2	-5.44	117.58	120.30
1	AA	1177	G	N1-C6-O6	5.44	123.17	119.90
23	BA	1047	G	N3-C4-N9	5.44	129.26	126.00
26	BE	78	LEU	CA-CB-CG	5.44	127.82	115.30
23	DA	2458	G	N3-C2-N2	-5.44	116.09	119.90
23	BA	1800	C	C4-C5-C6	5.44	120.12	117.40
23	BA	2628	C	N3-C4-C5	5.44	124.08	121.90
23	DA	779	U	C5-C4-O4	-5.44	122.64	125.90
23	DA	1678	G	N9-C4-C5	5.44	107.58	105.40
23	BA	1582	C	N3-C4-N4	-5.44	114.19	118.00
23	BA	1817	G	C8-N9-C4	5.44	108.58	106.40
23	BA	1956	U	N3-C4-C5	5.44	117.86	114.60
23	BA	2791	C	C5-C6-N1	5.44	123.72	121.00
24	BB	103	G	C2-N3-C4	-5.44	109.18	111.90
23	BA	1754	C	N1-C2-O2	-5.44	115.64	118.90
23	BA	2249	U	N3-C4-O4	-5.44	115.59	119.40
23	BA	2685	G	N1-C6-O6	-5.44	116.64	119.90
23	DA	486	C	C6-N1-C2	5.44	122.47	120.30
1	CA	1366	C	N3-C4-C5	-5.44	119.72	121.90
23	DA	602	G	C5-C6-O6	-5.44	125.34	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1347	G	C8-N9-C4	-5.44	104.23	106.40
23	DA	2352	A	C8-N9-C4	5.44	107.97	105.80
1	AA	1468	A	C5-C6-N1	5.43	120.42	117.70
23	BA	486	C	C4-C5-C6	5.43	120.12	117.40
23	BA	691	C	C6-N1-C2	-5.43	118.13	120.30
23	BA	781	A	C5-C6-N1	5.43	120.42	117.70
23	BA	2597	G	C5-C6-O6	-5.43	125.34	128.60
1	CA	771	G	N3-C4-C5	5.43	131.32	128.60
1	CA	1502	A	C6-C5-N7	-5.43	128.50	132.30
23	DA	2206	G	N7-C8-N9	-5.43	110.38	113.10
23	BA	792	G	C8-N9-C4	-5.43	104.23	106.40
1	CA	784	C	C6-N1-C2	-5.43	118.13	120.30
23	DA	1258	C	N3-C4-C5	5.43	124.07	121.90
23	DA	2003	G	N1-C2-N2	-5.43	111.31	116.20
23	BA	1933	G	N9-C4-C5	5.43	107.57	105.40
23	DA	1188	U	N3-C4-O4	-5.43	115.60	119.40
1	AA	54	C	C6-N1-C2	-5.43	118.13	120.30
1	AA	1151	A	N9-C4-C5	5.43	107.97	105.80
23	BA	2609	U	N1-C2-O2	-5.43	119.00	122.80
23	DA	1675	C	C2-N1-C1'	-5.43	112.83	118.80
24	DB	24	G	N9-C4-C5	-5.43	103.23	105.40
23	BA	2303	G	C6-C5-N7	5.43	133.66	130.40
23	DA	245	G	C5-C6-O6	-5.43	125.34	128.60
23	DA	1795	C	C5-C4-N4	-5.43	116.40	120.20
23	BA	242	G	C5-C6-O6	5.43	131.86	128.60
1	CA	278	G	C8-N9-C4	-5.43	104.23	106.40
1	CA	361	G	N1-C2-N2	5.43	121.08	116.20
23	DA	216	A	C2-N3-C4	-5.43	107.89	110.60
23	DA	1527	G	N3-C4-N9	-5.43	122.74	126.00
23	DA	1617	C	C5-C6-N1	-5.43	118.29	121.00
23	BA	1663	C	N3-C2-O2	-5.42	118.10	121.90
23	BA	2044	C	C2-N3-C4	-5.42	117.19	119.90
23	BA	2076	U	N1-C2-N3	5.42	118.16	114.90
53	B9	9	ARG	NE-CZ-NH1	5.42	123.01	120.30
23	DA	457	A	N1-C2-N3	-5.42	126.59	129.30
23	BA	2864	G	N1-C6-O6	-5.42	116.65	119.90
1	AA	1150	U	C5-C6-N1	5.42	125.41	122.70
23	BA	585	G	C2-N3-C4	5.42	114.61	111.90
1	CA	495	A	C4-C5-N7	-5.42	107.99	110.70
23	DA	1780	A	C5-C6-N6	5.42	128.04	123.70
23	BA	395	U	C6-N1-C1'	-5.42	113.61	121.20
1	CA	1125	U	N1-C2-O2	5.42	126.59	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2207	G	C4-C5-C6	5.42	122.05	118.80
23	DA	2487	G	N3-C4-C5	5.42	131.31	128.60
23	DA	2878	U	C6-N1-C2	-5.42	117.75	121.00
23	BA	131	G	N1-C2-N2	-5.42	111.32	116.20
23	BA	192	C	C4-C5-C6	5.42	120.11	117.40
23	BA	1203	G	N1-C6-O6	-5.42	116.65	119.90
23	BA	1256	G	N1-C6-O6	5.42	123.15	119.90
23	BA	2438	U	C2-N3-C4	-5.42	123.75	127.00
23	BA	2599	G	C5-C6-N1	5.42	114.21	111.50
1	AA	146	G	C8-N9-C4	-5.42	104.23	106.40
23	BA	362	U	N3-C4-C5	5.42	117.85	114.60
23	BA	1155	A	N1-C6-N6	-5.42	115.35	118.60
23	BA	1618	A	C5-C6-N6	5.42	128.03	123.70
23	BA	2782	G	N3-C2-N2	5.42	123.69	119.90
1	CA	399	G	N1-C2-N3	-5.42	120.65	123.90
23	DA	1318	C	N3-C4-C5	-5.42	119.73	121.90
23	DA	2572	A	N7-C8-N9	-5.42	111.09	113.80
1	AA	668	G	N9-C4-C5	5.42	107.57	105.40
23	BA	28	A	C8-N9-C4	-5.42	103.63	105.80
23	BA	179	G	N1-C6-O6	5.42	123.15	119.90
23	BA	2512	C	N3-C4-C5	5.42	124.07	121.90
23	DA	512	G	N1-C6-O6	-5.42	116.65	119.90
23	BA	1311	G	N9-C4-C5	5.41	107.57	105.40
1	CA	1220	G	C8-N9-C4	-5.41	104.23	106.40
23	DA	2519	U	C6-N1-C2	5.41	124.25	121.00
23	BA	2026	C	C6-N1-C2	5.41	122.47	120.30
23	BA	2710	C	C5-C4-N4	-5.41	116.41	120.20
23	DA	1992	G	N3-C4-C5	-5.41	125.89	128.60
23	BA	566	U	C2-N3-C4	5.41	130.25	127.00
23	BA	1109	C	N1-C2-O2	-5.41	115.65	118.90
23	BA	1367	A	C8-N9-C4	5.41	107.96	105.80
23	DA	104	U	C5-C6-N1	-5.41	120.00	122.70
23	DA	124	G	C8-N9-C4	5.41	108.56	106.40
23	DA	593	G	N3-C4-N9	-5.41	122.75	126.00
23	DA	2825	C	C6-N1-C2	5.41	122.46	120.30
1	CA	1277	C	N1-C2-O2	5.41	122.14	118.90
23	DA	205	G	N1-C2-N3	-5.41	120.66	123.90
33	DP	50	ARG	NE-CZ-NH2	5.41	123.00	120.30
23	BA	763	G	C2-N3-C4	5.41	114.60	111.90
23	BA	13	A	C8-N9-C4	-5.41	103.64	105.80
23	BA	326	G	N1-C2-N2	5.41	121.06	116.20
23	BA	1188	U	N3-C2-O2	-5.41	118.42	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1617	C	N1-C2-O2	-5.41	115.66	118.90
1	CA	44	G	N1-C2-N2	5.41	121.06	116.20
1	AA	1443	G	C8-N9-C4	5.40	108.56	106.40
23	DA	1259	G	C5-C6-O6	5.40	131.84	128.60
1	AA	1123	A	N1-C6-N6	-5.40	115.36	118.60
23	BA	223	A	N9-C4-C5	5.40	107.96	105.80
23	BA	809	G	C6-C5-N7	5.40	133.64	130.40
23	BA	1047	G	C2-N3-C4	5.40	114.60	111.90
23	BA	1943	U	C2-N3-C4	-5.40	123.76	127.00
23	BA	2757	A	N7-C8-N9	5.40	116.50	113.80
1	CA	399	G	C6-N1-C2	5.40	128.34	125.10
23	DA	777	A	N9-C4-C5	5.40	107.96	105.80
23	DA	1137	G	N3-C2-N2	-5.40	116.12	119.90
23	DA	2449	U	C5-C6-N1	-5.40	120.00	122.70
23	BA	265	A	N3-C4-N9	-5.40	123.08	127.40
23	BA	598	G	N1-C6-O6	-5.40	116.66	119.90
23	BA	2051	A	N7-C8-N9	-5.40	111.10	113.80
23	DA	962	G	N7-C8-N9	-5.40	110.40	113.10
23	BA	2237	G	N9-C4-C5	-5.40	103.24	105.40
23	BA	481	G	N7-C8-N9	5.40	115.80	113.10
23	BA	975	C	C2-N3-C4	-5.40	117.20	119.90
23	BA	1459	G	N3-C2-N2	5.40	123.68	119.90
23	BA	1988	C	C5-C6-N1	-5.40	118.30	121.00
23	BA	2347	C	N3-C2-O2	-5.40	118.12	121.90
23	DA	701	G	C5-C6-O6	5.40	131.84	128.60
23	DA	2161	C	C2-N3-C4	5.40	122.60	119.90
1	AA	1089	G	C6-C5-N7	5.40	133.64	130.40
23	BA	1899	G	C5-N7-C8	-5.40	101.60	104.30
23	BA	2629	A	N1-C2-N3	5.40	132.00	129.30
23	BA	279	C	C5-C6-N1	5.39	123.70	121.00
23	BA	2615	U	N3-C4-C5	5.39	117.84	114.60
23	BA	2710	C	C2-N3-C4	-5.39	117.20	119.90
23	BA	2719	G	C5-C6-O6	-5.39	125.36	128.60
1	CA	266	G	C4-C5-N7	5.39	112.96	110.80
23	DA	512	G	O4'-C1'-N9	5.39	112.52	108.20
23	DA	1695	G	C8-N9-C4	-5.39	104.24	106.40
23	BA	622	G	C4-C5-N7	-5.39	108.64	110.80
23	BA	699	A	C6-N1-C2	-5.39	115.36	118.60
23	BA	1582	C	C5-C4-N4	5.39	123.97	120.20
23	BA	2656	U	C2-N1-C1'	5.39	124.17	117.70
24	BB	24	G	N3-C4-N9	5.39	129.24	126.00
23	DA	546	C	N1-C2-O2	5.39	122.14	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	596	G	C5-C6-O6	5.39	131.84	128.60
23	DA	864	G	C2-N3-C4	5.39	114.60	111.90
23	DA	1164	G	C5-C6-O6	5.39	131.84	128.60
23	DA	2506	U	C2-N1-C1'	-5.39	111.23	117.70
23	BA	2199	A	C8-N9-C1'	-5.39	118.00	127.70
23	BA	2686	G	N7-C8-N9	5.39	115.80	113.10
1	CA	291	C	N3-C4-C5	-5.39	119.74	121.90
1	CA	1094	G	C6-C5-N7	-5.39	127.17	130.40
1	CA	1226	C	N1-C2-O2	-5.39	115.67	118.90
1	AA	357	G	N1-C2-N3	-5.39	120.67	123.90
1	AA	1481	U	C5-C4-O4	-5.39	122.67	125.90
23	BA	1930	G	C2-N3-C4	5.39	114.59	111.90
23	DA	338	G	N3-C2-N2	5.39	123.67	119.90
23	DA	2045	C	C5-C6-N1	-5.39	118.31	121.00
23	DA	2628	C	C5-C4-N4	-5.39	116.43	120.20
1	AA	530	G	C4-C5-N7	5.39	112.95	110.80
1	AA	1510	U	C6-N1-C2	5.39	124.23	121.00
23	BA	2611	U	C6-N1-C2	-5.39	117.77	121.00
23	BA	271(J)	C	C6-N1-C2	5.38	122.45	120.30
23	BA	1138	G	C5-C6-O6	-5.38	125.37	128.60
23	BA	1618	A	C8-N9-C4	-5.38	103.65	105.80
23	BA	1752	C	C2-N1-C1'	-5.38	112.88	118.80
23	BA	2549	G	C2-N3-C4	5.38	114.59	111.90
23	DA	2618	G	C4-C5-N7	-5.38	108.65	110.80
23	DA	1492	G	C8-N9-C4	5.38	108.55	106.40
23	DA	1978	A	C5-C6-N6	5.38	128.01	123.70
23	BA	2363	C	C6-N1-C2	5.38	122.45	120.30
1	AA	932	C	C6-N1-C2	-5.38	118.15	120.30
23	BA	2039	C	C2-N3-C4	5.38	122.59	119.90
23	DA	2362	G	C8-N9-C4	5.38	108.55	106.40
23	DA	2585	U	N1-C2-N3	-5.38	111.67	114.90
23	BA	2465	C	N3-C4-C5	5.38	124.05	121.90
23	BA	2733	A	N7-C8-N9	5.38	116.49	113.80
1	CA	1081	G	C5-C6-O6	-5.38	125.37	128.60
23	DA	33	U	N1-C2-N3	5.38	118.12	114.90
23	DA	2688	U	C5-C4-O4	-5.38	122.67	125.90
23	BA	2249	U	C2-N3-C4	-5.38	123.78	127.00
31	BN	76	SER	C-N-CA	-5.38	111.01	122.30
23	DA	2632	A	N1-C2-N3	-5.38	126.61	129.30
23	DA	2881	C	N1-C2-O2	-5.38	115.67	118.90
23	BA	576	U	C5-C6-N1	5.37	125.39	122.70
23	BA	1653	G	P-O3'-C3'	5.37	126.15	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	894	G	C8-N9-C4	5.37	108.55	106.40
23	BA	2821	A	C8-N9-C4	5.37	107.95	105.80
23	BA	403	U	N3-C2-O2	-5.37	118.44	122.20
23	BA	1609	A	N1-C6-N6	-5.37	115.38	118.60
23	BA	2460	U	N3-C2-O2	-5.37	118.44	122.20
1	AA	857	C	C4-C5-C6	5.37	120.08	117.40
1	AA	1338	G	C5-C6-O6	5.37	131.82	128.60
23	BA	113	G	N1-C2-N2	5.37	121.03	116.20
23	BA	203	C	N1-C2-O2	-5.37	115.68	118.90
23	BA	212	G	C5-N7-C8	-5.37	101.62	104.30
23	BA	325	G	C6-N1-C2	5.37	128.32	125.10
1	CA	243	A	C8-N9-C4	-5.37	103.65	105.80
23	DA	1034	G	C5-C6-O6	-5.37	125.38	128.60
23	DA	1142(A)	A	N1-C6-N6	5.37	121.82	118.60
23	DA	1558	A	P-O3'-C3'	5.37	126.14	119.70
23	DA	2014	A	C5-C6-N1	-5.37	115.02	117.70
23	BA	209	C	N3-C2-O2	-5.37	118.14	121.90
23	BA	1438	U	C5-C6-N1	-5.37	120.02	122.70
23	BA	1789	A	C5-N7-C8	5.37	106.58	103.90
23	DA	113	G	C6-C5-N7	5.37	133.62	130.40
23	DA	845	G	C5-C6-O6	-5.37	125.38	128.60
23	DA	1558	A	N9-C4-C5	5.37	107.95	105.80
23	DA	1816	G	C6-C5-N7	5.37	133.62	130.40
1	AA	187	C	C2-N1-C1'	5.37	124.70	118.80
1	AA	259	G	N1-C6-O6	5.37	123.12	119.90
23	BA	23	G	C5-N7-C8	5.37	106.98	104.30
23	BA	231	C	C4-C5-C6	5.37	120.08	117.40
23	BA	370	G	N9-C4-C5	5.37	107.55	105.40
23	BA	2560	C	C5-C4-N4	-5.37	116.44	120.20
24	BB	31	C	C5-C4-N4	5.37	123.96	120.20
24	BB	76	G	N3-C4-C5	5.37	131.28	128.60
1	CA	347	G	C2-N3-C4	-5.37	109.22	111.90
1	CA	1118	C	C6-N1-C2	-5.37	118.15	120.30
23	DA	2631	G	C8-N9-C4	-5.37	104.25	106.40
1	AA	355	C	N1-C2-N3	5.36	122.95	119.20
1	AA	860	A	C5-N7-C8	-5.36	101.22	103.90
1	CA	1525	G	C5-C6-O6	5.36	131.82	128.60
23	DA	1163	G	C8-N9-C4	5.36	108.55	106.40
23	DA	1204	A	C4-N9-C1'	5.36	135.95	126.30
23	DA	1799	G	C4-C5-N7	-5.36	108.66	110.80
23	DA	1859	A	N1-C6-N6	5.36	121.82	118.60
23	DA	2296	U	C3'-C2'-C1'	-5.36	97.21	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	229	A	C8-N9-C4	-5.36	103.66	105.80
23	BA	351	G	N1-C6-O6	5.36	123.12	119.90
23	BA	392	C	C6-N1-C2	5.36	122.44	120.30
23	BA	1394	U	C5-C4-O4	-5.36	122.68	125.90
1	CA	187	C	C2-N1-C1'	5.36	124.70	118.80
1	CA	353	A	C5-N7-C8	-5.36	101.22	103.90
23	DA	2230	G	N1-C6-O6	5.36	123.12	119.90
1	AA	1322	C	N3-C4-N4	5.36	121.75	118.00
1	AA	1506	U	C5-C4-O4	-5.36	122.69	125.90
23	BA	72	U	C2-N3-C4	-5.36	123.78	127.00
23	BA	1633	G	C2-N3-C4	5.36	114.58	111.90
23	BA	2586	C	N3-C2-O2	5.36	125.65	121.90
23	DA	271(H)	G	C6-C5-N7	-5.36	127.19	130.40
23	DA	1377	G	C5-C6-O6	5.36	131.81	128.60
23	DA	2364	C	C6-N1-C2	5.36	122.44	120.30
23	DA	2517	C	N3-C4-N4	5.36	121.75	118.00
1	AA	1273	G	N3-C4-N9	5.36	129.21	126.00
23	BA	643	A	N1-C2-N3	5.36	131.98	129.30
23	BA	1127	A	C6-N1-C2	5.36	121.81	118.60
23	BA	2885	C	C5-C6-N1	5.36	123.68	121.00
1	CA	1243	C	N1-C2-O2	-5.36	115.69	118.90
1	CA	1473	A	N7-C8-N9	-5.36	111.12	113.80
23	DA	223	A	N9-C4-C5	5.36	107.94	105.80
23	DA	330	A	N3-C4-N9	-5.36	123.11	127.40
23	DA	1300	U	P-O3'-C3'	5.36	126.13	119.70
23	DA	2409	G	C6-C5-N7	-5.36	127.19	130.40
23	DA	2489	G	N7-C8-N9	-5.36	110.42	113.10
23	BA	964	C	N1-C2-O2	5.35	122.11	118.90
23	BA	1442	G	C8-N9-C4	-5.35	104.26	106.40
23	BA	113	G	N3-C4-C5	5.35	131.28	128.60
23	BA	2003	G	C6-N1-C2	-5.35	121.89	125.10
23	BA	2497	A	N1-C2-N3	5.35	131.98	129.30
23	DA	671	C	C2-N1-C1'	-5.35	112.91	118.80
23	DA	673	C	C5-C6-N1	-5.35	118.32	121.00
23	DA	1261	C	N1-C2-O2	-5.35	115.69	118.90
23	DA	2306	C	C2-N3-C4	5.35	122.58	119.90
23	BA	1567	A	C8-N9-C4	-5.35	103.66	105.80
23	BA	2056	G	C4-C5-C6	-5.35	115.59	118.80
23	DA	2721	A	C5-C6-N1	-5.35	115.02	117.70
1	AA	328	C	C6-N1-C2	5.35	122.44	120.30
1	AA	1107	C	N3-C4-C5	-5.35	119.76	121.90
1	CA	204	U	C2-N1-C1'	5.35	124.12	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	266	G	N3-C4-N9	-5.35	122.79	126.00
23	DA	19	C	C2-N3-C4	-5.35	117.23	119.90
23	BA	269	U	N1-C2-N3	-5.35	111.69	114.90
23	BA	1305	C	C2-N1-C1'	5.35	124.68	118.80
23	BA	2807	G	N3-C4-C5	-5.35	125.93	128.60
23	DA	2241	A	C5-N7-C8	5.35	106.57	103.90
23	BA	362	U	C5-C4-O4	-5.35	122.69	125.90
23	BA	471	A	N7-C8-N9	5.35	116.47	113.80
23	BA	1752	C	N3-C2-O2	5.35	125.64	121.90
23	BA	2508	G	C2-N3-C4	5.35	114.57	111.90
23	DA	841	A	C8-N9-C4	-5.35	103.66	105.80
23	BA	2420	C	C6-N1-C2	5.34	122.44	120.30
1	CA	300	A	C5-C6-N1	5.34	120.37	117.70
33	BP	50	ARG	NE-CZ-NH1	-5.34	117.63	120.30
1	CA	1030(A)	G	N7-C8-N9	5.34	115.77	113.10
23	DA	395	U	N3-C2-O2	-5.34	118.46	122.20
23	DA	1998	G	C5-C6-O6	5.34	131.81	128.60
23	DA	2261	C	N1-C2-O2	-5.34	115.69	118.90
23	DA	2322	A	C5-N7-C8	5.34	106.57	103.90
23	BA	434	U	N1-C2-N3	5.34	118.10	114.90
23	BA	1124	C	N3-C4-N4	5.34	121.74	118.00
23	BA	1260	G	N9-C4-C5	5.34	107.54	105.40
23	BA	2371	G	N7-C8-N9	-5.34	110.43	113.10
1	CA	403	C	N3-C4-N4	-5.34	114.26	118.00
23	DA	1246	A	C2-N3-C4	-5.34	107.93	110.60
23	DA	1359	A	N1-C6-N6	5.34	121.81	118.60
23	DA	2729	G	C2-N3-C4	-5.34	109.23	111.90
24	DB	115	G	N3-C4-C5	5.34	131.27	128.60
1	AA	722	A	N1-C6-N6	5.34	121.80	118.60
1	AA	798	G	C5-C6-O6	5.34	131.80	128.60
1	AA	1123	A	C8-N9-C1'	5.34	137.31	127.70
1	CA	361	G	N3-C2-N2	-5.34	116.16	119.90
23	DA	128	C	C4-C5-C6	5.34	120.07	117.40
23	DA	1265	A	C8-N9-C4	5.34	107.94	105.80
23	DA	2105	C	C5-C6-N1	5.34	123.67	121.00
1	AA	398	C	N3-C2-O2	-5.34	118.16	121.90
1	AA	1279	A	N7-C8-N9	5.34	116.47	113.80
23	BA	692	C	N3-C4-C5	5.34	124.03	121.90
23	BA	725	G	C8-N9-C4	-5.34	104.27	106.40
1	CA	1493	A	C8-N9-C4	-5.34	103.67	105.80
37	DT	118	ARG	NE-CZ-NH1	5.34	122.97	120.30
1	AA	243	A	C8-N9-C4	-5.34	103.67	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	906	G	C6-C5-N7	-5.34	127.20	130.40
23	BA	822	U	C6-N1-C2	-5.34	117.80	121.00
23	BA	2105	C	C5-C6-N1	5.34	123.67	121.00
23	DA	1323	U	C5-C4-O4	-5.34	122.70	125.90
1	AA	894	G	N7-C8-N9	-5.33	110.43	113.10
23	DA	836	G	C5-C6-O6	-5.33	125.40	128.60
1	AA	542	G	C8-N9-C4	-5.33	104.27	106.40
1	AA	1226	C	C6-N1-C1'	5.33	127.20	120.80
23	BA	409	C	C4-C5-C6	-5.33	114.73	117.40
23	BA	1339	G	C8-N9-C4	5.33	108.53	106.40
23	DA	1745	C	C6-N1-C2	5.33	122.43	120.30
1	AA	57	G	C6-N1-C2	-5.33	121.90	125.10
23	BA	2542	A	N1-C6-N6	5.33	121.80	118.60
23	DA	1571	A	C5-C6-N1	5.33	120.37	117.70
1	AA	1079	G	C8-N9-C4	-5.33	104.27	106.40
23	BA	671	C	C5-C4-N4	5.33	123.93	120.20
1	AA	1067	A	P-O3'-C3'	5.33	126.09	119.70
23	BA	1346	G	C2-N3-C4	5.33	114.56	111.90
23	BA	1365	A	N1-C6-N6	5.33	121.80	118.60
1	CA	1026	G	N3-C4-C5	-5.33	125.94	128.60
23	DA	212	G	C8-N9-C4	-5.33	104.27	106.40
23	DA	1294	U	N1-C2-O2	-5.33	119.07	122.80
23	DA	1764	G	N7-C8-N9	-5.33	110.44	113.10
23	DA	2093	G	N7-C8-N9	-5.33	110.44	113.10
24	DB	14	U	N3-C2-O2	-5.33	118.47	122.20
23	DA	390	A	C5-N7-C8	5.33	106.56	103.90
23	DA	2357	U	N1-C2-O2	-5.33	119.07	122.80
23	BA	53	A	N1-C2-N3	5.33	131.96	129.30
23	BA	524	U	N1-C2-O2	5.33	126.53	122.80
23	BA	1328	G	C5-C6-O6	5.33	131.79	128.60
23	BA	2772	C	C5-C4-N4	5.33	123.93	120.20
1	CA	1025	U	N1-C2-O2	5.33	126.53	122.80
23	DA	2847	U	C5-C6-N1	-5.33	120.04	122.70
23	BA	201	C	N1-C2-N3	5.32	122.93	119.20
23	BA	2382	G	C8-N9-C4	-5.32	104.27	106.40
23	BA	2785	C	C5-C6-N1	5.32	123.66	121.00
1	CA	870	U	C5-C4-O4	-5.32	122.71	125.90
23	DA	952	G	C8-N9-C4	-5.32	104.27	106.40
23	DA	1117	G	C5-C6-O6	-5.32	125.41	128.60
23	BA	640	C	C5-C6-N1	5.32	123.66	121.00
23	BA	2701	C	C6-N1-C2	-5.32	118.17	120.30
1	CA	621	A	N1-C6-N6	-5.32	115.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1527	G	N3-C4-C5	5.32	131.26	128.60
23	DA	1641	A	N1-C2-N3	5.32	131.96	129.30
23	DA	1990	C	C2-N3-C4	-5.32	117.24	119.90
23	BA	798	G	N7-C8-N9	-5.32	110.44	113.10
44	B0	25	ARG	NE-CZ-NH1	-5.32	117.64	120.30
1	CA	890	G	C2-N3-C4	-5.32	109.24	111.90
1	CA	925	G	N9-C4-C5	-5.32	103.27	105.40
23	DA	2247	A	C5-N7-C8	5.32	106.56	103.90
23	BA	416	C	N1-C2-O2	5.32	122.09	118.90
23	BA	645	C	C5-C6-N1	5.32	123.66	121.00
1	CA	1312	G	N9-C4-C5	5.32	107.53	105.40
23	DA	204	A	C6-N1-C2	-5.32	115.41	118.60
23	BA	743	G	C5-C6-O6	5.32	131.79	128.60
23	BA	2347	C	N1-C2-O2	5.32	122.09	118.90
23	DA	60	G	C4-C5-N7	5.32	112.93	110.80
23	DA	2713	A	C2-N3-C4	5.32	113.26	110.60
33	DP	103	ALA	N-CA-C	-5.32	96.64	111.00
23	BA	773	U	C2-N3-C4	-5.32	123.81	127.00
23	BA	1111	A	N3-C4-C5	5.32	130.52	126.80
23	BA	2040	C	N3-C4-C5	5.32	124.03	121.90
23	DA	2524	G	C8-N9-C4	-5.32	104.27	106.40
1	AA	1016	A	N1-C6-N6	-5.31	115.41	118.60
23	BA	377	C	C2-N3-C4	-5.31	117.24	119.90
1	CA	1096	C	N1-C2-N3	5.31	122.92	119.20
23	DA	708	C	C5-C6-N1	5.31	123.66	121.00
1	AA	913	A	P-O3'-C3'	5.31	126.08	119.70
23	BA	2324	C	C4-C5-C6	-5.31	114.74	117.40
23	BA	2689	U	N1-C2-O2	5.31	126.52	122.80
23	BA	2869	G	N3-C2-N2	-5.31	116.18	119.90
23	DA	981	A	C4-C5-C6	-5.31	114.34	117.00
23	DA	1217	C	N1-C2-O2	-5.31	115.71	118.90
23	BA	579	G	C4-C5-N7	-5.31	108.68	110.80
1	CA	749	C	C6-N1-C2	-5.31	118.18	120.30
23	DA	123	G	C8-N9-C4	5.31	108.52	106.40
1	AA	1138	G	N3-C4-N9	5.31	129.19	126.00
23	BA	1414	G	N1-C6-O6	5.31	123.09	119.90
23	BA	1433	U	C5-C6-N1	-5.31	120.05	122.70
23	BA	2107	C	C6-N1-C2	-5.31	118.18	120.30
1	AA	1028	C	C5-C6-N1	5.31	123.65	121.00
1	AA	1040	U	C2-N1-C1'	-5.31	111.33	117.70
1	AA	1052	U	N1-C2-O2	5.31	126.52	122.80
23	BA	202	U	C2-N3-C4	-5.31	123.81	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	746	A	C8-N9-C4	-5.31	103.68	105.80
23	BA	1823	G	N1-C2-N2	-5.31	111.42	116.20
23	DA	474	G	N1-C6-O6	-5.31	116.72	119.90
23	DA	1284	A	C5-N7-C8	-5.31	101.25	103.90
23	DA	2048	G	C6-C5-N7	-5.31	127.22	130.40
23	BA	937	U	N3-C2-O2	5.31	125.91	122.20
23	BA	92	A	N7-C8-N9	5.30	116.45	113.80
23	BA	700	G	N1-C6-O6	-5.30	116.72	119.90
1	CA	560	U	C5-C6-N1	5.30	125.35	122.70
1	CA	560	U	C3'-C2'-C1'	5.30	105.74	101.50
23	DA	1628	G	C5-C6-O6	-5.30	125.42	128.60
52	D8	57	ARG	NE-CZ-NH1	5.30	122.95	120.30
23	BA	729	G	N9-C4-C5	5.30	107.52	105.40
23	BA	822	U	N1-C2-O2	5.30	126.51	122.80
23	BA	1153	C	C5-C6-N1	5.30	123.65	121.00
23	BA	1530	C	C5-C4-N4	-5.30	116.49	120.20
23	BA	2360	A	C4-C5-C6	5.30	119.65	117.00
23	DA	211	A	C8-N9-C4	5.30	107.92	105.80
23	DA	823	G	C5-N7-C8	5.30	106.95	104.30
23	DA	1623	G	N1-C6-O6	-5.30	116.72	119.90
23	DA	1830	C	N3-C4-N4	5.30	121.71	118.00
23	DA	2844	G	N1-C6-O6	5.30	123.08	119.90
23	BA	2634	G	C5-C6-O6	-5.30	125.42	128.60
1	CA	1058	G	N1-C6-O6	5.30	123.08	119.90
23	DA	1296	G	C4-C5-N7	-5.30	108.68	110.80
1	AA	1518	A	C8-N9-C4	-5.30	103.68	105.80
23	BA	1250	G	N1-C2-N3	-5.30	120.72	123.90
23	BA	2019	A	C8-N9-C4	-5.30	103.68	105.80
23	DA	507	A	N1-C2-N3	-5.30	126.65	129.30
23	DA	2389	G	N9-C4-C5	5.30	107.52	105.40
1	AA	1396	A	C5-C6-N6	5.30	127.94	123.70
23	BA	786	C	C6-N1-C2	5.30	122.42	120.30
23	BA	2418	A	C6-N1-C2	-5.30	115.42	118.60
1	CA	366	C	C2-N3-C4	-5.30	117.25	119.90
23	DA	2769	C	C5-C6-N1	-5.30	118.35	121.00
23	DA	2789	C	N3-C2-O2	5.30	125.61	121.90
1	AA	766	A	N1-C6-N6	5.29	121.78	118.60
23	BA	179	G	C5-C6-O6	-5.29	125.42	128.60
23	BA	478	A	N7-C8-N9	5.29	116.45	113.80
23	BA	585	G	C5-N7-C8	5.29	106.95	104.30
23	DA	124	G	N9-C4-C5	-5.29	103.28	105.40
23	DA	1659	U	N1-C2-O2	-5.29	119.09	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1899	G	N3-C4-N9	5.29	129.18	126.00
23	BA	49	A	N1-C6-N6	-5.29	115.42	118.60
23	BA	692	C	C4-C5-C6	-5.29	114.75	117.40
23	BA	766	C	C6-N1-C2	5.29	122.42	120.30
23	BA	1398	C	C2-N3-C4	-5.29	117.25	119.90
23	BA	1957	C	N3-C4-N4	-5.29	114.30	118.00
23	BA	2057	A	C5-N7-C8	5.29	106.55	103.90
23	BA	2104	G	C4-N9-C1'	5.29	133.38	126.50
23	BA	2392	A	C8-N9-C4	5.29	107.92	105.80
24	BB	81	G	C5-C6-N1	-5.29	108.85	111.50
33	BP	116	GLY	N-CA-C	5.29	126.33	113.10
1	CA	146	G	N3-C4-C5	-5.29	125.95	128.60
1	CA	1080	A	C5-C6-N1	-5.29	115.05	117.70
23	DA	1453	U	C4-C5-C6	5.29	122.88	119.70
1	AA	481	G	N3-C4-C5	-5.29	125.95	128.60
23	BA	271(E)	U	N3-C2-O2	-5.29	118.50	122.20
23	BA	576	U	C4-C5-C6	-5.29	116.53	119.70
23	BA	777	A	C4-C5-C6	5.29	119.65	117.00
23	BA	1141	U	N1-C2-N3	5.29	118.08	114.90
23	BA	1401	G	N3-C4-C5	5.29	131.25	128.60
23	DA	910	A	N1-C6-N6	-5.29	115.43	118.60
1	AA	705	U	N1-C2-O2	-5.29	119.10	122.80
23	BA	1774	C	N3-C4-C5	-5.29	119.78	121.90
1	CA	685	G	N1-C6-O6	5.29	123.07	119.90
1	CA	896	C	C5-C6-N1	-5.29	118.36	121.00
1	CA	1109	C	C5-C6-N1	-5.29	118.36	121.00
23	DA	409	C	C6-N1-C2	5.29	122.42	120.30
23	DA	1820	U	C6-N1-C2	5.29	124.17	121.00
23	DA	2638	G	C6-C5-N7	-5.29	127.23	130.40
23	DA	803	U	N1-C2-N3	5.29	118.07	114.90
23	BA	186	G	C5-C6-O6	5.28	131.77	128.60
23	BA	588	U	C2-N3-C4	5.28	130.17	127.00
23	BA	607	U	N3-C4-O4	-5.28	115.70	119.40
23	BA	1200	C	C5-C4-N4	5.28	123.90	120.20
23	BA	1779	U	C5-C6-N1	-5.28	120.06	122.70
23	BA	2003	G	N1-C2-N3	5.28	127.07	123.90
23	BA	2548	G	C6-N1-C2	-5.28	121.93	125.10
1	CA	1039	C	N1-C2-O2	5.28	122.07	118.90
23	DA	560	C	C2-N3-C4	-5.28	117.26	119.90
23	DA	1975	G	C8-N9-C4	-5.28	104.29	106.40
23	DA	2138	C	C2-N3-C4	5.28	122.54	119.90
23	DA	2755	C	C5-C6-N1	5.28	123.64	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2757	A	N7-C8-N9	5.28	116.44	113.80
23	BA	795	C	N3-C4-N4	-5.28	114.30	118.00
23	DA	1217	C	C4-C5-C6	5.28	120.04	117.40
23	DA	1685	C	C5-C4-N4	-5.28	116.50	120.20
23	DA	1968	G	C5-C6-O6	-5.28	125.43	128.60
1	AA	957	U	N1-C2-O2	5.28	126.50	122.80
1	AA	1416	G	C8-N9-C4	-5.28	104.29	106.40
23	BA	1674	G	C6-C5-N7	-5.28	127.23	130.40
23	DA	271(H)	G	C4-N9-C1'	5.28	133.36	126.50
23	DA	1248	G	N3-C4-N9	5.28	129.17	126.00
1	AA	1305	G	C4-C5-N7	-5.28	108.69	110.80
1	CA	359	U	C2-N3-C4	-5.28	123.83	127.00
23	DA	887	A	C2-N3-C4	5.28	113.24	110.60
1	AA	423	G	N3-C4-N9	5.28	129.17	126.00
1	AA	1125	U	N3-C2-O2	5.28	125.89	122.20
1	CA	1459	C	O4'-C1'-N1	5.28	112.42	108.20
23	DA	473	G	N3-C2-N2	-5.28	116.20	119.90
23	BA	515	A	C5-C6-N1	5.28	120.34	117.70
23	BA	2294	C	N3-C4-C5	5.28	124.01	121.90
23	BA	2785	C	C6-N1-C2	-5.28	118.19	120.30
1	CA	423	G	N3-C4-C5	-5.28	125.96	128.60
23	DA	12	U	N1-C2-O2	5.28	126.49	122.80
23	DA	196	A	C4-C5-N7	5.28	113.34	110.70
23	DA	425	G	N9-C4-C5	-5.28	103.29	105.40
23	DA	693	C	N3-C4-N4	-5.28	114.31	118.00
23	DA	1787	A	N1-C6-N6	5.28	121.77	118.60
23	DA	2327	A	C5-C6-N1	5.28	120.34	117.70
23	BA	178	G	N9-C4-C5	5.27	107.51	105.40
23	BA	788	A	N9-C4-C5	-5.27	103.69	105.80
23	BA	1343	G	N3-C4-C5	-5.27	125.96	128.60
1	CA	503	C	C2-N3-C4	5.27	122.54	119.90
1	CA	1058	G	C5-C6-O6	-5.27	125.44	128.60
1	AA	904	C	N3-C4-C5	-5.27	119.79	121.90
23	BA	973	A	C8-N9-C4	-5.27	103.69	105.80
23	BA	1114	G	N3-C2-N2	-5.27	116.21	119.90
1	CA	1057	G	N3-C4-N9	5.27	129.16	126.00
23	DA	246	C	N3-C2-O2	5.27	125.59	121.90
23	DA	943	U	N1-C2-O2	5.27	126.49	122.80
23	DA	1566	A	C5-C6-N6	-5.27	119.48	123.70
23	DA	2049	G	C2-N3-C4	-5.27	109.26	111.90
1	CA	1029	C	C2-N1-C1'	5.27	124.60	118.80
1	CA	1204	A	C5-C6-N1	-5.27	115.06	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2644	G	N1-C2-N3	5.27	127.06	123.90
1	AA	885	G	C8-N9-C4	5.27	108.51	106.40
23	BA	827	U	N3-C4-O4	5.27	123.09	119.40
1	CA	906	G	C6-C5-N7	-5.27	127.24	130.40
1	CA	1504	G	C4-C5-C6	-5.27	115.64	118.80
23	DA	535	C	C6-N1-C1'	5.27	127.12	120.80
23	DA	2515	C	N3-C4-C5	5.27	124.01	121.90
23	BA	528	A	C8-N9-C4	-5.27	103.69	105.80
23	BA	574	C	C2-N1-C1'	-5.27	113.01	118.80
1	CA	915	A	N1-C6-N6	-5.27	115.44	118.60
23	DA	1294	U	C2-N3-C4	-5.27	123.84	127.00
23	DA	2363	C	N3-C4-N4	-5.27	114.31	118.00
23	BA	420	C	C2-N3-C4	-5.27	117.27	119.90
23	BA	768	G	N1-C6-O6	-5.27	116.74	119.90
23	DA	570	G	N1-C2-N2	-5.27	111.46	116.20
23	DA	1611	C	C2-N1-C1'	5.27	124.59	118.80
23	BA	12	U	C2-N1-C1'	5.26	124.02	117.70
23	BA	444	C	C2-N1-C1'	-5.26	113.01	118.80
23	BA	2087	G	C4-C5-N7	5.26	112.91	110.80
23	DA	700	G	N1-C6-O6	-5.26	116.74	119.90
23	DA	1321	A	C4-C5-C6	5.26	119.63	117.00
23	DA	2006	C	N3-C4-N4	5.26	121.69	118.00
23	DA	2346	A	C4-C5-C6	5.26	119.63	117.00
23	DA	2704	C	C6-N1-C2	-5.26	118.19	120.30
23	BA	237	C	N3-C4-N4	-5.26	114.32	118.00
23	BA	856	C	N1-C2-N3	5.26	122.88	119.20
1	CA	355	C	C6-N1-C2	-5.26	118.19	120.30
23	DA	2041	U	N1-C2-O2	-5.26	119.12	122.80
24	DB	74	U	N1-C2-N3	5.26	118.06	114.90
1	AA	1370	G	C8-N9-C4	-5.26	104.30	106.40
23	BA	2019	A	N1-C2-N3	5.26	131.93	129.30
23	BA	2464	C	C2-N1-C1'	5.26	124.59	118.80
23	BA	2525	G	N7-C8-N9	-5.26	110.47	113.10
23	BA	1784	A	C8-N9-C4	5.26	107.90	105.80
1	CA	54	C	C2-N3-C4	-5.26	117.27	119.90
1	CA	768	A	C6-N1-C2	-5.26	115.44	118.60
23	DA	571	A	N9-C4-C5	-5.26	103.70	105.80
23	DA	791	C	N1-C2-O2	-5.26	115.74	118.90
23	DA	2185	C	C5-C4-N4	5.26	123.88	120.20
1	AA	579	G	C4-C5-C6	5.26	121.95	118.80
31	BN	23	LEU	C-N-CA	-5.26	111.26	122.30
38	BU	10	ARG	NE-CZ-NH1	5.26	122.93	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	1107	C	C6-N1-C2	-5.26	118.20	120.30
23	DA	699	A	N7-C8-N9	-5.26	111.17	113.80
23	BA	535	C	C4-C5-C6	5.26	120.03	117.40
51	D7	34	ARG	NE-CZ-NH2	5.26	122.93	120.30
23	BA	391	G	C4-C5-N7	5.25	112.90	110.80
23	BA	2335	A	C5-N7-C8	-5.25	101.27	103.90
23	DA	454	A	C2-N3-C4	5.25	113.23	110.60
23	DA	812	C	N3-C4-N4	5.25	121.68	118.00
23	DA	2364	C	C2-N3-C4	-5.25	117.27	119.90
1	AA	458	C	N3-C4-C5	-5.25	119.80	121.90
1	AA	1032	G	C8-N9-C4	-5.25	104.30	106.40
23	BA	2560	C	C2-N3-C4	-5.25	117.27	119.90
1	CA	413	G	C6-C5-N7	5.25	133.55	130.40
23	DA	207	A	C8-N9-C4	5.25	107.90	105.80
23	DA	1124	C	N3-C4-C5	5.25	124.00	121.90
23	DA	1265	A	N7-C8-N9	-5.25	111.17	113.80
23	DA	1367	A	N1-C2-N3	5.25	131.93	129.30
1	AA	268	C	C6-N1-C2	-5.25	118.20	120.30
23	BA	1641	A	N1-C2-N3	5.25	131.93	129.30
23	BA	1964	G	N3-C4-C5	-5.25	125.97	128.60
23	BA	2548	G	C4-C5-N7	-5.25	108.70	110.80
1	CA	880	C	N3-C4-N4	-5.25	114.32	118.00
1	CA	1096	C	C2-N1-C1'	-5.25	113.02	118.80
23	DA	23	G	N1-C6-O6	-5.25	116.75	119.90
23	DA	2599	G	N1-C6-O6	-5.25	116.75	119.90
23	DA	2700	C	C6-N1-C2	5.25	122.40	120.30
1	AA	1224	G	C8-N9-C4	-5.25	104.30	106.40
23	BA	211	A	N7-C8-N9	-5.25	111.17	113.80
1	CA	1248	A	C8-N9-C4	-5.25	103.70	105.80
1	AA	810	C	C4-C5-C6	5.25	120.02	117.40
1	AA	1440	C	C5-C6-N1	-5.25	118.38	121.00
23	BA	135	G	C4-N9-C1'	-5.25	119.68	126.50
23	BA	479	A	C5-N7-C8	5.25	106.52	103.90
23	BA	2501	C	C6-N1-C2	5.25	122.40	120.30
1	CA	45	U	N1-C2-O2	-5.25	119.13	122.80
23	DA	2024	G	C2-N3-C4	-5.25	109.28	111.90
1	AA	1003	G	C4-C5-N7	-5.25	108.70	110.80
1	AA	1379	G	N3-C2-N2	-5.25	116.23	119.90
23	BA	984	A	P-O3'-C3'	5.25	126.00	119.70
23	BA	2199	A	C4-N9-C1'	5.25	135.74	126.30
23	DA	1802	A	N7-C8-N9	-5.25	111.18	113.80
23	BA	1992	G	C2'-C3'-O3'	5.24	122.09	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2593	U	N1-C2-N3	5.24	118.05	114.90
23	DA	576	U	C5-C4-O4	5.24	129.05	125.90
23	DA	1524	G	C5-C6-O6	5.24	131.75	128.60
23	DA	2069	G	N3-C2-N2	-5.24	116.23	119.90
23	BA	231	C	C6-N1-C2	-5.24	118.20	120.30
23	BA	408	G	C5-N7-C8	5.24	106.92	104.30
23	BA	2303	G	C5-C6-O6	5.24	131.75	128.60
23	BA	2627	G	N3-C4-C5	5.24	131.22	128.60
1	CA	1089	G	N3-C2-N2	-5.24	116.23	119.90
23	DA	599	G	N1-C2-N2	-5.24	111.48	116.20
24	DB	14	U	N1-C2-O2	5.24	126.47	122.80
23	BA	114	U	N3-C4-O4	5.24	123.07	119.40
23	BA	648	G	N1-C6-O6	-5.24	116.76	119.90
23	BA	652(J)	G	N7-C8-N9	5.24	115.72	113.10
23	BA	652(J)	G	N3-C4-C5	-5.24	125.98	128.60
23	BA	1192	G	C5-C6-N1	5.24	114.12	111.50
23	BA	1942	C	N3-C4-C5	5.24	124.00	121.90
23	BA	2035	G	N3-C2-N2	5.24	123.57	119.90
1	CA	1406	U	N3-C2-O2	-5.24	118.53	122.20
23	DA	71	A	P-O3'-C3'	5.24	125.99	119.70
23	DA	2324	C	C6-N1-C1'	-5.24	114.51	120.80
1	AA	171	A	C8-N9-C4	-5.24	103.70	105.80
23	BA	541	C	C6-N1-C2	-5.24	118.20	120.30
23	BA	1531	C	C5-C6-N1	5.24	123.62	121.00
23	BA	2567	G	C5-N7-C8	5.24	106.92	104.30
23	BA	2606	C	N3-C4-N4	-5.24	114.33	118.00
1	CA	1037	C	C2-N1-C1'	5.24	124.56	118.80
1	CA	1525	G	N1-C6-O6	-5.24	116.76	119.90
1	AA	447	G	N3-C4-N9	5.24	129.14	126.00
23	BA	474	G	N1-C2-N2	-5.24	111.49	116.20
1	AA	1290	G	N7-C8-N9	5.24	115.72	113.10
23	BA	82	G	N3-C2-N2	5.24	123.56	119.90
23	BA	912	C	C6-N1-C2	-5.24	118.21	120.30
23	BA	1287	A	C2-N3-C4	5.24	113.22	110.60
23	DA	1204	A	O4'-C1'-N9	5.24	112.39	108.20
23	DA	1657	C	N3-C2-O2	-5.24	118.23	121.90
23	DA	2593	U	N3-C2-O2	-5.24	118.54	122.20
23	DA	2712	U	C2-N3-C4	-5.24	123.86	127.00
23	DA	482	A	C8-N9-C4	5.23	107.89	105.80
23	BA	1111	A	N9-C4-C5	-5.23	103.71	105.80
23	BA	1326	U	N3-C4-O4	-5.23	115.74	119.40
23	BA	1369	G	C5-C6-O6	-5.23	125.46	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1940	U	N3-C4-O4	5.23	123.06	119.40
1	CA	1081	G	N9-C4-C5	-5.23	103.31	105.40
23	DA	2420	C	C5-C4-N4	-5.23	116.54	120.20
24	DB	76	G	N3-C4-C5	5.23	131.22	128.60
1	AA	39	G	C4-C5-N7	5.23	112.89	110.80
1	AA	560	U	C3'-C2'-C1'	5.23	105.68	101.50
1	AA	1330	U	C6-N1-C2	5.23	124.14	121.00
23	BA	199	A	C8-N9-C4	-5.23	103.71	105.80
23	BA	363(E)	U	C5-C6-N1	5.23	125.31	122.70
23	BA	1022	G	N3-C2-N2	-5.23	116.24	119.90
23	BA	1558	A	N3-C4-N9	-5.23	123.22	127.40
23	BA	1788	C	N3-C4-N4	5.23	121.66	118.00
23	DA	1619	G	C2-N3-C4	5.23	114.51	111.90
23	DA	2357	U	C5-C6-N1	-5.23	120.09	122.70
23	DA	2438	U	C5-C4-O4	-5.23	122.76	125.90
23	BA	2039	C	C6-N1-C2	-5.23	118.21	120.30
23	BA	2709	G	C5-C6-O6	5.23	131.74	128.60
23	BA	2729	G	C4-C5-N7	5.23	112.89	110.80
1	AA	358	U	N3-C4-C5	-5.22	111.47	114.60
1	AA	1443	G	C4-N9-C1'	-5.22	119.71	126.50
23	BA	568	U	C4-C5-C6	-5.22	116.56	119.70
23	BA	1883	G	N1-C6-O6	-5.22	116.77	119.90
24	BB	73	A	N7-C8-N9	5.22	116.41	113.80
1	CA	1321	C	C5-C6-N1	5.22	123.61	121.00
23	DA	2061	G	N7-C8-N9	-5.22	110.49	113.10
23	DA	2495	G	N1-C6-O6	5.22	123.03	119.90
23	DA	2743	C	C2-N1-C1'	-5.22	113.05	118.80
23	BA	1570	A	N1-C6-N6	5.22	121.73	118.60
23	BA	2354	G	N3-C4-C5	5.22	131.21	128.60
1	CA	631	G	C8-N9-C4	-5.22	104.31	106.40
1	CA	1277	C	C5-C6-N1	5.22	123.61	121.00
23	BA	1782	C	N3-C4-C5	5.22	123.99	121.90
23	DA	1240	U	C5-C4-O4	-5.22	122.77	125.90
23	DA	1653	G	N1-C2-N3	5.22	127.03	123.90
23	DA	2699	C	N3-C2-O2	5.22	125.55	121.90
1	AA	1345	U	C6-N1-C2	5.22	124.13	121.00
23	BA	652(S)	C	N1-C2-O2	5.22	122.03	118.90
23	BA	2431	U	N1-C2-N3	5.22	118.03	114.90
24	BB	41	U	C5-C4-O4	5.22	129.03	125.90
45	B1	21	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	CA	967	C	C6-N1-C2	5.22	122.39	120.30
12	CL	29	GLY	N-CA-C	-5.22	100.05	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	205	G	N3-C2-N2	5.22	123.55	119.90
24	DB	104	U	C2-N1-C1'	-5.22	111.44	117.70
23	BA	139(A)	G	C8-N9-C1'	-5.22	120.22	127.00
23	BA	252	G	N9-C4-C5	5.22	107.49	105.40
23	BA	2256	G	N7-C8-N9	5.22	115.71	113.10
23	BA	2587	A	N1-C6-N6	-5.22	115.47	118.60
23	DA	1524	G	C4-C5-N7	-5.22	108.71	110.80
23	BA	388	G	C2-N3-C4	5.22	114.51	111.90
23	BA	2007	C	C6-N1-C2	-5.22	118.21	120.30
23	DA	143	G	N3-C4-N9	-5.22	122.87	126.00
23	DA	1323	U	C6-N1-C2	5.22	124.13	121.00
23	DA	2713	A	C5-C6-N6	5.22	127.87	123.70
1	AA	1366	C	C2-N3-C4	5.21	122.51	119.90
23	BA	866	A	C4-N9-C1'	5.21	135.69	126.30
23	BA	1288	U	C5-C6-N1	-5.21	120.09	122.70
23	BA	2872	G	N1-C2-N2	-5.21	111.51	116.20
51	B7	3	ARG	NE-CZ-NH2	5.21	122.91	120.30
23	DA	391	G	C5-N7-C8	5.21	106.91	104.30
23	DA	697	C	C2-N3-C4	5.21	122.51	119.90
1	AA	1195	C	C5-C4-N4	5.21	123.85	120.20
23	BA	677	A	N1-C6-N6	-5.21	115.47	118.60
23	BA	1258	C	C6-N1-C2	5.21	122.39	120.30
23	BA	2646	C	C5-C4-N4	-5.21	116.55	120.20
1	AA	266	G	C4-C5-N7	5.21	112.89	110.80
1	AA	927	G	N3-C4-C5	5.21	131.21	128.60
1	AA	1480	G	C2-N3-C4	-5.21	109.30	111.90
23	BA	342	G	C8-N9-C4	-5.21	104.31	106.40
23	BA	686	G	N1-C2-N2	-5.21	111.51	116.20
23	BA	1111	A	C5-N7-C8	-5.21	101.29	103.90
23	BA	1257	C	N3-C2-O2	-5.21	118.25	121.90
23	BA	1625	C	N1-C2-O2	5.21	122.03	118.90
23	BA	2233	U	C6-N1-C1'	5.21	128.50	121.20
23	BA	2873	A	N7-C8-N9	5.21	116.41	113.80
1	CA	824	C	C5-C6-N1	-5.21	118.39	121.00
23	DA	153	C	N1-C2-O2	5.21	122.03	118.90
23	DA	2505	G	C5-C6-O6	5.21	131.73	128.60
1	CA	1009	G	N1-C6-O6	-5.21	116.77	119.90
23	BA	1886	C	N3-C2-O2	5.21	125.55	121.90
23	BA	2078	C	N3-C2-O2	-5.21	118.25	121.90
1	CA	760	G	N3-C4-C5	5.21	131.20	128.60
12	CL	92	ASP	CB-CG-OD2	-5.21	113.61	118.30
23	DA	491	G	C8-N9-C4	-5.21	104.32	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	732	C	C4-C5-C6	5.21	120.00	117.40
23	DA	1040	C	C2-N3-C4	-5.21	117.30	119.90
23	DA	1816	G	C8-N9-C1'	5.21	133.77	127.00
23	DA	2631	G	N3-C4-C5	-5.21	126.00	128.60
23	BA	962	G	C4-C5-N7	-5.21	108.72	110.80
23	BA	1323	U	C5-C4-O4	-5.21	122.78	125.90
23	BA	2231	C	N1-C2-O2	-5.21	115.78	118.90
23	BA	2506	U	C2-N1-C1'	-5.21	111.45	117.70
23	BA	2518	A	C4-C5-C6	5.21	119.60	117.00
1	CA	1002	G	N7-C8-N9	5.21	115.70	113.10
23	DA	1573	G	C8-N9-C4	5.21	108.48	106.40
23	DA	2894	G	C4-C5-C6	5.21	121.92	118.80
23	DA	1890	A	C8-N9-C4	5.21	107.88	105.80
1	AA	1028	C	N1-C2-O2	5.20	122.02	118.90
23	BA	2105	C	C2-N3-C4	5.20	122.50	119.90
23	DA	72	U	C5-C4-O4	-5.20	122.78	125.90
23	DA	2362	G	N1-C6-O6	-5.20	116.78	119.90
23	DA	2516	G	N3-C2-N2	5.20	123.54	119.90
23	DA	2612	C	C2-N3-C4	-5.20	117.30	119.90
1	AA	479	C	N3-C4-C5	-5.20	119.82	121.90
1	AA	1417	G	C5-C6-N1	5.20	114.10	111.50
23	BA	195	A	C4-C5-C6	5.20	119.60	117.00
23	BA	847	U	C4-C5-C6	5.20	122.82	119.70
1	AA	43	C	C5-C6-N1	-5.20	118.40	121.00
1	AA	841	U	C5-C6-N1	5.20	125.30	122.70
1	AA	918	A	C8-N9-C4	-5.20	103.72	105.80
1	AA	1123	A	C4-N9-C1'	-5.20	116.94	126.30
23	BA	1797	C	C4-C5-C6	5.20	120.00	117.40
23	BA	2465	C	C2-N3-C4	-5.20	117.30	119.90
23	BA	2540	C	N1-C2-O2	-5.20	115.78	118.90
26	BE	28	ALA	C-N-CA	-5.20	111.38	122.30
1	CA	1320	C	C5-C6-N1	5.20	123.60	121.00
1	AA	131	C	N3-C2-O2	-5.20	118.26	121.90
1	AA	1145	C	C2-N3-C4	5.20	122.50	119.90
1	AA	1442(B)	A	N9-C4-C5	5.20	107.88	105.80
23	BA	1008	C	C5-C6-N1	5.20	123.60	121.00
23	BA	1988	C	C6-N1-C2	5.20	122.38	120.30
1	CA	403	C	N1-C2-O2	5.20	122.02	118.90
1	AA	1460	A	C8-N9-C4	5.20	107.88	105.80
1	CA	299	G	N1-C6-O6	5.20	123.02	119.90
23	DA	785	G	N1-C6-O6	-5.20	116.78	119.90
23	DA	1787	A	N1-C2-N3	-5.20	126.70	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	227	G	N3-C2-N2	5.20	123.54	119.90
23	BA	204	A	C5-C6-N6	-5.20	119.54	123.70
23	BA	313	C	C6-N1-C2	-5.20	118.22	120.30
23	BA	759	G	C4-C5-N7	-5.20	108.72	110.80
23	BA	1558	A	N9-C4-C5	5.20	107.88	105.80
1	CA	413	G	N9-C4-C5	5.20	107.48	105.40
23	DA	585	G	C6-N1-C2	-5.20	121.98	125.10
1	AA	365	U	N1-C2-O2	-5.19	119.16	122.80
23	BA	117	G	N3-C4-C5	-5.19	126.00	128.60
23	BA	652(E)	G	C6-N1-C2	5.19	128.22	125.10
23	BA	1527	G	C5-C6-N1	-5.19	108.90	111.50
23	DA	945	A	N3-C4-N9	-5.19	123.25	127.40
23	BA	34	C	C2-N3-C4	5.19	122.50	119.90
23	BA	147	U	C2-N3-C4	-5.19	123.88	127.00
23	BA	1818	U	N3-C4-O4	5.19	123.03	119.40
1	CA	299	G	C5-C6-N1	-5.19	108.90	111.50
1	CA	1442	G	N1-C6-O6	-5.19	116.78	119.90
23	DA	196	A	N1-C6-N6	5.19	121.72	118.60
23	DA	757	U	N1-C2-O2	-5.19	119.17	122.80
23	BA	812	C	C6-N1-C2	-5.19	118.22	120.30
23	BA	978	G	N7-C8-N9	-5.19	110.50	113.10
23	BA	1311	G	C8-N9-C4	-5.19	104.32	106.40
23	BA	1334	G	N9-C4-C5	5.19	107.48	105.40
23	BA	1441	G	N7-C8-N9	-5.19	110.50	113.10
1	CA	1249	C	N3-C4-C5	-5.19	119.82	121.90
23	DA	2505	G	N9-C4-C5	5.19	107.48	105.40
23	BA	195	A	P-O3'-C3'	5.19	125.93	119.70
23	DA	1834	U	N1-C2-N3	5.19	118.01	114.90
1	AA	524	G	C8-N9-C4	-5.19	104.33	106.40
23	BA	1524	G	C5-C6-O6	5.19	131.71	128.60
23	BA	1926	U	C5-C4-O4	5.19	129.01	125.90
23	BA	2382	G	N7-C8-N9	5.19	115.69	113.10
23	BA	2593	U	C2-N3-C4	-5.19	123.89	127.00
23	BA	2597	G	N9-C4-C5	5.19	107.47	105.40
23	DA	115	C	N1-C2-O2	-5.19	115.79	118.90
23	DA	1644	C	N1-C2-O2	5.19	122.01	118.90
23	DA	2885	C	C2-N3-C4	5.19	122.49	119.90
1	AA	1195	C	N3-C2-O2	-5.19	118.27	121.90
23	BA	2464	C	C5-C4-N4	-5.19	116.57	120.20
23	DA	845	G	C6-C5-N7	-5.19	127.29	130.40
1	AA	189(B)	C	C6-N1-C2	-5.18	118.23	120.30
1	AA	836	G	C8-N9-C1'	-5.18	120.26	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1231	G	C5-C6-O6	5.18	131.71	128.60
23	BA	296	C	C5-C6-N1	-5.18	118.41	121.00
23	BA	2241	A	N1-C6-N6	-5.18	115.49	118.60
24	BB	41	U	C5-C6-N1	-5.18	120.11	122.70
24	BB	81	G	N1-C6-O6	5.18	123.01	119.90
1	AA	1443	G	C6-C5-N7	5.18	133.51	130.40
25	BD	14	ARG	NE-CZ-NH1	-5.18	117.71	120.30
23	DA	2066	C	N3-C2-O2	-5.18	118.27	121.90
1	AA	402	G	C4-C5-C6	5.18	121.91	118.80
23	DA	2303	G	C8-N9-C1'	5.18	133.74	127.00
1	AA	1318	A	C8-N9-C4	-5.18	103.73	105.80
23	BA	1023	U	N1-C2-N3	5.18	118.01	114.90
23	BA	1865	G	N3-C4-N9	-5.18	122.89	126.00
23	BA	1990	C	N3-C4-N4	-5.18	114.37	118.00
23	DA	1904	G	N3-C4-C5	-5.18	126.01	128.60
1	AA	1017	G	C5-C6-O6	5.18	131.71	128.60
23	DA	755	C	N3-C2-O2	-5.18	118.28	121.90
23	DA	1653	G	P-O3'-C3'	5.18	125.91	119.70
23	DA	1964	G	N3-C2-N2	5.18	123.53	119.90
1	AA	43	C	N3-C4-N4	-5.18	114.38	118.00
1	AA	646	U	C6-N1-C2	-5.18	117.89	121.00
1	AA	1330	U	C5-C6-N1	-5.18	120.11	122.70
23	BA	803	U	N1-C2-N3	5.18	118.00	114.90
23	DA	389	G	C5-C6-O6	-5.18	125.49	128.60
23	DA	1530	C	N3-C4-N4	5.18	121.62	118.00
23	DA	2352	A	C2-N3-C4	-5.18	108.01	110.60
1	AA	916	G	C8-N9-C4	-5.17	104.33	106.40
23	BA	214	G	C5-C6-O6	-5.17	125.50	128.60
23	BA	673	C	C5-C4-N4	-5.17	116.58	120.20
23	BA	1338	G	N3-C2-N2	5.17	123.52	119.90
23	BA	1530	C	N3-C4-N4	5.17	121.62	118.00
23	BA	1699	G	C5-C6-O6	5.17	131.71	128.60
23	BA	2617	C	N1-C2-O2	5.17	122.00	118.90
1	CA	915	A	C4-C5-N7	-5.17	108.11	110.70
1	CA	1206	G	C8-N9-C1'	-5.17	120.27	127.00
23	DA	686	G	N1-C2-N2	-5.17	111.54	116.20
23	DA	1038	C	N3-C4-C5	5.17	123.97	121.90
23	DA	1361	G	N1-C6-O6	-5.17	116.80	119.90
23	DA	2087	G	C5-C6-N1	-5.17	108.91	111.50
23	DA	2399	G	C5-C6-O6	5.17	131.71	128.60
23	DA	2505	G	C8-N9-C4	-5.17	104.33	106.40
23	BA	2084	C	C5-C4-N4	-5.17	116.58	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2440	C	C5-C6-N1	-5.17	118.41	121.00
23	DA	68	G	N7-C8-N9	-5.17	110.51	113.10
23	DA	1311	G	C8-N9-C4	-5.17	104.33	106.40
1	AA	43	C	C6-N1-C2	5.17	122.37	120.30
23	BA	1279	G	C8-N9-C4	-5.17	104.33	106.40
23	DA	1490	A	C6-C5-N7	5.17	135.92	132.30
23	DA	2604	U	N3-C2-O2	-5.17	118.58	122.20
24	DB	77	U	N3-C2-O2	5.17	125.82	122.20
25	BD	218	ARG	NE-CZ-NH2	-5.17	117.72	120.30
1	CA	935	A	C6-N1-C2	5.17	121.70	118.60
1	AA	806	C	C6-N1-C2	-5.17	118.23	120.30
1	AA	1002	G	C4-N9-C1'	-5.17	119.78	126.50
1	AA	1195	C	N3-C4-N4	-5.17	114.38	118.00
23	BA	571	A	C4-C5-N7	5.17	113.28	110.70
23	BA	1338	G	N1-C6-O6	-5.17	116.80	119.90
23	DA	393	C	N1-C2-O2	-5.17	115.80	118.90
23	DA	409	C	N3-C4-C5	5.17	123.97	121.90
23	DA	1979	C	N3-C4-C5	5.17	123.97	121.90
23	DA	2042	A	N3-C4-C5	5.17	130.42	126.80
23	DA	2207	G	C8-N9-C1'	-5.17	120.28	127.00
23	DA	2228	G	C5-C6-O6	5.17	131.70	128.60
23	BA	34	C	C6-N1-C2	-5.17	118.23	120.30
23	BA	1406	U	C5-C6-N1	5.17	125.28	122.70
23	BA	2572	A	C6-N1-C2	-5.17	115.50	118.60
23	DA	1271	G	N1-C2-N3	5.17	127.00	123.90
23	DA	1358	G	C8-N9-C4	5.17	108.47	106.40
23	BA	13	A	C6-N1-C2	-5.17	115.50	118.60
23	BA	600	G	C5-C6-N1	-5.17	108.92	111.50
23	BA	827	U	N3-C2-O2	5.17	125.82	122.20
23	BA	1162	G	C5-C6-O6	5.17	131.70	128.60
23	BA	2820	A	C8-N9-C4	5.17	107.87	105.80
1	CA	836	G	C6-C5-N7	-5.17	127.30	130.40
1	CA	1258	G	C6-N1-C2	5.17	128.20	125.10
23	DA	247	G	C4-C5-N7	-5.17	108.73	110.80
23	DA	518	G	C8-N9-C4	-5.17	104.33	106.40
1	AA	217	C	C6-N1-C2	5.16	122.37	120.30
1	AA	357	G	N1-C6-O6	5.16	123.00	119.90
49	B5	15	ARG	NE-CZ-NH1	5.16	122.88	120.30
1	CA	993	G	N3-C4-C5	-5.16	126.02	128.60
23	DA	944	G	N3-C4-C5	-5.16	126.02	128.60
23	BA	665	C	N3-C4-C5	5.16	123.97	121.90
23	BA	1106	G	C4-N9-C1'	5.16	133.21	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2007	C	C4-C5-C6	5.16	119.98	117.40
23	BA	2387	U	N1-C2-O2	-5.16	119.19	122.80
1	CA	59	A	C5-C6-N6	-5.16	119.57	123.70
23	DA	1117	G	N1-C6-O6	5.16	123.00	119.90
23	DA	1404	C	N3-C2-O2	-5.16	118.29	121.90
30	DI	120	ILE	CB-CA-C	-5.16	101.28	111.60
1	AA	1235	U	C5-C4-O4	5.16	129.00	125.90
1	AA	1269	A	N7-C8-N9	-5.16	111.22	113.80
23	BA	1295	C	C2-N3-C4	-5.16	117.32	119.90
1	CA	1302	U	C2-N1-C1'	-5.16	111.51	117.70
23	DA	254	G	N3-C4-C5	5.16	131.18	128.60
23	DA	1271	G	C2-N3-C4	-5.16	109.32	111.90
23	BA	11	G	C8-N9-C4	5.16	108.46	106.40
23	BA	818	G	C5-C6-N1	5.16	114.08	111.50
23	BA	1311	G	C4-C5-N7	-5.16	108.74	110.80
23	DA	337	C	N3-C4-C5	5.16	123.96	121.90
23	DA	1212	G	C5-C6-O6	-5.16	125.50	128.60
23	DA	2182	G	N3-C4-N9	-5.16	122.91	126.00
23	DA	2408	U	N1-C2-O2	5.16	126.41	122.80
1	AA	1459	C	C6-N1-C1'	-5.16	114.61	120.80
23	BA	2353	G	C8-N9-C4	5.16	108.46	106.40
1	CA	732	C	C2-N3-C4	-5.16	117.32	119.90
23	DA	192	C	C2-N1-C1'	-5.16	113.13	118.80
23	DA	981	A	C5-C6-N1	5.16	120.28	117.70
23	DA	1540	U	C6-N1-C2	-5.16	117.91	121.00
1	AA	824	C	C6-N1-C2	5.16	122.36	120.30
23	BA	1131	G	C8-N9-C4	-5.16	104.34	106.40
23	BA	2206	G	N9-C4-C5	-5.16	103.34	105.40
23	BA	2694	G	N3-C4-N9	5.16	129.09	126.00
23	BA	2713	A	N1-C6-N6	-5.16	115.51	118.60
1	CA	1321	C	N3-C4-C5	-5.16	119.84	121.90
23	DA	58	G	C5-C6-O6	5.16	131.69	128.60
23	DA	201	C	N1-C2-O2	-5.16	115.81	118.90
23	DA	1675	C	N1-C2-O2	-5.16	115.81	118.90
1	AA	1294	G	C8-N9-C4	-5.15	104.34	106.40
23	BA	608	A	C5-C6-N6	5.15	127.82	123.70
23	BA	677	A	C8-N9-C4	-5.15	103.74	105.80
23	BA	2006	C	N1-C2-O2	-5.15	115.81	118.90
23	BA	2639	A	N9-C4-C5	-5.15	103.74	105.80
1	CA	1397	C	C6-N1-C1'	-5.15	114.61	120.80
23	DA	2294	C	N3-C4-C5	5.15	123.96	121.90
1	AA	687	A	C8-N9-C4	-5.15	103.74	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	756	C	C5-C4-N4	5.15	123.81	120.20
23	BA	861	A	C2-N3-C4	5.15	113.18	110.60
23	BA	2737	G	C5-C6-N1	5.15	114.08	111.50
23	BA	2751	G	N3-C4-C5	-5.15	126.02	128.60
1	AA	1338	G	N3-C4-C5	-5.15	126.03	128.60
23	BA	364	C	C5-C6-N1	-5.15	118.42	121.00
23	BA	690	G	C8-N9-C4	5.15	108.46	106.40
23	BA	2346	A	C5-N7-C8	5.15	106.48	103.90
1	CA	1363	C	C6-N1-C1'	5.15	126.98	120.80
23	DA	135	G	C4-N9-C1'	-5.15	119.80	126.50
23	DA	601	C	C2-N3-C4	-5.15	117.33	119.90
23	DA	1899	G	C4-C5-N7	5.15	112.86	110.80
1	AA	297	G	N9-C4-C5	-5.15	103.34	105.40
23	BA	1236	G	C2-N3-C4	5.15	114.47	111.90
1	CA	1056	U	C2-N1-C1'	5.15	123.88	117.70
1	AA	1334	G	N1-C6-O6	-5.15	116.81	119.90
23	BA	546	C	C6-N1-C1'	-5.15	114.62	120.80
23	BA	706	A	C5-N7-C8	-5.15	101.33	103.90
23	DA	1290	C	C2-N3-C4	-5.15	117.33	119.90
23	DA	1821	A	C5-C6-N1	5.15	120.27	117.70
23	DA	1998	G	C4-C5-N7	-5.15	108.74	110.80
23	BA	104	U	N1-C2-O2	-5.15	119.20	122.80
23	BA	143	G	C2-N3-C4	-5.15	109.33	111.90
23	BA	1610	A	C6-N1-C2	-5.15	115.51	118.60
23	BA	2730	C	C2-N3-C4	-5.15	117.33	119.90
1	CA	1527	C	C2-N3-C4	-5.15	117.33	119.90
23	DA	934	G	C5-N7-C8	5.15	106.87	104.30
1	AA	1218	C	N3-C2-O2	-5.14	118.30	121.90
1	AA	1303	C	C6-N1-C2	-5.14	118.24	120.30
1	AA	1511	G	N9-C4-C5	-5.14	103.34	105.40
23	BA	130	C	C2-N3-C4	-5.14	117.33	119.90
23	BA	231	C	N1-C2-N3	5.14	122.80	119.20
23	BA	420	C	C5-C4-N4	5.14	123.80	120.20
23	BA	771	G	C2-N3-C4	5.14	114.47	111.90
23	BA	2070	G	N1-C2-N2	-5.14	111.57	116.20
40	BW	92	ARG	NE-CZ-NH2	5.14	122.87	120.30
23	DA	58	G	C8-N9-C4	-5.14	104.34	106.40
23	DA	666	G	C2-N3-C4	-5.14	109.33	111.90
23	DA	1401	G	N3-C4-C5	5.14	131.17	128.60
43	DZ	86	VAL	CB-CA-C	-5.14	101.62	111.40
1	AA	243	A	P-O3'-C3'	5.14	125.87	119.70
23	BA	2259	G	C2-N3-C4	-5.14	109.33	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	559	A	C8-N9-C4	-5.14	103.74	105.80
23	DA	22	C	C6-N1-C2	5.14	122.36	120.30
23	DA	351	G	C5-C6-O6	-5.14	125.51	128.60
23	DA	389	G	C6-N1-C2	-5.14	122.02	125.10
23	DA	972	G	C5-C6-O6	5.14	131.69	128.60
23	DA	1260	G	C5-C6-O6	5.14	131.69	128.60
23	DA	1756	G	C5-N7-C8	5.14	106.87	104.30
23	DA	2249	U	N1-C2-O2	5.14	126.40	122.80
23	BA	2595	G	C5-C6-O6	5.14	131.68	128.60
1	CA	495	A	C5-C6-N6	5.14	127.81	123.70
1	CA	1056	U	N1-C2-O2	5.14	126.40	122.80
1	CA	1500	A	C5-N7-C8	-5.14	101.33	103.90
23	DA	2365	G	C5-C6-N1	5.14	114.07	111.50
1	AA	828	A	C8-N9-C4	5.14	107.86	105.80
23	BA	271(H)	G	C5-C6-O6	-5.14	125.52	128.60
23	BA	655	A	C5-N7-C8	-5.14	101.33	103.90
23	BA	867	C	N1-C2-O2	-5.14	115.82	118.90
23	BA	1052	C	N3-C2-O2	5.14	125.50	121.90
23	BA	2633	G	C4-C5-N7	-5.14	108.74	110.80
23	DA	2821	A	N1-C6-N6	5.14	121.68	118.60
23	BA	1756	G	N1-C2-N3	-5.14	120.82	123.90
23	BA	1897	G	C5-C6-O6	-5.14	125.52	128.60
1	CA	923	A	C4-C5-C6	5.14	119.57	117.00
1	CA	1308	U	C5-C4-O4	5.14	128.98	125.90
23	DA	265	A	N1-C6-N6	5.14	121.68	118.60
23	DA	762	U	C2-N1-C1'	5.14	123.86	117.70
23	DA	1164	G	N1-C2-N3	5.14	126.98	123.90
1	AA	1066	C	N3-C2-O2	-5.14	118.31	121.90
23	BA	605	C	N1-C2-O2	-5.14	115.82	118.90
23	BA	1248	G	N7-C8-N9	5.14	115.67	113.10
1	CA	898	G	C4-N9-C1'	-5.14	119.82	126.50
1	CA	1148	U	N3-C4-O4	5.14	123.00	119.40
23	DA	624	C	N3-C2-O2	5.14	125.50	121.90
23	DA	817	C	N3-C2-O2	-5.14	118.30	121.90
23	DA	1819	A	N9-C4-C5	5.14	107.86	105.80
24	DB	89	G	N1-C6-O6	5.14	122.98	119.90
1	AA	719	C	C4-C5-C6	5.13	119.97	117.40
23	BA	762	U	C6-N1-C1'	-5.13	114.01	121.20
23	BA	880	G	N1-C6-O6	5.13	122.98	119.90
23	BA	955	C	C5-C4-N4	5.13	123.79	120.20
23	BA	966	G	N1-C2-N2	-5.13	111.58	116.20
23	BA	2233	U	C2-N3-C4	-5.13	123.92	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2300	G	C8-N9-C4	-5.13	104.35	106.40
23	DA	2462	U	C5-C6-N1	-5.13	120.13	122.70
23	DA	2464	C	N3-C2-O2	5.13	125.49	121.90
23	BA	1674	G	N1-C6-O6	5.13	122.98	119.90
23	DA	54	G	C4-C5-N7	-5.13	108.75	110.80
23	DA	635	C	N3-C4-C5	-5.13	119.85	121.90
23	BA	278	A	N3-C4-C5	-5.13	123.21	126.80
23	BA	343	C	C5-C6-N1	-5.13	118.43	121.00
23	DA	2462	U	N3-C2-O2	5.13	125.79	122.20
1	AA	1519	A	N7-C8-N9	5.13	116.36	113.80
23	BA	2769	C	C4-C5-C6	5.13	119.97	117.40
23	BA	2825	C	C2-N3-C4	-5.13	117.33	119.90
23	DA	113	G	C8-N9-C1'	5.13	133.67	127.00
23	DA	1475	G	N1-C2-N2	5.13	120.82	116.20
23	BA	1232	G	C4-C5-N7	-5.13	108.75	110.80
23	BA	1300	U	N1-C2-O2	5.13	126.39	122.80
23	BA	1679	U	N1-C2-N3	5.13	117.98	114.90
23	BA	1899	G	C6-C5-N7	-5.13	127.32	130.40
23	BA	2689	U	N3-C2-O2	-5.13	118.61	122.20
1	CA	929	G	N9-C4-C5	5.13	107.45	105.40
23	DA	655	A	C8-N9-C4	-5.13	103.75	105.80
23	DA	2871	C	N1-C2-O2	-5.13	115.82	118.90
1	AA	1006	C	C5-C6-N1	5.13	123.56	121.00
1	AA	1294	G	N3-C4-N9	-5.13	122.92	126.00
23	BA	117	G	N3-C4-N9	5.13	129.08	126.00
23	BA	1761	C	N3-C4-C5	5.13	123.95	121.90
23	BA	1828	G	C8-N9-C4	5.13	108.45	106.40
1	CA	1138	G	N3-C4-N9	5.13	129.08	126.00
23	DA	139(A)	G	C8-N9-C1'	-5.13	120.33	127.00
23	DA	2104	G	C4-N9-C1'	5.13	133.16	126.50
23	DA	2363	C	C6-N1-C2	5.13	122.35	120.30
1	AA	878	G	C8-N9-C4	5.12	108.45	106.40
23	BA	503	A	N9-C4-C5	5.12	107.85	105.80
23	BA	563	G	C5-C6-N1	5.12	114.06	111.50
23	DA	488	G	C2-N3-C4	-5.12	109.34	111.90
1	AA	1338	G	C8-N9-C4	-5.12	104.35	106.40
1	AA	1510	U	N1-C2-N3	-5.12	111.83	114.90
23	BA	2087	G	N3-C4-C5	5.12	131.16	128.60
27	BF	62	ARG	NE-CZ-NH1	-5.12	117.74	120.30
23	DA	249	C	C5-C6-N1	-5.12	118.44	121.00
23	DA	569	U	N1-C2-O2	-5.12	119.21	122.80
23	DA	1654	A	C6-C5-N7	5.12	135.89	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1831	G	C2-N3-C4	-5.12	109.34	111.90
23	DA	2089	U	N3-C2-O2	-5.12	118.61	122.20
23	DA	2516	G	N1-C2-N3	5.12	126.97	123.90
1	AA	1396	A	N1-C6-N6	-5.12	115.53	118.60
23	BA	2236	C	C6-N1-C2	5.12	122.35	120.30
23	BA	2346	A	C4-C5-C6	5.12	119.56	117.00
23	BA	2828	C	C6-N1-C2	5.12	122.35	120.30
23	DA	576	U	N3-C2-O2	-5.12	118.61	122.20
23	DA	932	G	C2-N3-C4	-5.12	109.34	111.90
23	DA	1792	G	N3-C2-N2	5.12	123.49	119.90
34	DQ	14	ARG	NE-CZ-NH2	-5.12	117.74	120.30
23	BA	598	G	C5-N7-C8	5.12	106.86	104.30
1	CA	892	A	C6-N1-C2	-5.12	115.53	118.60
23	DA	2334	G	C8-N9-C4	5.12	108.45	106.40
1	AA	974	A	C5-N7-C8	-5.12	101.34	103.90
1	AA	1493	A	N7-C8-N9	5.12	116.36	113.80
23	BA	451	C	N1-C2-O2	5.12	121.97	118.90
23	BA	481	G	N1-C6-O6	-5.12	116.83	119.90
34	BQ	28	ALA	N-CA-C	5.12	124.82	111.00
1	CA	1020	U	C2-N1-C1'	-5.12	111.56	117.70
23	DA	33	U	C5-C6-N1	-5.12	120.14	122.70
23	DA	467	G	C8-N9-C4	5.12	108.45	106.40
23	BA	398	G	C4-C5-N7	-5.12	108.75	110.80
23	BA	2051	A	C4-C5-C6	5.12	119.56	117.00
23	DA	614	U	N3-C2-O2	-5.12	118.62	122.20
1	AA	974	A	C5-C6-N6	-5.12	119.61	123.70
23	BA	460	A	N1-C2-N3	-5.12	126.74	129.30
23	BA	1564	C	N3-C4-N4	-5.12	114.42	118.00
23	BA	1674	G	C5-C6-O6	-5.12	125.53	128.60
24	BB	91	C	N3-C4-C5	5.12	123.95	121.90
48	B4	42	PHE	C-N-CA	5.12	134.49	121.70
1	CA	820	U	N3-C2-O2	5.12	125.78	122.20
23	DA	2430	A	C2-N3-C4	5.12	113.16	110.60
18	AR	31	LEU	CA-CB-CG	5.11	127.06	115.30
23	BA	1341	U	C5-C6-N1	-5.11	120.14	122.70
23	BA	1961	C	N3-C2-O2	-5.11	118.32	121.90
23	BA	2774	C	N3-C4-C5	-5.11	119.85	121.90
23	BA	2872	G	N1-C6-O6	-5.11	116.83	119.90
1	CA	1067	A	C4-C5-C6	5.11	119.56	117.00
23	BA	870	A	N7-C8-N9	-5.11	111.24	113.80
23	BA	1198	U	C6-N1-C2	-5.11	117.93	121.00
23	BA	2588	G	N1-C6-O6	-5.11	116.83	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	590	C	N1-C2-O2	5.11	121.97	118.90
23	DA	1943	U	N1-C2-N3	5.11	117.97	114.90
23	DA	2669	G	C8-N9-C4	5.11	108.44	106.40
1	AA	297	G	N3-C4-C5	5.11	131.16	128.60
1	AA	1088	G	N3-C4-C5	5.11	131.16	128.60
23	BA	1294	U	N1-C2-O2	-5.11	119.22	122.80
23	BA	1959	G	N9-C4-C5	5.11	107.44	105.40
23	BA	2716	U	N3-C2-O2	-5.11	118.62	122.20
1	CA	117	G	N1-C6-O6	5.11	122.97	119.90
23	DA	1007	C	N1-C2-O2	-5.11	115.83	118.90
23	DA	1897	G	C5-C6-O6	-5.11	125.53	128.60
23	DA	2226	C	N3-C4-C5	5.11	123.94	121.90
23	DA	2779	U	N3-C4-C5	5.11	117.67	114.60
1	AA	687	A	P-O3'-C3'	5.11	125.83	119.70
23	BA	1333	C	N1-C2-O2	-5.11	115.83	118.90
23	BA	1435	G	C5-C6-O6	5.11	131.66	128.60
23	BA	1806	C	N1-C2-O2	-5.11	115.83	118.90
23	BA	1835	G	C4-N9-C1'	5.11	133.14	126.50
23	BA	2250	G	N3-C4-C5	-5.11	126.05	128.60
23	DA	1996	C	C5-C4-N4	-5.11	116.62	120.20
23	BA	475	U	N1-C2-N3	5.11	117.96	114.90
1	CA	1026	G	N3-C4-N9	5.11	129.06	126.00
23	DA	961	C	C5-C4-N4	-5.11	116.62	120.20
23	DA	2611	U	N3-C4-O4	5.11	122.98	119.40
23	BA	1195	G	C5-C6-N1	5.11	114.05	111.50
23	BA	1997	G	N7-C8-N9	-5.11	110.55	113.10
23	DA	135	G	N1-C6-O6	5.11	122.96	119.90
23	DA	469	G	C6-N1-C2	-5.11	122.04	125.10
23	DA	2000	G	C5-C6-O6	-5.10	125.54	128.60
23	DA	2675	A	C6-N1-C2	-5.10	115.54	118.60
23	BA	214	G	C4-N9-C1'	-5.10	119.87	126.50
23	BA	444	C	N1-C2-O2	-5.10	115.84	118.90
23	BA	652(S)	C	C5-C6-N1	5.10	123.55	121.00
23	BA	1541	G	N3-C4-C5	-5.10	126.05	128.60
23	BA	1985	G	N3-C2-N2	-5.10	116.33	119.90
23	BA	2538	C	N1-C2-O2	5.10	121.96	118.90
25	BD	260	ARG	N-CA-CB	5.10	119.79	110.60
23	DA	1563	G	N1-C2-N2	-5.10	111.61	116.20
23	DA	1899	G	C6-C5-N7	-5.10	127.34	130.40
23	DA	2675	A	N1-C2-N3	5.10	131.85	129.30
1	AA	904	C	N3-C2-O2	5.10	125.47	121.90
23	BA	108	U	N3-C4-C5	5.10	117.66	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	123	G	C8-N9-C4	5.10	108.44	106.40
23	BA	2111	C	C6-N1-C2	-5.10	118.26	120.30
23	BA	2243	U	N1-C2-O2	-5.10	119.23	122.80
44	B0	55	ARG	NE-CZ-NH1	5.10	122.85	120.30
1	CA	297	G	C5-C6-O6	-5.10	125.54	128.60
23	DA	407	G	N7-C8-N9	-5.10	110.55	113.10
23	DA	708	C	N3-C4-C5	5.10	123.94	121.90
23	DA	1438	U	C5-C4-O4	-5.10	122.84	125.90
23	DA	1681	G	N1-C6-O6	5.10	122.96	119.90
52	D8	35	GLN	N-CA-C	5.10	124.77	111.00
1	AA	305	G	C8-N9-C4	5.10	108.44	106.40
23	BA	1204	A	C1'-O4'-C4'	-5.10	105.82	109.90
23	BA	1600	C	C4-C5-C6	5.10	119.95	117.40
23	BA	1658	C	C4-C5-C6	5.10	119.95	117.40
23	BA	2331	G	C5-C6-O6	-5.10	125.54	128.60
1	CA	813	U	C5-C4-O4	-5.10	122.84	125.90
23	DA	1654	A	C4-C5-N7	-5.10	108.15	110.70
23	DA	2357	U	C2-N3-C4	-5.10	123.94	127.00
23	DA	2582	G	N1-C2-N3	-5.10	120.84	123.90
23	DA	1204	A	C3'-C2'-C1'	-5.10	97.42	101.50
1	AA	1002	G	N9-C4-C5	5.09	107.44	105.40
23	BA	987	G	C5-N7-C8	-5.09	101.75	104.30
23	BA	1823	G	N3-C2-N2	5.09	123.47	119.90
23	BA	2062	A	N1-C6-N6	5.09	121.66	118.60
1	CA	588	G	C8-N9-C4	5.09	108.44	106.40
23	DA	832	G	N9-C4-C5	5.09	107.44	105.40
23	DA	1541	G	N3-C4-C5	-5.09	126.05	128.60
23	DA	1620	G	C5-C6-N1	-5.09	108.95	111.50
23	DA	1800	C	C4-C5-C6	5.09	119.95	117.40
23	BA	1985	G	N7-C8-N9	-5.09	110.55	113.10
1	CA	154	C	C6-N1-C2	5.09	122.34	120.30
1	CA	365	U	C4-C5-C6	5.09	122.76	119.70
23	DA	565	C	C5-C4-N4	5.09	123.77	120.20
23	DA	757	U	C5-C6-N1	-5.09	120.15	122.70
1	AA	809	G	C8-N9-C4	5.09	108.44	106.40
23	BA	1236	G	C5-C6-N1	5.09	114.05	111.50
23	BA	1953	A	C5-C6-N6	-5.09	119.63	123.70
23	BA	2335	A	C2-N3-C4	5.09	113.15	110.60
24	BB	95	C	C2-N3-C4	-5.09	117.35	119.90
1	AA	259	G	C4-C5-N7	5.09	112.84	110.80
23	BA	2035	G	O4'-C1'-N9	5.09	112.27	108.20
23	BA	2409	G	C6-C5-N7	-5.09	127.35	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	CA	42	G	C6-N1-C2	5.09	128.15	125.10
23	DA	1959	G	C8-N9-C4	-5.09	104.36	106.40
23	DA	2105	C	C2-N3-C4	5.09	122.44	119.90
23	DA	2500	U	N3-C4-C5	5.09	117.65	114.60
23	DA	2757	A	N1-C6-N6	5.09	121.65	118.60
24	DB	20	C	C5-C4-N4	-5.09	116.64	120.20
1	AA	1040	U	C6-N1-C1'	5.09	128.32	121.20
23	BA	2207	G	C4-N9-C1'	5.09	133.11	126.50
23	BA	2637	U	N1-C2-N3	5.09	117.95	114.90
1	CA	1326	C	C6-N1-C2	5.09	122.33	120.30
1	CA	1421	G	N1-C6-O6	-5.09	116.85	119.90
23	DA	121	G	C6-N1-C2	-5.09	122.05	125.10
23	BA	481	G	P-O3'-C3'	5.09	125.81	119.70
23	BA	1323	U	C5-C6-N1	-5.09	120.16	122.70
23	BA	2446	G	C8-N9-C4	-5.09	104.37	106.40
1	CA	242	C	N1-C2-O2	-5.09	115.85	118.90
1	CA	858	G	C8-N9-C4	-5.09	104.37	106.40
1	CA	1399	C	C5-C4-N4	-5.09	116.64	120.20
23	DA	114	U	C6-N1-C1'	-5.09	114.08	121.20
23	DA	445	C	N1-C2-O2	-5.09	115.85	118.90
23	DA	798	G	N1-C6-O6	-5.09	116.85	119.90
23	DA	1028	A	N9-C4-C5	5.09	107.83	105.80
23	BA	23	G	C5-C6-O6	5.08	131.65	128.60
38	BU	52	ARG	NE-CZ-NH2	-5.08	117.76	120.30
1	CA	600	C	C6-N1-C2	5.08	122.33	120.30
23	DA	591	C	C2-N1-C1'	-5.08	113.21	118.80
23	DA	1835	G	N1-C2-N2	-5.08	111.62	116.20
1	AA	70	G	C5-C6-N1	-5.08	108.96	111.50
1	AA	1325	C	C5-C6-N1	-5.08	118.46	121.00
23	BA	242	G	C4-C5-N7	-5.08	108.77	110.80
23	BA	338	G	N1-C6-O6	-5.08	116.85	119.90
23	BA	692	C	C5-C6-N1	5.08	123.54	121.00
23	BA	1212	G	C6-C5-N7	-5.08	127.35	130.40
1	CA	458	C	C2-N1-C1'	5.08	124.39	118.80
1	CA	1429	C	N3-C4-C5	5.08	123.93	121.90
23	DA	185	U	C5-C6-N1	-5.08	120.16	122.70
23	DA	751	A	C8-N9-C4	5.08	107.83	105.80
23	DA	1904	G	N3-C4-N9	5.08	129.05	126.00
26	DE	78	LEU	CA-CB-CG	5.08	126.99	115.30
1	AA	935	A	N1-C6-N6	-5.08	115.55	118.60
23	BA	2453	A	N3-C4-C5	-5.08	123.24	126.80
23	BA	2490	G	N7-C8-N9	-5.08	110.56	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2633	G	N1-C6-O6	-5.08	116.85	119.90
23	BA	2699	C	C6-N1-C1'	5.08	126.90	120.80
1	CA	637	G	C8-N9-C4	5.08	108.43	106.40
23	DA	136	G	N1-C6-O6	5.08	122.95	119.90
23	DA	2191	G	C5-C6-O6	-5.08	125.55	128.60
23	DA	2199	A	C4-N9-C1'	5.08	135.45	126.30
23	BA	1131	G	N1-C6-O6	-5.08	116.85	119.90
23	BA	2438	U	N3-C2-O2	5.08	125.76	122.20
1	CA	1206	G	N3-C4-C5	-5.08	126.06	128.60
23	DA	463	G	C5-C6-O6	5.08	131.65	128.60
23	DA	2015	A	N9-C4-C5	5.08	107.83	105.80
1	AA	715	A	C8-N9-C4	5.08	107.83	105.80
1	CA	155	C	N1-C2-O2	5.08	121.95	118.90
1	CA	1129	C	N3-C2-O2	-5.08	118.34	121.90
1	AA	1225	A	C6-N1-C2	5.08	121.65	118.60
23	BA	260	G	N9-C4-C5	5.08	107.43	105.40
23	BA	753	C	C5-C4-N4	5.08	123.75	120.20
23	BA	1968	G	C5-C6-O6	-5.08	125.55	128.60
1	AA	1255	G	C5-C6-O6	-5.08	125.55	128.60
23	BA	1023	U	N3-C2-O2	-5.08	118.65	122.20
23	BA	2207	G	C4-C5-C6	5.08	121.84	118.80
23	DA	2066	C	C4-C5-C6	5.08	119.94	117.40
1	AA	1518	A	C4-C5-C6	5.07	119.54	117.00
23	BA	382	G	N7-C8-N9	-5.07	110.56	113.10
23	BA	2073	C	C2-N3-C4	-5.07	117.36	119.90
23	BA	2237	G	C8-N9-C4	5.07	108.43	106.40
23	DA	482	A	N9-C4-C5	-5.07	103.77	105.80
23	DA	546	C	C6-N1-C1'	-5.07	114.71	120.80
23	DA	2248	C	C2-N3-C4	-5.07	117.36	119.90
1	AA	77	G	C4-C5-N7	5.07	112.83	110.80
23	BA	671	C	C2-N1-C1'	-5.07	113.22	118.80
1	CA	203	U	C5-C6-N1	5.07	125.24	122.70
1	AA	32	A	C8-N9-C4	-5.07	103.77	105.80
1	AA	760	G	N1-C6-O6	5.07	122.94	119.90
1	AA	930	C	C2-N1-C1'	-5.07	113.22	118.80
23	BA	21	A	N1-C6-N6	5.07	121.64	118.60
1	CA	47	C	C2-N3-C4	5.07	122.44	119.90
1	CA	266	G	N7-C8-N9	5.07	115.64	113.10
23	DA	893	C	C5-C4-N4	-5.07	116.65	120.20
23	DA	2036	C	N3-C2-O2	5.07	125.45	121.90
23	DA	2142	C	C6-N1-C1'	5.07	126.89	120.80
24	DB	64	C	N3-C2-O2	-5.07	118.35	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	2153	G	N3-C4-N9	-5.07	122.96	126.00
23	DA	934	G	C4-C5-N7	-5.07	108.77	110.80
23	BA	474	G	C5-N7-C8	-5.07	101.77	104.30
23	BA	2207	G	C8-N9-C1'	-5.07	120.41	127.00
1	CA	1124	G	C8-N9-C4	-5.07	104.37	106.40
1	CA	1510	U	C5-C6-N1	-5.07	120.17	122.70
23	DA	271(M)	G	N7-C8-N9	5.07	115.63	113.10
23	DA	573	G	C6-C5-N7	-5.07	127.36	130.40
23	DA	2027	G	C6-N1-C2	-5.07	122.06	125.10
34	DQ	135	ASP	CB-CA-C	-5.07	100.27	110.40
1	AA	1123	A	C6-C5-N7	5.07	135.85	132.30
23	BA	1811	G	N9-C4-C5	5.07	107.43	105.40
1	CA	243	A	N9-C4-C5	5.07	107.83	105.80
23	DA	2466	C	N3-C2-O2	-5.07	118.35	121.90
23	DA	109	G	N1-C6-O6	-5.06	116.86	119.90
1	AA	359	U	N3-C2-O2	5.06	125.74	122.20
1	AA	1099	G	C4-C5-N7	-5.06	108.78	110.80
23	BA	2463	C	N1-C2-O2	-5.06	115.86	118.90
23	BA	2751	G	C5-C6-O6	5.06	131.64	128.60
1	CA	151	A	C8-N9-C4	-5.06	103.78	105.80
1	CA	784	C	N3-C4-C5	-5.06	119.88	121.90
23	DA	469	G	C5-C6-O6	-5.06	125.56	128.60
23	DA	783	A	C2-N3-C4	5.06	113.13	110.60
23	DA	2869	G	N7-C8-N9	5.06	115.63	113.10
23	BA	1699	G	N9-C4-C5	5.06	107.42	105.40
23	BA	1885	A	N7-C8-N9	-5.06	111.27	113.80
1	CA	908	A	C8-N9-C4	5.06	107.82	105.80
23	DA	2249	U	C6-N1-C2	5.06	124.04	121.00
1	AA	919	A	C2-N3-C4	5.06	113.13	110.60
23	BA	526	A	N9-C4-C5	5.06	107.82	105.80
23	BA	855	G	C5-C6-O6	5.06	131.64	128.60
1	CA	1207	G	N3-C4-C5	5.06	131.13	128.60
23	DA	742	G	C2-N3-C4	-5.06	109.37	111.90
23	DA	1518	U	C5-C4-O4	5.06	128.94	125.90
23	DA	1942	C	C6-N1-C2	5.06	122.32	120.30
23	DA	2234	G	N3-C2-N2	5.06	123.44	119.90
1	AA	1216	G	C4-N9-C1'	-5.06	119.92	126.50
23	BA	431	U	N3-C2-O2	-5.06	118.66	122.20
23	BA	1822	G	N9-C4-C5	5.06	107.42	105.40
23	BA	2201	C	C6-N1-C2	5.06	122.32	120.30
23	BA	2553	G	N1-C2-N2	-5.06	111.65	116.20
1	CA	1276	G	C4-C5-N7	-5.06	108.78	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	1960	A	C8-N9-C4	5.06	107.82	105.80
1	AA	801	U	C5-C6-N1	-5.06	120.17	122.70
23	BA	2683	C	N3-C4-N4	5.06	121.54	118.00
1	CA	932	C	N3-C2-O2	-5.06	118.36	121.90
1	AA	428	G	P-O3'-C3'	5.05	125.77	119.70
23	BA	210	C	C2-N3-C4	-5.05	117.37	119.90
23	BA	1772	G	N7-C8-N9	-5.05	110.57	113.10
23	BA	2272	U	N1-C2-N3	5.05	117.93	114.90
23	BA	2695	C	N3-C4-C5	5.05	123.92	121.90
23	DA	671	C	N1-C2-O2	-5.05	115.87	118.90
23	DA	915	C	N1-C2-O2	5.05	121.93	118.90
23	DA	1820	U	N3-C4-O4	-5.05	115.86	119.40
1	AA	39	G	C4-N9-C1'	-5.05	119.93	126.50
23	BA	967	C	N3-C4-C5	5.05	123.92	121.90
23	BA	986	C	C6-N1-C2	-5.05	118.28	120.30
23	DA	1189	A	N1-C6-N6	5.05	121.63	118.60
23	DA	2063	C	C6-N1-C2	5.05	122.32	120.30
24	DB	12	C	C2-N1-C1'	5.05	124.36	118.80
23	BA	1344	G	N1-C2-N3	5.05	126.93	123.90
23	BA	1451	C	N1-C2-O2	5.05	121.93	118.90
23	BA	2375	G	C8-N9-C4	5.05	108.42	106.40
23	BA	2588	G	N3-C2-N2	5.05	123.44	119.90
23	DA	585	G	N1-C2-N3	5.05	126.93	123.90
23	DA	980	A	C2-N3-C4	-5.05	108.07	110.60
23	BA	735	A	N1-C6-N6	-5.05	115.57	118.60
23	BA	754	C	N3-C4-C5	5.05	123.92	121.90
23	BA	1998	G	N9-C4-C5	5.05	107.42	105.40
23	BA	2729	G	N9-C4-C5	-5.05	103.38	105.40
1	CA	54	C	N3-C4-N4	-5.05	114.47	118.00
1	CA	886	G	N1-C6-O6	5.05	122.93	119.90
23	DA	2474	C	C6-N1-C2	5.05	122.32	120.30
1	AA	1036	G	C4-N9-C1'	5.05	133.06	126.50
23	BA	771	G	N3-C4-C5	-5.05	126.08	128.60
23	BA	2242	G	P-O3'-C3'	5.05	125.76	119.70
23	BA	2527	C	C2-N3-C4	5.05	122.42	119.90
23	DA	47	C	C2-N3-C4	-5.05	117.38	119.90
23	DA	236	C	C2-N3-C4	-5.05	117.38	119.90
23	DA	681	G	C5-C6-O6	5.05	131.63	128.60
23	DA	706	A	C8-N9-C4	-5.05	103.78	105.80
23	DA	1943	U	C2-N3-C4	-5.05	123.97	127.00
23	DA	2326	C	N3-C4-C5	-5.05	119.88	121.90
23	DA	2371	G	C8-N9-C4	5.05	108.42	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2772	C	C6-N1-C2	5.05	122.32	120.30
1	AA	769	G	N3-C4-C5	-5.04	126.08	128.60
1	CA	56	U	N1-C2-N3	5.04	117.93	114.90
37	DT	53	ARG	CB-CA-C	-5.04	100.31	110.40
23	BA	1040	C	C2-N3-C4	-5.04	117.38	119.90
23	BA	1359	A	C8-N9-C4	5.04	107.82	105.80
1	CA	742	G	N1-C2-N2	5.04	120.74	116.20
1	CA	768	A	N1-C2-N3	5.04	131.82	129.30
23	DA	114	U	C5-C6-N1	5.04	125.22	122.70
23	DA	316	C	C5-C4-N4	-5.04	116.67	120.20
23	DA	1897	G	C8-N9-C4	5.04	108.42	106.40
24	DB	63	G	N9-C4-C5	-5.04	103.38	105.40
1	AA	555	C	N1-C2-O2	-5.04	115.88	118.90
23	BA	1043	C	C6-N1-C2	-5.04	118.28	120.30
23	BA	1192	G	N7-C8-N9	-5.04	110.58	113.10
23	BA	1475	G	N1-C2-N2	5.04	120.74	116.20
23	DA	40	C	N3-C2-O2	5.04	125.43	121.90
23	DA	214	G	C4-N9-C1'	-5.04	119.95	126.50
23	DA	474	G	N3-C2-N2	5.04	123.43	119.90
23	DA	728	G	N1-C6-O6	-5.04	116.88	119.90
23	DA	1531	C	C5-C6-N1	5.04	123.52	121.00
23	DA	2733	A	N7-C8-N9	5.04	116.32	113.80
23	BA	1427	A	P-O3'-C3'	5.04	125.75	119.70
23	BA	1744	C	N3-C4-C5	5.04	123.92	121.90
23	BA	2246	G	C2-N3-C4	5.04	114.42	111.90
23	BA	2378	A	C5-C6-N6	-5.04	119.67	123.70
23	BA	2589	A	C5-N7-C8	5.04	106.42	103.90
23	DA	1385	G	C2-N3-C4	-5.04	109.38	111.90
23	DA	1900	A	C5-C6-N1	5.04	120.22	117.70
1	AA	70	G	C6-N1-C2	5.04	128.12	125.10
1	AA	113	G	N1-C6-O6	-5.04	116.88	119.90
23	BA	2056	G	N1-C6-O6	-5.04	116.88	119.90
23	BA	2375	G	N1-C6-O6	5.04	122.92	119.90
23	DA	1217	C	C5-C6-N1	-5.04	118.48	121.00
23	DA	2029	G	N3-C2-N2	-5.04	116.37	119.90
23	DA	2318	G	C5-C6-O6	5.04	131.62	128.60
23	BA	2074	U	C6-N1-C2	-5.04	117.98	121.00
23	BA	2511	U	N1-C2-O2	-5.04	119.28	122.80
23	DA	1231	G	N1-C6-O6	5.04	122.92	119.90
24	DB	35	U	C5-C6-N1	-5.04	120.18	122.70
1	AA	1043	C	C2-N1-C1'	5.03	124.34	118.80
1	AA	1331	G	C8-N9-C4	-5.03	104.39	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	70	G	C5-C6-O6	5.03	131.62	128.60
23	BA	395	U	C5-C4-O4	-5.03	122.88	125.90
23	BA	456	C	C5-C4-N4	-5.03	116.68	120.20
23	BA	1157	G	N1-C6-O6	-5.03	116.88	119.90
23	DA	472	A	C6-N1-C2	-5.03	115.58	118.60
23	DA	1745	C	N3-C2-O2	5.03	125.42	121.90
1	AA	922	G	N7-C8-N9	5.03	115.62	113.10
23	DA	732	C	N3-C4-C5	-5.03	119.89	121.90
23	DA	1819	A	C8-N9-C4	-5.03	103.79	105.80
23	BA	112	U	N1-C2-O2	5.03	126.32	122.80
23	DA	669	G	C8-N9-C4	5.03	108.41	106.40
1	CA	1212	U	N1-C2-O2	5.03	126.32	122.80
43	DZ	74	VAL	CB-CA-C	-5.03	101.84	111.40
1	AA	1519	A	C4-C5-C6	5.03	119.51	117.00
23	BA	1772	G	C8-N9-C4	5.03	108.41	106.40
23	BA	2475	C	N3-C4-C5	-5.03	119.89	121.90
1	CA	114	U	N3-C4-O4	-5.03	115.88	119.40
1	CA	353	A	C8-N9-C4	-5.03	103.79	105.80
23	DA	537	C	C2-N3-C4	-5.03	117.39	119.90
23	DA	1142(A)	A	N7-C8-N9	5.03	116.31	113.80
23	BA	377	C	C5-C6-N1	-5.03	118.49	121.00
23	BA	560	C	C6-N1-C2	5.03	122.31	120.30
23	BA	812	C	C2-N1-C1'	5.03	124.33	118.80
23	BA	1204	A	C3'-C2'-C1'	-5.03	97.48	101.50
23	BA	1865	G	N3-C2-N2	-5.03	116.38	119.90
23	DA	1925	C	N1-C2-O2	-5.03	115.89	118.90
23	DA	1933	G	C4-C5-N7	-5.03	108.79	110.80
23	BA	2686	G	C5-C6-N1	5.02	114.01	111.50
23	BA	398	G	N9-C4-C5	5.02	107.41	105.40
23	BA	1221(A)	C	C2-N3-C4	-5.02	117.39	119.90
23	BA	1879	C	C6-N1-C2	-5.02	118.29	120.30
23	BA	2008	C	C2-N3-C4	-5.02	117.39	119.90
23	BA	686	G	C8-N9-C4	5.02	108.41	106.40
23	BA	2628	C	C6-N1-C2	5.02	122.31	120.30
23	DA	1721	G	C5-C6-O6	-5.02	125.59	128.60
1	AA	49	U	N3-C4-O4	-5.02	115.89	119.40
1	AA	811	C	C2-N3-C4	-5.02	117.39	119.90
23	BA	2388	A	N7-C8-N9	5.02	116.31	113.80
23	DA	56	A	C5-C6-N6	5.02	127.72	123.70
23	DA	798	G	C6-C5-N7	5.02	133.41	130.40
23	DA	809	G	C4-C5-N7	-5.02	108.79	110.80
23	DA	1555	G	N3-C2-N2	-5.02	116.39	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	DA	2182	G	C8-N9-C1'	5.02	133.53	127.00
1	AA	1037	C	C4-C5-C6	5.02	119.91	117.40
23	BA	1124	C	N1-C2-O2	-5.02	115.89	118.90
23	BA	1163	G	C8-N9-C4	5.02	108.41	106.40
1	CA	1100	C	N3-C4-N4	-5.02	114.49	118.00
1	CA	1370	G	C5-C6-N1	-5.02	108.99	111.50
23	DA	1266	G	C8-N9-C4	5.02	108.41	106.40
23	BA	2839	G	N1-C6-O6	-5.02	116.89	119.90
23	DA	2710	C	C2-N3-C4	-5.02	117.39	119.90
23	BA	121	G	C5-C6-N1	5.01	114.01	111.50
23	BA	272(H)	C	C2-N3-C4	-5.01	117.39	119.90
23	BA	496	G	N3-C2-N2	5.01	123.41	119.90
23	BA	1017	G	N7-C8-N9	5.01	115.61	113.10
23	BA	2488	A	N1-C2-N3	5.01	131.81	129.30
23	BA	2681	C	C5-C6-N1	-5.01	118.49	121.00
23	DA	686	G	C6-N1-C2	-5.01	122.09	125.10
23	DA	2131	G	C8-N9-C4	-5.01	104.39	106.40
23	BA	708	C	N3-C4-C5	5.01	123.91	121.90
23	BA	2605	U	C5-C4-O4	5.01	128.91	125.90
24	BB	31	C	C6-N1-C2	-5.01	118.30	120.30
1	CA	281	G	N7-C8-N9	5.01	115.61	113.10
1	CA	985	C	C6-N1-C2	-5.01	118.30	120.30
23	DA	465	G	N3-C4-C5	-5.01	126.09	128.60
23	DA	578	A	N9-C4-C5	5.01	107.81	105.80
23	DA	1243	G	N1-C6-O6	-5.01	116.89	119.90
23	DA	1306	C	N1-C2-O2	5.01	121.91	118.90
23	BA	126	A	C6-N1-C2	5.01	121.61	118.60
23	BA	494	G	N1-C2-N3	5.01	126.91	123.90
23	BA	535	C	C6-N1-C1'	5.01	126.81	120.80
23	BA	840	C	N3-C4-C5	5.01	123.90	121.90
23	BA	1235	G	C5-C6-O6	-5.01	125.59	128.60
23	BA	1894	C	N3-C4-C5	-5.01	119.90	121.90
1	CA	1391	U	N1-C2-O2	5.01	126.31	122.80
23	DA	833	U	N3-C4-C5	-5.01	111.59	114.60
23	DA	1441	G	N7-C8-N9	-5.01	110.59	113.10
23	DA	2821	A	C4-C5-N7	5.01	113.20	110.70
23	BA	956	G	N9-C4-C5	-5.01	103.40	105.40
1	CA	824	C	N3-C2-O2	5.01	125.41	121.90
23	DA	132	G	N3-C4-N9	-5.01	123.00	126.00
23	DA	2778	A	N9-C4-C5	5.01	107.80	105.80
1	AA	915	A	C4-C5-N7	-5.01	108.20	110.70
23	BA	268	C	C6-N1-C2	-5.01	118.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	BA	1111	A	C4-C5-N7	5.01	113.20	110.70
23	BA	1122	G	C6-C5-N7	-5.01	127.40	130.40
23	BA	1230	C	C6-N1-C2	5.01	122.30	120.30
23	BA	1301	A	C5-N7-C8	-5.01	101.40	103.90
23	BA	1558	A	P-O3'-C3'	5.01	125.71	119.70
23	BA	2609	U	C2-N1-C1'	-5.01	111.69	117.70
23	DA	922	U	C5-C4-O4	-5.01	122.90	125.90
23	DA	1249	U	C5-C6-N1	-5.01	120.20	122.70
23	DA	1665	A	C5-N7-C8	5.01	106.40	103.90
23	BA	325	G	C8-N9-C4	5.00	108.40	106.40
23	BA	615	G	C5-C6-O6	5.00	131.60	128.60
23	BA	127	A	C5-C6-N6	-5.00	119.70	123.70
23	BA	1343	G	N9-C4-C5	5.00	107.40	105.40
23	BA	2250	G	N1-C6-O6	-5.00	116.90	119.90
1	CA	40	C	N1-C2-N3	5.00	122.70	119.20
23	DA	153	C	C2-N1-C1'	5.00	124.30	118.80
23	DA	271(X)	G	N9-C4-C5	5.00	107.40	105.40
23	DA	1707	G	C8-N9-C4	5.00	108.40	106.40
23	BA	319	C	N3-C2-O2	-5.00	118.40	121.90
23	BA	1607	C	N3-C4-N4	5.00	121.50	118.00
23	BA	1697	G	C4-C5-N7	5.00	112.80	110.80
23	BA	2872	G	N3-C2-N2	5.00	123.40	119.90
23	DA	1607	C	C5-C4-N4	-5.00	116.70	120.20
23	DA	2045	C	C2-N3-C4	-5.00	117.40	119.90

There are no chirality outliers.

All (68) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	14	GLY	Peptide
3	AC	180	ALA	Peptide
3	AC	50	ALA	Peptide
4	AD	29	PRO	Peptide
9	AI	39	GLY	Peptide
9	AI	44	VAL	Peptide
9	AI	45	ALA	Peptide
10	AJ	79	ARG	Peptide
10	AJ	86	MET	Peptide
10	AJ	89	ASP	Peptide
13	AM	65	LYS	Peptide
13	AM	85	GLY	Peptide
18	AR	31	LEU	Peptide

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Mol	Chain	Res	Type	Group
45	B1	83	GLU	Peptide
48	B4	42	PHE	Peptide
49	B5	53	ALA	Peptide
23	BA	2375	G	Sidechain
23	BA	2464	C	Sidechain
23	BA	271(Q)	G	Sidechain
23	BA	512	G	Sidechain
25	BD	275	LYS	Peptide
26	BE	72	VAL	Peptide
27	BF	20	LEU	Mainchain
27	BF	21	ALA	Mainchain
27	BF	85	GLY	Peptide
28	BG	81	LYS	Peptide
29	BH	70	THR	Peptide
30	BI	85	GLU	Peptide
31	BN	124	ALA	Peptide
33	BP	26	GLY	Peptide
33	BP	44	GLY	Peptide
36	BS	83	LYS	Peptide
37	BT	126	ALA	Peptide
41	BX	23	GLU	Mainchain
43	BZ	159	PRO	Peptide
2	CB	14	GLY	Peptide
2	CB	237	ALA	Peptide
3	CC	100	ALA	Peptide
3	CC	46	GLU	Peptide
3	CC	78	GLY	Peptide
4	CD	29	PRO	Peptide
9	CI	38	GLN	Peptide
10	CJ	33	GLN	Peptide
10	CJ	90	LEU	Peptide
12	CL	26	ALA	Peptide
12	CL	87	GLY	Peptide
13	CM	65	LYS	Peptide
14	CN	13	THR	Peptide
14	CN	14	PRO	Peptide
18	CR	31	LEU	Peptide
45	D1	83	GLU	Peptide
48	D4	42	PHE	Peptide
49	D5	53	ALA	Peptide
52	D8	34	TRP	Mainchain
23	DA	271(Q)	G	Sidechain

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Mol	Chain	Res	Type	Group
25	DD	275	LYS	Peptide
26	DE	72	VAL	Peptide
27	DF	21	ALA	Mainchain
27	DF	85	GLY	Peptide
28	DG	13	GLU	Peptide
29	DH	70	THR	Peptide
31	DN	124	ALA	Peptide
33	DP	26	GLY	Peptide
33	DP	44	GLY	Peptide
36	DS	83	LYS	Peptide
37	DT	126	ALA	Peptide
41	DX	23	GLU	Mainchain
43	DZ	159	PRO	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32102	0	16201	703	0
1	CA	32056	0	16179	905	0
2	AB	1777	0	1747	75	0
2	CB	1817	0	1785	78	0
3	AC	1450	0	1314	42	0
3	CC	1453	0	1320	78	0
4	AD	1520	0	1406	44	0
4	CD	1537	0	1430	89	0
5	AE	1105	0	1130	37	0
5	CE	1106	0	1132	39	0
6	AF	781	0	741	17	0
6	CF	776	0	733	20	0
7	AG	1167	0	1108	34	0
7	CG	1164	0	1106	47	0
8	AH	1045	0	1033	31	0
8	CH	1049	0	1037	33	0
9	AI	852	0	742	47	0
9	CI	849	0	735	56	0
10	AJ	659	0	552	40	0
10	CJ	657	0	547	38	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	AK	828	0	822	15	0
11	CK	828	0	822	23	0
12	AL	909	0	927	29	0
12	CL	905	0	916	29	0
13	AM	801	0	743	42	0
13	CM	784	0	730	40	0
14	AN	478	0	496	25	0
14	CN	474	0	485	35	0
15	AO	724	0	749	23	0
15	CO	724	0	749	28	0
16	AP	651	0	638	34	0
16	CP	661	0	653	47	0
17	AQ	823	0	891	29	0
17	CQ	819	0	880	27	0
18	AR	514	0	530	13	0
18	CR	514	0	530	18	0
19	AS	560	0	466	31	0
19	CS	549	0	468	25	0
20	AT	699	0	746	24	0
20	CT	773	0	836	32	0
21	AU	199	0	208	6	0
21	CU	180	0	173	9	0
22	AY	754	0	776	24	0
22	CY	739	0	740	38	0
23	BA	60898	0	30697	759	0
23	DA	60264	0	30391	909	0
24	BB	2573	0	1306	27	0
24	DB	2573	0	1306	51	0
25	BD	2136	0	2218	55	0
25	DD	2136	0	2218	62	0
26	BE	1555	0	1607	41	0
26	DE	1555	0	1607	46	0
27	BF	1577	0	1612	44	0
27	DF	1572	0	1613	43	0
28	BG	1368	0	1324	37	0
28	DG	1368	0	1324	49	0
29	BH	1317	0	1376	23	0
29	DH	1317	0	1376	24	0
30	BI	1043	0	1054	39	0
30	DI	1043	0	1054	51	0
31	BN	1112	0	1180	25	0
31	DN	1112	0	1180	28	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	BO	923	0	981	12	0
32	DO	923	0	981	16	0
33	BP	1131	0	1201	39	0
33	DP	1131	0	1201	45	0
34	BQ	1122	0	1179	26	0
34	DQ	1122	0	1179	30	0
35	BR	968	0	1033	24	0
35	DR	968	0	1033	30	0
36	BS	865	0	905	38	0
36	DS	873	0	927	49	0
37	BT	1063	0	1103	29	0
37	DT	1058	0	1098	31	0
38	BU	959	0	1019	12	0
38	DU	959	0	1019	23	0
39	BV	771	0	830	14	1
39	DV	775	0	841	16	0
40	BW	881	0	935	22	0
40	DW	877	0	932	18	0
41	BX	742	0	799	14	0
41	DX	732	0	777	16	0
42	BY	785	0	828	16	0
42	DY	781	0	829	22	0
43	BZ	1522	0	1511	54	0
43	DZ	1528	0	1476	59	0
44	B0	594	0	604	7	0
44	D0	607	0	622	18	0
45	B1	745	0	804	20	0
45	D1	745	0	804	22	0
46	B2	588	0	643	13	0
46	D2	584	0	623	16	0
47	B3	458	0	503	6	0
47	D3	463	0	507	8	0
48	B4	349	0	336	11	0
48	D4	349	0	336	12	0
49	B5	455	0	472	10	0
49	D5	451	0	461	11	0
50	B6	449	0	462	15	0
50	D6	437	0	440	16	0
51	B7	418	0	467	10	0
51	D7	402	0	434	5	0
52	B8	509	0	565	19	0
52	D8	509	0	565	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
53	B9	297	0	316	6	0
53	D9	297	0	316	6	0
54	AA	217	0	0	0	0
54	AD	2	0	0	0	0
54	AE	1	0	0	0	0
54	AF	1	0	0	0	0
54	AI	1	0	0	0	0
54	AL	1	0	0	0	0
54	AM	2	0	0	0	0
54	AP	1	0	0	0	0
54	B0	4	0	0	0	0
54	B1	1	0	0	0	0
54	B2	2	0	0	0	0
54	B3	3	0	0	0	0
54	B5	1	0	0	0	0
54	B6	1	0	0	0	0
54	B7	1	0	0	0	0
54	B8	1	0	0	0	0
54	B9	3	0	0	0	0
54	BA	729	0	0	0	0
54	BB	19	0	0	0	0
54	BD	7	0	0	0	0
54	BE	6	0	0	0	0
54	BF	6	0	0	0	0
54	BG	1	0	0	0	0
54	BH	1	0	0	0	0
54	BN	2	0	0	0	0
54	BO	1	0	0	0	0
54	BP	2	0	0	0	0
54	BQ	5	0	0	0	0
54	BR	5	0	0	0	0
54	BS	1	0	0	0	0
54	BT	3	0	0	0	0
54	BU	3	0	0	0	0
54	BV	4	0	0	0	0
54	BW	1	0	0	0	0
54	BY	1	0	0	0	0
54	BZ	2	0	0	0	0
54	CA	203	0	0	0	0
54	CE	1	0	0	0	0
54	CQ	1	0	0	0	0
54	D0	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	D1	1	0	0	0	0
54	D5	2	0	0	0	0
54	D7	2	0	0	0	0
54	D8	2	0	0	0	0
54	D9	1	0	0	0	0
54	DA	637	0	0	0	0
54	DB	10	0	0	0	0
54	DD	5	0	0	0	0
54	DE	3	0	0	0	0
54	DF	5	0	0	0	0
54	DO	3	0	0	0	0
54	DP	3	0	0	0	0
54	DQ	4	0	0	0	0
54	DR	2	0	0	0	0
54	DT	2	0	0	0	0
54	DW	1	0	0	0	0
55	AD	1	0	0	0	0
55	AN	1	0	0	0	0
55	B4	1	0	0	0	0
55	B5	1	0	0	0	0
55	B6	1	0	0	0	0
55	B9	1	0	0	0	0
55	BY	1	0	0	0	0
55	CD	1	0	0	0	0
55	CN	1	0	0	0	0
55	D4	1	0	0	0	0
55	D5	1	0	0	0	0
55	D6	1	0	0	0	0
55	D9	1	0	0	0	0
55	DY	1	0	0	0	0
56	AA	443	0	0	25	0
56	AD	3	0	0	2	0
56	AE	2	0	0	0	0
56	AF	2	0	0	0	0
56	AG	2	0	0	0	0
56	AJ	1	0	0	0	0
56	AK	1	0	0	0	0
56	AL	3	0	0	0	0
56	AM	1	0	0	0	0
56	AO	1	0	0	0	0
56	AP	1	0	0	0	0
56	AQ	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	AY	1	0	0	0	0
56	B0	4	0	0	0	0
56	B1	5	0	0	0	0
56	B3	4	0	0	0	0
56	B5	5	0	0	0	0
56	B6	2	0	0	0	0
56	B7	5	0	0	2	0
56	B8	11	0	0	0	0
56	B9	1	0	0	0	0
56	BA	1988	0	0	66	1
56	BB	43	0	0	1	0
56	BD	21	0	0	2	0
56	BE	18	0	0	1	0
56	BF	18	0	0	0	0
56	BG	2	0	0	0	0
56	BH	2	0	0	0	0
56	BN	7	0	0	0	0
56	BO	3	0	0	0	0
56	BP	20	0	0	0	0
56	BQ	9	0	0	0	0
56	BR	8	0	0	0	1
56	BS	2	0	0	0	0
56	BT	5	0	0	0	0
56	BU	9	0	0	0	0
56	BV	13	0	0	1	1
56	BW	6	0	0	0	0
56	BX	2	0	0	0	0
56	BY	2	0	0	0	0
56	BZ	2	0	0	0	0
56	CA	400	0	0	32	0
56	CD	2	0	0	1	0
56	CE	4	0	0	0	0
56	CF	1	0	0	0	0
56	CK	1	0	0	0	0
56	CL	2	0	0	0	0
56	CP	3	0	0	0	0
56	CQ	3	0	0	0	0
56	CR	1	0	0	1	0
56	CT	2	0	0	0	0
56	CU	1	0	0	1	0
56	D0	2	0	0	0	0
56	D1	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	D2	1	0	0	0	0
56	D3	1	0	0	1	0
56	D5	3	0	0	0	0
56	D6	3	0	0	0	0
56	D7	3	0	0	0	0
56	D8	6	0	0	0	0
56	D9	1	0	0	0	0
56	DA	1496	0	0	107	0
56	DB	33	0	0	6	0
56	DD	17	0	0	2	0
56	DE	12	0	0	0	0
56	DF	10	0	0	0	0
56	DN	2	0	0	0	0
56	DO	7	0	0	0	0
56	DP	11	0	0	0	0
56	DQ	2	0	0	1	0
56	DR	5	0	0	0	0
56	DT	3	0	0	0	0
56	DU	1	0	0	0	0
56	DV	1	0	0	0	0
56	DW	4	0	0	0	0
56	DX	2	0	0	0	0
56	DY	2	0	0	0	0
All	All	287173	0	187292	5583	2

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 12.

All (5583) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2296:U:O4	23:BA:2335:A:N6	1.59	1.34
23:DA:2296:U:O4	23:DA:2335:A:N6	1.59	1.33
1:CA:1164:G:H1	1:CA:1172:C:N4	1.45	1.15
23:BA:885:C:N4	23:BA:890:A:N6	1.97	1.13
1:AA:40:C:N4	1:AA:402:G:H1	1.47	1.12
1:CA:427:U:OP1	4:CD:13:ARG:NH2	1.82	1.11
23:BA:2322:A:H61	23:BA:2335:A:N6	1.48	1.11
23:DA:2322:A:H61	23:DA:2335:A:N6	1.49	1.08
23:DA:885:C:N4	23:DA:890:A:N6	2.02	1.08
23:DA:1783:A:OP1	56:DA:3853:HOH:O	1.74	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:885:C:H42	23:BA:890:A:N6	1.50	1.03
1:CA:346:G:OP1	37:DT:41:ARG:NH2	1.91	1.03
23:DA:885:C:H42	23:DA:890:A:N6	1.54	1.02
23:DA:571:A:H5'	23:DA:2030:A:H62	1.24	1.00
23:BA:1019:U:HO2'	23:BA:1021:A:H2	1.01	0.99
45:B1:21:ARG:HH11	45:B1:21:ARG:HG2	1.28	0.99
23:DA:1204:A:H2	23:DA:1241:A:H62	1.08	0.99
41:BX:31:HIS:HD2	41:BX:33:LYS:H	1.10	0.98
1:CA:538:G:H5"	12:CL:114:LYS:HB2	1.43	0.97
1:CA:574:A:OP2	56:CA:1921:HOH:O	1.81	0.97
1:AA:1003:G:H1	1:AA:1037:C:H42	1.00	0.97
23:DA:1359:A:H61	23:DA:1372:U:H3	1.13	0.97
23:BA:1204:A:H2	23:BA:1241:A:H62	1.08	0.96
1:CA:1502:A:H2	1:CA:1505:G:H1	1.07	0.96
23:BA:975:C:O2	56:BA:5566:HOH:O	1.83	0.96
7:CG:113:GLU:HG2	7:CG:119:ARG:HG2	1.44	0.95
23:BA:2136:C:N4	23:BA:2155:G:H1	1.64	0.95
44:D0:11:ARG:O	44:D0:14:ARG:NH2	2.00	0.95
23:BA:2287:A:H62	23:BA:2344:U:H3	1.14	0.94
23:DA:2136:C:N4	23:DA:2155:G:H1	1.66	0.94
23:BA:1359:A:H61	23:BA:1372:U:H3	1.10	0.94
26:BE:47:VAL:HG21	26:BE:86:PRO:HD2	1.50	0.94
44:B0:11:ARG:O	44:B0:14:ARG:NH2	2.00	0.93
1:AA:1502:A:H2	1:AA:1505:G:H1	1.10	0.93
1:AA:1025:U:O2	1:AA:1036:G:O6	1.86	0.93
1:AA:40:C:N3	1:AA:402:G:N2	2.16	0.93
37:BT:16:ARG:NH2	37:BT:83:ILE:O	2.02	0.93
23:DA:1689:A:H62	23:DA:1698:A:H2	1.17	0.93
1:CA:1164:G:H1	1:CA:1172:C:H42	0.99	0.93
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.50	0.92
41:DX:31:HIS:HD2	41:DX:33:LYS:H	1.15	0.92
1:AA:1005:A:H1'	1:AA:1036:G:H22	1.36	0.91
1:CA:1244:C:H42	1:CA:1293:G:H1	1.01	0.91
1:CA:1164:G:N2	1:CA:1172:C:N3	2.17	0.91
45:D1:21:ARG:HH11	45:D1:21:ARG:HG2	1.36	0.90
23:BA:1049:C:HO2'	23:BA:1050:A:H8	0.97	0.90
23:BA:1530:C:O2'	23:BA:1531:C:O5'	1.88	0.90
1:CA:1128:C:O2'	1:CA:1130:A:N7	2.05	0.90
23:DA:2100:G:H1	23:DA:2189:U:H3	1.14	0.89
23:DA:2287:A:H62	23:DA:2344:U:H3	1.17	0.89
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.04	0.89
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.38	0.88
23:DA:1332:G:OP1	56:DA:3803:HOH:O	1.91	0.88
23:BA:1798:U:H5'	25:BD:259:THR:HG22	1.56	0.88
1:AA:503:C:OP2	12:AL:116:SER:HB3	1.72	0.88
1:CA:573:A:OP2	56:CA:1921:HOH:O	1.90	0.88
1:AA:1054:C:N4	22:AY:46:GLN:OE1	2.08	0.87
23:DA:1530:C:O2'	23:DA:1531:C:O5'	1.91	0.87
1:CA:975:A:H4'	1:CA:976:G:H5"	1.56	0.87
37:BT:54:ARG:HA	37:BT:59:THR:HB	1.56	0.86
10:CJ:33:GLN:NE2	10:CJ:33:GLN:O	2.08	0.86
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.09	0.86
18:CR:32:ARG:HA	18:CR:69:THR:HG21	1.54	0.86
1:CA:1244:C:N4	1:CA:1293:G:H1	1.73	0.86
23:BA:2304:G:H1	23:BA:2312:U:H3	1.21	0.86
36:DS:82:ILE:HA	36:DS:83:LYS:HB2	1.58	0.86
1:CA:345:C:OP2	37:DT:39:ARG:NH2	2.09	0.86
43:DZ:160:GLY:HA2	43:DZ:161:VAL:HB	1.57	0.86
23:DA:2304:G:H1	23:DA:2312:U:H3	1.21	0.86
37:DT:54:ARG:HA	37:DT:59:THR:HB	1.58	0.86
23:DA:2624:G:N7	56:DA:5143:HOH:O	2.08	0.85
43:BZ:160:GLY:HA2	43:BZ:161:VAL:HB	1.55	0.85
23:BA:1689:A:H62	23:BA:1698:A:H2	1.19	0.85
30:BI:77:LEU:HB2	30:BI:142:VAL:HG12	1.58	0.85
26:DE:47:VAL:HG21	26:DE:86:PRO:HD2	1.56	0.85
23:BA:271(R):G:OP2	56:BA:5373:HOH:O	1.94	0.85
23:DA:1017:G:N7	56:DA:5106:HOH:O	2.09	0.85
23:DA:1798:U:H5'	25:DD:259:THR:HG22	1.58	0.85
23:DA:2206:G:H5'	23:DA:2207:G:N7	1.90	0.85
4:AD:106:TYR:HD2	4:AD:107:ARG:HG2	1.40	0.85
1:AA:1128:C:O2'	1:AA:1130:A:N7	2.10	0.85
23:BA:1359:A:N6	23:BA:1372:U:H3	1.75	0.85
23:BA:2100:G:H1	23:BA:2189:U:H3	1.21	0.85
2:AB:87:ARG:HE	2:AB:233:SER:HB2	1.40	0.85
1:AA:1003:G:H1	1:AA:1037:C:N4	1.74	0.84
3:AC:155:GLY:HA3	3:AC:196:LEU:HD12	1.58	0.84
23:BA:2123:G:H1	23:BA:2175:C:H42	1.24	0.84
23:BA:2206:G:H5'	23:BA:2207:G:N7	1.91	0.84
23:BA:2733:A:OP1	56:BA:5325:HOH:O	1.95	0.84
41:BX:31:HIS:CD2	41:BX:33:LYS:H	1.94	0.84
30:DI:110:ASP:N	30:DI:130:TYR:OH	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.10	0.84
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.43	0.83
1:AA:1503:A:C8	1:AA:1531:A:H8	1.95	0.83
1:CA:1366:C:O2'	10:CJ:60:ARG:NH1	2.11	0.83
23:BA:1741:A:N7	56:BA:5437:HOH:O	2.10	0.83
23:BA:885:C:N4	23:BA:890:A:H61	1.75	0.83
23:DA:2499:C:OP2	56:DA:3847:HOH:O	1.97	0.83
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.61	0.83
1:CA:1030:C:N4	1:CA:1032:G:O6	2.12	0.83
23:DA:2283:C:OP2	56:DA:4881:HOH:O	1.97	0.83
1:AA:1179:A:H4'	9:AI:103:THR:HA	1.58	0.82
23:BA:571:A:H5'	23:BA:2030:A:H62	1.44	0.82
1:CA:426:G:OP1	4:CD:38:TYR:OH	1.96	0.82
23:BA:2036:C:H5'	23:BA:2036:C:H6	1.43	0.82
1:AA:1459:C:H41	1:AA:1461:G:N2	1.78	0.82
1:CA:1159:U:O4'	1:CA:1182:G:N2	2.12	0.82
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.61	0.82
23:DA:1784:A:OP2	56:DA:3853:HOH:O	1.96	0.82
23:DA:990:A:OP2	56:DA:4578:HOH:O	1.96	0.82
23:BA:1890:A:OP2	56:BA:5282:HOH:O	1.97	0.82
22:AY:13:THR:HG23	22:AY:16:ILE:HG23	1.59	0.82
23:BA:1047:G:H2'	23:BA:1110:G:H22	1.45	0.82
23:DA:1359:A:N6	23:DA:1372:U:H3	1.77	0.82
4:CD:106:TYR:HD2	4:CD:107:ARG:HG2	1.45	0.82
23:DA:1381:G:N7	56:DA:3886:HOH:O	2.12	0.82
23:BA:587:C:OP2	33:BP:21:ARG:NH2	2.13	0.81
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.26	0.81
23:DA:2070:G:OP2	56:DA:4399:HOH:O	1.97	0.81
1:AA:1321:C:H3'	1:AA:1322:C:H5"	1.62	0.81
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.42	0.81
41:DX:31:HIS:CD2	41:DX:33:LYS:H	1.98	0.81
23:BA:1315:C:OP2	56:BA:4713:HOH:O	1.98	0.81
1:AA:1353:G:OP1	21:AU:10:ARG:NH1	2.13	0.81
23:BA:2206:G:H3'	23:BA:2207:G:C8	2.15	0.81
23:BA:2322:A:N6	23:BA:2335:A:N6	2.28	0.81
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.60	0.81
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.63	0.81
23:DA:83:G:N2	23:DA:103:A:OP2	2.13	0.81
23:DA:2322:A:N6	23:DA:2335:A:N6	2.29	0.81
23:BA:1506:C:H2'	23:BA:1507:A:H5'	1.63	0.81
23:DA:1427:A:H4'	23:DA:1428:C:O5'	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2268:A:OP1	56:BA:5088:HOH:O	1.98	0.80
23:BA:83:G:N2	23:BA:103:A:OP2	2.12	0.80
37:BT:118:ARG:HH11	37:BT:118:ARG:HG3	1.46	0.80
23:DA:2079:U:OP1	45:D1:21:ARG:NH2	2.15	0.80
37:DT:118:ARG:HG3	37:DT:118:ARG:HH11	1.46	0.80
13:AM:65:LYS:HA	13:AM:66:LEU:HB2	1.64	0.80
23:DA:2036:C:H6	23:DA:2036:C:H5'	1.46	0.80
24:DB:48:A:H4'	36:DS:95:HIS:HD2	1.47	0.80
1:AA:39:G:O6	1:AA:403:C:N3	2.13	0.80
30:BI:107:VAL:HG12	30:BI:108:THR:H	1.45	0.80
1:CA:472:A:O2'	16:CP:82:GLN:N	2.13	0.80
23:BA:1581:G:OP2	56:BA:5383:HOH:O	1.99	0.80
23:DA:2375:G:H8	56:DA:5005:HOH:O	1.64	0.80
23:DA:383:U:O4	56:DA:5039:HOH:O	1.99	0.80
1:CA:1053:G:N2	56:CA:2243:HOH:O	2.14	0.80
23:DA:1506:C:H2'	23:DA:1507:A:H5'	1.64	0.80
23:DA:2123:G:H1	23:DA:2175:C:H42	1.26	0.80
1:CA:652:U:OP2	56:CA:1992:HOH:O	2.00	0.79
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.64	0.79
23:BA:1364:G:OP2	45:B1:3:LYS:HG2	1.82	0.79
23:DA:885:C:N4	23:DA:890:A:H61	1.80	0.79
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.63	0.79
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.63	0.79
38:DU:76:TYR:OH	38:DU:92:ARG:NH1	2.15	0.79
1:CA:1164:G:N1	1:CA:1172:C:N4	2.29	0.79
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.15	0.79
23:DA:2206:G:H3'	23:DA:2207:G:C8	2.17	0.79
28:DG:76:SER:HA	28:DG:83:ARG:HA	1.64	0.79
1:AA:987:G:H1	1:AA:1218:C:H42	1.31	0.79
23:DA:1771:C:OP1	56:DA:4365:HOH:O	1.99	0.79
1:AA:1442(A):G:C8	1:AA:1442(B):A:C2	2.70	0.79
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.23	0.79
1:AA:1011:G:H1	1:AA:1018:C:H42	1.28	0.79
37:DT:95:ARG:HG2	37:DT:95:ARG:HH11	1.48	0.79
23:BA:956:G:OP2	34:BQ:14:ARG:NH2	2.16	0.79
22:CY:23:ARG:NH1	22:CY:75:ASN:OD1	2.16	0.79
23:DA:326:G:N7	56:DA:4245:HOH:O	2.14	0.79
24:DB:20:C:N4	24:DB:63:G:O6	2.16	0.79
2:AB:21:ARG:H	2:AB:21:ARG:HD2	1.48	0.78
28:DG:11:TYR:CZ	28:DG:16:ARG:HD3	2.17	0.78
19:AS:36:ARG:NH1	19:AS:52:TYR:O	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1762:A:H2'	56:BA:5422:HOH:O	1.82	0.78
37:BT:95:ARG:HG2	37:BT:95:ARG:HH11	1.46	0.78
3:AC:12:LEU:HD11	14:AN:51:GLY:HA2	1.65	0.78
22:CY:87:LYS:O	22:CY:91:LYS:HB2	1.84	0.78
33:BP:39:LYS:HB2	33:BP:45:LEU:HG	1.66	0.78
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.65	0.78
28:DG:56:ALA:HB2	28:DG:153:ARG:HE	1.47	0.78
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.65	0.78
23:DA:927:G:N7	56:DA:4500:HOH:O	2.15	0.78
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.17	0.78
1:AA:171:A:H2'	1:AA:172:A:C8	2.19	0.78
42:BY:23:ARG:HG2	42:BY:42:VAL:HG22	1.65	0.78
1:CA:1442:G:N7	1:CA:1442(A):G:C6	2.51	0.78
1:CA:1505:G:OP2	56:CA:1942:HOH:O	2.02	0.78
23:BA:1174:A:H5'	23:BA:1177:A:H61	1.48	0.78
23:DA:1403:C:H5"	23:DA:1471:A:H1'	1.63	0.78
24:DB:66:A:H61	24:DB:108:U:H2'	1.48	0.78
1:AA:102:G:O2'	1:AA:151:A:N3	2.15	0.78
28:BG:56:ALA:HB2	28:BG:153:ARG:HE	1.49	0.77
1:CA:1123:A:H4'	10:CJ:37:PRO:HG2	1.67	0.77
23:DA:2533:A:OP2	56:DA:4662:HOH:O	2.00	0.77
1:AA:1441:G:H21	1:AA:1459:C:H6	1.29	0.77
1:AA:1442:G:N7	1:AA:1442(A):G:C6	2.51	0.77
23:BA:1604:C:OP2	56:BA:5259:HOH:O	2.01	0.77
1:CA:1459:C:H41	1:CA:1461:G:N2	1.81	0.77
1:CA:1499:A:OP2	56:CA:1942:HOH:O	2.02	0.77
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.49	0.77
23:BA:1109:C:H5	23:BA:1110:G:C6	2.02	0.77
1:CA:1151:A:H5'	10:CJ:41:PRO:HA	1.64	0.77
1:AA:49:U:O4	1:AA:365:U:H5	1.65	0.77
40:BW:14:PRO:HG2	40:BW:78:GLU:HG2	1.66	0.77
1:CA:1396:A:OP2	56:CA:2083:HOH:O	2.02	0.77
22:CY:53:THR:HG22	22:CY:62:VAL:HG12	1.64	0.77
1:AA:991:U:O2'	1:AA:992:U:OP2	2.03	0.77
1:CA:1442:G:N7	1:CA:1442(A):G:C5	2.53	0.77
10:AJ:48:THR:HG1	10:AJ:62:HIS:HD1	1.27	0.77
23:BA:2692:C:OP2	56:BA:5358:HOH:O	2.00	0.77
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.65	0.77
23:DA:1803:A:O2'	25:DD:259:THR:HG21	1.84	0.77
23:BA:999:U:OP2	56:BA:4736:HOH:O	2.02	0.77
23:DA:11:G:N7	56:DA:4491:HOH:O	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:950:U:H1'	1:CA:971:G:N7	1.99	0.77
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.65	0.77
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.50	0.77
1:CA:986:A:H1'	19:CS:54:GLY:O	1.84	0.77
1:CA:1441:G:H21	1:CA:1459:C:H6	1.30	0.76
23:BA:2464:C:H1'	56:BA:5224:HOH:O	1.85	0.76
23:BA:2721:A:N7	56:BA:4334:HOH:O	2.17	0.76
1:CA:1065:U:H6	1:CA:1190:G:H21	1.32	0.76
45:B1:82:LEU:HA	45:B1:85:LEU:HD23	1.67	0.76
23:DA:1375:C:H3'	56:DA:4028:HOH:O	1.86	0.76
25:DD:148:GLU:HB2	25:DD:151:LYS:HD2	1.67	0.76
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.20	0.76
1:AA:1442:G:N7	1:AA:1442(A):G:C5	2.54	0.76
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.18	0.76
23:BA:686:G:H5"	51:B7:11:LYS:HE2	1.66	0.76
1:CA:1295:G:H21	1:CA:1302:U:H3	1.34	0.76
6:CF:11:ASN:HB3	6:CF:14:LEU:HG	1.65	0.76
23:DA:827:U:OP1	56:DA:4829:HOH:O	2.03	0.76
31:BN:56:ASN:H	31:BN:125:GLY:HA3	1.49	0.76
23:DA:323:G:HO2'	23:DA:1205:U:H3	1.32	0.76
34:DQ:32:TYR:CE2	34:DQ:133:ARG:HG3	2.20	0.76
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.50	0.76
1:CA:353:A:H8	1:CA:353:A:H5'	1.49	0.76
1:AA:642:A:N3	8:AH:113:SER:OG	2.19	0.76
1:CA:1441:G:H4'	1:CA:1442:G:N7	1.99	0.76
23:DA:587:C:OP2	33:DP:21:ARG:NH2	2.19	0.76
28:BG:76:SER:HA	28:BG:83:ARG:HA	1.68	0.76
1:AA:1442(B):A:C2	37:BT:118:ARG:CZ	2.69	0.76
1:AA:1502:A:H2	1:AA:1505:G:N1	1.84	0.76
1:AA:509:A:OP2	56:AA:2076:HOH:O	2.03	0.76
23:DA:1488:G:O6	56:DA:4595:HOH:O	2.01	0.76
1:CA:343:U:O2'	1:CA:344:A:OP2	2.04	0.75
1:AA:1441:G:H4'	1:AA:1442:G:N7	2.01	0.75
1:AA:353:A:H5'	1:AA:353:A:H8	1.51	0.75
23:DA:641:C:O2'	23:DA:2350:C:OP1	2.02	0.75
23:BA:1629:U:O4	56:BA:4614:HOH:O	2.05	0.75
1:CA:1026:G:H3'	1:CA:1027:C:H5"	1.68	0.75
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.68	0.75
27:BF:65:TRP:HH2	27:BF:72:ARG:HH21	1.33	0.75
23:DA:1253:A:N7	56:DA:4833:HOH:O	2.19	0.75
23:DA:392:C:OP1	56:DA:4228:HOH:O	2.03	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DY:23:ARG:HG2	42:DY:42:VAL:HG22	1.69	0.75
24:BB:48:A:H4'	36:BS:95:HIS:HD2	1.52	0.75
24:DB:41:U:OP1	56:DB:319:HOH:O	2.04	0.75
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.67	0.75
1:CA:954:G:H21	1:CA:1227:A:N6	1.85	0.75
1:CA:1502:A:H2	1:CA:1505:G:N1	1.81	0.75
23:DA:2602:A:H4'	23:DA:2603:G:OP1	1.86	0.75
23:DA:527:C:H5	56:DA:5060:HOH:O	1.70	0.75
24:DB:6:C:H2'	24:DB:7:G:H5"	1.68	0.75
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.52	0.75
46:B2:51:ARG:HA	46:B2:54:LYS:HB2	1.69	0.75
1:CA:581:G:N7	56:CA:1958:HOH:O	2.20	0.75
31:DN:56:ASN:H	31:DN:125:GLY:HA3	1.51	0.75
23:BA:1047:G:O2'	23:BA:1048:A:O5'	2.05	0.74
1:CA:1348:U:H4'	9:CI:120:ARG:HG3	1.68	0.74
1:AA:1459:C:C6	1:AA:1460:A:N7	2.55	0.74
5:AE:100:VAL:O	5:AE:107:ARG:NH2	2.20	0.74
8:CH:86:ILE:HG21	8:CH:133:LEU:HD13	1.68	0.74
23:BA:1355:G:OP1	25:BD:38:LYS:NZ	2.19	0.74
23:DA:1420:U:O2'	23:DA:1421:G:OP1	2.03	0.74
23:DA:495:G:N7	56:DA:4794:HOH:O	2.20	0.74
1:AA:1442:G:O2'	1:AA:1442(A):G:OP1	2.03	0.74
1:CA:1459:C:C6	1:CA:1460:A:N7	2.56	0.74
4:CD:15:GLU:HG3	4:CD:63:LYS:HG2	1.67	0.74
23:DA:1577:C:OP2	56:DA:4585:HOH:O	2.05	0.74
1:AA:1007:C:N3	1:AA:1022:G:O6	2.19	0.74
23:BA:2285:C:OP2	50:B6:6:ARG:NH1	2.21	0.74
23:BA:570:G:O6	56:BA:4378:HOH:O	2.04	0.74
1:CA:984:C:H2'	1:CA:985:C:H6	1.53	0.74
23:DA:2319:G:H22	36:DS:3:ARG:HE	1.35	0.74
24:BB:6:C:H2'	24:BB:7:G:H5"	1.67	0.74
1:AA:1298:C:H2'	7:AG:114:ARG:HH12	1.53	0.74
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.20	0.74
23:DA:1364:G:OP2	45:D1:3:LYS:HG2	1.86	0.74
23:BA:1420:U:O2'	23:BA:1421:G:OP1	2.06	0.74
28:BG:11:TYR:CZ	28:BG:16:ARG:HD3	2.23	0.74
23:BA:213:A:OP2	56:BA:5443:HOH:O	2.05	0.74
23:BA:278:A:O2'	23:BA:279:C:OP1	2.03	0.74
33:BP:100:LEU:HD12	33:BP:112:LEU:HD11	1.69	0.74
26:BE:179:GLU:HB3	26:BE:181:LEU:HD22	1.70	0.74
45:D1:82:LEU:HA	45:D1:85:LEU:HD23	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1427:A:H4'	23:BA:1428:C:O5'	1.88	0.73
2:CB:21:ARG:HD2	2:CB:21:ARG:H	1.52	0.73
1:CA:642:A:N3	8:CH:113:SER:OG	2.21	0.73
23:DA:2820:A:OP2	35:DR:2:ARG:NH2	2.20	0.73
1:AA:1298:C:OP2	7:AG:114:ARG:NH2	2.21	0.73
23:BA:531:C:OP2	56:BA:4834:HOH:O	2.05	0.73
45:B1:54:ALA:HB1	45:B1:83:GLU:HG3	1.70	0.73
34:BQ:32:TYR:CE2	34:BQ:133:ARG:HG3	2.23	0.73
1:CA:1456:G:O2'	20:CT:39:LYS:NZ	2.21	0.73
26:DE:111:ARG:HG3	26:DE:160:TYR:CD1	2.23	0.73
1:AA:1459:C:N3	1:AA:1460:A:N6	2.36	0.73
23:BA:2226:C:OP2	56:BA:5322:HOH:O	2.04	0.73
23:BA:652(I):C:H2'	23:BA:652(J):G:C8	2.23	0.73
23:DA:1359:A:N1	23:DA:1372:U:O4	2.22	0.73
23:BA:2318:G:O2'	23:BA:2319:G:OP1	2.04	0.73
25:BD:148:GLU:HB2	25:BD:151:LYS:HD2	1.69	0.73
23:DA:938:G:OP2	52:D8:52:LYS:NZ	2.20	0.73
1:CA:673:G:H2'	1:CA:674:G:C8	2.24	0.73
1:CA:425:G:H4'	4:CD:45:GLN:HE22	1.53	0.73
23:DA:773:U:OP1	56:DA:4785:HOH:O	2.04	0.73
23:BA:2789:C:O2'	23:BA:2790:A:O2'	2.06	0.73
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.71	0.73
23:BA:690:G:OP1	56:BA:4114:HOH:O	2.07	0.73
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.89	0.73
23:DA:197:A:OP1	56:DA:3891:HOH:O	2.05	0.73
24:BB:66:A:H61	24:BB:108:U:H2'	1.54	0.73
37:DT:16:ARG:NH2	37:DT:83:ILE:O	2.22	0.73
3:AC:6:HIS:HD2	3:AC:8:ILE:H	1.34	0.73
45:D1:21:ARG:HG2	45:D1:21:ARG:NH1	2.03	0.73
1:AA:975:A:H4'	1:AA:976:G:H5"	1.71	0.72
23:BA:1048:A:OP2	23:BA:1109:C:N4	2.22	0.72
2:CB:15:VAL:HG23	2:CB:209:ARG:HG2	1.68	0.72
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.71	0.72
1:AA:316:G:OP2	1:AA:351:G:O2'	2.06	0.72
1:CA:1459:C:N3	1:CA:1460:A:N6	2.37	0.72
46:D2:70:GLN:NE2	46:D2:71:ASN:OD1	2.22	0.72
23:DA:2126:A:H4'	23:DA:2127:G:O5'	1.89	0.72
10:CJ:54:PHE:HD2	10:CJ:55:LYS:HG3	1.54	0.72
52:D8:34:TRP:O	52:D8:36:LYS:N	2.22	0.72
11:AK:86:GLY:N	11:AK:112:THR:OG1	2.20	0.72
13:CM:4:ILE:HG21	13:CM:9:ILE:HD12	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2207:G:O2'	23:DA:2208:A:OP1	2.07	0.72
24:DB:30:C:H5"	56:DB:327:HOH:O	1.87	0.72
27:BF:53:THR:HG22	27:BF:55:GLY:H	1.54	0.72
1:CA:921:U:O2	5:CE:19:MET:HB2	1.88	0.72
1:AA:1128:C:H5"	9:AI:16:ARG:HH12	1.55	0.72
49:B5:16:ARG:HG2	49:B5:16:ARG:HH11	1.53	0.72
23:BA:2820:A:OP2	35:BR:2:ARG:NH2	2.21	0.72
1:AA:289:G:OP2	56:AA:2109:HOH:O	2.07	0.72
1:CA:192:U:O4'	20:CT:102:GLY:HA2	1.90	0.72
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.72	0.72
1:AA:1226:C:H2'	13:AM:103:THR:HB	1.71	0.72
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.55	0.72
23:BA:2079:U:OP1	45:B1:21:ARG:NH2	2.23	0.72
23:DA:2145:C:O2'	23:DA:2147:G:N2	2.23	0.72
30:DI:69:LYS:HG2	30:DI:138:ILE:HG12	1.71	0.72
30:BI:92:VAL:HG13	30:BI:120:ILE:HB	1.72	0.72
23:DA:1560:G:OP1	56:DA:4682:HOH:O	2.07	0.72
23:DA:15:G:OP2	56:DA:4614:HOH:O	2.08	0.72
31:BN:24:GLY:HA2	31:BN:27:ALA:HB3	1.72	0.72
1:CA:222:U:H2'	1:CA:223:U:C6	2.25	0.72
23:DA:1352:U:OP2	56:DA:4027:HOH:O	2.07	0.72
23:DA:1798:U:C5'	25:DD:259:THR:HG22	2.19	0.72
36:DS:14:VAL:O	36:DS:18:ILE:HG12	1.90	0.72
1:AA:1002:G:H2'	1:AA:1003:G:O4'	1.90	0.71
47:B3:8:LEU:HD13	47:B3:31:LEU:HD23	1.72	0.71
23:BA:2126:A:H4'	23:BA:2127:G:O5'	1.88	0.71
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.54	0.71
33:DP:59:LEU:HD11	52:D8:10:ALA:HB2	1.71	0.71
1:AA:1025:U:C2	1:AA:1036:G:O6	2.44	0.71
1:AA:222:U:H2'	1:AA:223:U:C6	2.25	0.71
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.24	0.71
1:CA:992:U:O2'	1:CA:993:G:OP2	2.04	0.71
48:D4:7:PRO:HB2	48:D4:27:THR:HG21	1.71	0.71
23:DA:2584:U:O4	56:DA:3867:HOH:O	2.05	0.71
23:DA:621:A:OP2	33:DP:108:LYS:NZ	2.22	0.71
36:DS:34:HIS:ND1	36:DS:53:SER:OG	2.23	0.71
20:AT:72:LEU:HD11	20:AT:80:ARG:HD2	1.71	0.71
10:AJ:39:PRO:HA	10:AJ:70:ARG:HD3	1.70	0.71
1:AA:1309:G:OP1	13:AM:88:ARG:NH1	2.23	0.71
44:D0:10:THR:HG22	44:D0:12:ASN:H	1.55	0.71
49:D5:16:ARG:HG2	49:D5:16:ARG:HH11	1.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1019:U:HO2'	23:DA:1021:A:H2	1.36	0.71
23:DA:1327:C:OP2	56:DA:4835:HOH:O	2.07	0.71
23:DA:956:G:OP2	34:DQ:14:ARG:NH2	2.23	0.71
26:BE:111:ARG:HG3	26:BE:160:TYR:CD1	2.26	0.71
1:CA:829:G:N7	56:CA:1976:HOH:O	2.23	0.71
2:CB:194:PRO:O	2:CB:196:LEU:N	2.23	0.71
1:AA:1086:U:H3	1:AA:1099:G:H22	1.38	0.71
52:B8:62:LEU:HB3	52:B8:65:GLU:HG2	1.71	0.71
1:CA:538:G:OP2	12:CL:115:LYS:HB2	1.91	0.71
23:DA:71:A:OP2	23:DA:71:A:H3'	1.90	0.71
30:DI:72:LEU:HD12	30:DI:138:ILE:HG21	1.73	0.71
39:DV:40:LEU:HB2	39:DV:46:VAL:HG13	1.71	0.71
1:AA:1305:G:N1	1:AA:1331:G:O2'	2.23	0.71
25:BD:238:GLY:O	25:BD:239:ARG:HB2	1.89	0.71
1:CA:343:U:O2'	1:CA:345:C:N4	2.23	0.71
1:CA:986:A:N3	19:CS:52:TYR:OH	2.22	0.71
1:CA:1401:G:O6	22:CY:83:ARG:NH2	2.23	0.71
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.26	0.71
48:B4:7:PRO:HB2	48:B4:27:THR:HG21	1.73	0.71
23:BA:2354:G:N7	56:BA:5461:HOH:O	2.23	0.71
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.55	0.71
28:DG:72:ARG:HH12	28:DG:87:PRO:HG3	1.56	0.71
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.26	0.71
23:BA:1359:A:N1	23:BA:1372:U:O4	2.24	0.71
28:BG:41:GLN:HB3	28:BG:43:LEU:HD13	1.73	0.71
1:CA:1442(A):G:C8	1:CA:1442(B):A:C2	2.78	0.71
1:AA:67:C:H2'	1:AA:68:G:C8	2.26	0.71
23:DA:2136:C:H42	23:DA:2155:G:H1	1.39	0.71
25:DD:8:PRO:HB3	25:DD:14:ARG:HB2	1.72	0.71
28:DG:44:GLY:HA2	28:DG:88:ILE:HG22	1.73	0.71
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.55	0.70
23:DA:2144:U:HO2'	23:DA:2147:G:H1	1.37	0.70
23:DA:62:C:OP1	56:DA:4187:HOH:O	2.09	0.70
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.56	0.70
23:DA:948:G:OP1	56:DA:3795:HOH:O	2.09	0.70
24:DB:96:U:O4	56:DB:331:HOH:O	2.07	0.70
3:AC:35:GLU:OE2	3:AC:59:ARG:NH2	2.24	0.70
23:BA:2144:U:HO2'	23:BA:2147:G:H1	1.37	0.70
1:CA:1367:C:H5'	10:CJ:60:ARG:HH11	1.55	0.70
1:CA:171:A:H2'	1:CA:172:A:C8	2.26	0.70
1:CA:266:G:O2'	1:CA:267:C:OP2	2.08	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DF:65:TRP:HH2	27:DF:72:ARG:HH21	1.38	0.70
25:BD:137:PRO:O	25:BD:140:THR:HG23	1.91	0.70
25:BD:239:ARG:N	56:BD:409:HOH:O	2.23	0.70
23:BA:631:A:OP1	33:BP:65:ARG:NH1	2.24	0.70
1:CA:1500:A:OP1	56:CA:1944:HOH:O	2.09	0.70
23:DA:1507:A:O2'	23:DA:1508:A:O5'	2.09	0.70
29:BH:33:LEU:HD21	29:BH:136:ILE:HG13	1.73	0.70
1:CA:735:C:H2'	1:CA:736:C:H6	1.56	0.70
1:AA:673:G:H2'	1:AA:674:G:C8	2.26	0.70
23:BA:2012:G:OP1	40:BW:11:ARG:NH2	2.25	0.70
1:CA:1004:A:H62	1:CA:1037:C:H3'	1.56	0.70
1:CA:538:G:OP1	12:CL:115:LYS:N	2.24	0.70
23:DA:2789:C:O2'	23:DA:2790:A:O2'	2.08	0.70
8:AH:121:ASP:HB2	8:AH:125:ARG:NH2	2.07	0.70
18:AR:53:ARG:HH21	18:AR:60:ALA:N	1.89	0.70
23:DA:1376:C:OP2	56:DA:4028:HOH:O	2.09	0.70
23:BA:652(R):C:O2'	23:BA:652(S):C:OP2	2.09	0.70
23:BA:71:A:OP2	23:BA:71:A:H3'	1.91	0.70
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.06	0.70
36:DS:96:GLY:N	36:DS:99:LYS:H	1.90	0.70
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.74	0.70
23:BA:833:U:O2	33:BP:55:ARG:NH2	2.25	0.70
1:CA:1442:G:O2'	1:CA:1442(A):G:OP1	2.09	0.70
1:AA:1145:C:N4	56:AA:2285:HOH:O	2.24	0.70
1:AA:266:G:H5'	1:AA:268:C:H41	1.56	0.70
1:AA:664:G:H22	1:AA:741:G:H1	1.40	0.70
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.74	0.70
1:AA:470:C:OP2	56:AA:2192:HOH:O	2.09	0.69
43:BZ:160:GLY:HA2	43:BZ:161:VAL:CB	2.21	0.69
1:CA:266:G:H5'	1:CA:268:C:H41	1.57	0.69
9:CI:40:LEU:HB3	9:CI:43:ALA:HB2	1.73	0.69
35:BR:55:ALA:HB2	35:BR:79:LEU:HD13	1.73	0.69
1:CA:437:U:H5"	4:CD:155:LEU:HD11	1.73	0.69
25:DD:239:ARG:N	56:DD:407:HOH:O	2.25	0.69
30:DI:102:SER:HA	30:DI:106:GLY:HA2	1.73	0.69
1:AA:1016:A:H2'	1:AA:1017:G:O4'	1.92	0.69
1:CA:446:G:N7	56:CA:2154:HOH:O	2.25	0.69
1:CA:595:G:O3'	56:CA:1979:HOH:O	2.09	0.69
13:AM:15:VAL:HG22	13:AM:43:THR:O	1.91	0.69
20:AT:73:HIS:HB3	20:AT:74:LYS:HG2	1.74	0.69
23:BA:1495:A:H2'	23:BA:1496:A:C8	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2104:G:N2	23:BA:2105:C:O2	2.25	0.69
23:BA:2145:C:O2'	23:BA:2147:G:N2	2.25	0.69
1:CA:920:U:H2'	1:CA:921:U:C6	2.27	0.69
23:DA:994:C:OP1	38:DU:53:ARG:NH2	2.25	0.69
1:AA:1003:G:N2	1:AA:1037:C:N3	2.40	0.69
1:CA:472:A:HO2'	16:CP:82:GLN:H	1.38	0.69
1:CA:1220:G:O2'	19:CS:52:TYR:O	2.11	0.69
23:BA:2207:G:O2'	23:BA:2208:A:OP1	2.07	0.69
6:CF:82:ARG:HG3	6:CF:82:ARG:HH11	1.57	0.69
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.75	0.69
1:AA:548:G:OP1	56:AA:2157:HOH:O	2.10	0.69
10:AJ:44:VAL:HG22	10:AJ:66:ARG:HD3	1.75	0.69
23:BA:1798:U:C5'	25:BD:259:THR:HG22	2.22	0.69
1:CA:1183:A:O2'	1:CA:1184:G:OP1	2.11	0.69
1:CA:860:A:OP2	56:CA:1981:HOH:O	2.10	0.69
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	1.92	0.69
36:DS:102:ALA:HB1	36:DS:112:PHE:HZ	1.58	0.69
1:AA:785:G:N7	56:AA:1967:HOH:O	2.25	0.69
44:B0:10:THR:HG22	44:B0:12:ASN:H	1.57	0.69
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.74	0.69
52:D8:23:VAL:HG11	52:D8:47:LYS:HD3	1.75	0.69
30:DI:77:LEU:HD13	30:DI:79:ILE:HD11	1.75	0.69
1:AA:186:C:H2'	1:AA:187:C:H6	1.58	0.69
28:BG:72:ARG:HH12	28:BG:87:PRO:HG3	1.56	0.69
36:DS:58:LEU:HB2	36:DS:59:LYS:HB2	1.75	0.69
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.75	0.69
23:BA:1783:A:OP1	56:BA:4053:HOH:O	2.10	0.69
23:BA:641:C:O2'	23:BA:2350:C:OP1	2.08	0.69
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.28	0.69
1:CA:67:C:H2'	1:CA:68:G:C8	2.27	0.69
24:DB:35:U:OP2	56:DB:317:HOH:O	2.08	0.69
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.73	0.68
32:BO:98:VAL:HG13	32:BO:117:LEU:HB3	1.75	0.68
41:BX:35:THR:HG22	41:BX:38:GLU:H	1.58	0.68
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.28	0.68
23:DA:17:G:OP2	56:DA:4493:HOH:O	2.11	0.68
40:DW:18:ARG:NH1	40:DW:76:VAL:O	2.27	0.68
40:DW:14:PRO:HG2	40:DW:78:GLU:HG2	1.74	0.68
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.28	0.68
23:BA:2140:C:H2'	23:BA:2141:G:H8	1.59	0.68
24:BB:106:G:H5'	43:BZ:31:ARG:HG2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1329:A:OP2	21:CU:7:ARG:NH2	2.25	0.68
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.58	0.68
1:CA:408:A:OP1	4:CD:113:SER:OG	2.11	0.68
30:DI:93:THR:HG22	30:DI:119:PRO:HB3	1.75	0.68
34:DQ:127:ILE:O	56:DQ:301:HOH:O	2.11	0.68
2:AB:194:PRO:O	2:AB:196:LEU:N	2.26	0.68
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.92	0.68
23:BA:2659:G:O6	56:BA:5467:HOH:O	2.09	0.68
23:BA:927:G:N7	56:BA:5196:HOH:O	2.25	0.68
23:DA:1495:A:H2'	23:DA:1496:A:C8	2.28	0.68
25:DD:238:GLY:O	25:DD:239:ARG:HB2	1.92	0.68
23:DA:1782:C:OP1	56:DA:3848:HOH:O	2.10	0.68
23:DA:607:U:OP1	27:DF:102:PRO:HA	1.93	0.68
34:DQ:51:ARG:NH2	43:DZ:186:GLU:OE1	2.26	0.68
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.58	0.68
23:BA:1403:C:H5"	23:BA:1471:A:H1'	1.74	0.68
23:BA:1507:A:O2'	23:BA:1508:A:O5'	2.12	0.68
23:BA:2127:G:O6	23:BA:2161:C:N3	2.26	0.68
23:BA:2448:A:OP1	56:BA:4378:HOH:O	2.11	0.68
1:CA:1378:C:H5	1:CA:1379:G:C4	2.10	0.68
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.74	0.68
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.25	0.68
1:CA:17:U:H2'	1:CA:18:C:C6	2.29	0.68
7:CG:135:VAL:HA	7:CG:138:LYS:HB3	1.74	0.68
45:D1:54:ALA:HB1	45:D1:83:GLU:HG3	1.76	0.68
43:DZ:160:GLY:HA2	43:DZ:161:VAL:CB	2.23	0.68
1:AA:1108:G:O6	56:AA:2269:HOH:O	2.05	0.68
23:BA:2523:G:N7	56:BA:4579:HOH:O	2.26	0.68
23:BA:2845:G:O2'	23:BA:2846:G:H5'	1.94	0.68
1:CA:1255:G:OP1	10:CJ:45:ARG:NH2	2.25	0.68
23:DA:2448:A:OP2	56:DA:3847:HOH:O	2.11	0.68
29:DH:3:ARG:HD3	29:DH:54:ARG:HH12	1.59	0.68
23:BA:2114:A:O2'	23:BA:2167:U:O3'	2.11	0.68
43:BZ:158:PRO:O	43:BZ:161:VAL:HG11	1.94	0.68
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.76	0.68
23:DA:1023:U:OP2	56:DA:4989:HOH:O	2.10	0.68
33:DP:38:GLN:HA	33:DP:41:ARG:HG2	1.76	0.68
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.27	0.68
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.28	0.68
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.27	0.68
23:DA:2162:G:O3'	23:DA:2172:U:O2'	2.12	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2541:A:OP2	56:DA:4631:HOH:O	2.11	0.68
23:BA:1176:G:H1'	23:BA:1177:A:OP1	1.94	0.68
23:BA:2319:G:H22	36:BS:3:ARG:HE	1.39	0.68
1:CA:664:G:H22	1:CA:741:G:H1	1.40	0.68
23:DA:1430:C:H2'	23:DA:1431:U:C6	2.29	0.68
23:DA:2431:U:OP2	56:DA:4108:HOH:O	2.11	0.68
1:AA:1505:G:OP1	56:AA:2167:HOH:O	2.11	0.67
2:AB:163:PHE:CD2	2:AB:185:ILE:HG13	2.28	0.67
1:CA:1178:G:N2	1:CA:1181:G:OP2	2.15	0.67
31:DN:47:ALA:HB2	31:DN:112:LEU:HD11	1.76	0.67
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.29	0.67
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.76	0.67
10:AJ:16:LEU:HD21	10:AJ:70:ARG:HG3	1.76	0.67
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.08	0.67
23:BA:1332:G:OP1	56:BA:4713:HOH:O	2.11	0.67
23:BA:2763:G:OP2	56:BA:4998:HOH:O	2.10	0.67
23:DA:2332:U:O2'	23:DA:2335:A:N3	2.22	0.67
1:AA:40:C:H42	1:AA:402:G:H1	0.73	0.67
23:BA:2123:G:H1	23:BA:2175:C:N4	1.91	0.67
28:BG:44:GLY:HA2	28:BG:88:ILE:HG22	1.75	0.67
2:CB:87:ARG:NE	2:CB:233:SER:HB2	2.10	0.67
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	1.75	0.67
1:AA:26:A:N1	56:AA:1989:HOH:O	2.28	0.67
1:AA:457:C:H2'	1:AA:458:C:H6	1.59	0.67
1:AA:934:C:OP1	56:AA:1933:HOH:O	2.12	0.67
23:BA:1803:A:O2'	25:BD:259:THR:HG21	1.94	0.67
29:BH:3:ARG:HD3	29:BH:54:ARG:HH12	1.59	0.67
1:CA:1508:G:OP1	56:CA:1944:HOH:O	2.11	0.67
1:CA:1226:C:N4	13:CM:104:ARG:HD3	2.09	0.67
30:DI:27:ARG:HD2	45:D1:71:TYR:CE1	2.29	0.67
1:AA:1457:G:OP1	20:AT:39:LYS:NZ	2.28	0.67
1:AA:165:C:H2'	1:AA:166:G:C8	2.28	0.67
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.75	0.67
23:BA:1793:C:OP1	56:BA:3801:HOH:O	2.11	0.67
1:CA:610:G:O6	56:CA:1937:HOH:O	2.08	0.67
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.76	0.67
23:DA:2140:C:H2'	23:DA:2141:G:H8	1.60	0.67
32:DO:2:ILE:HD12	32:DO:6:THR:HG21	1.77	0.67
33:BP:59:LEU:HD11	52:B8:10:ALA:HB2	1.74	0.67
36:BS:25:ARG:NH1	36:BS:42:ASP:OD2	2.28	0.67
36:BS:58:LEU:HB2	36:BS:59:LYS:HB2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1362:C:H2'	1:CA:1363:C:H5"	1.76	0.67
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.76	0.67
13:CM:69:GLU:HG3	13:CM:70:LEU:H	1.60	0.67
23:DA:1452:A:OP2	56:DA:4906:HOH:O	2.13	0.67
33:DP:39:LYS:HB2	33:DP:45:LEU:HG	1.77	0.67
1:AA:100:C:H2'	1:AA:101:A:C8	2.30	0.67
26:BE:54:GLN:HB2	26:BE:76:ARG:HB3	1.76	0.67
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	1.76	0.67
11:CK:86:GLY:N	11:CK:112:THR:OG1	2.21	0.67
23:DA:2577:A:O4'	49:D5:3:LYS:HB2	1.94	0.67
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.77	0.67
1:CA:1004:A:N7	1:CA:1037:C:H2'	2.09	0.67
24:DB:66:A:N6	24:DB:108:U:H2'	2.10	0.67
23:BA:1174:A:H4'	23:BA:1175:U:OP1	1.94	0.67
1:AA:735:C:H2'	1:AA:736:C:H6	1.59	0.67
7:AG:146:GLU:O	7:AG:149:ARG:N	2.28	0.67
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	1.94	0.67
1:CA:376:G:H5"	16:CP:5:ARG:HD2	1.77	0.67
9:CI:46:ALA:O	9:CI:49:PRO:HD2	1.94	0.67
14:CN:21:TYR:OH	14:CN:23:ARG:NH2	2.28	0.67
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.58	0.67
23:DA:139(A):G:N2	41:DX:44:GLU:OE1	2.28	0.67
23:DA:588:U:H2'	23:DA:589:C:C6	2.30	0.67
1:AA:1320:C:H5'	1:AA:1320:C:H6	1.60	0.66
6:AF:11:ASN:HB3	6:AF:14:LEU:HG	1.77	0.66
23:BA:203:C:H3'	23:BA:204:A:H5"	1.76	0.66
1:CA:406:G:N3	4:CD:119:GLN:NE2	2.43	0.66
23:DA:1980:G:O2'	23:DA:1982:C:OP2	2.10	0.66
23:BA:2166:G:N2	23:BA:2172:U:O4	2.28	0.66
37:BT:95:ARG:HG2	37:BT:95:ARG:NH1	2.10	0.66
1:CA:1251:A:O2'	1:CA:1369:C:O2'	2.09	0.66
1:CA:344:A:H4'	1:CA:345:C:OP2	1.93	0.66
1:CA:436:C:H4'	4:CD:156:GLU:HB2	1.77	0.66
1:CA:412:A:O4'	4:CD:35:ARG:NH2	2.27	0.66
45:D1:50:ARG:HG2	45:D1:59:THR:HG22	1.78	0.66
47:D3:8:LEU:HD13	47:D3:31:LEU:HD23	1.77	0.66
23:DA:1355:G:OP1	25:DD:38:LYS:NZ	2.24	0.66
1:AA:1503:A:C8	1:AA:1531:A:C8	2.82	0.66
14:AN:21:TYR:OH	14:AN:23:ARG:NH2	2.27	0.66
20:AT:43:LEU:O	20:AT:47:GLY:N	2.28	0.66
23:BA:2822:G:OP2	56:BA:4891:HOH:O	2.12	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.30	0.66
2:CB:163:PHE:CD2	2:CB:185:ILE:HG13	2.31	0.66
7:CG:150:ALA:HA	11:CK:59:TYR:HB3	1.77	0.66
18:CR:53:ARG:HH21	18:CR:60:ALA:N	1.92	0.66
23:DA:2589:A:OP1	56:DA:3769:HOH:O	2.14	0.66
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.30	0.66
56:AA:2229:HOH:O	11:AK:26:ASN:HB3	1.96	0.66
23:BA:2136:C:H42	23:BA:2155:G:H1	1.41	0.66
26:BE:24:THR:HG22	26:BE:186:GLY:O	1.96	0.66
1:CA:1459:C:H2'	1:CA:1460:A:C8	2.30	0.66
41:DX:53:LYS:HB3	41:DX:82:GLN:HB3	1.78	0.66
6:AF:15:ASP:OD2	6:AF:17:SER:N	2.23	0.66
45:B1:21:ARG:HG2	45:B1:21:ARG:NH1	2.00	0.66
1:AA:1459:C:H2'	1:AA:1460:A:C8	2.30	0.66
4:AD:106:TYR:CD2	4:AD:107:ARG:HG2	2.29	0.66
9:AI:66:ARG:HH11	9:AI:66:ARG:HB2	1.60	0.66
13:AM:70:LEU:O	13:AM:73:GLU:N	2.29	0.66
1:CA:976:G:H22	1:CA:1363(A):A:H2'	1.59	0.66
1:AA:1158:C:H5	1:AA:1181:G:H1	1.41	0.66
19:AS:31:ILE:HG23	19:AS:49:ILE:HG23	1.76	0.66
23:BA:301:G:OP2	42:BY:84:ARG:NH2	2.28	0.66
1:CA:1492:A:H5'	1:CA:1493:A:C8	2.30	0.66
34:DQ:135:ASP:OD2	43:DZ:49:ARG:NH2	2.28	0.66
1:AA:266:G:O2'	1:AA:267:C:OP2	2.10	0.66
13:AM:60:VAL:HG13	13:AM:64:TRP:HZ3	1.60	0.66
23:BA:271(M):G:O2'	23:BA:271(N):U:O5'	2.13	0.66
23:BA:948:G:OP1	56:BA:5120:HOH:O	2.14	0.66
23:DA:2127:G:O6	23:DA:2161:C:N3	2.28	0.66
1:AA:1493:A:O2'	1:AA:1494:G:OP1	2.13	0.66
1:AA:625:G:H4'	16:AP:16:HIS:CG	2.31	0.66
2:AB:87:ARG:NE	2:AB:233:SER:HB2	2.11	0.66
1:CA:1441:G:H4'	1:CA:1442:G:C8	2.30	0.66
23:DA:631:A:OP1	33:DP:65:ARG:NH1	2.29	0.66
1:AA:73:G:H1	1:AA:96:U:H3	1.42	0.66
23:DA:1310:G:OP2	51:D7:9:ARG:NH1	2.26	0.66
23:DA:2123:G:H1	23:DA:2175:C:N4	1.94	0.66
1:AA:1456:G:O2'	20:AT:39:LYS:NZ	2.23	0.65
23:BA:2839:G:H5'	35:BR:46:GLY:HA2	1.78	0.65
1:CA:1162:C:H42	1:CA:1174:G:H1	1.44	0.65
13:CM:65:LYS:HA	13:CM:66:LEU:HB2	1.78	0.65
16:CP:51:VAL:HG12	16:CP:53:VAL:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DF:53:THR:CG2	27:DF:55:GLY:H	2.09	0.65
5:AE:144:THR:OG1	5:AE:147:ASP:OD2	2.11	0.65
1:CA:1442:G:O2'	1:CA:1442(A):G:H5'	1.95	0.65
23:DA:2296:U:OP2	36:DS:9:ARG:NH2	2.28	0.65
40:DW:4:LYS:HE2	40:DW:6:ILE:HD11	1.78	0.65
1:AA:39:G:N1	1:AA:403:C:O2	2.18	0.65
1:AA:992:U:O2'	1:AA:993:G:O4'	2.12	0.65
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.21	0.65
1:AA:1055:A:O2'	3:AC:161:GLU:O	2.15	0.65
23:BA:1486:A:H2'	23:BA:1487:G:H8	1.60	0.65
23:BA:2646:C:OP1	56:BA:5325:HOH:O	2.13	0.65
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.31	0.65
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.79	0.65
23:DA:1877:A:H5'	23:DA:1878:G:OP2	1.96	0.65
23:DA:2580:U:H5"	56:DA:3943:HOH:O	1.96	0.65
23:DA:2845:G:O2'	23:DA:2846:G:H5'	1.95	0.65
1:AA:1164:G:H1	1:AA:1172:C:H42	1.44	0.65
1:AA:171:A:H2'	1:AA:172:A:H8	1.60	0.65
23:BA:1484:G:O6	56:BA:4428:HOH:O	2.11	0.65
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.31	0.65
1:CA:428:G:H5"	4:CD:7:PRO:HB3	1.78	0.65
1:CA:990:C:N3	1:CA:1215:G:O6	2.29	0.65
23:DA:2327:A:H2'	23:DA:2328:A:C8	2.32	0.65
41:DX:35:THR:HG22	41:DX:38:GLU:H	1.62	0.65
2:AB:15:VAL:HG23	2:AB:209:ARG:HG2	1.77	0.65
42:BY:92:ASN:OD1	42:BY:94:LYS:HG3	1.96	0.65
1:CA:1059:C:OP1	3:CC:199:LYS:NZ	2.27	0.65
1:CA:165:C:H2'	1:CA:166:G:C8	2.31	0.65
3:CC:111:LEU:HD22	3:CC:146:ALA:HB2	1.77	0.65
23:DA:1542:A:OP2	56:DA:3765:HOH:O	2.15	0.65
36:DS:102:ALA:HA	36:DS:105:ALA:HB3	1.78	0.65
1:AA:509:A:OP2	56:AA:2075:HOH:O	2.15	0.65
14:AN:37:PHE:CE1	14:AN:53:LEU:HD13	2.32	0.65
23:BA:2042:A:OP1	56:BA:4658:HOH:O	2.13	0.65
23:BA:62:C:OP1	56:BA:3878:HOH:O	2.13	0.65
23:DA:1689:A:N6	23:DA:1698:A:H2	1.92	0.65
23:DA:2683:C:O2	32:DO:70:LYS:NZ	2.26	0.65
28:DG:41:GLN:HB3	28:DG:43:LEU:HD13	1.77	0.65
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	1.78	0.65
9:AI:3:GLN:OE1	9:AI:20:ARG:NH2	2.29	0.65
23:BA:1991:U:H2'	23:BA:1992:G:H5"	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:330:A:H2	23:BA:1210:A:HO2'	1.44	0.65
23:BA:530:G:N3	23:BA:530:G:O4'	2.27	0.65
1:CA:186:C:H2'	1:CA:187:C:H6	1.61	0.65
1:CA:457:C:H2'	1:CA:458:C:H6	1.60	0.65
23:DA:253:C:OP2	52:D8:5:LYS:NZ	2.28	0.65
43:DZ:158:PRO:O	43:DZ:161:VAL:HG11	1.96	0.65
36:BS:15:ARG:O	36:BS:19:LYS:HG2	1.97	0.65
1:CA:594:G:OP2	56:CA:2291:HOH:O	2.13	0.65
4:CD:188:LEU:HD23	4:CD:188:LEU:H	1.59	0.65
7:CG:27:ILE:HA	7:CG:30:ILE:HD12	1.77	0.65
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG2	1.78	0.65
1:CA:584:G:H5'	17:CQ:91:ARG:HH22	1.62	0.65
20:CT:72:LEU:HD11	20:CT:80:ARG:HD2	1.79	0.65
23:DA:1642:G:N7	56:DA:4438:HOH:O	2.30	0.65
35:DR:55:ALA:HB2	35:DR:79:LEU:HD13	1.78	0.65
1:AA:243:A:H4'	1:AA:244:U:O5'	1.97	0.65
5:AE:102:ALA:O	5:AE:107:ARG:NH1	2.29	0.65
11:AK:86:GLY:H	11:AK:112:THR:HG1	1.44	0.65
23:BA:1040:C:H2'	23:BA:1041:C:O4'	1.97	0.65
23:BA:2127:G:N1	23:BA:2161:C:O2	2.30	0.65
36:BS:102:ALA:HA	36:BS:105:ALA:HB3	1.79	0.65
36:BS:14:VAL:O	36:BS:18:ILE:HG12	1.97	0.65
1:CA:984:C:H2'	1:CA:985:C:C6	2.30	0.65
23:DA:2365:G:O6	52:D8:39:LYS:HE3	1.97	0.65
23:DA:2526:G:H21	53:D9:2:LYS:HD2	1.62	0.65
23:DA:1778:U:H2'	23:DA:1784:A:N6	2.12	0.65
23:DA:2104:G:N2	23:DA:2105:C:O2	2.30	0.65
1:AA:608:A:OP2	56:AA:2171:HOH:O	2.15	0.65
13:AM:70:LEU:O	13:AM:74:VAL:N	2.27	0.65
23:BA:2646:C:OP2	23:BA:2732:G:O2'	2.14	0.65
1:CA:1030(A):G:N2	1:CA:1030(C):G:H3'	2.11	0.65
31:BN:47:ALA:HB2	31:BN:112:LEU:HD11	1.79	0.64
1:CA:1309:G:N7	13:CM:99:ARG:NH2	2.45	0.64
20:CT:73:HIS:HB3	20:CT:74:LYS:HG2	1.80	0.64
1:AA:1442(B):A:H2	37:BT:118:ARG:CZ	2.06	0.64
1:AA:814:A:OP2	56:AA:2194:HOH:O	2.14	0.64
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.33	0.64
1:AA:982:U:H5"	14:AN:6:LEU:HD21	1.80	0.64
49:B5:16:ARG:NH1	49:B5:17:ASP:OD1	2.30	0.64
27:BF:53:THR:CG2	27:BF:55:GLY:H	2.10	0.64
23:DA:668:G:H5'	23:DA:669:G:OP2	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:33:LEU:HD21	29:DH:136:ILE:HG13	1.77	0.64
36:DS:15:ARG:O	36:DS:19:LYS:HG2	1.97	0.64
1:AA:1320:C:C4	19:AS:36:ARG:HB2	2.31	0.64
23:BA:1434:A:H61	23:BA:1558:A:H62	1.43	0.64
23:BA:2206:G:O2'	23:BA:2207:G:OP1	2.16	0.64
23:BA:2349:G:H5'	23:BA:2350:C:OP2	1.96	0.64
1:CA:177:C:OP1	20:CT:65:LYS:NZ	2.25	0.64
23:DA:2810:A:N6	23:DA:2891:G:O2'	2.30	0.64
26:DE:77:ILE:HD12	26:DE:195:LEU:HD13	1.79	0.64
3:CC:180:ALA:HA	3:CC:206:GLU:HA	1.79	0.64
1:AA:946:A:H2'	1:AA:947:G:C8	2.32	0.64
2:AB:21:ARG:HD2	2:AB:21:ARG:N	2.10	0.64
8:AH:86:ILE:HG21	8:AH:133:LEU:HD13	1.78	0.64
9:AI:45:ALA:HB3	9:AI:47:LEU:H	1.62	0.64
23:BA:1153:C:OP2	56:BA:4736:HOH:O	2.15	0.64
1:CA:1181:G:H2'	1:CA:1182:G:C5	2.33	0.64
1:CA:1188:A:H2'	1:CA:1189:C:O4'	1.98	0.64
23:DA:1250:G:N7	33:DP:18:ARG:NH2	2.45	0.64
1:AA:1011:G:H1	1:AA:1018:C:N4	1.94	0.64
23:BA:2114:A:H1'	23:BA:2168:G:H5'	1.78	0.64
1:CA:1060:C:H5'	14:CN:45:ARG:HH12	1.62	0.64
1:CA:179:A:N7	56:CA:2203:HOH:O	2.30	0.64
5:CE:143:ARG:NH1	8:CH:77:GLU:OE1	2.30	0.64
8:CH:120:THR:H	8:CH:123:GLU:HB2	1.62	0.64
1:CA:954:G:H21	1:CA:1227:A:H62	1.42	0.64
23:DA:1420:U:HO2'	23:DA:1421:G:P	2.21	0.64
23:DA:2128:C:H42	23:DA:2160:G:H1	1.43	0.64
23:DA:2166:G:N2	23:DA:2172:U:O4	2.31	0.64
26:DE:179:GLU:HB3	26:DE:181:LEU:HD22	1.79	0.64
23:DA:2839:G:H5'	35:DR:46:GLY:HA2	1.79	0.64
2:AB:163:PHE:HA	2:AB:185:ILE:HG12	1.79	0.64
10:AJ:40:LEU:HB2	10:AJ:69:ASN:HB2	1.79	0.64
16:AP:20:VAL:HG21	16:AP:32:TYR:CD1	2.33	0.64
23:BA:1796:U:H2'	23:BA:1797:C:C6	2.32	0.64
1:CA:1318:A:H1'	19:CS:37:ARG:HH21	1.61	0.64
1:CA:1422:G:H5'	32:DO:48:PRO:HB3	1.79	0.64
1:CA:243:A:H4'	1:CA:244:U:O5'	1.96	0.64
36:DS:95:HIS:C	36:DS:99:LYS:HB3	2.18	0.64
37:DT:95:ARG:HG2	37:DT:95:ARG:NH1	2.12	0.64
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.30	0.64
23:BA:1896:G:N7	56:BA:5340:HOH:O	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BT:24:PRO:HA	37:BT:49:VAL:HG22	1.80	0.64
23:DA:1352:U:P	56:DA:4027:HOH:O	2.55	0.64
43:DZ:158:PRO:HD2	43:DZ:161:VAL:HG21	1.79	0.64
1:AA:1441:G:H4'	1:AA:1442:G:C8	2.33	0.64
1:AA:792:A:OP2	56:AA:1974:HOH:O	2.15	0.64
23:BA:1689:A:N6	23:BA:1698:A:H2	1.95	0.64
23:BA:2337:G:OP1	56:BA:4363:HOH:O	2.15	0.64
23:BA:2304:G:H21	28:BG:156:ASP:CG	2.01	0.64
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.31	0.64
23:DA:2127:G:N1	23:DA:2161:C:O2	2.29	0.64
23:DA:2353:G:N7	56:DA:4865:HOH:O	2.30	0.64
23:DA:2434:A:N7	56:DA:4106:HOH:O	2.30	0.64
1:AA:1442:G:O2'	1:AA:1442(A):G:H5'	1.98	0.63
14:AN:26:ARG:HD3	14:AN:43:CYS:HB3	1.80	0.63
23:BA:380:U:OP1	56:BA:4622:HOH:O	2.15	0.63
1:CA:1084:G:H5'	1:CA:1102:A:OP2	1.97	0.63
2:CB:21:ARG:N	2:CB:21:ARG:HD2	2.11	0.63
23:BA:885:C:H3'	23:BA:886:C:H5"	1.80	0.63
5:CE:80:ILE:HD12	5:CE:138:ALA:HB1	1.80	0.63
23:DA:1405:U:H2'	23:DA:1406:U:C6	2.33	0.63
27:DF:185:ASP:HA	27:DF:188:ARG:HD3	1.79	0.63
1:AA:920:U:H2'	1:AA:921:U:C6	2.33	0.63
13:AM:50:GLU:HA	13:AM:53:VAL:HB	1.81	0.63
23:BA:1420:U:HO2'	23:BA:1421:G:P	2.21	0.63
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.97	0.63
1:CA:1280:A:H5'	10:CJ:41:PRO:HD2	1.81	0.63
33:BP:38:GLN:HA	33:BP:41:ARG:HG2	1.80	0.63
2:CB:134:GLU:HA	2:CB:137:ARG:HE	1.64	0.63
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.80	0.63
7:CG:149:ARG:HD2	11:CK:59:TYR:CE1	2.34	0.63
22:CY:30:TRP:HD1	22:CY:89:GLN:HG3	1.64	0.63
26:DE:55:ASN:HB3	26:DE:58:ARG:HG3	1.81	0.63
1:CA:1170:A:N6	1:CA:1171:G:N3	2.45	0.63
3:CC:77:ILE:O	3:CC:84:ILE:N	2.31	0.63
23:DA:2114:A:O2'	23:DA:2167:U:O3'	2.15	0.63
23:DA:527:C:OP1	56:DA:4811:HOH:O	2.15	0.63
31:DN:24:GLY:HA2	31:DN:27:ALA:HB3	1.80	0.63
1:AA:1346:A:H2'	7:AG:10:ARG:HH22	1.62	0.63
52:D8:29:LYS:HG2	52:D8:44:LYS:HB3	1.81	0.63
23:DA:1153:C:OP1	38:DU:92:ARG:NH1	2.25	0.63
23:DA:2318:G:O2'	23:DA:2319:G:OP1	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DO:98:VAL:HG13	32:DO:117:LEU:HB3	1.80	0.63
1:AA:1108:G:H5'	3:AC:176:HIS:CD2	2.33	0.63
1:AA:1129:C:N4	1:AA:1134:G:N7	2.47	0.63
1:AA:1237:C:O2'	1:AA:1300:G:N2	2.24	0.63
1:AA:17:U:H2'	1:AA:18:C:C6	2.33	0.63
16:AP:51:VAL:HG12	16:AP:53:VAL:H	1.64	0.63
23:BA:1300:U:H4'	23:BA:1301:A:H5'	1.81	0.63
1:CA:1170:A:C6	1:CA:1171:G:H1'	2.33	0.63
1:CA:1493:A:O2'	1:CA:1494:G:OP1	2.15	0.63
1:CA:544:G:OP1	4:CD:62:GLN:NE2	2.19	0.63
25:DD:137:PRO:O	25:DD:140:THR:HG23	1.99	0.63
30:DI:104:GLN:C	30:DI:105:HIS:HD1	2.02	0.63
33:DP:100:LEU:HD12	33:DP:112:LEU:HD11	1.81	0.63
44:B0:27:GLU:HG3	44:B0:68:GLU:HA	1.80	0.63
23:BA:668:G:H5'	23:BA:669:G:OP2	1.99	0.63
23:BA:607:U:OP1	27:BF:102:PRO:HA	1.99	0.63
28:BG:82:LEU:H	28:BG:82:LEU:HD12	1.63	0.63
1:CA:402:G:O2'	1:CA:620:C:N3	2.31	0.63
23:DA:271(E):U:H2'	23:DA:271(F):C:C6	2.34	0.63
4:AD:65:ARG:HG2	4:AD:75:PHE:CD1	2.34	0.63
1:CA:1030(A):G:N2	1:CA:1030(D):A:OP2	2.22	0.63
23:DA:1038:C:H42	23:DA:1117:G:H1	1.46	0.63
23:DA:2134:A:H1'	23:DA:2159:G:H1'	1.81	0.63
23:DA:2577:A:H5'	49:D5:3:LYS:HD2	1.81	0.63
23:DA:885:C:H5"	56:DA:5037:HOH:O	1.99	0.63
23:DA:911:A:H2'	34:DQ:9:TYR:OH	1.98	0.63
26:BE:47:VAL:HG12	26:BE:49:LEU:HD13	1.81	0.62
1:CA:73:G:H1	1:CA:96:U:H3	1.46	0.62
22:CY:54:ILE:HB	22:CY:61:LEU:HD12	1.81	0.62
26:DE:54:GLN:HB2	26:DE:76:ARG:HB3	1.80	0.62
38:DU:92:ARG:HA	38:DU:95:LEU:HB2	1.81	0.62
1:AA:1030(D):A:H2'	1:AA:1031:G:O4'	1.99	0.62
23:BA:1360:A:OP2	56:BA:5236:HOH:O	2.16	0.62
26:BE:77:ILE:HD12	26:BE:195:LEU:HD13	1.79	0.62
3:CC:100:ALA:O	3:CC:102:ASN:N	2.30	0.62
8:CH:121:ASP:HB2	8:CH:125:ARG:NH2	2.14	0.62
23:DA:2349:G:H5'	23:DA:2350:C:OP2	1.99	0.62
25:DD:71:ASP:HB3	25:DD:103:ARG:HH22	1.64	0.62
42:DY:90:LEU:HB3	42:DY:92:ASN:H	1.64	0.62
43:DZ:124:ILE:HG13	43:DZ:125:LEU:H	1.64	0.62
1:AA:446:G:O6	56:AA:2240:HOH:O	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:6:HIS:NE2	3:AC:8:ILE:HB	2.14	0.62
52:B8:23:VAL:HG11	52:B8:47:LYS:HD3	1.81	0.62
27:BF:185:ASP:HA	27:BF:188:ARG:HD3	1.82	0.62
1:CA:838:G:H2'	1:CA:839:U:H5"	1.80	0.62
23:DA:2243:U:H2'	23:DA:2244:U:C6	2.34	0.62
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.34	0.62
23:BA:1310:G:OP2	51:B7:9:ARG:NH1	2.32	0.62
23:BA:2128:C:H42	23:BA:2160:G:H1	1.46	0.62
40:BW:18:ARG:NH1	40:BW:76:VAL:O	2.32	0.62
1:CA:542:G:P	4:CD:10:ARG:HH22	2.22	0.62
23:DA:1300:U:H4'	23:DA:1301:A:H5'	1.82	0.62
23:DA:271(M):G:O2'	23:DA:271(N):U:O5'	2.15	0.62
23:DA:370:G:OP2	56:DA:4254:HOH:O	2.16	0.62
43:DZ:54:HIS:ND1	43:DZ:101:PRO:HG3	2.14	0.62
1:AA:1492:A:H5'	1:AA:1493:A:C8	2.34	0.62
23:BA:2136:C:N4	23:BA:2155:G:N1	2.45	0.62
20:CT:30:LYS:HA	20:CT:33:ILE:HD12	1.82	0.62
20:CT:43:LEU:O	20:CT:47:GLY:N	2.31	0.62
23:DA:1379:A:H4'	23:DA:1380:G:OP2	2.00	0.62
1:AA:186:C:H2'	1:AA:187:C:C6	2.35	0.62
1:AA:473:G:H2'	1:AA:474:G:H8	1.63	0.62
23:BA:1109:C:C5	23:BA:1110:G:C6	2.87	0.62
23:BA:1877:A:H5'	23:BA:1878:G:OP2	1.98	0.62
23:BA:2113:U:H2'	23:BA:2114:A:O4'	1.99	0.62
23:BA:251:A:C5	23:BA:252:G:H1'	2.34	0.62
23:BA:2894:G:H8	23:BA:2894:G:O5'	1.83	0.62
23:BA:1693:U:O2'	25:BD:14:ARG:NH2	2.32	0.62
32:BO:2:ILE:HD12	32:BO:6:THR:HG21	1.80	0.62
1:CA:612:C:O2	1:CA:629:G:N2	2.32	0.62
2:CB:163:PHE:HA	2:CB:185:ILE:HG12	1.81	0.62
3:CC:92:ALA:HB2	3:CC:99:VAL:H	1.63	0.62
23:DA:330:A:H2	23:DA:1210:A:H2'	1.63	0.62
23:DA:509:C:O3'	56:DA:3892:HOH:O	2.16	0.62
2:AB:134:GLU:HA	2:AB:137:ARG:HE	1.65	0.62
23:BA:1266:G:O5'	40:BW:15:ARG:NH2	2.32	0.62
24:BB:66:A:N6	24:BB:108:U:H2'	2.13	0.62
1:CA:1129:C:N4	1:CA:1134:G:N7	2.48	0.62
1:CA:1226:C:H4'	19:CS:80:TYR:CZ	2.34	0.62
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.82	0.62
1:CA:920:U:H2'	1:CA:921:U:H6	1.64	0.62
2:CB:178:ARG:NH2	8:CH:68:ARG:HH22	1.97	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2887:U:H2'	23:DA:2888:C:C6	2.34	0.62
1:AA:1318:A:H1'	19:AS:37:ARG:HH21	1.65	0.62
38:BU:76:TYR:OH	38:BU:92:ARG:NH1	2.32	0.62
1:CA:954:G:OP1	22:CY:17:ARG:NH2	2.33	0.62
23:DA:1531:C:H42	23:DA:1538:G:H1	1.46	0.62
23:DA:1448:G:H4'	23:DA:1542:A:OP1	2.00	0.62
23:DA:2285:C:OP2	50:D6:6:ARG:NH1	2.33	0.62
5:AE:80:ILE:HD12	5:AE:138:ALA:HB1	1.81	0.62
23:BA:2122:U:H2'	23:BA:2123:G:H8	1.65	0.62
23:BA:2349:G:H3'	23:BA:2350:C:H5"	1.82	0.62
46:D2:51:ARG:HA	46:D2:54:LYS:HB2	1.81	0.62
23:DA:2113:U:H2'	23:DA:2114:A:O4'	2.00	0.62
23:DA:2777:G:H5"	23:DA:2778:A:H5'	1.82	0.62
23:DA:84:A:H5"	42:DY:8:LYS:HE3	1.82	0.62
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.15	0.62
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG12	1.82	0.62
21:CU:5:ASP:O	21:CU:11:GLY:HA3	1.99	0.62
23:DA:1364:G:OP1	45:D1:2:SER:HA	2.00	0.62
49:D5:51:TYR:CE1	49:D5:56:LYS:HG2	2.33	0.62
23:DA:2646:C:OP2	23:DA:2732:G:O2'	2.17	0.62
25:BD:8:PRO:HB3	25:BD:14:ARG:HB2	1.81	0.61
1:CA:1089:G:H1	1:CA:1096:C:H42	1.48	0.61
1:CA:222:U:H2'	1:CA:223:U:H6	1.64	0.61
23:DA:300:A:P	42:DY:86:ARG:HH22	2.23	0.61
27:DF:197:ASP:N	27:DF:197:ASP:OD2	2.32	0.61
42:DY:79:CYS:HB2	42:DY:81:LYS:H	1.64	0.61
1:CA:1316:G:N2	1:CA:1319:A:O5'	2.32	0.61
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.83	0.61
1:AA:1010:G:H2'	1:AA:1011:G:C8	2.34	0.61
2:AB:87:ARG:HE	2:AB:233:SER:CB	2.13	0.61
23:DA:1633:G:OP2	56:DA:4052:HOH:O	2.16	0.61
23:DA:2198:A:H4'	23:DA:2199:A:OP1	2.00	0.61
23:DA:833:U:O2	33:DP:55:ARG:NH2	2.33	0.61
37:DT:24:PRO:HD3	37:DT:52:ILE:HD12	1.82	0.61
23:BA:1531:C:H42	23:BA:1538:G:H1	1.47	0.61
23:BA:1778:U:H2'	23:BA:1784:A:N6	2.15	0.61
23:BA:2142:C:H2'	23:BA:2143:C:C6	2.35	0.61
23:BA:2577:A:H5'	49:B5:3:LYS:HD2	1.82	0.61
23:BA:2810:A:N6	23:BA:2891:G:O2'	2.32	0.61
42:BY:68:HIS:ND1	42:BY:70:SER:HB3	2.16	0.61
1:CA:405:U:O4	4:CD:2:GLY:N	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:430:A:OP1	4:CD:9:CYS:N	2.34	0.61
2:CB:236:TYR:CG	2:CB:239:VAL:HB	2.35	0.61
6:CF:76:ALA:O	6:CF:80:ARG:HG3	2.00	0.61
23:DA:1429:G:H2'	23:DA:1430:C:C6	2.34	0.61
26:DE:116:VAL:HG13	26:DE:122:PHE:HB2	1.81	0.61
23:DA:300:A:OP2	42:DY:86:ARG:NH2	2.33	0.61
1:AA:1009:G:H2'	1:AA:1010:G:O4'	2.00	0.61
23:BA:1047:G:H2'	23:BA:1110:G:N2	2.15	0.61
23:BA:2821:A:OP2	56:BA:4891:HOH:O	2.16	0.61
30:BI:38:LEU:HB3	30:BI:40:THR:HG23	1.80	0.61
1:CA:300:A:O2'	1:CA:564:C:N3	2.29	0.61
7:CG:20:ASP:HB3	7:CG:23:VAL:HG23	1.81	0.61
4:AD:188:LEU:H	4:AD:188:LEU:HD23	1.65	0.61
7:AG:111:ARG:NH1	7:AG:113:GLU:OE2	2.33	0.61
25:BD:71:ASP:OD2	25:BD:103:ARG:NH2	2.32	0.61
1:CA:656:C:O2'	15:CO:28:GLN:NE2	2.19	0.61
4:CD:13:ARG:NH1	4:CD:38:TYR:O	2.32	0.61
9:CI:71:SER:O	9:CI:75:ASP:HB2	2.00	0.61
48:D4:42:PHE:HB3	48:D4:43:TYR:HB2	1.82	0.61
23:DA:2686:G:H5'	56:DA:4444:HOH:O	2.00	0.61
23:DA:2894:G:H8	23:DA:2894:G:O5'	1.83	0.61
23:DA:764:A:H2	25:DD:219:PRO:HG3	1.64	0.61
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.01	0.61
9:AI:21:PRO:HA	9:AI:59:PHE:HA	1.83	0.61
26:BE:152:LYS:HD2	31:BN:77:GLY:HA3	1.83	0.61
18:CR:71:LYS:NZ	56:CR:101:HOH:O	2.16	0.61
23:DA:2208:A:H1'	23:DA:2219:G:C4	2.36	0.61
23:DA:2497:A:H5"	56:DA:3898:HOH:O	2.00	0.61
25:DD:71:ASP:OD2	25:DD:103:ARG:NH2	2.33	0.61
26:DE:152:LYS:HD2	31:DN:77:GLY:HA3	1.82	0.61
19:AS:36:ARG:NH2	19:AS:75:ALA:O	2.32	0.61
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.35	0.61
1:CA:1238:A:N3	1:CA:1241:G:O2'	2.31	0.61
1:CA:1244:C:N3	1:CA:1293:G:N2	2.40	0.61
1:CA:827:U:H5"	1:CA:828:A:OP2	2.00	0.61
1:CA:437:U:H5"	4:CD:155:LEU:HD21	1.82	0.61
24:DB:106:G:H5'	43:DZ:31:ARG:HG2	1.82	0.61
5:AE:143:ARG:NH1	8:AH:77:GLU:OE1	2.34	0.61
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.66	0.61
23:BA:1045:A:H1'	23:BA:1047:G:C2	2.36	0.61
23:BA:1429:G:H2'	23:BA:1430:C:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:69:THR:HG22	43:BZ:90:VAL:HA	1.83	0.61
1:CA:664:G:P	18:CR:64:ARG:HH21	2.23	0.61
23:DA:1040:C:H2'	23:DA:1041:C:O4'	2.00	0.61
23:DA:1266:G:O5'	40:DW:15:ARG:NH2	2.33	0.61
23:DA:301:G:OP2	42:DY:84:ARG:NH2	2.34	0.61
1:AA:227:G:O2'	16:AP:62:VAL:HG22	2.01	0.61
4:AD:31:CYS:HB3	4:AD:33:MET:HB2	1.83	0.61
23:BA:1721:G:H5'	23:BA:1722:A:OP2	2.01	0.61
23:BA:2332:U:O2'	23:BA:2335:A:N3	2.28	0.61
43:BZ:158:PRO:HD2	43:BZ:161:VAL:HG21	1.83	0.61
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.35	0.61
13:CM:49:THR:O	13:CM:51:ALA:N	2.34	0.61
52:D8:62:LEU:HB3	52:D8:65:GLU:HG2	1.83	0.61
23:DA:530:G:O4'	23:DA:530:G:N3	2.33	0.61
30:DI:41:GLU:HA	30:DI:44:LEU:HB2	1.82	0.61
1:AA:1029:C:O2	1:AA:1032:G:N1	2.34	0.60
1:AA:1259:C:N4	1:AA:1260:C:O2	2.34	0.60
23:BA:2327:A:H2'	23:BA:2328:A:C8	2.35	0.60
1:CA:1227:A:OP1	19:CS:80:TYR:OH	2.13	0.60
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.82	0.60
13:CM:48:LEU:O	13:CM:52:GLU:HB2	2.00	0.60
23:DA:2142:C:H2'	23:DA:2143:C:C6	2.36	0.60
23:DA:2114:A:H1'	23:DA:2168:G:H5'	1.83	0.60
23:DA:945:A:C2	56:DA:4012:HOH:O	2.50	0.60
26:DE:24:THR:HG22	26:DE:186:GLY:O	2.01	0.60
37:DT:24:PRO:HA	37:DT:49:VAL:HG22	1.82	0.60
1:AA:612:C:O2	1:AA:629:G:N2	2.33	0.60
1:AA:91:C:H2'	1:AA:92:C:C6	2.37	0.60
9:AI:53:VAL:O	9:AI:55:ALA:N	2.33	0.60
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.36	0.60
3:CC:70:VAL:O	3:CC:106:VAL:N	2.34	0.60
15:CO:24:SER:O	15:CO:24:SER:OG	2.19	0.60
23:DA:11:G:H2'	23:DA:12:U:H5'	1.82	0.60
27:DF:101:LEU:HD12	27:DF:102:PRO:HD2	1.82	0.60
1:AA:838:G:H2'	1:AA:839:U:H5"	1.84	0.60
2:AB:18:GLY:HA3	2:AB:41:ILE:HD13	1.81	0.60
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.01	0.60
28:BG:16:ARG:HH11	28:BG:16:ARG:HG3	1.66	0.60
6:AF:82:ARG:HG3	6:AF:82:ARG:HH11	1.66	0.60
23:BA:2014:A:OP1	56:BA:4152:HOH:O	2.16	0.60
25:BD:108:PRO:HB3	25:BD:143:HIS:CE1	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BR:102:GLU:OE2	40:BW:37:ARG:NH1	2.29	0.60
1:CA:1278:U:H5"	1:CA:1279:A:O4'	2.01	0.60
34:DQ:37:LEU:HD21	34:DQ:130:LYS:HE2	1.83	0.60
1:AA:262:A:H2'	1:AA:263:A:C8	2.36	0.60
1:AA:436:C:O2'	1:AA:437:U:OP2	2.18	0.60
1:AA:600:C:H2'	1:AA:601:C:C6	2.36	0.60
1:AA:828:A:H2'	1:AA:829:G:O4'	2.01	0.60
1:AA:1342:C:O2'	9:AI:124:GLN:HG2	2.00	0.60
23:BA:2208:A:H1'	23:BA:2219:G:C4	2.36	0.60
23:BA:639:U:H2'	23:BA:640:C:C6	2.36	0.60
34:BQ:37:LEU:HD21	34:BQ:130:LYS:HE2	1.83	0.60
1:CA:437:U:O3'	4:CD:125:HIS:CE1	2.55	0.60
1:CA:538:G:H5"	12:CL:114:LYS:CB	2.25	0.60
21:CU:3:LYS:NZ	56:CU:101:HOH:O	2.34	0.60
33:DP:63:PRO:HG2	52:D8:25:MET:HB2	1.84	0.60
25:DD:275:LYS:HG3	25:DD:276:LYS:HB2	1.83	0.60
27:DF:184:TYR:CD2	27:DF:188:ARG:HD2	2.36	0.60
1:AA:67:C:H4'	1:AA:172:A:O4'	2.01	0.60
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.83	0.60
16:AP:72:ARG:HH21	16:AP:73:LEU:HD21	1.67	0.60
23:BA:2162:G:O3'	23:BA:2172:U:O2'	2.14	0.60
23:BA:662:G:H5"	33:BP:16:ARG:HG2	1.83	0.60
23:BA:1250:G:N7	33:BP:18:ARG:NH2	2.49	0.60
1:CA:791:G:N1	1:CA:1498:U:OP1	2.30	0.60
1:CA:473:G:H2'	1:CA:474:G:H8	1.66	0.60
23:DA:2122:U:H2'	23:DA:2123:G:H8	1.66	0.60
43:DZ:152:ALA:HA	43:DZ:155:LEU:HD13	1.83	0.60
2:AB:69:LEU:HD13	2:AB:91:PRO:HB2	1.84	0.60
3:AC:6:HIS:CD2	3:AC:8:ILE:H	2.18	0.60
23:BA:517:C:OP1	49:B5:16:ARG:NH2	2.34	0.60
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.37	0.60
13:CM:91:ARG:NH2	13:CM:97:PRO:O	2.35	0.60
24:DB:2:C:H2'	24:DB:3:C:C6	2.36	0.60
31:DN:15:LEU:HB2	31:DN:135:PRO:HB2	1.83	0.60
33:DP:126:VAL:HG12	33:DP:148:LEU:HD22	1.83	0.60
36:DS:11:LYS:O	36:DS:15:ARG:HB2	2.01	0.60
43:DZ:161:VAL:O	43:DZ:161:VAL:HG13	2.01	0.60
43:DZ:33:LEU:HD23	43:DZ:90:VAL:HG21	1.84	0.60
23:BA:1153:C:OP1	38:BU:92:ARG:NH1	2.31	0.60
23:BA:2023:G:H5'	23:BA:2617:C:H4'	1.82	0.60
23:BA:2887:U:H2'	23:BA:2888:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:27:ARG:HD2	45:B1:71:TYR:CE1	2.37	0.60
1:CA:143:A:H2	1:CA:220:G:H1	1.50	0.60
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.84	0.60
23:DA:830:G:H5'	56:DA:4014:HOH:O	2.01	0.60
23:BA:2134:A:H1'	23:BA:2159:G:H1'	1.83	0.60
56:BA:4878:HOH:O	26:BE:135:HIS:NE2	2.31	0.60
1:CA:93:G:HO2'	1:CA:96:U:H6	1.49	0.60
23:DA:1796:U:H2'	23:DA:1797:C:C6	2.37	0.60
23:DA:2130:U:H1'	23:DA:2158:A:N1	2.16	0.60
23:DA:2833:G:H3'	23:DA:2834:G:H5"	1.84	0.60
23:DA:760:G:OP2	56:DA:4042:HOH:O	2.16	0.60
23:DA:997:G:OP1	38:DU:92:ARG:HG2	2.01	0.60
10:AJ:38:ILE:HG12	10:AJ:71:LEU:O	2.02	0.60
20:AT:10:LEU:HD23	20:AT:12:ALA:H	1.66	0.60
23:BA:1021:A:C8	23:BA:1021:A:H3'	2.37	0.60
23:BA:1174:A:H1'	23:BA:1175:U:H5"	1.83	0.60
23:BA:2777:G:H5"	23:BA:2778:A:H5'	1.84	0.60
1:CA:353:A:C8	1:CA:353:A:H5'	2.35	0.60
1:CA:564:C:OP1	56:CA:1906:HOH:O	2.17	0.60
1:CA:542:G:OP1	4:CD:10:ARG:NH1	2.35	0.60
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.83	0.59
22:AY:85:LEU:O	22:AY:89:GLN:HG2	2.02	0.59
25:BD:145:VAL:HG12	25:BD:146:GLU:O	2.02	0.59
42:BY:90:LEU:HB3	42:BY:92:ASN:H	1.66	0.59
1:CA:1157:A:H61	1:CA:1178:G:H21	1.47	0.59
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.67	0.59
4:CD:65:ARG:HG2	4:CD:75:PHE:CD1	2.37	0.59
11:CK:79:SER:HA	11:CK:104:GLN:HB2	1.84	0.59
42:DY:38:ILE:HD11	42:DY:66:PRO:HG3	1.84	0.59
7:AG:90:GLU:CD	7:AG:90:GLU:H	2.04	0.59
7:AG:37:ASN:OD1	9:AI:40:LEU:HA	2.02	0.59
23:BA:250:G:OP2	52:B8:13:ARG:NH2	2.36	0.59
23:BA:2833:G:H3'	23:BA:2834:G:H5"	1.85	0.59
37:BT:118:ARG:HG3	37:BT:118:ARG:NH1	2.14	0.59
37:BT:51:ARG:HG3	37:BT:98:LYS:HE3	1.83	0.59
1:CA:1089:G:C6	1:CA:1090:U:C4	2.90	0.59
1:CA:609:A:N7	56:CA:1938:HOH:O	2.32	0.59
3:CC:52:LEU:HB3	3:CC:70:VAL:HG13	1.84	0.59
8:CH:49:GLU:HG2	8:CH:62:TYR:HE2	1.67	0.59
23:DA:1778:U:OP2	56:DA:4370:HOH:O	2.17	0.59
23:BA:1047:G:H2'	23:BA:1110:G:H1	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:197:ASP:OD2	27:BF:197:ASP:N	2.33	0.59
1:CA:991:U:C4	1:CA:1212:U:H1'	2.37	0.59
1:CA:149:A:HO2'	1:CA:150:C:H6	1.47	0.59
1:CA:957:U:H4'	19:CS:79:THR:HG23	1.83	0.59
13:CM:92:HIS:CE1	13:CM:98:VAL:HG21	2.37	0.59
25:DD:71:ASP:HB3	25:DD:103:ARG:NH2	2.17	0.59
1:AA:57:G:H2'	1:AA:58:C:C6	2.37	0.59
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.85	0.59
23:BA:1619:G:N7	56:BA:5539:HOH:O	2.32	0.59
1:CA:1136:U:H5"	1:CA:1137:C:C4	2.38	0.59
44:D0:27:GLU:HG3	44:D0:68:GLU:HA	1.84	0.59
23:DA:1125:G:H5'	53:D9:37:GLY:HA2	1.84	0.59
23:DA:1929:G:H4'	23:DA:1930:G:OP1	2.01	0.59
43:DZ:69:THR:HG22	43:DZ:90:VAL:HA	1.85	0.59
1:AA:131:C:H2'	1:AA:132:C:H6	1.67	0.59
1:AA:869:G:N7	56:AA:2196:HOH:O	2.32	0.59
9:AI:9:ARG:HG2	9:AI:14:VAL:HG13	1.85	0.59
23:BA:2577:A:O4'	49:B5:3:LYS:HB2	2.03	0.59
23:BA:588:U:H2'	23:BA:589:C:C6	2.37	0.59
30:BI:145:VAL:HG12	30:BI:146:ALA:H	1.67	0.59
33:BP:38:GLN:O	33:BP:39:LYS:CB	2.51	0.59
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.38	0.59
3:CC:11:ARG:HB3	3:CC:15:THR:H	1.66	0.59
7:CG:111:ARG:HB2	7:CG:119:ARG:HD2	1.84	0.59
9:CI:99:LEU:HB3	9:CI:101:PHE:CD1	2.37	0.59
47:D3:23:LEU:HD13	47:D3:50:VAL:HG11	1.84	0.59
23:DA:1019:U:O2'	23:DA:1021:A:H2	1.84	0.59
23:DA:1025:G:C4	23:DA:1135:C:H1'	2.37	0.59
5:AE:79:GLU:HG3	5:AE:93:PRO:HD2	1.84	0.59
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.84	0.59
23:BA:1025:G:C4	23:BA:1135:C:H1'	2.37	0.59
30:BI:133:HIS:ND1	30:BI:134:PRO:O	2.35	0.59
35:BR:67:LEU:HD13	35:BR:76:VAL:HG21	1.85	0.59
1:CA:47:C:H42	1:CA:361:G:H1	1.50	0.59
16:CP:75:ARG:O	16:CP:78:GLY:N	2.27	0.59
1:CA:1401:G:OP1	22:CY:80:LYS:HE2	2.02	0.59
23:DA:2074:U:H2'	23:DA:2075:U:C6	2.38	0.59
23:DA:662:G:H5"	33:DP:16:ARG:HG2	1.84	0.59
23:DA:885:C:H3'	23:DA:886:C:H5"	1.83	0.59
36:DS:82:ILE:CA	36:DS:83:LYS:HB2	2.31	0.59
23:BA:11:G:H2'	23:BA:12:U:H5'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1951:U:O4	56:BA:4257:HOH:O	2.14	0.59
24:BB:11:C:H3'	24:BB:12:C:C6	2.38	0.59
6:CF:15:ASP:OD2	6:CF:17:SER:N	2.24	0.59
1:CA:1456:G:N2	20:CT:51:GLU:OE1	2.33	0.59
22:CY:16:ILE:HB	22:CY:71:TYR:OH	2.03	0.59
36:DS:25:ARG:NH1	36:DS:42:ASP:OD2	2.36	0.59
1:AA:1117:G:H4'	9:AI:104:ARG:NH1	2.16	0.59
1:AA:987:G:H1	1:AA:1218:C:N4	2.01	0.59
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.38	0.59
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.37	0.59
1:CA:1348:U:H2'	1:CA:1349:A:C8	2.35	0.59
1:CA:828:A:H2'	1:CA:829:G:O4'	2.03	0.59
23:DA:2168:G:H22	23:DA:2171:A:H2'	1.67	0.59
23:DA:95:G:O2'	46:D2:46:GLN:HA	2.03	0.59
42:DY:68:HIS:ND1	42:DY:70:SER:HB3	2.17	0.59
10:AJ:9:ARG:HB2	10:AJ:95:GLU:HB3	1.85	0.59
23:BA:1882:C:H5'	23:BA:1883:G:OP2	2.02	0.59
1:CA:1259:C:N4	1:CA:1260:C:O2	2.35	0.59
6:CF:81:ILE:HD11	25:DD:125:ILE:HB	1.84	0.59
50:D6:6:ARG:NH1	50:D6:26:ASN:HB2	2.17	0.59
23:DA:1359:A:N3	23:DA:1359:A:H5'	2.17	0.59
23:DA:203:C:H3'	23:DA:204:A:H5"	1.85	0.59
1:AA:143:A:H2	1:AA:220:G:H1	1.51	0.59
1:AA:78:G:H1	1:AA:91:C:N4	2.01	0.59
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	1.83	0.59
33:BP:63:PRO:HG2	52:B8:25:MET:HB2	1.85	0.59
23:BA:139(A):G:N2	41:BX:44:GLU:OE1	2.36	0.59
23:BA:271(E):U:H2'	23:BA:271(F):C:C6	2.38	0.59
23:BA:886:C:H2'	23:BA:887:A:H5"	1.85	0.59
27:BF:101:LEU:O	27:BF:106:ARG:NH1	2.33	0.59
34:BQ:51:ARG:NH2	43:BZ:186:GLU:OE1	2.35	0.59
1:CA:100:C:H2'	1:CA:101:A:C8	2.37	0.59
2:CB:19:HIS:ND1	2:CB:189:ASP:OD2	2.25	0.59
10:CJ:55:LYS:HE3	10:CJ:56:HIS:CE1	2.37	0.59
16:CP:20:VAL:HG21	16:CP:32:TYR:CD1	2.38	0.59
23:DA:1991:U:H2'	23:DA:1992:G:H5"	1.83	0.59
1:AA:1300:G:O2'	1:AA:1301:U:O5'	2.21	0.58
23:BA:392:C:OP1	56:BA:4220:HOH:O	2.17	0.58
1:CA:59:A:H1'	1:CA:354:G:N2	2.18	0.58
1:CA:977:A:N3	1:CA:977:A:H2'	2.16	0.58
23:DA:1019:U:H3	23:DA:1142(A):A:H62	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1774:C:OP1	56:DA:3839:HOH:O	2.17	0.58
23:DA:2506:U:OP1	26:DE:144:ARG:NH2	2.36	0.58
23:DA:928:G:O6	56:DA:5042:HOH:O	2.16	0.58
23:BA:1448:G:H4'	23:BA:1542:A:OP1	2.03	0.58
23:BA:2295:C:C2'	23:BA:2296:U:H5'	2.32	0.58
23:BA:2572:A:N7	26:BE:144:ARG:HD2	2.18	0.58
1:CA:791:G:N2	1:CA:1497:G:O3'	2.34	0.58
1:CA:64:G:H4'	1:CA:65:U:H3'	1.85	0.58
2:CB:87:ARG:HE	2:CB:233:SER:CB	2.13	0.58
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.03	0.58
1:CA:1321:C:H4'	13:CM:87:TYR:CE2	2.39	0.58
45:D1:6:GLU:HG3	45:D1:61:ARG:O	2.03	0.58
4:AD:13:ARG:NH1	4:AD:38:TYR:O	2.35	0.58
4:AD:158:ILE:O	4:AD:162:LEU:N	2.36	0.58
1:AA:1249:C:O2'	9:AI:73:GLN:NE2	2.37	0.58
23:BA:7:G:H2'	23:BA:8:A:O4'	2.03	0.58
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.34	0.58
26:DE:47:VAL:HG12	26:DE:49:LEU:HD13	1.85	0.58
1:AA:1047:G:H5"	14:AN:4:LYS:HD3	1.85	0.58
41:BX:31:HIS:HD2	41:BX:33:LYS:N	1.93	0.58
1:CA:537:G:OP1	12:CL:113:ARG:NH2	2.37	0.58
1:CA:544:G:OP2	4:CD:66:ARG:NH2	2.37	0.58
18:CR:47:THR:HG23	18:CR:49:LYS:HG3	1.84	0.58
23:DA:686:G:H5"	51:D7:11:LYS:HE2	1.84	0.58
23:DA:1022:G:H22	23:DA:1142(A):A:H2	1.47	0.58
1:AA:141:A:H1'	1:AA:182:U:O2	2.03	0.58
10:AJ:48:THR:HG1	10:AJ:62:HIS:CE1	2.21	0.58
23:BA:1430:C:H2'	23:BA:1431:U:C6	2.38	0.58
1:CA:1067:A:O2'	1:CA:1068:G:OP2	2.15	0.58
1:CA:1068:G:N2	1:CA:1191:A:H1'	2.19	0.58
1:CA:1216:G:H5"	14:CN:5:ALA:HB2	1.85	0.58
1:CA:826:C:H2'	1:CA:827:U:C6	2.37	0.58
23:DA:1439:A:OP1	56:DA:4342:HOH:O	2.17	0.58
23:DA:250:G:OP2	52:D8:13:ARG:NH2	2.36	0.58
1:AA:1126:U:OP2	1:AA:1281:U:H1'	2.03	0.58
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.86	0.58
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.38	0.58
1:CA:1352:C:OP1	21:CU:3:LYS:NZ	2.24	0.58
3:CC:122:GLU:HA	3:CC:125:GLU:HG3	1.86	0.58
23:DA:251:A:C5	23:DA:252:G:H1'	2.38	0.58
28:DG:75:LYS:HA	28:DG:84:LYS:HE2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.67	0.58
1:AA:1422:G:H5'	32:BO:48:PRO:HB3	1.86	0.58
45:B1:50:ARG:HG2	45:B1:59:THR:HG22	1.86	0.58
52:B8:23:VAL:CG1	52:B8:47:LYS:HD3	2.34	0.58
36:BS:11:LYS:O	36:BS:15:ARG:HB2	2.03	0.58
36:BS:96:GLY:N	36:BS:99:LYS:H	2.02	0.58
23:BA:84:A:H5"	42:BY:8:LYS:HE3	1.85	0.58
1:CA:1273:G:H5'	1:CA:1274:G:OP2	2.04	0.58
4:CD:158:ILE:O	4:CD:162:LEU:N	2.36	0.58
11:CK:85:ARG:HE	11:CK:111:ASP:HB3	1.69	0.58
23:DA:1430:C:H2'	23:DA:1431:U:H6	1.69	0.58
23:DA:861:A:C2	23:DA:917:A:C4	2.91	0.58
25:DD:275:LYS:HG3	25:DD:276:LYS:N	2.19	0.58
1:AA:1110:A:OP2	56:AA:2202:HOH:O	2.17	0.58
3:AC:51:GLY:HA3	3:AC:71:ALA:HB3	1.86	0.58
1:AA:664:G:P	18:AR:64:ARG:HH21	2.27	0.58
23:BA:2137:C:O2	23:BA:2137:C:H2'	2.02	0.58
23:BA:2243:U:H2'	23:BA:2244:U:C6	2.38	0.58
26:BE:118:LYS:O	56:BE:408:HOH:O	2.16	0.58
32:BO:16:ALA:HB2	32:BO:52:VAL:HG21	1.86	0.58
34:BQ:135:ASP:OD2	43:BZ:49:ARG:NH2	2.37	0.58
15:CO:5:LYS:O	15:CO:9:GLN:HG2	2.03	0.58
17:CQ:66:SER:O	17:CQ:70:ARG:NH1	2.37	0.58
23:DA:2469:A:H4'	34:DQ:56:ARG:HG2	1.85	0.58
23:DA:889:C:O2'	23:DA:890:A:H8	1.87	0.58
1:CA:1457:G:H2'	1:CA:1458:G:C8	2.39	0.58
19:CS:43:GLU:CD	19:CS:43:GLU:H	2.05	0.58
26:DE:203:LYS:CB	26:DE:204:ALA:HA	2.33	0.58
36:DS:34:HIS:O	36:DS:97:ARG:NH2	2.37	0.58
1:AA:1292:U:O2'	1:AA:1293:G:H5'	2.04	0.58
2:AB:87:ARG:HH21	2:AB:233:SER:HB2	1.66	0.58
5:AE:50:GLU:HB2	5:AE:53:LEU:HD13	1.84	0.58
23:BA:1379:A:H4'	23:BA:1380:G:OP2	2.02	0.58
2:CB:87:ARG:HD2	2:CB:219:VAL:HG11	1.86	0.58
21:CU:14:TRP:CE3	21:CU:15:ARG:HG3	2.39	0.58
49:D5:16:ARG:NH1	49:D5:17:ASP:OD1	2.37	0.58
23:DA:1204:A:H61	23:DA:1240:U:H2'	1.69	0.58
37:DT:118:ARG:NH1	37:DT:118:ARG:HG3	2.16	0.58
1:AA:228:A:H4'	16:AP:62:VAL:HG13	1.84	0.57
1:AA:434:U:H2'	1:AA:435:C:C6	2.39	0.57
1:AA:91:C:O2'	1:AA:92:C:H5'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:161:VAL:HG13	43:BZ:161:VAL:O	2.04	0.57
1:CA:316:G:OP2	1:CA:351:G:O2'	2.22	0.57
3:CC:123:GLN:O	3:CC:128:PHE:HB2	2.03	0.57
23:DA:1021:A:C8	23:DA:1021:A:H3'	2.39	0.57
23:DA:1029:A:O2'	56:DA:4878:HOH:O	2.07	0.57
23:DA:1494:A:O2'	23:DA:1495:A:H5'	2.04	0.57
23:DA:963:U:OP2	56:DA:3795:HOH:O	2.17	0.57
25:DD:3:VAL:HG13	25:DD:17:THR:HB	1.86	0.57
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.04	0.57
1:AA:748:C:H4'	1:AA:749:C:O5'	2.03	0.57
1:AA:974:A:OP1	1:AA:974:A:H8	1.87	0.57
3:AC:58:GLU:HB2	3:AC:65:ALA:HB3	1.85	0.57
23:BA:1405:U:H2'	23:BA:1406:U:C6	2.39	0.57
23:BA:642:G:H21	23:BA:646:A:H2	1.52	0.57
1:CA:1011:G:H1	1:CA:1018:C:H42	1.52	0.57
1:CA:1441:G:O2'	1:CA:1459:C:N3	2.32	0.57
1:CA:435:C:N4	1:CA:436:C:H41	2.02	0.57
23:DA:2136:C:N3	23:DA:2155:G:N2	2.45	0.57
23:DA:2136:C:N4	23:DA:2155:G:N1	2.46	0.57
23:DA:2023:G:H5'	23:DA:2617:C:H4'	1.87	0.57
23:DA:639:U:H2'	23:DA:640:C:C6	2.39	0.57
27:DF:101:LEU:O	27:DF:106:ARG:NH1	2.29	0.57
41:DX:31:HIS:HD2	41:DX:33:LYS:N	1.95	0.57
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.03	0.57
23:BA:2287:A:N6	23:BA:2344:U:H3	1.95	0.57
1:CA:662:G:H2'	1:CA:663:A:C8	2.40	0.57
1:CA:763:G:H2'	1:CA:764:C:H6	1.69	0.57
19:CS:49:ILE:O	19:CS:60:VAL:N	2.31	0.57
23:DA:2439:A:H5'	23:DA:2439:A:C8	2.39	0.57
23:DA:2463:C:O2'	23:DA:2464:C:H5'	2.04	0.57
29:DH:113:VAL:HG11	29:DH:151:ILE:HD13	1.86	0.57
1:AA:353:A:C8	1:AA:353:A:H5'	2.36	0.57
23:BA:911:A:H2'	34:BQ:9:TYR:OH	2.05	0.57
26:BE:143:ASN:HD22	26:BE:147:PRO:HD3	1.70	0.57
23:BA:621:A:OP2	33:BP:108:LYS:NZ	2.36	0.57
33:BP:126:VAL:HG12	33:BP:148:LEU:HD22	1.86	0.57
1:CA:1414:U:H3	1:CA:1486:G:H1	1.52	0.57
1:CA:922:G:N3	1:CA:1398:A:H2	2.02	0.57
23:DA:1330:C:OP1	56:DA:4713:HOH:O	2.17	0.57
23:DA:1434:A:H61	23:DA:1558:A:H62	1.51	0.57
23:DA:2115:G:O2'	23:DA:2166:G:N2	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:201:THR:OG1	26:BE:202:LYS:N	2.38	0.57
21:CU:18:TYR:CD2	21:CU:22:ARG:HD2	2.39	0.57
50:D6:11:LEU:HB2	50:D6:21:TYR:HB2	1.85	0.57
23:DA:297:C:OP1	42:DY:95:LYS:NZ	2.37	0.57
23:DA:539:G:H2'	23:DA:540:C:H6	1.69	0.57
43:DZ:138:GLU:H	43:DZ:156:LYS:NZ	2.03	0.57
1:AA:1400:C:N3	22:AY:63:ALA:HA	2.18	0.57
50:B6:18:ARG:HG3	50:B6:42:TRP:CD1	2.40	0.57
23:BA:1385:G:N7	56:BA:5341:HOH:O	2.32	0.57
23:BA:1540:U:C2'	23:BA:1541:G:H5'	2.34	0.57
23:BA:2114:A:H3'	23:BA:2115:G:C8	2.38	0.57
43:BZ:124:ILE:HG13	43:BZ:125:LEU:H	1.69	0.57
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.05	0.57
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.85	0.57
23:DA:2519:U:OP2	56:DA:4630:HOH:O	2.17	0.57
8:AH:49:GLU:HG2	8:AH:62:TYR:HE2	1.68	0.57
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.87	0.57
47:B3:23:LEU:HD13	47:B3:50:VAL:HG11	1.87	0.57
23:BA:652(G):G:H2'	23:BA:652(H):C:C6	2.40	0.57
38:BU:92:ARG:HA	38:BU:95:LEU:HB2	1.85	0.57
1:CA:342:C:H5'	20:CT:4:LYS:HE2	1.86	0.57
1:CA:964:A:N3	1:CA:969:A:O2'	2.36	0.57
5:CE:32:VAL:HB	5:CE:58:ALA:HB1	1.86	0.57
18:CR:73:ALA:HB3	18:CR:79:LEU:HD12	1.87	0.57
48:D4:15:ILE:O	48:D4:32:TYR:HA	2.04	0.57
23:DA:1622:G:OP2	56:DA:4063:HOH:O	2.18	0.57
23:DA:2611:U:OP2	23:DA:2611:U:H3'	2.05	0.57
23:DA:926:A:N7	56:DA:4496:HOH:O	2.33	0.57
26:DE:9:VAL:HG13	26:DE:25:VAL:O	2.04	0.57
36:DS:96:GLY:HA2	36:DS:97:ARG:C	2.25	0.57
38:DU:105:VAL:O	38:DU:108:GLU:HB2	2.04	0.57
9:AI:89:ASN:O	9:AI:91:ASP:N	2.38	0.57
18:AR:47:THR:HG23	18:AR:49:LYS:HG3	1.86	0.57
23:BA:1106:G:H4'	23:BA:1107:G:OP2	2.05	0.57
23:BA:2130:U:H1'	23:BA:2158:A:N1	2.19	0.57
23:BA:729:G:C6	25:BD:208:LYS:HB2	2.40	0.57
24:BB:7:G:N7	56:BB:336:HOH:O	2.33	0.57
1:CA:1157:A:H61	1:CA:1178:G:N2	2.03	0.57
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.69	0.57
1:CA:539:A:H2'	1:CA:540:G:C8	2.39	0.57
23:DA:2137:C:O2	23:DA:2137:C:H2'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:83:G:N2	23:DA:102:G:H1'	2.20	0.57
24:DB:39:A:O2'	24:DB:46:A:N1	2.34	0.57
35:DR:72:ASP:O	35:DR:76:VAL:HG23	2.04	0.57
1:AA:1065:U:H1'	1:AA:1066:C:OP2	2.05	0.57
9:AI:110:GLU:OE2	9:AI:113:LYS:NZ	2.38	0.57
12:AL:49:ASN:ND2	12:AL:92:ASP:OD2	2.37	0.57
52:B8:34:TRP:CG	52:B8:35:GLN:N	2.73	0.57
26:BE:116:VAL:HG13	26:BE:122:PHE:HB2	1.87	0.57
2:CB:77:ALA:HB1	2:CB:165:VAL:HG11	1.87	0.57
1:CA:437:U:O2'	4:CD:125:HIS:HE1	1.87	0.57
1:CA:559:A:OP1	5:CE:126:ARG:NH2	2.37	0.57
9:CI:110:GLU:HG2	9:CI:119:ALA:HB1	1.87	0.57
24:DB:11:C:H3'	24:DB:12:C:C6	2.40	0.57
29:DH:137:ASP:HB3	29:DH:140:LYS:HB3	1.87	0.57
1:AA:1005:A:H1'	1:AA:1036:G:N2	2.16	0.57
13:AM:65:LYS:HA	13:AM:66:LEU:CB	2.35	0.57
15:AO:5:LYS:O	15:AO:9:GLN:HG2	2.04	0.57
23:BA:2532:G:O6	56:BA:5019:HOH:O	2.15	0.57
1:CA:1095:U:H5'	1:CA:1109:C:O2	2.04	0.57
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.70	0.57
1:CA:748:C:H4'	1:CA:749:C:O5'	2.05	0.57
1:CA:859:A:H2'	1:CA:860:A:O4'	2.05	0.57
2:CB:84:GLU:OE1	2:CB:216:SER:HA	2.04	0.57
1:CA:404:U:C5'	4:CD:122:ARG:HD3	2.35	0.57
52:D8:32:LEU:O	52:D8:36:LYS:HE3	2.05	0.57
23:DA:945:A:H2	56:DA:4012:HOH:O	1.86	0.57
30:DI:123:LEU:HB2	30:DI:144:VAL:O	2.05	0.57
9:AI:27:THR:HG23	9:AI:31:GLN:H	1.69	0.56
23:BA:1173:G:O2'	23:BA:1174:A:O4'	2.22	0.56
23:BA:12:U:O2	23:BA:12:U:H2'	2.04	0.56
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.04	0.56
3:CC:29:TYR:O	3:CC:29:TYR:HD2	1.87	0.56
23:DA:2152:G:H2'	23:DA:2153:G:C8	2.40	0.56
23:DA:271(Q):G:O2'	23:DA:271(R):G:H8	1.88	0.56
30:DI:67:ARG:O	30:DI:68:LEU:HD22	2.05	0.56
37:DT:60:THR:HG22	37:DT:77:PRO:HA	1.87	0.56
1:AA:93:G:HO2'	1:AA:96:U:H6	1.54	0.56
1:AA:933:G:OP2	7:AG:3:ARG:HB2	2.04	0.56
23:BA:1929:G:H4'	23:BA:1930:G:OP1	2.04	0.56
25:BD:275:LYS:HG3	25:BD:276:LYS:HB2	1.86	0.56
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:826:C:H2'	1:CA:827:U:H6	1.71	0.56
2:CB:18:GLY:HA3	2:CB:41:ILE:HD13	1.86	0.56
9:CI:45:ALA:HB1	9:CI:47:LEU:H	1.70	0.56
13:CM:69:GLU:C	13:CM:71:ARG:H	2.08	0.56
50:D6:16:CYS:HB2	50:D6:18:ARG:NH1	2.20	0.56
23:DA:1494:A:H2'	23:DA:1495:A:C8	2.39	0.56
23:DA:644:A:H4'	23:DA:645:C:C5	2.41	0.56
28:DG:179:PRO:HG3	48:D4:43:TYR:OH	2.05	0.56
43:DZ:7:ALA:HB3	43:DZ:61:LEU:HD12	1.85	0.56
1:AA:1269:A:H2	1:AA:1312:G:N3	2.02	0.56
6:AF:69:GLU:O	6:AF:72:VAL:HG13	2.05	0.56
1:AA:1189:C:P	10:AJ:51:ARG:HH22	2.28	0.56
10:AJ:48:THR:OG1	10:AJ:62:HIS:ND1	2.24	0.56
23:BA:2168:G:H22	23:BA:2171:A:H2'	1.70	0.56
29:BH:12:PRO:O	29:BH:14:GLY:HA2	2.05	0.56
34:BQ:110:THR:HG23	34:BQ:113:GLN:OE1	2.06	0.56
34:BQ:12:GLN:HG2	34:BQ:73:PRO:HD2	1.87	0.56
3:CC:150:LYS:HE3	3:CC:152:ILE:HD11	1.85	0.56
23:BA:1218:C:H6	23:BA:1218:C:H5"	1.70	0.56
23:BA:1486:A:H2'	23:BA:1487:G:C8	2.40	0.56
23:BA:2319:G:H22	36:BS:3:ARG:NE	2.04	0.56
23:DA:2295:C:C2'	23:DA:2296:U:H5'	2.34	0.56
23:DA:330:A:H2	23:DA:1210:A:HO2'	1.52	0.56
43:DZ:128:VAL:HG23	43:DZ:161:VAL:H	1.70	0.56
1:AA:228:A:H4'	16:AP:62:VAL:CG1	2.36	0.56
52:B8:29:LYS:HG2	52:B8:44:LYS:HB3	1.85	0.56
23:BA:2328:A:H2'	23:BA:2329:G:C8	2.40	0.56
1:CA:342:C:N4	1:CA:343:U:O4	2.39	0.56
4:CD:153:ARG:NH1	4:CD:180:GLY:O	2.28	0.56
5:CE:147:ASP:N	5:CE:147:ASP:OD2	2.38	0.56
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.37	0.56
23:DA:1486:A:H2'	23:DA:1487:G:H8	1.70	0.56
27:DF:120:GLU:HB2	27:DF:122:LYS:HG2	1.87	0.56
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.45	0.56
50:B6:16:CYS:SG	50:B6:18:ARG:HG2	2.46	0.56
23:BA:2526:G:H21	53:B9:2:LYS:HD2	1.70	0.56
23:BA:2115:G:O2'	23:BA:2166:G:N2	2.38	0.56
24:BB:31:C:O2'	24:BB:53:A:N6	2.39	0.56
32:BO:23:ARG:HG3	32:BO:24:VAL:N	2.21	0.56
1:CA:1161:C:H2'	1:CA:1162:C:H6	1.69	0.56
14:CN:29:ARG:NH1	14:CN:42:ILE:HD11	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1406:U:H2'	23:DA:1407:C:C6	2.41	0.56
23:DA:271(Q):G:OP1	30:DI:42:SER:HB2	2.05	0.56
24:DB:78:A:C2	24:DB:100:A:C4	2.93	0.56
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.05	0.56
23:BA:2131:G:OP1	23:BA:2132:U:H3'	2.05	0.56
23:BA:2584:U:H2'	23:BA:2585:U:H2'	1.88	0.56
23:BA:657:U:H2'	23:BA:658:C:C6	2.41	0.56
18:CR:58:LEU:HD12	18:CR:62:GLU:OE1	2.06	0.56
23:DA:1187:G:H5"	39:DV:81:TYR:CE2	2.40	0.56
23:DA:69:C:N4	56:DA:4192:HOH:O	2.39	0.56
34:DQ:110:THR:HG23	34:DQ:113:GLN:OE1	2.06	0.56
1:AA:1009:G:O6	1:AA:1020:U:O2	2.24	0.56
13:AM:56:LEU:O	13:AM:60:VAL:HG23	2.05	0.56
23:BA:141:A:H8	23:BA:1408:C:HO2'	1.50	0.56
23:BA:997:G:OP1	38:BU:92:ARG:HG2	2.05	0.56
26:BE:28:ALA:HB3	26:BE:93:VAL:HG13	1.88	0.56
1:CA:976:G:C8	1:CA:1362:C:N4	2.74	0.56
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.19	0.56
1:CA:186:C:H2'	1:CA:187:C:C6	2.40	0.56
4:CD:110:PHE:H	4:CD:110:PHE:HD1	1.51	0.56
23:DA:2130:U:O2'	23:DA:2133:G:O2'	2.22	0.56
23:BA:2130:U:O2'	23:BA:2133:G:O2'	2.24	0.56
1:CA:1145:C:H4'	1:CA:1146:A:H5'	1.88	0.56
1:CA:1112:C:C2	3:CC:178:LEU:HB2	2.41	0.56
1:CA:403:C:P	4:CD:137:SER:HG	2.27	0.56
9:CI:33:PHE:O	9:CI:37:PHE:HB2	2.06	0.56
23:DA:141:A:C8	23:DA:1408:C:O2'	2.59	0.56
23:DA:2111:C:H42	23:DA:2147:G:N2	2.04	0.56
23:DA:539:G:H2'	23:DA:540:C:C6	2.40	0.56
23:DA:7:G:H2'	23:DA:8:A:O4'	2.05	0.56
43:DZ:45:ASP:OD2	43:DZ:49:ARG:NH1	2.39	0.56
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.06	0.56
1:AA:826:C:H2'	1:AA:827:U:C6	2.41	0.56
17:AQ:53:LEU:HD23	17:AQ:82:MET:HE1	1.87	0.56
1:AA:584:G:H5'	17:AQ:91:ARG:HH22	1.70	0.56
23:BA:644:A:H4'	23:BA:645:C:C5	2.40	0.56
1:CA:1061:G:O2'	1:CA:1062:U:OP1	2.23	0.56
1:CA:833:U:H2'	1:CA:834:C:H6	1.71	0.56
2:CB:12:GLU:O	2:CB:16:HIS:ND1	2.39	0.56
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.87	0.56
23:DA:910:A:N1	23:DA:2277:G:H1'	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B7:33:ARG:NH2	56:B7:203:HOH:O	2.38	0.56
23:BA:2473:U:H2'	23:BA:2473:U:O2	2.06	0.56
23:BA:2850:A:OP2	23:BA:2866:U:H5	1.89	0.56
1:CA:366:C:N3	56:CA:2160:HOH:O	2.33	0.56
3:CC:18:TRP:HE1	14:CN:56:VAL:H	1.54	0.56
1:CA:437:U:C5'	4:CD:155:LEU:HD21	2.35	0.56
19:CS:32:LYS:HB3	19:CS:57:HIS:HD2	1.71	0.56
46:D2:4:SER:HA	46:D2:7:ARG:NH1	2.21	0.56
23:DA:141:A:H8	23:DA:1408:C:HO2'	1.52	0.56
24:DB:44:G:C2	24:DB:48:A:C2	2.94	0.56
23:DA:2723:C:OP2	26:DE:109:LYS:NZ	2.39	0.56
1:CA:1442(B):A:C2	37:DT:118:ARG:CZ	2.89	0.56
43:DZ:154:ASP:N	43:DZ:154:ASP:OD1	2.38	0.56
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.41	0.55
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.40	0.55
9:AI:112:LYS:HE2	9:AI:117:HIS:O	2.06	0.55
1:CA:1184:G:H2'	1:CA:1185:G:C8	2.41	0.55
1:CA:1184:G:H2'	1:CA:1185:G:H8	1.71	0.55
1:CA:1292:U:H2'	1:CA:1293:G:O4'	2.06	0.55
1:CA:131:C:H2'	1:CA:132:C:H6	1.71	0.55
1:CA:46:G:O2'	1:CA:365:U:O2	2.24	0.55
3:CC:153:VAL:HA	3:CC:197:GLY:O	2.05	0.55
16:CP:5:ARG:CZ	16:CP:22:THR:HG21	2.35	0.55
19:CS:32:LYS:HB3	19:CS:57:HIS:CD2	2.41	0.55
20:CT:47:GLY:HA2	20:CT:48:LYS:HB2	1.87	0.55
23:DA:652(C):G:N2	23:DA:652(V):C:O2	2.32	0.55
23:DA:886:C:H2'	23:DA:887:A:H5"	1.88	0.55
23:DA:2012:G:OP1	40:DW:11:ARG:NH2	2.38	0.55
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.71	0.55
1:AA:620:C:O4'	4:AD:135:LEU:HD23	2.07	0.55
1:AA:833:U:H2'	1:AA:834:C:H6	1.69	0.55
18:AR:58:LEU:HD12	18:AR:62:GLU:OE1	2.06	0.55
49:B5:51:TYR:CE1	49:B5:56:LYS:HG2	2.42	0.55
23:BA:1178:C:H2'	23:BA:1179:C:C6	2.42	0.55
24:BB:2:C:H2'	24:BB:3:C:C6	2.41	0.55
36:BS:11:LYS:HG3	36:BS:91:PRO:HD3	1.88	0.55
39:BV:49:THR:HG22	39:BV:49:THR:O	2.06	0.55
1:CA:1255:G:O2'	1:CA:1258:G:O2'	2.21	0.55
13:CM:64:TRP:O	13:CM:66:LEU:HG	2.06	0.55
23:DA:873:G:N2	23:DA:905:U:C2	2.74	0.55
23:DA:1903:G:OP1	25:DD:241:PRO:HB2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:242:ARG:N	25:DD:242:ARG:HD3	2.20	0.55
27:DF:53:THR:HG23	27:DF:55:GLY:H	1.69	0.55
1:AA:663:A:O3'	18:AR:64:ARG:NH2	2.39	0.55
48:B4:15:ILE:O	48:B4:32:TYR:HA	2.06	0.55
50:B6:35:GLU:HG3	50:B6:50:ARG:HG3	1.88	0.55
23:BA:1488:G:H8	23:BA:1488:G:H5"	1.72	0.55
23:BA:2152:G:H2'	23:BA:2153:G:C8	2.40	0.55
23:BA:2439:A:C8	23:BA:2439:A:H5'	2.42	0.55
40:BW:4:LYS:HE2	40:BW:6:ILE:HD11	1.88	0.55
1:CA:1122:U:O4	1:CA:1123:A:N6	2.38	0.55
1:CA:1123:A:O2'	10:CJ:38:ILE:HG23	2.06	0.55
1:CA:600:C:H2'	1:CA:601:C:C6	2.40	0.55
1:CA:935:A:H5"	56:CA:2195:HOH:O	2.06	0.55
22:CY:30:TRP:CD1	22:CY:89:GLN:HG3	2.41	0.55
23:DA:1540:U:O2'	23:DA:1541:G:H5'	2.06	0.55
23:DA:1540:U:C2'	23:DA:1541:G:H5'	2.36	0.55
23:DA:2206:G:O2'	23:DA:2207:G:OP1	2.21	0.55
23:DA:2887:U:H2'	23:DA:2888:C:H6	1.69	0.55
23:DA:450:G:O6	56:DA:4160:HOH:O	2.18	0.55
1:AA:1068:G:OP2	1:AA:1068:G:H8	1.89	0.55
1:AA:1136:U:H5"	1:AA:1137:C:C4	2.41	0.55
23:BA:889:C:O2'	23:BA:890:A:H8	1.90	0.55
29:BH:149:ARG:NH1	29:BH:167:GLU:OE1	2.40	0.55
29:BH:28:GLY:HA3	29:BH:79:VAL:HB	1.87	0.55
37:BT:60:THR:HG22	37:BT:77:PRO:HA	1.89	0.55
23:BA:994:C:OP1	38:BU:53:ARG:NH2	2.38	0.55
43:BZ:138:GLU:H	43:BZ:156:LYS:NZ	2.04	0.55
4:CD:155:LEU:HD23	4:CD:156:GLU:N	2.21	0.55
1:CA:1330:U:H4'	13:CM:23:TYR:CE2	2.41	0.55
23:DA:2382:G:N7	56:DA:4415:HOH:O	2.32	0.55
23:DA:2572:A:N7	26:DE:144:ARG:HD2	2.20	0.55
23:DA:2784:C:H1'	26:DE:37:ARG:HH12	1.71	0.55
1:AA:131:C:H2'	1:AA:132:C:C6	2.41	0.55
2:AB:12:GLU:O	2:AB:16:HIS:ND1	2.37	0.55
23:BA:1204:A:H61	23:BA:1240:U:H2'	1.70	0.55
1:CA:1002:G:C2	1:CA:1003:G:H1'	2.41	0.55
1:CA:938:A:C6	1:CA:939:G:C5	2.95	0.55
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.70	0.55
23:DA:2884:U:H1'	49:D5:53:ALA:HB2	1.87	0.55
23:DA:2357:U:OP1	44:D0:20:ARG:HD3	2.06	0.55
23:DA:244:A:C2	23:DA:255:A:C4	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B2:45:SER:O	46:B2:46:GLN:HB2	2.06	0.55
23:BA:652(C):G:N2	23:BA:652(V):C:O2	2.35	0.55
28:BG:82:LEU:CD1	28:BG:82:LEU:H	2.18	0.55
31:BN:56:ASN:HA	31:BN:125:GLY:H	1.72	0.55
34:BQ:138:ASP:OD2	43:BZ:81:ARG:NH1	2.39	0.55
1:CA:1492:A:C5	23:DA:1913:A:H2	2.24	0.55
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.71	0.55
14:CN:37:PHE:CE1	14:CN:53:LEU:HD13	2.42	0.55
23:DA:77:C:OP1	46:D2:59:ARG:HD3	2.06	0.55
23:DA:1178:C:H2'	23:DA:1179:C:H6	1.72	0.55
23:DA:2537:U:H2'	23:DA:2538:C:C6	2.41	0.55
23:DA:330:A:HO2'	23:DA:331:A:H8	1.55	0.55
27:DF:157:VAL:HB	27:DF:194:MET:HG2	1.88	0.55
28:DG:60:LEU:HB3	28:DG:68:PRO:HG3	1.89	0.55
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.88	0.55
23:BA:1688:U:H1'	23:BA:1701:A:C6	2.42	0.55
42:BY:23:ARG:HB2	42:BY:23:ARG:NH1	2.22	0.55
3:CC:122:GLU:O	3:CC:125:GLU:HB2	2.07	0.55
4:CD:106:TYR:CD2	4:CD:107:ARG:HG2	2.34	0.55
23:DA:330:A:H2	23:DA:1210:A:C2'	2.19	0.55
23:DA:271(Q):G:O2'	23:DA:271(R):G:C8	2.60	0.55
23:DA:1247:A:OP1	27:DF:95:ARG:NH2	2.40	0.55
9:AI:9:ARG:O	9:AI:104:ARG:HG3	2.07	0.55
23:BA:1288:U:H2'	56:BA:3930:HOH:O	2.06	0.55
23:BA:1654:A:OP1	35:BR:1:MET:HA	2.07	0.55
26:BE:203:LYS:CB	26:BE:204:ALA:HA	2.35	0.55
27:BF:120:GLU:HB2	27:BF:122:LYS:HG2	1.89	0.55
30:BI:111:PRO:C	30:BI:113:ARG:H	2.08	0.55
36:BS:102:ALA:HB1	36:BS:112:PHE:HZ	1.72	0.55
36:BS:96:GLY:HA2	36:BS:97:ARG:C	2.27	0.55
1:CA:937:A:H1'	1:CA:1379:G:H22	1.70	0.55
1:CA:509:A:H5"	4:CD:55:ALA:HB2	1.87	0.55
5:CE:74:GLY:HA3	5:CE:116:THR:HG22	1.89	0.55
8:CH:121:ASP:OD1	8:CH:121:ASP:N	2.40	0.55
49:D5:16:ARG:HG2	49:D5:16:ARG:NH1	2.22	0.55
23:DA:2114:A:H3'	23:DA:2115:G:C8	2.42	0.55
35:DR:102:GLU:OE2	40:DW:37:ARG:NH1	2.33	0.55
1:AA:1181:G:H2'	1:AA:1182:G:C5	2.42	0.55
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.42	0.55
2:AB:87:ARG:HD2	2:AB:219:VAL:HG11	1.89	0.55
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:19:ALA:HB3	11:AK:82:VAL:HG22	1.87	0.55
16:AP:28:ARG:CG	16:AP:28:ARG:HH11	2.17	0.55
19:AS:34:TRP:HE3	19:AS:34:TRP:H	1.55	0.55
50:B6:13:CYS:SG	50:B6:47:THR:HG21	2.46	0.55
33:BP:59:LEU:HD21	52:B8:10:ALA:HA	1.89	0.55
23:BA:2879:C:O2'	56:BA:4930:HOH:O	2.18	0.55
23:BA:359:A:H2'	23:BA:360:G:O4'	2.07	0.55
23:BA:1903:G:OP1	25:BD:241:PRO:HB2	2.07	0.55
41:BX:41:ASN:O	41:BX:45:THR:HG23	2.06	0.55
1:CA:438:G:OP1	4:CD:125:HIS:NE2	2.37	0.55
23:DA:1963:U:H4'	23:DA:1964:G:OP1	2.07	0.55
23:DA:2584:U:H2'	23:DA:2585:U:H2'	1.87	0.55
23:DA:796:C:H2'	23:DA:797:C:C6	2.41	0.55
27:DF:17:ARG:O	27:DF:18:ARG:HB2	2.07	0.55
1:AA:671:G:H2'	1:AA:672:U:H6	1.72	0.55
1:AA:674:G:H2'	1:AA:675:A:C8	2.42	0.55
1:AA:763:G:H2'	1:AA:764:C:H6	1.72	0.55
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.89	0.55
9:AI:45:ALA:CB	9:AI:47:LEU:H	2.19	0.55
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.40	0.55
23:BA:2322:A:H2'	23:BA:2323:G:O4'	2.06	0.55
43:BZ:81:ARG:HG2	43:BZ:81:ARG:HH21	1.71	0.55
7:CG:135:VAL:O	7:CG:139:GLU:N	2.25	0.55
8:CH:17:THR:HG22	8:CH:63:LEU:HG	1.89	0.55
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG12	1.89	0.55
1:CA:1366:C:HO2'	10:CJ:60:ARG:HH12	1.51	0.55
22:CY:54:ILE:HB	22:CY:61:LEU:CD1	2.37	0.55
23:DA:218:A:C2	23:DA:235:U:H4'	2.42	0.55
23:DA:2473:U:O2	23:DA:2473:U:H2'	2.07	0.55
23:DA:1693:U:O2'	25:DD:14:ARG:NH2	2.40	0.55
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.22	0.54
1:AA:1305:G:N2	1:AA:1331:G:O2'	2.40	0.54
1:AA:176:C:H2'	1:AA:177:C:C6	2.42	0.54
1:AA:78:G:N2	1:AA:91:C:N3	2.54	0.54
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.42	0.54
20:AT:73:HIS:HB3	20:AT:74:LYS:HE2	1.89	0.54
23:BA:2469:A:H4'	34:BQ:56:ARG:HG2	1.88	0.54
23:BA:307:G:H21	23:BA:330:A:H62	1.55	0.54
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.08	0.54
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.07	0.54
1:CA:1221:G:O3'	19:CS:77:THR:OG1	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:152:ILE:HB	3:CC:199:LYS:HB2	1.87	0.54
12:CL:49:ASN:ND2	12:CL:92:ASP:OD2	2.41	0.54
1:CA:520:A:O2'	12:CL:73:GLU:OE1	2.17	0.54
13:CM:15:VAL:HG23	13:CM:41:PRO:HA	1.88	0.54
23:DA:2304:G:H21	28:DG:156:ASP:CG	2.10	0.54
31:DN:56:ASN:HA	31:DN:125:GLY:H	1.71	0.54
42:DY:23:ARG:NH1	42:DY:23:ARG:HB2	2.22	0.54
1:AA:1024:G:O5'	1:AA:1024:G:H8	1.90	0.54
1:AA:1307:U:OP1	13:AM:101:GLN:NE2	2.33	0.54
1:AA:222:U:H2'	1:AA:223:U:H6	1.67	0.54
6:AF:76:ALA:O	6:AF:80:ARG:HG3	2.08	0.54
7:AG:15:ASP:HB3	7:AG:24:THR:HG23	1.88	0.54
25:BD:242:ARG:HD3	25:BD:242:ARG:N	2.22	0.54
23:BA:2506:U:OP1	26:BE:144:ARG:NH2	2.41	0.54
1:CA:1220:G:H1'	19:CS:52:TYR:CD2	2.42	0.54
1:CA:1360:A:OP1	1:CA:1360:A:H8	1.89	0.54
1:CA:57:G:H2'	1:CA:58:C:C6	2.42	0.54
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.42	0.54
7:CG:92:SER:O	7:CG:96:GLN:HG3	2.08	0.54
1:CA:658:G:O4'	15:CO:22:THR:HB	2.07	0.54
16:CP:72:ARG:HH11	16:CP:72:ARG:HG3	1.71	0.54
31:DN:102:ALA:O	31:DN:106:MET:HG3	2.07	0.54
43:DZ:128:VAL:HG23	43:DZ:161:VAL:N	2.23	0.54
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.42	0.54
1:AA:1223:C:OP2	19:AS:78:ARG:NH2	2.40	0.54
1:AA:1442(A):G:N7	1:AA:1442(B):A:C2	2.76	0.54
1:AA:674:G:H2'	1:AA:675:A:H8	1.71	0.54
2:AB:194:PRO:C	2:AB:196:LEU:H	2.11	0.54
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.06	0.54
23:BA:77:C:OP1	46:B2:59:ARG:HD3	2.08	0.54
1:CA:1067:A:H8	1:CA:1067:A:O5'	1.90	0.54
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.27	0.54
11:CK:19:ALA:HB3	11:CK:82:VAL:HG22	1.88	0.54
23:DA:1290:C:H2'	23:DA:1291:C:H6	1.72	0.54
24:DB:90:A:N7	24:DB:91:C:H1'	2.22	0.54
27:DF:21:ALA:O	27:DF:22:ALA:HB2	2.06	0.54
1:AA:601:C:H2'	1:AA:602:A:H8	1.71	0.54
2:AB:17:PHE:HB3	2:AB:44:LEU:HD11	1.89	0.54
23:BA:1019:U:H3	23:BA:1142(A):A:H62	1.56	0.54
27:BF:157:VAL:HB	27:BF:194:MET:HG2	1.90	0.54
30:BI:106:GLY:HA2	30:BI:107:VAL:HB	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:29:TYR:O	30:BI:32:PRO:HD2	2.08	0.54
43:BZ:154:ASP:N	43:BZ:154:ASP:OD1	2.40	0.54
43:BZ:152:ALA:HA	43:BZ:155:LEU:HD13	1.89	0.54
21:CU:18:TYR:HA	21:CU:22:ARG:HB3	1.90	0.54
23:DA:2463:C:C2'	23:DA:2464:C:H5'	2.36	0.54
23:DA:528:A:N1	23:DA:2042:A:H2'	2.22	0.54
24:DB:49:C:OP1	36:DS:97:ARG:N	2.39	0.54
1:AA:373:A:H2'	1:AA:374:A:H8	1.73	0.54
1:AA:662:G:H2'	1:AA:663:A:C8	2.42	0.54
1:AA:980:C:OP1	56:AA:2066:HOH:O	2.18	0.54
4:AD:155:LEU:HD23	4:AD:156:GLU:N	2.23	0.54
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.90	0.54
9:AI:43:ALA:O	9:AI:45:ALA:HB2	2.07	0.54
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.08	0.54
25:BD:275:LYS:HG3	25:BD:276:LYS:N	2.22	0.54
1:CA:1029:C:H42	1:CA:1030:C:N4	2.05	0.54
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.90	0.54
1:CA:1342:C:H1'	9:CI:124:GLN:HE21	1.72	0.54
1:CA:1459:C:C5	1:CA:1460:A:N7	2.76	0.54
1:CA:171:A:H2'	1:CA:172:A:H8	1.71	0.54
23:DA:1669:A:H5"	23:DA:2550:G:OP1	2.07	0.54
1:AA:1178:G:N2	1:AA:1181:G:OP2	2.40	0.54
1:AA:57:G:N2	1:AA:388:G:C6	2.76	0.54
1:AA:57:G:H2'	1:AA:58:C:H6	1.73	0.54
1:AA:826:C:H2'	1:AA:827:U:H6	1.73	0.54
10:AJ:45:ARG:HG2	10:AJ:47:PHE:CZ	2.41	0.54
15:AO:8:LYS:HG2	15:AO:12:ILE:HD11	1.89	0.54
23:BA:1187:G:H5"	39:BV:81:TYR:CE2	2.42	0.54
23:BA:1932:A:H2'	23:BA:1933:G:O4'	2.07	0.54
26:BE:11:MET:HG2	26:BE:24:THR:HB	1.89	0.54
36:BS:95:HIS:C	36:BS:99:LYS:HB3	2.27	0.54
40:BW:40:ASN:O	40:BW:41:LYS:HG3	2.08	0.54
43:BZ:138:GLU:H	43:BZ:156:LYS:HZ1	1.53	0.54
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.06	0.54
1:CA:671:G:H2'	1:CA:672:U:H6	1.72	0.54
3:CC:181:ASN:HB3	3:CC:204:LEU:HB2	1.88	0.54
15:CO:17:ARG:HH11	15:CO:17:ARG:CG	2.21	0.54
23:DA:1914:C:H2'	23:DA:1915:U:C6	2.42	0.54
23:DA:2001:A:H2'	23:DA:2002:G:C8	2.43	0.54
36:DS:96:GLY:H	36:DS:99:LYS:H	1.54	0.54
1:AA:228:A:O2'	16:AP:2:VAL:HG11	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:137:ASP:HB3	29:BH:140:LYS:HB3	1.89	0.54
29:BH:67:LEU:O	29:BH:71:LEU:HB2	2.08	0.54
1:CA:950:U:H2'	1:CA:951:G:H8	1.72	0.54
1:CA:407:G:H4'	4:CD:116:GLN:HA	1.89	0.54
10:CJ:63:PHE:CD1	14:CN:58:LYS:HA	2.43	0.54
23:DA:2126:A:H1'	23:DA:2127:G:OP2	2.08	0.54
23:DA:2319:G:H22	36:DS:3:ARG:NE	2.03	0.54
26:DE:28:ALA:HB3	26:DE:93:VAL:HG13	1.89	0.54
27:DF:129:PHE:CD2	27:DF:163:VAL:HG21	2.42	0.54
30:DI:69:LYS:HB3	30:DI:73:GLU:OE1	2.08	0.54
23:DA:2867:G:OP2	37:DT:119:LYS:NZ	2.41	0.54
34:DQ:138:ASP:OD2	43:DZ:81:ARG:NH1	2.40	0.54
1:AA:1032:G:H2'	1:AA:1033:G:C8	2.43	0.54
19:AS:34:TRP:CE3	19:AS:34:TRP:N	2.76	0.54
23:BA:2304:G:O6	23:BA:2312:U:O4	2.26	0.54
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.38	0.54
1:CA:1367:C:H5'	10:CJ:60:ARG:NH1	2.22	0.54
1:CA:501:C:H2'	1:CA:502:G:C8	2.43	0.54
1:CA:952:U:H4'	1:CA:964:A:N1	2.23	0.54
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.08	0.54
1:CA:192:U:H4'	20:CT:57:ARG:HD2	1.90	0.54
23:DA:1529:G:C6	23:DA:1530:C:N4	2.76	0.54
23:DA:2693:A:H2'	23:DA:2694:G:H8	1.73	0.54
23:DA:323:G:O2'	23:DA:1205:U:N3	2.34	0.54
1:AA:1202:G:H2'	1:AA:1203:C:H5'	1.89	0.54
1:AA:1303:C:H2'	1:AA:1304:G:H5'	1.90	0.54
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.38	0.54
13:AM:15:VAL:O	13:AM:19:LEU:HD22	2.07	0.54
36:BS:34:HIS:ND1	36:BS:53:SER:OG	2.36	0.54
23:BA:2867:G:OP2	37:BT:119:LYS:NZ	2.41	0.54
23:BA:300:A:OP2	42:BY:86:ARG:NH2	2.41	0.54
1:CA:1013:G:H2'	1:CA:1015:A:OP2	2.08	0.54
1:CA:1190:G:OP1	3:CC:5:ILE:HB	2.08	0.54
23:DA:1020:A:N1	23:DA:1141:U:O2'	2.36	0.54
23:DA:1843:C:H5'	25:DD:253:GLN:NE2	2.23	0.54
23:DA:1882:C:H5'	23:DA:1883:G:OP2	2.07	0.54
23:DA:2125:G:N2	23:DA:2172:U:H3'	2.23	0.54
30:DI:126:TYR:HB2	30:DI:142:VAL:HG23	1.89	0.54
1:AA:975:A:N6	1:AA:1367:C:O4'	2.41	0.54
1:AA:827:U:H5"	1:AA:828:A:OP2	2.07	0.54
3:AC:23:TYR:CD1	10:AJ:10:GLY:HA2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2198:A:H4'	23:BA:2199:A:OP1	2.08	0.54
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.90	0.54
9:CI:59:PHE:HZ	9:CI:88:TYR:CD1	2.26	0.54
22:CY:52:ALA:HB2	22:CY:77:LEU:HD11	1.89	0.54
23:DA:359:A:H2'	23:DA:360:G:O4'	2.08	0.54
33:DP:143:GLY:O	33:DP:145:PRO:HD3	2.08	0.54
1:AA:1293:G:HO2'	1:AA:1294:G:H8	1.55	0.53
19:AS:49:ILE:HG13	19:AS:62:ILE:HD11	1.89	0.53
23:BA:1364:G:OP1	45:B1:2:SER:HA	2.08	0.53
51:B7:34:ARG:NH1	51:B7:41:ARG:O	2.41	0.53
23:BA:1359:A:H5'	23:BA:1359:A:N3	2.23	0.53
23:BA:1540:U:O2'	23:BA:1541:G:H5'	2.08	0.53
28:BG:75:LYS:HA	28:BG:84:LYS:HE2	1.90	0.53
1:CA:949:A:H61	1:CA:1232:U:H3	1.55	0.53
1:CA:73:G:C6	1:CA:97:G:C6	2.96	0.53
1:CA:757:U:H2'	1:CA:758:G:O4'	2.08	0.53
2:CB:87:ARG:HH21	2:CB:233:SER:HB2	1.73	0.53
9:CI:9:ARG:O	9:CI:104:ARG:HG2	2.08	0.53
1:CA:1123:A:C2	10:CJ:39:PRO:HD2	2.44	0.53
23:DA:12:U:O2	23:DA:12:U:H2'	2.07	0.53
23:DA:1288:U:C2	23:DA:1327:C:O2	2.61	0.53
23:DA:1488:G:H8	23:DA:1488:G:H5"	1.73	0.53
23:DA:1688:U:H1'	23:DA:1701:A:C6	2.42	0.53
23:DA:2186:G:H2'	23:DA:2186:G:N3	2.23	0.53
23:DA:2329:G:H21	44:D0:41:ARG:HG3	1.72	0.53
23:DA:1817:G:OP1	25:DD:88:ARG:NH2	2.40	0.53
34:DQ:6:ARG:HB3	43:DZ:194:PRO:HG2	1.90	0.53
1:AA:56:U:H2'	1:AA:57:G:C8	2.44	0.53
1:AA:833:U:H2'	1:AA:834:C:C6	2.43	0.53
1:AA:859:A:H2'	1:AA:860:A:O4'	2.08	0.53
1:AA:991:U:O5'	1:AA:991:U:H6	1.91	0.53
3:AC:3:ASN:OD1	3:AC:3:ASN:N	2.41	0.53
3:AC:51:GLY:O	3:AC:52:LEU:HD22	2.08	0.53
23:BA:1429:G:O2'	23:BA:1430:C:H5'	2.09	0.53
23:BA:1587:A:H2'	23:BA:1588:C:C6	2.42	0.53
23:BA:2464:C:O2'	23:BA:2465:C:H5"	2.09	0.53
23:BA:2627:G:O2'	23:BA:2781:A:N1	2.36	0.53
24:BB:90:A:N7	24:BB:91:C:H1'	2.22	0.53
26:BE:55:ASN:HB3	26:BE:58:ARG:HG3	1.90	0.53
27:BF:101:LEU:HD12	27:BF:102:PRO:HD2	1.89	0.53
1:CA:427:U:OP2	4:CD:36:ARG:NH2	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1118:C:OP1	9:CI:9:ARG:HD2	2.08	0.53
23:DA:2080:G:OP1	45:D1:35:THR:HG21	2.08	0.53
23:DA:2648:C:H2'	23:DA:2649:U:C6	2.44	0.53
24:DB:2:C:H2'	24:DB:3:C:H6	1.73	0.53
40:DW:40:ASN:O	40:DW:41:LYS:HG3	2.08	0.53
1:AA:601:C:H2'	1:AA:602:A:C8	2.43	0.53
1:AA:983:A:H2	1:AA:984:C:C6	2.26	0.53
25:BD:96:HIS:CD2	25:BD:102:LYS:HD3	2.44	0.53
30:BI:81:VAL:HG21	30:BI:88:ILE:HD13	1.89	0.53
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.09	0.53
23:DA:127:A:H5"	23:DA:128:C:C6	2.44	0.53
23:DA:139(A):G:H22	41:DX:44:GLU:CD	2.11	0.53
23:DA:1503:U:H2'	23:DA:1504:C:C6	2.43	0.53
23:DA:2850:A:OP2	23:DA:2866:U:H5	1.90	0.53
23:DA:729:G:C6	25:DD:208:LYS:HB2	2.43	0.53
23:DA:774:A:N3	23:DA:774:A:H2'	2.23	0.53
23:DA:96:G:H4'	46:D2:48:HIS:CD2	2.44	0.53
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.44	0.53
1:AA:49:U:O4	1:AA:365:U:C5	2.54	0.53
3:AC:32:LEU:HD13	3:AC:59:ARG:HH11	1.72	0.53
27:BF:17:ARG:O	27:BF:18:ARG:HB2	2.08	0.53
31:BN:56:ASN:H	31:BN:125:GLY:CA	2.19	0.53
32:BO:63:VAL:HG12	32:BO:106:LEU:HD11	1.89	0.53
1:CA:1030(A):G:N2	1:CA:1031:G:C6	2.77	0.53
1:CA:940:C:H2'	1:CA:941:G:H8	1.73	0.53
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.89	0.53
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.91	0.53
9:CI:14:VAL:O	9:CI:65:VAL:HG23	2.08	0.53
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.90	0.53
23:DA:1366:A:OP1	45:D1:3:LYS:NZ	2.39	0.53
23:DA:1429:G:O2'	23:DA:1430:C:H5'	2.09	0.53
23:DA:1530:C:HO2'	23:DA:1531:C:P	2.30	0.53
30:DI:27:ARG:HD2	45:D1:71:TYR:CZ	2.43	0.53
34:DQ:109:VAL:HG13	34:DQ:113:GLN:HB2	1.89	0.53
1:AA:1166:G:N2	1:AA:1169:A:H3'	2.24	0.53
1:AA:1319:A:O2'	1:AA:1323:G:N7	2.32	0.53
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.91	0.53
23:BA:1817:G:OP1	25:BD:88:ARG:NH2	2.41	0.53
43:BZ:124:ILE:HG13	43:BZ:125:LEU:N	2.23	0.53
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.44	0.53
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.08	0.53
1:CA:141:A:H1'	1:CA:182:U:O2	2.09	0.53
1:CA:441:A:H3'	1:CA:442:C:C6	2.43	0.53
1:CA:56:U:H2'	1:CA:57:G:C8	2.44	0.53
2:CB:194:PRO:C	2:CB:196:LEU:H	2.11	0.53
17:CQ:76:LEU:HD11	17:CQ:78:GLU:O	2.09	0.53
23:DA:2131:G:OP1	23:DA:2132:U:H3'	2.08	0.53
23:DA:642:G:H21	23:DA:646:A:H2	1.57	0.53
23:DA:993:G:OP1	38:DU:50:ARG:NH2	2.40	0.53
33:DP:38:GLN:O	33:DP:39:LYS:CB	2.57	0.53
36:DS:96:GLY:HA2	36:DS:100:ALA:H	1.74	0.53
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.74	0.53
1:AA:1452:C:O2'	1:AA:1456:G:OP2	2.27	0.53
1:AA:1457:G:H2'	1:AA:1458:G:C8	2.44	0.53
1:AA:67:C:H2'	1:AA:68:G:H8	1.73	0.53
3:AC:6:HIS:HD2	3:AC:8:ILE:N	2.04	0.53
1:AA:127:G:HO2'	17:AQ:2:PRO:N	2.07	0.53
51:B7:48:LYS:NZ	56:B7:205:HOH:O	2.21	0.53
23:BA:1021:A:H8	23:BA:1021:A:H3'	1.73	0.53
23:BA:2171:A:H4'	23:BA:2172:U:OP1	2.09	0.53
23:BA:271(Q):G:O2'	23:BA:271(R):G:H8	1.90	0.53
27:BF:184:TYR:CD2	27:BF:188:ARG:HD2	2.44	0.53
30:BI:77:LEU:CB	30:BI:142:VAL:HG12	2.34	0.53
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.44	0.53
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.43	0.53
1:CA:939:G:H2'	1:CA:940:C:C6	2.43	0.53
7:CG:57:GLU:HB3	7:CG:60:LYS:H	1.72	0.53
16:CP:34:GLU:OE1	16:CP:55:ARG:NH1	2.41	0.53
23:DA:1138:G:O2'	31:DN:105:GLY:HA3	2.09	0.53
23:DA:1800:C:OP2	25:DD:183:ARG:NH2	2.32	0.53
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.09	0.53
22:AY:23:ARG:NH1	22:AY:26:LYS:HD2	2.23	0.53
23:BA:1047:G:C2'	23:BA:1110:G:H22	2.15	0.53
23:BA:1173:G:N2	23:BA:1176:G:OP2	2.42	0.53
25:BD:71:ASP:HB3	25:BD:103:ARG:HH22	1.74	0.53
2:CB:178:ARG:HH21	8:CH:74:PRO:HG3	1.73	0.53
2:CB:17:PHE:HB3	2:CB:44:LEU:HD11	1.90	0.53
3:CC:48:TYR:O	3:CC:51:GLY:N	2.41	0.53
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.09	0.53
23:DA:1178:C:H2'	23:DA:1179:C:C6	2.43	0.53
23:DA:1530:C:H1'	23:DA:1531:C:OP1	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:762:U:OP1	56:DA:3851:HOH:O	2.19	0.53
29:DH:150:ALA:HA	29:DH:153:LYS:HD2	1.90	0.53
42:DY:20:TYR:CD2	42:DY:42:VAL:HG13	2.43	0.53
1:AA:270:A:H2'	1:AA:271:C:C6	2.43	0.53
23:BA:1106:G:H8	23:BA:1106:G:OP2	1.91	0.53
23:BA:652(Q):G:H2'	23:BA:652(R):C:H5'	1.90	0.53
1:CA:1121:U:H2'	1:CA:1122:U:H5'	1.91	0.53
1:CA:991:U:C5	1:CA:1212:U:H1'	2.44	0.53
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.09	0.53
1:CA:768:A:OP2	56:CA:2054:HOH:O	2.19	0.53
11:CK:85:ARG:HG2	11:CK:112:THR:HA	1.91	0.53
19:CS:22:LEU:HD13	19:CS:28:LYS:H	1.74	0.53
27:DF:184:TYR:CE2	27:DF:188:ARG:HD2	2.44	0.53
1:AA:1145:C:H4'	1:AA:1146:A:H5'	1.90	0.53
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.43	0.53
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.32	0.53
22:AY:23:ARG:HH12	22:AY:26:LYS:HD2	1.73	0.53
23:BA:2126:A:H1'	23:BA:2127:G:OP2	2.09	0.53
29:BH:150:ALA:HA	29:BH:153:LYS:HD2	1.89	0.53
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.44	0.53
1:CA:1015:A:H1'	1:CA:1219:U:H5'	1.90	0.53
5:CE:79:GLU:HG3	5:CE:93:PRO:HD2	1.90	0.53
23:DA:1794:U:H2'	23:DA:1795:C:C6	2.44	0.53
23:DA:1138:G:H2'	31:DN:106:MET:HE2	1.90	0.53
43:DZ:124:ILE:HG13	43:DZ:125:LEU:N	2.22	0.53
1:AA:1126:U:H6	1:AA:1280:A:N7	2.05	0.53
1:AA:518:C:O2'	1:AA:530:G:N2	2.42	0.53
1:AA:66:G:O4'	1:AA:173:U:C4	2.62	0.53
4:AD:129:ASN:HD21	4:AD:144:ASP:HA	1.74	0.53
8:AH:121:ASP:OD1	8:AH:121:ASP:N	2.39	0.53
23:BA:1178:C:H2'	23:BA:1179:C:H6	1.73	0.53
23:BA:1507:A:O2'	23:BA:1508:A:H8	1.92	0.53
23:BA:2183:C:H2'	23:BA:2184:G:C8	2.44	0.53
23:BA:2483:C:N3	34:BQ:124:LYS:NZ	2.55	0.53
23:BA:652(D):C:H2'	23:BA:652(E):G:O4'	2.09	0.53
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.24	0.53
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.44	0.53
14:CN:59:ALA:HB1	14:CN:61:TRP:HZ3	1.74	0.53
23:DA:2328:A:H2'	23:DA:2329:G:C8	2.43	0.53
23:DA:2022:U:O2'	23:DA:2617:C:H5'	2.09	0.53
25:DD:108:PRO:HB3	25:DD:143:HIS:CE1	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:539:A:H2'	1:AA:540:G:C8	2.44	0.52
23:BA:2186:G:N3	23:BA:2186:G:H2'	2.24	0.52
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.39	0.52
2:CB:71:VAL:HG13	2:CB:93:VAL:CG2	2.39	0.52
5:CE:102:ALA:O	5:CE:107:ARG:NH1	2.42	0.52
1:CA:1297:C:O3'	7:CG:114:ARG:NH2	2.40	0.52
14:CN:29:ARG:HH21	14:CN:41:ARG:HG2	1.74	0.52
23:DA:1507:A:O2'	23:DA:1508:A:H8	1.92	0.52
23:DA:1810:A:H2'	23:DA:1811:G:O4'	2.09	0.52
23:DA:2464:C:O2'	23:DA:2465:C:H5"	2.07	0.52
33:DP:59:LEU:HD21	52:D8:10:ALA:HA	1.91	0.52
36:DS:96:GLY:N	36:DS:99:LYS:HB3	2.23	0.52
1:AA:1110:A:O5'	1:AA:1110:A:H8	1.92	0.52
1:AA:814:A:H2'	1:AA:816:A:H5"	1.91	0.52
1:AA:986:A:H1'	19:AS:54:GLY:O	2.09	0.52
22:AY:12:ILE:HG21	22:AY:17:ARG:HH21	1.74	0.52
48:B4:42:PHE:HB3	48:B4:43:TYR:HB2	1.90	0.52
23:BA:562:U:C4	23:BA:2036:C:O4'	2.62	0.52
30:BI:133:HIS:HD1	30:BI:134:PRO:N	2.07	0.52
31:BN:96:GLU:H	31:BN:96:GLU:CD	2.11	0.52
1:CA:814:A:N7	1:CA:816:A:C4	2.77	0.52
13:CM:90:LEU:C	13:CM:92:HIS:H	2.12	0.52
20:CT:47:GLY:HA2	20:CT:48:LYS:CB	2.40	0.52
23:DA:1329:U:H5"	23:DA:1330:C:H5	1.74	0.52
13:AM:87:TYR:O	13:AM:90:LEU:N	2.43	0.52
23:BA:2365:G:O6	52:B8:39:LYS:HE3	2.09	0.52
23:BA:2080:G:OP1	45:B1:35:THR:HG21	2.09	0.52
23:BA:218:A:C2	23:BA:235:U:H4'	2.44	0.52
23:BA:2377:A:H2'	23:BA:2378:A:C8	2.45	0.52
27:BF:184:TYR:CE2	27:BF:188:ARG:HD2	2.45	0.52
23:BA:674:G:H1'	27:BF:74:ARG:HD3	1.91	0.52
31:BN:15:LEU:HB2	31:BN:135:PRO:HB2	1.90	0.52
1:CA:1002:G:N3	1:CA:1003:G:H1'	2.25	0.52
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.45	0.52
2:CB:82:ARG:HG3	2:CB:92:TYR:OH	2.09	0.52
9:CI:18:PHE:HB2	9:CI:62:TYR:HB3	1.91	0.52
50:D6:13:CYS:SG	50:D6:47:THR:HG21	2.49	0.52
23:DA:1403:C:C5'	23:DA:1471:A:H1'	2.35	0.52
23:DA:2171:A:H4'	23:DA:2172:U:OP1	2.09	0.52
23:DA:2183:C:H2'	23:DA:2184:G:C8	2.45	0.52
23:DA:657:U:H2'	23:DA:658:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DW:66:GLU:HA	40:DW:69:LEU:HD12	1.91	0.52
43:DZ:10:ARG:HG3	43:DZ:36:LYS:HB3	1.90	0.52
1:AA:1414:U:H3	1:AA:1486:G:H1	1.55	0.52
1:AA:68:G:O4'	1:AA:171:A:H1'	2.10	0.52
5:AE:147:ASP:N	5:AE:147:ASP:OD2	2.41	0.52
23:BA:952:G:OP1	34:BQ:16:ARG:NH2	2.42	0.52
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.91	0.52
1:CA:67:C:H2'	1:CA:68:G:H8	1.74	0.52
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.91	0.52
4:CD:129:ASN:HD21	4:CD:144:ASP:HA	1.75	0.52
7:CG:120:ILE:O	7:CG:124:LEU:HB2	2.10	0.52
22:CY:40:ILE:HG13	22:CY:51:ASP:HB2	1.91	0.52
47:D3:4:LEU:O	47:D3:36:VAL:HA	2.09	0.52
23:DA:2166:G:H2'	23:DA:2167:U:O4'	2.10	0.52
23:DA:2361:A:N6	56:DA:4408:HOH:O	2.14	0.52
23:DA:2849:U:OP2	37:DT:95:ARG:NH1	2.42	0.52
28:DG:16:ARG:HH11	28:DG:16:ARG:HG3	1.74	0.52
28:DG:16:ARG:HE	28:DG:31:VAL:HG21	1.74	0.52
30:DI:82:ARG:O	30:DI:89:TYR:HD1	1.91	0.52
32:DO:16:ALA:HB2	32:DO:52:VAL:HG21	1.91	0.52
35:DR:21:TYR:OH	35:DR:43:GLU:HG2	2.10	0.52
23:DA:2880:C:O3'	35:DR:90:ARG:NH1	2.43	0.52
39:DV:35:LEU:HB2	39:DV:57:VAL:HG22	1.90	0.52
1:AA:436:C:O2'	1:AA:437:U:P	2.68	0.52
1:AA:501:C:H2'	1:AA:502:G:C8	2.44	0.52
1:AA:618:C:N3	1:AA:622:A:N6	2.57	0.52
5:AE:91:LEU:HD12	5:AE:120:THR:HG22	1.90	0.52
23:BA:2317:C:C4	23:BA:2318:G:N7	2.77	0.52
23:BA:372:G:OP2	45:B1:69:LYS:NZ	2.29	0.52
43:BZ:54:HIS:ND1	43:BZ:101:PRO:HG3	2.25	0.52
1:CA:1021:G:H2'	1:CA:1022:G:O4'	2.08	0.52
1:CA:947:G:O3'	13:CM:109:THR:OG1	2.25	0.52
23:DA:784:A:C8	23:DA:792:G:C5	2.97	0.52
23:DA:839:U:H2'	23:DA:840:C:C6	2.44	0.52
28:DG:61:ALA:O	28:DG:65:GLY:N	2.39	0.52
23:DA:952:G:OP1	34:DQ:16:ARG:NH2	2.42	0.52
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.44	0.52
1:AA:62:U:HO2'	1:AA:379:C:C2'	2.19	0.52
1:AA:664:G:N2	1:AA:741:G:H1	2.07	0.52
4:AD:108:LEU:CD1	4:AD:174:LEU:HD13	2.39	0.52
50:B6:6:ARG:NH1	50:B6:26:ASN:HB2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1038:C:H42	23:BA:1117:G:H1	1.56	0.52
23:BA:1810:A:H2'	23:BA:1811:G:O4'	2.09	0.52
23:BA:2319:G:N1	36:BS:3:ARG:HA	2.25	0.52
25:BD:3:VAL:HG13	25:BD:17:THR:HB	1.92	0.52
33:BP:38:GLN:O	33:BP:39:LYS:HB3	2.10	0.52
34:BQ:6:ARG:HB3	43:BZ:194:PRO:HG2	1.90	0.52
43:BZ:137:ILE:HG23	43:BZ:156:LYS:HD2	1.91	0.52
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.45	0.52
1:CA:1151:A:N3	10:CJ:39:PRO:HG3	2.24	0.52
1:CA:45:U:H2'	1:CA:46:G:C8	2.45	0.52
14:CN:37:PHE:CZ	14:CN:56:VAL:HG21	2.44	0.52
1:CA:393:A:OP2	16:CP:12:LYS:HD2	2.10	0.52
16:CP:68:ASP:O	16:CP:71:ARG:HG2	2.10	0.52
21:CU:10:ARG:HE	21:CU:13:ILE:HD12	1.75	0.52
23:DA:2406:U:OP2	23:DA:2406:U:H2'	2.10	0.52
23:DA:527:C:H4'	23:DA:528:A:O5'	2.10	0.52
23:DA:578:A:OP2	56:DA:3920:HOH:O	2.19	0.52
23:DA:1162:G:O2'	39:DV:90:PRO:HG2	2.09	0.52
43:DZ:81:ARG:HG2	43:DZ:81:ARG:HH21	1.75	0.52
23:BA:1176:G:H21	23:BA:1178:C:P	2.32	0.52
23:BA:90:U:O2'	23:BA:92:A:C8	2.62	0.52
1:CA:1242:C:H2'	1:CA:1243:C:O4'	2.10	0.52
1:CA:1250:A:OP1	9:CI:67:GLY:N	2.42	0.52
1:CA:131:C:H2'	1:CA:132:C:C6	2.45	0.52
1:CA:448:A:P	1:CA:485:G:H22	2.33	0.52
17:CQ:18:THR:OG1	17:CQ:69:LYS:NZ	2.30	0.52
50:D6:16:CYS:SG	50:D6:18:ARG:HG2	2.49	0.52
23:DA:2036:C:C6	23:DA:2036:C:H5'	2.35	0.52
26:DE:201:THR:OG1	26:DE:202:LYS:N	2.41	0.52
30:DI:62:LYS:HA	30:DI:65:ALA:HB3	1.91	0.52
43:DZ:137:ILE:HG23	43:DZ:156:LYS:HD2	1.91	0.52
1:AA:78:G:N1	1:AA:91:C:N4	2.58	0.52
23:BA:1243:G:O2'	33:BP:7:ARG:NH2	2.43	0.52
23:BA:141:A:H8	23:BA:1408:C:O2'	1.93	0.52
39:BV:23:GLU:OE1	56:BV:305:HOH:O	2.19	0.52
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.56	0.52
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.91	0.52
1:CA:1442:G:C8	1:CA:1442(A):G:C5	2.98	0.52
1:CA:40:C:H42	1:CA:402:G:H1	1.57	0.52
1:CA:509:A:C8	1:CA:509:A:H3'	2.44	0.52
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D8:34:TRP:CG	52:D8:35:GLN:N	2.77	0.52
23:DA:2839:G:C5'	35:DR:46:GLY:HA2	2.39	0.52
42:DY:43:ASN:OD1	42:DY:65:ALA:HB3	2.10	0.52
1:AA:1125:U:O5'	1:AA:1125:U:H6	1.93	0.52
1:AA:509:A:H3'	1:AA:509:A:C8	2.45	0.52
15:AO:24:SER:O	15:AO:24:SER:OG	2.20	0.52
16:AP:72:ARG:HE	16:AP:73:LEU:HD23	1.74	0.52
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.27	0.52
23:BA:207:A:H2'	23:BA:208:C:O4'	2.08	0.52
23:BA:813:U:H2'	23:BA:814:C:C6	2.45	0.52
1:CA:939:G:H1	1:CA:1344:C:H42	1.57	0.52
7:CG:134:ALA:O	7:CG:138:LYS:N	2.34	0.52
7:CG:151:TYR:OH	11:CK:54:ARG:HG2	2.10	0.52
46:D2:71:ASN:N	46:D2:71:ASN:OD1	2.42	0.52
23:DA:330:A:H2	23:DA:1210:A:O2'	1.93	0.52
23:DA:821:A:H2'	23:DA:946:G:H5"	1.92	0.52
1:AA:1459:C:C5	1:AA:1460:A:N7	2.77	0.52
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.58	0.52
30:BI:96:ASP:O	30:BI:100:ALA:N	2.39	0.52
43:BZ:72:ARG:NH2	43:BZ:97:GLU:O	2.43	0.52
1:CA:1206:G:C6	1:CA:1207:G:C5	2.97	0.52
1:CA:1321:C:H6	1:CA:1322:C:H2'	1.74	0.52
1:CA:413:G:H22	1:CA:428:G:H1'	1.74	0.52
4:CD:31:CYS:C	4:CD:33:MET:H	2.13	0.52
1:CA:875:C:O2'	8:CH:14:ARG:NH1	2.42	0.52
22:CY:12:ILE:HG22	22:CY:13:THR:H	1.75	0.52
22:CY:6:THR:O	22:CY:40:ILE:HA	2.10	0.52
48:D4:14:ILE:HD12	48:D4:22:ILE:HD12	1.92	0.52
23:DA:2158:A:H4'	23:DA:2159:G:H5'	1.91	0.52
23:DA:2563:U:O2	23:DA:2565:A:H8	1.92	0.52
1:AA:1123:A:O2'	10:AJ:38:ILE:HG22	2.10	0.51
2:AB:114:ARG:HD3	2:AB:118:LEU:HG	1.92	0.51
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.09	0.51
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.26	0.51
23:BA:1021:A:H8	23:BA:1022:G:H5"	1.75	0.51
23:BA:2134:A:N3	23:BA:2159:G:O2'	2.40	0.51
23:BA:271(Q):G:O2'	23:BA:271(R):G:C8	2.62	0.51
23:BA:528:A:C2	23:BA:2043:C:H4'	2.45	0.51
1:CA:1066:C:H2'	1:CA:1067:A:C8	2.44	0.51
1:CA:1107:C:C4	1:CA:1108:G:C8	2.97	0.51
46:D2:45:SER:O	46:D2:46:GLN:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D4:14:ILE:O	48:D4:22:ILE:HG13	2.10	0.51
43:DZ:125:LEU:HG	43:DZ:164:ALA:HB3	1.90	0.51
1:AA:1443:G:O6	1:AA:1459:C:O2	2.29	0.51
1:AA:688:G:H2'	1:AA:689:C:H6	1.76	0.51
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	1.92	0.51
12:AL:7:ILE:O	12:AL:11:VAL:HG23	2.10	0.51
17:AQ:18:THR:OG1	17:AQ:69:LYS:NZ	2.30	0.51
20:AT:30:LYS:HA	20:AT:33:ILE:HD12	1.91	0.51
20:AT:67:ALA:HA	20:AT:72:LEU:O	2.10	0.51
49:B5:16:ARG:HG2	49:B5:16:ARG:NH1	2.25	0.51
52:B8:32:LEU:O	52:B8:36:LYS:HE3	2.10	0.51
23:BA:141:A:C8	23:BA:1408:C:O2'	2.61	0.51
23:BA:2125:G:N2	23:BA:2172:U:H3'	2.25	0.51
23:BA:2463:C:O2'	23:BA:2464:C:H5'	2.11	0.51
27:BF:11:VAL:HB	27:BF:18:ARG:HB3	1.92	0.51
30:BI:107:VAL:HG12	30:BI:108:THR:N	2.22	0.51
36:BS:101:LEU:O	36:BS:102:ALA:HB3	2.10	0.51
36:BS:10:ARG:O	36:BS:14:VAL:HG13	2.10	0.51
1:CA:1126:U:O2'	1:CA:1127:G:O5'	2.23	0.51
1:CA:1335:C:H5'	1:CA:1336:C:H5'	1.91	0.51
1:CA:413:G:N2	1:CA:428:G:H1'	2.25	0.51
1:CA:833:U:H2'	1:CA:834:C:C6	2.45	0.51
14:CN:60:SER:OG	14:CN:60:SER:O	2.29	0.51
1:CA:376:G:H5"	16:CP:5:ARG:HB2	1.90	0.51
52:D8:23:VAL:CG1	52:D8:47:LYS:HD3	2.38	0.51
23:DA:1021:A:H3'	23:DA:1021:A:H8	1.75	0.51
23:DA:1371:G:HO2'	23:DA:1372:U:H5	1.58	0.51
23:DA:1485:G:O2'	23:DA:1486:A:H5'	2.10	0.51
23:DA:1805:U:O2	25:DD:50:THR:HB	2.10	0.51
26:DE:12:THR:HG22	37:DT:58:ASN:OD1	2.10	0.51
1:AA:1149:C:H2'	1:AA:1150:U:O4'	2.09	0.51
1:AA:1441:G:N3	1:AA:1459:C:C5	2.78	0.51
3:AC:11:ARG:HD3	3:AC:15:THR:HB	1.92	0.51
17:AQ:22:LEU:HD13	17:AQ:41:LYS:HG2	1.92	0.51
23:BA:1329:U:H5"	23:BA:1330:C:H5	1.76	0.51
23:BA:2147:G:H2'	23:BA:2148:G:O4'	2.10	0.51
30:BI:110:ASP:N	30:BI:130:TYR:OH	2.40	0.51
40:BW:45:TYR:CZ	40:BW:49:LYS:HE3	2.46	0.51
1:CA:1349:A:C4	1:CA:1350:A:C8	2.98	0.51
1:CA:412:A:N6	4:CD:35:ARG:HA	2.25	0.51
1:CA:674:G:H2'	1:CA:675:A:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:10:ARG:HG3	4:CD:11:LEU:HD12	1.91	0.51
4:CD:188:LEU:CD2	4:CD:188:LEU:H	2.23	0.51
6:CF:82:ARG:HG3	6:CF:82:ARG:NH1	2.20	0.51
7:CG:51:GLN:O	7:CG:55:GLY:HA2	2.10	0.51
10:CJ:55:LYS:HD2	10:CJ:56:HIS:H	1.76	0.51
13:CM:43:THR:HB	13:CM:47:ASP:HB2	1.92	0.51
15:CO:8:LYS:HG2	15:CO:12:ILE:HD11	1.91	0.51
23:DA:30:G:H2'	23:DA:31:C:C6	2.45	0.51
29:DH:12:PRO:O	29:DH:14:GLY:HA2	2.10	0.51
30:DI:38:LEU:HB3	30:DI:40:THR:HG23	1.91	0.51
41:DX:26:TYR:CE1	41:DX:89:ILE:HG13	2.44	0.51
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.26	0.51
1:AA:1400:C:C2	22:AY:63:ALA:HA	2.46	0.51
2:AB:77:ALA:HB1	2:AB:165:VAL:HG11	1.91	0.51
5:AE:32:VAL:HB	5:AE:58:ALA:HB1	1.92	0.51
23:BA:2357:U:OP1	44:B0:20:ARG:HD3	2.10	0.51
45:B1:6:GLU:HG3	45:B1:61:ARG:O	2.11	0.51
24:BB:105:A:OP1	43:BZ:72:ARG:NH1	2.42	0.51
40:BW:66:GLU:HA	40:BW:69:LEU:HD12	1.91	0.51
1:CA:1293:G:H2'	1:CA:1294:G:C8	2.45	0.51
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.24	0.51
1:CA:994:A:N7	1:CA:1216:G:H4'	2.25	0.51
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.44	0.51
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.90	0.51
16:CP:72:ARG:HH21	16:CP:73:LEU:HD21	1.75	0.51
22:CY:85:LEU:O	22:CY:89:GLN:HG2	2.10	0.51
23:DA:999:U:O2'	23:DA:1000:A:H5'	2.11	0.51
39:DV:60:GLU:HB2	39:DV:97:LYS:HE2	1.92	0.51
43:DZ:30:ASN:ND2	43:DZ:90:VAL:HB	2.26	0.51
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.56	0.51
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.44	0.51
1:AA:731:G:H5'	1:AA:766:A:H4'	1.93	0.51
23:BA:330:A:H2	23:BA:1210:A:O2'	1.92	0.51
23:BA:1914:C:H2'	23:BA:1915:U:C6	2.45	0.51
23:BA:330:A:H2	23:BA:1210:A:H2'	1.75	0.51
24:BB:6:C:C2'	24:BB:7:G:H5"	2.39	0.51
32:BO:98:VAL:HG22	32:BO:118:ALA:HA	1.92	0.51
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.40	0.51
1:CA:438:G:P	4:CD:125:HIS:HE2	2.34	0.51
4:CD:59:ARG:O	4:CD:63:LYS:HG3	2.10	0.51
11:CK:86:GLY:H	11:CK:112:THR:HG1	1.51	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:31:LEU:O	18:CR:32:ARG:HB2	2.11	0.51
23:DA:848:G:C4	23:DA:933:A:H8	2.29	0.51
24:DB:11:C:OP2	24:DB:12:C:N4	2.28	0.51
24:DB:29:A:H2'	24:DB:30:C:C6	2.46	0.51
30:DI:92:VAL:HG22	30:DI:120:ILE:HB	1.91	0.51
1:AA:1003:G:C2	1:AA:1004:A:H1'	2.46	0.51
23:BA:1109:C:H5	23:BA:1110:G:N1	2.08	0.51
23:BA:1721:G:H2'	23:BA:1740:G:O6	2.11	0.51
23:BA:2136:C:N3	23:BA:2155:G:N2	2.46	0.51
23:BA:2022:U:O2'	23:BA:2617:C:H5'	2.10	0.51
1:CA:47:C:N4	1:CA:361:G:H1	2.09	0.51
2:CB:184:VAL:HG12	2:CB:197:VAL:HG13	1.93	0.51
2:CB:238:LEU:HB2	2:CB:241:GLU:N	2.25	0.51
16:CP:51:VAL:HG12	16:CP:53:VAL:N	2.26	0.51
23:DA:2125:G:H21	23:DA:2126:A:N6	2.08	0.51
23:DA:2203:U:O2'	23:DA:2205:C:H5'	2.11	0.51
23:DA:886:C:OP1	23:DA:886:C:H4'	2.10	0.51
26:DE:12:THR:HG21	37:DT:11:GLU:OE2	2.11	0.51
1:AA:1164:G:H1	1:AA:1172:C:N4	2.08	0.51
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.74	0.51
1:AA:1443:G:O6	1:AA:1459:C:C2	2.63	0.51
1:AA:36:C:O2'	1:AA:501:C:OP1	2.29	0.51
1:AA:877:C:H5"	8:AH:88:LYS:HD3	1.93	0.51
4:AD:106:TYR:HA	4:AD:111:ALA:HB3	1.92	0.51
18:AR:31:LEU:O	18:AR:32:ARG:HB2	2.11	0.51
21:AU:3:LYS:HD3	21:AU:14:TRP:HD1	1.75	0.51
23:BA:2784:C:H1'	26:BE:37:ARG:HH12	1.75	0.51
23:BA:652(Q):G:C2'	23:BA:652(R):C:H5'	2.41	0.51
36:BS:82:ILE:HA	36:BS:83:LYS:CB	2.40	0.51
1:CA:1004:A:H5"	1:CA:1025:U:C4	2.46	0.51
1:CA:1452:C:O2'	1:CA:1456:G:OP2	2.27	0.51
1:CA:149:A:O2'	1:CA:150:C:P	2.69	0.51
1:CA:434:U:H2'	1:CA:435:C:C6	2.46	0.51
9:CI:82:ALA:O	9:CI:86:VAL:HG13	2.10	0.51
31:DN:56:ASN:H	31:DN:125:GLY:CA	2.21	0.51
1:AA:1240:U:OP2	7:AG:116:ALA:N	2.32	0.51
1:AA:757:U:H2'	1:AA:758:G:O4'	2.11	0.51
3:AC:32:LEU:HD22	3:AC:59:ARG:HH12	1.75	0.51
4:AD:31:CYS:C	4:AD:33:MET:H	2.14	0.51
18:AR:70:ILE:O	18:AR:74:ARG:HG3	2.11	0.51
37:BT:24:PRO:HD3	37:BT:52:ILE:HD12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BX:54:VAL:HG13	41:BX:81:VAL:HG12	1.93	0.51
1:CA:376:G:OP2	16:CP:67:THR:HG21	2.10	0.51
1:CA:940:C:H2'	1:CA:941:G:C8	2.46	0.51
1:CA:970:C:OP2	56:CA:2043:HOH:O	2.20	0.51
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.50	0.51
20:CT:10:LEU:HD23	20:CT:12:ALA:H	1.76	0.51
46:D2:16:LEU:O	46:D2:67:LYS:NZ	2.44	0.51
50:D6:18:ARG:HG3	50:D6:42:TRP:CD1	2.46	0.51
23:DA:1721:G:N1	23:DA:1739:U:OP2	2.44	0.51
38:DU:76:TYR:CZ	38:DU:80:ILE:HG13	2.46	0.51
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.75	0.51
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.11	0.51
1:AA:166:G:H2'	1:AA:167:G:H8	1.76	0.51
1:AA:104:G:H4'	1:AA:174:C:O4'	2.10	0.51
1:AA:260:G:H2'	1:AA:261:U:C6	2.46	0.51
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.11	0.51
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.11	0.51
17:AQ:95:TYR:O	17:AQ:98:LEU:HB2	2.11	0.51
18:AR:53:ARG:HH21	18:AR:60:ALA:H	1.57	0.51
23:BA:2166:G:H2'	23:BA:2167:U:O4'	2.10	0.51
23:BA:2611:U:OP2	23:BA:2611:U:H3'	2.10	0.51
23:BA:616:G:H5'	27:BF:205:ARG:HD2	1.92	0.51
41:BX:53:LYS:HB3	41:BX:82:GLN:HB3	1.93	0.51
43:BZ:111:VAL:C	43:BZ:113:ALA:H	2.14	0.51
43:BZ:128:VAL:HG23	43:BZ:161:VAL:H	1.76	0.51
1:CA:1326:C:H2'	1:CA:1327:C:O4'	2.11	0.51
1:CA:1343:G:C6	1:CA:1344:C:C4	2.98	0.51
1:CA:392:G:H2'	1:CA:393:A:C8	2.46	0.51
1:CA:560:U:H4'	1:CA:561:U:O5'	2.11	0.51
1:CA:1376:U:P	7:CG:94:ARG:HH22	2.34	0.51
9:CI:27:THR:HG1	9:CI:28:VAL:N	2.09	0.51
10:CJ:21:GLN:O	10:CJ:25:GLU:N	2.39	0.51
50:D6:40:CYS:SG	50:D6:42:TRP:HB2	2.50	0.51
23:DA:1290:C:H2'	23:DA:1291:C:C6	2.46	0.51
23:DA:1654:A:OP1	35:DR:1:MET:HA	2.10	0.51
24:DB:42:C:O2	28:DG:93:THR:N	2.40	0.51
27:DF:53:THR:HG22	27:DF:55:GLY:H	1.75	0.51
34:DQ:12:GLN:HG2	34:DQ:73:PRO:HD2	1.93	0.51
43:DZ:101:PRO:O	43:DZ:102:LEU:HD12	2.11	0.51
1:AA:1165:C:H2'	1:AA:1166:G:O4'	2.11	0.51
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1658:C:OP1	56:BA:4878:HOH:O	2.19	0.51
1:CA:1386:G:C2	1:CA:1387:G:C8	2.99	0.51
1:CA:545:C:H5"	4:CD:72:GLU:HG2	1.93	0.51
12:CL:7:ILE:O	12:CL:11:VAL:HG23	2.10	0.51
23:DA:2109:U:H2'	23:DA:2110:G:C8	2.46	0.51
23:DA:2322:A:H2'	23:DA:2323:G:O4'	2.11	0.51
23:DA:2287:A:N6	23:DA:2344:U:H3	1.97	0.51
23:DA:455:C:N3	23:DA:472:A:H2'	2.25	0.51
24:DB:53:A:H2'	24:DB:54:G:O4'	2.11	0.51
1:AA:1005:A:C1'	1:AA:1036:G:H22	2.18	0.50
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.41	0.50
1:AA:976:G:C8	1:AA:1362:C:N4	2.80	0.50
1:AA:39:G:C6	1:AA:403:C:N3	2.78	0.50
1:AA:658:G:O4'	15:AO:22:THR:HB	2.11	0.50
2:AB:55:PHE:O	2:AB:59:GLU:N	2.38	0.50
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.10	0.50
23:BA:2689:U:H4'	23:BA:2690:C:H5'	1.93	0.50
23:BA:300:A:P	42:BY:86:ARG:HH22	2.34	0.50
23:BA:602:G:O2'	23:BA:655:A:N6	2.44	0.50
1:CA:1170:A:C5	1:CA:1171:G:H1'	2.46	0.50
1:CA:1300:G:O2'	1:CA:1301:U:P	2.69	0.50
5:CE:31:LEU:HD22	5:CE:43:LEU:HD11	1.93	0.50
14:CN:26:ARG:HD2	14:CN:43:CYS:SG	2.50	0.50
23:DA:1166:C:H2'	23:DA:1167:U:C6	2.46	0.50
23:DA:660:G:N2	56:DA:3728:HOH:O	2.43	0.50
23:DA:90:U:O2'	23:DA:92:A:O4'	2.28	0.50
30:DI:81:VAL:HG22	30:DI:145:VAL:O	2.11	0.50
23:DA:1140:C:O3'	31:DN:25:ARG:NH1	2.43	0.50
34:DQ:103:MET:CE	34:DQ:125:LEU:HD13	2.41	0.50
1:AA:1202:G:O4'	14:AN:29:ARG:NH1	2.44	0.50
5:AE:53:LEU:HD12	5:AE:53:LEU:H	1.76	0.50
10:AJ:61:GLU:OE1	14:AN:58:LYS:NZ	2.33	0.50
10:AJ:7:LYS:H	10:AJ:97:GLU:HB3	1.76	0.50
13:AM:49:THR:O	13:AM:52:GLU:N	2.44	0.50
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.45	0.50
23:BA:185:U:H4'	23:BA:218:A:H4'	1.93	0.50
24:BB:11:C:H3'	24:BB:12:C:H6	1.76	0.50
40:BW:65:LEU:HD12	40:BW:68:ARG:HE	1.77	0.50
1:CA:1016:A:H8	1:CA:1016:A:O5'	1.95	0.50
1:CA:1028:C:H2'	1:CA:1029:C:H6	1.76	0.50
1:CA:1122:U:N3	1:CA:1123:A:C5	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1158:C:N3	1:CA:1181:G:N2	2.58	0.50
1:CA:798:G:N7	56:CA:2275:HOH:O	2.33	0.50
2:CB:74:LYS:NZ	2:CB:205:ASP:OD2	2.45	0.50
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.77	0.50
26:DE:11:MET:HG2	26:DE:24:THR:HB	1.93	0.50
27:DF:184:TYR:O	27:DF:188:ARG:HG3	2.11	0.50
29:DH:88:LEU:CD2	29:DH:165:ALA:HA	2.40	0.50
36:DS:102:ALA:HB1	36:DS:112:PHE:CZ	2.43	0.50
37:DT:120:ARG:HA	37:DT:123:GLN:HG2	1.92	0.50
38:DU:112:ARG:NH2	39:DV:47:VAL:HB	2.26	0.50
1:AA:116:A:C8	1:AA:116:A:OP2	2.65	0.50
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.47	0.50
2:AB:47:THR:O	2:AB:51:LEU:N	2.34	0.50
3:AC:6:HIS:CD2	3:AC:8:ILE:HB	2.46	0.50
1:AA:875:C:O2'	8:AH:14:ARG:NH1	2.44	0.50
16:AP:52:ASP:HB3	16:AP:55:ARG:HB2	1.93	0.50
19:AS:47:HIS:HB2	19:AS:62:ILE:HD13	1.92	0.50
23:BA:1406:U:H2'	23:BA:1407:C:C6	2.46	0.50
23:BA:1815:A:OP2	25:BD:54:ARG:NH2	2.44	0.50
23:BA:2104:G:N7	23:BA:2186:G:N2	2.58	0.50
23:BA:2205:C:O2	23:BA:2220:G:C2	2.64	0.50
29:BH:41:MET:HE3	29:BH:54:ARG:HA	1.94	0.50
1:CA:101:A:O2'	1:CA:102:G:H5'	2.11	0.50
1:CA:1281:U:H5"	1:CA:1282:C:OP2	2.11	0.50
1:CA:1321:C:C6	1:CA:1322:C:H2'	2.47	0.50
1:CA:196:A:OP1	20:CT:68:LYS:NZ	2.36	0.50
1:CA:736:C:H2'	1:CA:737:A:C8	2.46	0.50
1:CA:834:C:H2'	1:CA:835:U:H6	1.77	0.50
1:CA:937:A:C5	1:CA:938:A:N7	2.79	0.50
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.47	0.50
48:D4:14:ILE:HG23	48:D4:31:ILE:HB	1.92	0.50
23:DA:2130:U:O2'	23:DA:2158:A:N6	2.43	0.50
23:DA:2273:A:H2'	23:DA:2274:A:C8	2.47	0.50
23:DA:2357:U:O2	56:DA:4411:HOH:O	2.19	0.50
23:DA:484:C:H2'	23:DA:485:C:C6	2.47	0.50
23:DA:528:A:C2	23:DA:2043:C:H4'	2.47	0.50
23:DA:71:A:H5"	23:DA:73:A:C8	2.46	0.50
30:DI:4:ILE:HD11	30:DI:44:LEU:HD12	1.92	0.50
33:DP:26:GLY:O	33:DP:27:HIS:CD2	2.64	0.50
43:DZ:72:ARG:NH2	43:DZ:97:GLU:O	2.43	0.50
1:AA:1321:C:C3'	1:AA:1322:C:H5"	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1399:C:C2	1:AA:1502:A:N6	2.80	0.50
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.12	0.50
23:BA:1358:G:OP2	56:BA:4984:HOH:O	2.18	0.50
23:BA:2203:U:O2'	23:BA:2205:C:H5'	2.11	0.50
23:BA:330:A:HO2'	23:BA:331:A:H8	1.57	0.50
23:BA:322:A:OP1	27:BF:168:ARG:HD2	2.12	0.50
30:BI:126:TYR:HB2	30:BI:142:VAL:HG23	1.93	0.50
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.46	0.50
1:CA:1352:C:N4	1:CA:1370:G:H1	2.08	0.50
1:CA:270:A:H2'	1:CA:271:C:C6	2.47	0.50
1:CA:544:G:P	4:CD:62:GLN:HE21	2.32	0.50
10:CJ:51:ARG:NE	10:CJ:61:GLU:HB2	2.27	0.50
1:CA:552:U:H4'	12:CL:86:ARG:HG2	1.94	0.50
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.47	0.50
30:DI:116:LEU:HD22	30:DI:118:LYS:O	2.10	0.50
1:AA:624:C:H2'	1:AA:625:G:H8	1.77	0.50
1:AA:969:A:OP1	10:AJ:55:LYS:NZ	2.44	0.50
7:AG:69:VAL:O	7:AG:138:LYS:HG3	2.11	0.50
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.93	0.50
13:AM:6:GLY:HA3	13:AM:67:GLU:HB2	1.92	0.50
13:AM:69:GLU:O	13:AM:71:ARG:N	2.44	0.50
16:AP:51:VAL:HG12	16:AP:53:VAL:N	2.27	0.50
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.12	0.50
23:BA:1794:U:H2'	23:BA:1795:C:C6	2.47	0.50
23:BA:2000:G:OP1	35:BR:5:LYS:NZ	2.39	0.50
23:BA:2317:C:C2	23:BA:2318:G:N7	2.80	0.50
36:BS:96:GLY:HA2	36:BS:100:ALA:H	1.76	0.50
39:BV:35:LEU:HB2	39:BV:57:VAL:HG22	1.92	0.50
1:CA:1025:U:H1'	1:CA:1026:G:N7	2.27	0.50
1:CA:1030:C:H2'	1:CA:1030(A):G:C8	2.45	0.50
1:CA:1310:G:H5'	13:CM:77:ASN:OD1	2.12	0.50
1:CA:1376:U:H2'	1:CA:1377:A:H8	1.76	0.50
2:CB:47:THR:O	2:CB:51:LEU:N	2.35	0.50
6:CF:15:ASP:OD2	6:CF:16:GLN:N	2.44	0.50
23:DA:1721:G:H2'	23:DA:1740:G:O6	2.11	0.50
23:DA:2143:C:N3	23:DA:2148:G:O6	2.45	0.50
24:DB:73:A:C4	24:DB:105:A:C2	3.00	0.50
31:DN:42:TRP:HA	31:DN:48:MET:SD	2.51	0.50
40:DW:79:GLY:HA3	40:DW:100:THR:HG22	1.93	0.50
40:DW:45:TYR:CZ	40:DW:49:LYS:HE3	2.46	0.50
1:AA:1023:G:H3'	1:AA:1024:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1202:G:C1'	14:AN:29:ARG:HH11	2.24	0.50
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.46	0.50
1:AA:1441:G:O2'	1:AA:1459:C:N3	2.32	0.50
1:AA:519:C:OP2	12:AL:50:SER:OG	2.21	0.50
1:AA:631:G:H2'	1:AA:632:A:C8	2.46	0.50
4:AD:15:GLU:OE2	4:AD:66:ARG:NH1	2.45	0.50
18:AR:45:SER:OG	18:AR:47:THR:HG22	2.11	0.50
22:AY:16:ILE:O	22:AY:20:VAL:HG12	2.12	0.50
50:B6:10:LEU:HG	50:B6:54:ILE:HG13	1.92	0.50
23:BA:1371:G:HO2'	23:BA:1372:U:H5	1.58	0.50
23:BA:1530:C:H1'	23:BA:1531:C:OP1	2.12	0.50
23:BA:154:G:H5'	23:BA:154(A):C:OP2	2.12	0.50
23:BA:2052:G:H4'	26:BE:143:ASN:O	2.11	0.50
1:CA:1068:G:N7	1:CA:1094:G:C8	2.80	0.50
1:CA:373:A:H2'	1:CA:374:A:H8	1.76	0.50
1:CA:59:A:H1'	1:CA:354:G:C2	2.47	0.50
4:CD:30:LYS:C	4:CD:32:ALA:H	2.11	0.50
8:CH:33:GLU:HG3	8:CH:59:LEU:HD11	1.93	0.50
9:CI:118:LYS:O	9:CI:120:ARG:N	2.41	0.50
23:DA:1824:G:OP1	25:DD:52:ARG:NH1	2.42	0.50
1:AA:107:G:H2'	1:AA:108:G:O4'	2.12	0.50
2:AB:74:LYS:NZ	2:AB:205:ASP:OD2	2.45	0.50
2:AB:82:ARG:HG3	2:AB:92:TYR:OH	2.12	0.50
9:AI:19:LEU:O	9:AI:59:PHE:HB3	2.11	0.50
10:AJ:43:ARG:O	10:AJ:67:THR:HG23	2.11	0.50
14:AN:24:CYS:SG	14:AN:25:VAL:N	2.85	0.50
23:BA:1049:C:O2'	23:BA:1050:A:H8	1.78	0.50
23:BA:2839:G:C5'	35:BR:46:GLY:HA2	2.42	0.50
25:BD:60:ARG:NH1	56:BD:418:HOH:O	2.27	0.50
1:CA:262:A:H2'	1:CA:263:A:C8	2.46	0.50
1:CA:926:G:C6	22:CY:87:LYS:HG3	2.46	0.50
1:CA:1206:G:H4'	3:CC:192:THR:O	2.12	0.50
1:CA:1298:C:P	7:CG:114:ARG:HH22	2.34	0.50
14:CN:47:LEU:HA	14:CN:50:LYS:HB2	1.93	0.50
28:DG:3:LEU:HD13	48:D4:25:TYR:CE1	2.46	0.50
23:DA:234:C:H2'	23:DA:235:U:H6	1.76	0.50
24:DB:42:C:O2	28:DG:92:VAL:HA	2.12	0.50
31:DN:96:GLU:H	31:DN:96:GLU:CD	2.15	0.50
1:AA:134:A:H61	16:AP:25:ARG:NH1	2.10	0.50
1:AA:1442:G:C8	1:AA:1442(A):G:C5	3.00	0.50
1:AA:530:G:H3'	1:AA:531:U:C5'	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:85:ARG:HE	11:AK:111:ASP:HB3	1.77	0.50
13:AM:5:ALA:C	13:AM:7:VAL:H	2.15	0.50
23:BA:1045:A:N3	23:BA:1045:A:H2'	2.26	0.50
23:BA:1980:G:O2'	23:BA:1982:C:OP2	2.25	0.50
23:BA:2125:G:H21	23:BA:2126:A:N6	2.10	0.50
23:BA:2336:A:H61	44:B0:43:THR:HG22	1.76	0.50
23:BA:2031:A:C6	23:BA:2498:C:H1'	2.47	0.50
23:BA:821:A:H2'	23:BA:946:G:H5"	1.93	0.50
25:BD:69:ARG:NH2	25:BD:128:GLY:O	2.38	0.50
33:BP:82:GLY:HA2	33:BP:113:LYS:O	2.12	0.50
23:BA:245:G:O5'	33:BP:73:GLY:HA2	2.11	0.50
1:CA:176:C:H2'	1:CA:177:C:C6	2.47	0.50
3:CC:132:ARG:O	3:CC:136:GLN:HB2	2.12	0.50
22:CY:24:LEU:HD22	22:CY:78:ILE:HD11	1.93	0.50
23:DA:1784:A:H4'	23:DA:1785:A:O5'	2.12	0.50
23:DA:2111:C:H42	23:DA:2147:G:H22	1.59	0.50
23:DA:2386:C:H2'	23:DA:2387:U:C6	2.47	0.50
23:DA:652(D):C:H2'	23:DA:652(E):G:O4'	2.11	0.50
23:DA:90:U:O2'	23:DA:92:A:C8	2.65	0.50
24:DB:24:G:H4'	24:DB:25:A:C8	2.47	0.50
30:DI:101:LEU:HD23	30:DI:105:HIS:HB2	1.94	0.50
1:AA:1096:C:HO2'	1:AA:1170:A:HO2'	1.60	0.50
1:AA:1074:G:O2'	1:AA:1101:A:N1	2.30	0.50
1:AA:309:G:O2'	1:AA:607:A:N1	2.43	0.50
1:AA:441:A:H3'	1:AA:442:C:C6	2.46	0.50
1:AA:474:G:H2'	1:AA:475:G:H8	1.77	0.50
3:AC:182:ILE:HA	3:AC:202:ILE:O	2.12	0.50
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.47	0.50
23:BA:1417:C:H2'	23:BA:1418:G:O4'	2.11	0.50
23:BA:1403:C:C5'	23:BA:1471:A:H1'	2.41	0.50
23:BA:2158:A:H4'	23:BA:2159:G:H5'	1.93	0.50
23:BA:886:C:H4'	23:BA:886:C:OP1	2.12	0.50
39:BV:40:LEU:HB2	39:BV:46:VAL:HG13	1.94	0.50
1:CA:1095:U:P	1:CA:1108:G:H1	2.33	0.50
1:CA:392:G:H2'	1:CA:393:A:H8	1.76	0.50
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.93	0.50
1:CA:1226:C:N4	13:CM:104:ARG:HH11	2.09	0.50
23:DA:2316:C:H2'	23:DA:2317:C:C6	2.46	0.50
23:DA:2317:C:C4	23:DA:2318:G:N7	2.80	0.50
1:AA:1003:G:H5"	1:AA:1004:A:OP2	2.11	0.49
1:AA:1027:C:H2'	1:AA:1028:C:C5	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.92	0.49
7:AG:116:ALA:O	7:AG:120:ILE:HG12	2.12	0.49
8:AH:83:ILE:HB	8:AH:137:VAL:HG13	1.93	0.49
18:AR:73:ALA:HB3	18:AR:79:LEU:HD12	1.94	0.49
23:BA:1529:G:C6	23:BA:1530:C:N4	2.80	0.49
26:BE:9:VAL:HG13	26:BE:25:VAL:O	2.11	0.49
33:BP:121:LYS:HD3	33:BP:123:LEU:HD11	1.93	0.49
1:CA:1030(A):G:N3	1:CA:1030(C):G:C8	2.80	0.49
1:CA:622:A:C8	1:CA:623:C:C6	2.99	0.49
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.31	0.49
19:CS:41:VAL:O	19:CS:44:MET:HB2	2.12	0.49
48:D4:36:CYS:SG	48:D4:38:LYS:O	2.70	0.49
23:DA:443:A:H1'	23:DA:1201:C:O4'	2.12	0.49
23:DA:1429:G:H2'	23:DA:1430:C:H6	1.77	0.49
23:DA:1932:A:H2'	23:DA:1933:G:O4'	2.11	0.49
23:DA:2128:C:N4	23:DA:2160:G:H1	2.09	0.49
23:DA:870:A:C2	23:DA:908:C:C2	2.99	0.49
25:DD:180:GLY:HA3	25:DD:275:LYS:HD3	1.94	0.49
27:DF:6:VAL:HG22	27:DF:23:ASP:H	1.76	0.49
1:AA:1064:G:H4'	1:AA:1065:U:OP1	2.10	0.49
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.27	0.49
1:AA:800:G:O6	56:AA:2014:HOH:O	2.20	0.49
1:AA:955:U:O2'	19:AS:83:HIS:HD2	1.95	0.49
23:BA:2036:C:H5'	23:BA:2036:C:C6	2.35	0.49
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.12	0.49
1:CA:618:C:N3	1:CA:622:A:N6	2.60	0.49
1:CA:763:G:H2'	1:CA:764:C:C6	2.47	0.49
13:CM:6:GLY:HA3	13:CM:22:ILE:HD13	1.93	0.49
22:CY:13:THR:O	22:CY:17:ARG:HG3	2.12	0.49
23:DA:1545:A:H2'	23:DA:1546:C:O4'	2.12	0.49
1:CA:1492:A:C5	23:DA:1913:A:C2	3.01	0.49
23:DA:207:A:H2'	23:DA:208:C:O4'	2.13	0.49
29:DH:139:GLN:HG3	29:DH:140:LYS:N	2.27	0.49
39:DV:5:VAL:HG11	39:DV:57:VAL:HG21	1.94	0.49
43:DZ:144:LEU:HD12	43:DZ:148:ASP:HB3	1.94	0.49
1:AA:1320:C:H5'	1:AA:1320:C:C6	2.45	0.49
1:AA:684:A:H2'	1:AA:685:G:C8	2.47	0.49
5:AE:74:GLY:HA3	5:AE:116:THR:HG22	1.94	0.49
10:AJ:11:PHE:O	10:AJ:68:HIS:NE2	2.44	0.49
22:AY:12:ILE:HD11	22:AY:16:ILE:HD11	1.93	0.49
23:BA:1300:U:H4'	23:BA:1301:A:C5'	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1652:A:O2'	23:BA:1653:G:H5'	2.12	0.49
23:BA:2305:A:H5"	28:BG:134:GLY:HA3	1.94	0.49
23:BA:2537:U:H2'	23:BA:2538:C:C6	2.48	0.49
27:BF:184:TYR:O	27:BF:188:ARG:HG3	2.12	0.49
29:BH:88:LEU:CD2	29:BH:165:ALA:HA	2.42	0.49
1:CA:1386:G:N3	1:CA:1387:G:C8	2.81	0.49
1:CA:1123:A:N3	10:CJ:38:ILE:HG22	2.27	0.49
11:CK:34:ASP:OD2	11:CK:37:GLY:N	2.45	0.49
14:CN:4:LYS:HA	14:CN:7:ILE:HG22	1.94	0.49
18:CR:70:ILE:O	18:CR:74:ARG:HG3	2.12	0.49
20:CT:64:ASP:OD1	20:CT:81:LYS:NZ	2.42	0.49
22:CY:70:MET:O	22:CY:74:ILE:HG12	2.12	0.49
23:DA:2125:G:H21	23:DA:2126:A:H62	1.60	0.49
23:DA:2251:G:H5'	56:DA:4116:HOH:O	2.11	0.49
23:DA:2820:A:OP1	35:DR:4:LEU:HD23	2.12	0.49
24:DB:11:C:H3'	24:DB:12:C:H6	1.77	0.49
25:DD:238:GLY:N	56:DD:407:HOH:O	2.45	0.49
23:DA:674:G:H1'	27:DF:74:ARG:HD3	1.93	0.49
31:DN:20:GLY:HA2	31:DN:61:ARG:HD3	1.95	0.49
26:DE:111:ARG:HA	35:DR:1:MET:SD	2.53	0.49
37:DT:30:VAL:HG22	37:DT:86:ILE:HG12	1.93	0.49
39:DV:52:VAL:HG22	39:DV:55:ALA:HB3	1.94	0.49
1:AA:1368:G:OP1	56:AA:2231:HOH:O	2.19	0.49
1:AA:532:A:H2	1:AA:1206:G:H21	1.58	0.49
2:AB:210:SER:O	2:AB:214:ILE:HG12	2.12	0.49
3:AC:6:HIS:CD2	3:AC:9:GLY:H	2.30	0.49
9:AI:26:VAL:O	9:AI:32:ASP:HA	2.13	0.49
14:AN:4:LYS:O	14:AN:7:ILE:HG12	2.12	0.49
23:BA:1503:U:H2'	23:BA:1504:C:C6	2.47	0.49
23:BA:1721:G:N1	23:BA:1739:U:OP2	2.45	0.49
23:BA:1963:U:H4'	23:BA:1964:G:OP1	2.12	0.49
23:BA:243:U:OP1	52:B8:6:THR:OG1	2.27	0.49
23:BA:2463:C:C2'	23:BA:2464:C:H5'	2.42	0.49
23:BA:620:G:N3	23:BA:620:G:H5'	2.27	0.49
23:BA:796:C:H2'	23:BA:797:C:C6	2.47	0.49
24:BB:49:C:OP1	36:BS:97:ARG:N	2.44	0.49
32:BO:19:ILE:HG22	32:BO:43:VAL:HG22	1.94	0.49
1:CA:1063:C:OP2	1:CA:1064:G:O2'	2.17	0.49
1:CA:1064:G:OP1	1:CA:1386:G:H4'	2.12	0.49
1:CA:191:G:C6	1:CA:192:U:N3	2.81	0.49
1:CA:266:G:H5"	1:CA:267:C:C5	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:600:C:C2	1:CA:639:G:C2	3.00	0.49
6:CF:75:LEU:O	6:CF:79:LEU:HG	2.13	0.49
10:CJ:35:SER:HB3	10:CJ:73:ASP:O	2.12	0.49
11:CK:99:GLN:HG2	11:CK:105:VAL:HG21	1.94	0.49
22:CY:78:ILE:O	22:CY:82:GLU:HG3	2.13	0.49
23:DA:1580:A:OP2	23:DA:1580:A:H8	1.94	0.49
23:DA:781:A:H2	23:DA:1776:G:N3	2.11	0.49
23:DA:2205:C:O2	23:DA:2220:G:C2	2.65	0.49
23:DA:2320:A:N3	23:DA:2320:A:H2'	2.28	0.49
23:DA:2690:C:H6	23:DA:2690:C:OP2	1.94	0.49
23:DA:586:A:N1	23:DA:809:G:O2'	2.41	0.49
28:DG:125:PHE:HB3	28:DG:166:ASP:OD2	2.13	0.49
1:AA:1256:A:H5'	1:AA:1258:G:C1'	2.42	0.49
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.78	0.49
1:AA:1370:G:C2	1:AA:1371:G:C8	3.00	0.49
2:AB:135:GLN:O	2:AB:138:LEU:N	2.44	0.49
6:AF:82:ARG:NH1	6:AF:82:ARG:HG3	2.26	0.49
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.12	0.49
23:BA:1185:C:H5"	23:BA:1186:G:OP1	2.12	0.49
23:BA:2648:C:H2'	23:BA:2649:U:C6	2.47	0.49
26:BE:12:THR:HG21	37:BT:11:GLU:OE2	2.12	0.49
31:BN:18:ALA:O	31:BN:19:GLU:HB3	2.11	0.49
26:BE:12:THR:HG22	37:BT:58:ASN:OD1	2.13	0.49
1:CA:403:C:OP1	4:CD:137:SER:OG	2.18	0.49
6:CF:69:GLU:O	6:CF:72:VAL:HG13	2.13	0.49
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.12	0.49
11:CK:48:ILE:O	11:CK:50:TYR:N	2.45	0.49
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.48	0.49
17:CQ:53:LEU:HD23	17:CQ:82:MET:HE1	1.94	0.49
47:D3:8:LEU:HD13	47:D3:31:LEU:CD2	2.43	0.49
51:D7:34:ARG:NH1	51:D7:41:ARG:O	2.45	0.49
23:DA:1815:A:OP2	25:DD:54:ARG:NH2	2.46	0.49
23:DA:2286:A:H4'	23:DA:2287:A:O4'	2.12	0.49
1:AA:1304:G:H1'	1:AA:1333:A:H61	1.77	0.49
1:AA:1503:A:N7	1:AA:1531:A:H8	2.10	0.49
16:AP:51:VAL:CG1	16:AP:53:VAL:H	2.25	0.49
23:BA:1268:A:H2'	23:BA:1269:A:O4'	2.12	0.49
23:BA:848:G:C4	23:BA:933:A:H8	2.30	0.49
24:BB:53:A:H2'	24:BB:54:G:O4'	2.12	0.49
29:BH:40:GLU:OE1	29:BH:60:ARG:NH1	2.45	0.49
32:BO:101:PRO:HG3	37:BT:67:SER:OG	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:150:LEU:O	43:BZ:171:ILE:HG13	2.12	0.49
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.42	0.49
1:CA:1004:A:H5"	1:CA:1025:U:O4	2.12	0.49
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.76	0.49
1:CA:1267:C:H2'	1:CA:1267:C:O2	2.12	0.49
2:CB:114:ARG:HD3	2:CB:118:LEU:HG	1.93	0.49
14:CN:24:CYS:HB3	14:CN:27:CYS:O	2.13	0.49
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.94	0.49
1:CA:719:C:C2	18:CR:50:ILE:HG12	2.48	0.49
23:DA:2304:G:O6	23:DA:2312:U:O4	2.30	0.49
33:DP:121:LYS:HD3	33:DP:123:LEU:HD11	1.93	0.49
40:DW:83:LYS:O	40:DW:84:ARG:HD3	2.11	0.49
1:AA:250:A:H4'	1:AA:251:G:O5'	2.11	0.49
1:AA:939:G:H5"	7:AG:102:ARG:NH1	2.28	0.49
2:AB:87:ARG:NH2	2:AB:233:SER:HB2	2.28	0.49
3:AC:154:SER:HB3	3:AC:165:THR:HG23	1.94	0.49
7:AG:69:VAL:CG1	7:AG:100:ALA:HA	2.42	0.49
7:AG:57:GLU:O	7:AG:60:LYS:N	2.45	0.49
23:BA:330:A:H2	23:BA:1210:A:C2'	2.26	0.49
23:BA:910:A:N1	23:BA:2277:G:H1'	2.28	0.49
25:BD:71:ASP:HB3	25:BD:103:ARG:NH2	2.27	0.49
25:BD:77:ALA:HB2	25:BD:97:TYR:CD2	2.48	0.49
37:BT:51:ARG:HG3	37:BT:98:LYS:CE	2.42	0.49
42:BY:23:ARG:HB2	42:BY:23:ARG:HH11	1.78	0.49
43:BZ:10:ARG:HG3	43:BZ:36:LYS:HB3	1.94	0.49
1:CA:1295:G:N2	1:CA:1302:U:H3	2.07	0.49
1:CA:302:G:N3	1:CA:556:C:H4'	2.27	0.49
2:CB:53:ARG:HH12	2:CB:199:TYR:HA	1.77	0.49
3:CC:138:VAL:HG23	3:CC:151:VAL:HG23	1.93	0.49
4:CD:15:GLU:OE2	4:CD:66:ARG:NH1	2.46	0.49
1:CA:974:A:P	14:CN:41:ARG:HH12	2.34	0.49
1:CA:189(F):U:C4	17:CQ:72:ARG:CZ	2.96	0.49
22:CY:13:THR:H	22:CY:16:ILE:HG23	1.77	0.49
1:CA:953:G:H4'	22:CY:6:THR:OG1	2.12	0.49
23:DA:1287:A:H5"	23:DA:1288:U:OP2	2.13	0.49
23:DA:198:C:H2'	56:DA:3760:HOH:O	2.13	0.49
23:DA:1268:A:C2	23:DA:2013:A:C4	3.00	0.49
23:DA:362:U:O2'	23:DA:363:G:H5"	2.12	0.49
23:DA:35:G:H2'	23:DA:36:G:O4'	2.12	0.49
23:DA:1803:A:H4'	25:DD:259:THR:HG23	1.94	0.49
31:DN:33:LEU:HD12	31:DN:38:HIS:CE1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:73:G:C6	1:AA:97:G:C6	3.00	0.49
1:AA:763:G:H2'	1:AA:764:C:C6	2.48	0.49
8:AH:25:ASP:OD2	8:AH:60:ARG:HG3	2.13	0.49
16:AP:36:ILE:HD12	16:AP:56:ALA:HB2	1.94	0.49
20:AT:56:MET:HG3	20:AT:57:ARG:N	2.28	0.49
23:BA:1545:A:H2'	23:BA:1546:C:O4'	2.13	0.49
23:BA:2001:A:H2'	23:BA:2002:G:C8	2.48	0.49
23:BA:2109:U:H2'	23:BA:2110:G:C8	2.48	0.49
23:BA:271(Q):G:O2'	23:BA:271(R):G:P	2.70	0.49
34:BQ:34:LEU:HD11	34:BQ:129:THR:HB	1.95	0.49
36:BS:35:ILE:HD13	36:BS:101:LEU:HD12	1.95	0.49
1:CA:1306:A:H2'	1:CA:1307:U:O4'	2.12	0.49
1:CA:1493:A:HO2'	1:CA:1494:G:P	2.35	0.49
2:CB:68:ILE:HG12	2:CB:161:ALA:HB3	1.94	0.49
5:CE:91:LEU:HD12	5:CE:120:THR:HG22	1.95	0.49
5:CE:12:LEU:HB3	5:CE:31:LEU:HB2	1.93	0.49
1:CA:453:A:H4'	16:CP:72:ARG:HG2	1.94	0.49
18:CR:45:SER:OG	18:CR:47:THR:HG22	2.13	0.49
22:CY:12:ILE:HG22	22:CY:16:ILE:HG23	1.94	0.49
23:DA:1143:A:OP1	31:DN:25:ARG:NH2	2.45	0.49
23:DA:1604:C:OP2	56:DA:3805:HOH:O	2.20	0.49
23:DA:2321:G:H5"	23:DA:2322:A:OP2	2.13	0.49
23:DA:375:C:H2'	23:DA:376:C:C6	2.48	0.49
24:DB:23:G:O6	56:DB:322:HOH:O	2.19	0.49
24:DB:49:C:H2'	24:DB:50:G:C8	2.47	0.49
56:DA:4969:HOH:O	25:DD:61:LEU:HD21	2.12	0.49
23:DA:616:G:H5'	27:DF:205:ARG:HD2	1.95	0.49
32:DO:19:ILE:HG22	32:DO:43:VAL:HG22	1.93	0.49
35:DR:56:LYS:NZ	35:DR:90:ARG:O	2.45	0.49
1:AA:1003:G:N2	1:AA:1038:C:C4	2.80	0.49
1:AA:1079:G:C6	1:AA:1080:A:N6	2.80	0.49
1:AA:266:G:H5"	1:AA:267:C:C5	2.47	0.49
1:AA:45:U:H2'	1:AA:46:G:C8	2.47	0.49
1:AA:134:A:N6	16:AP:25:ARG:NH1	2.61	0.49
45:B1:94:LEU:O	45:B1:97:LEU:HB2	2.13	0.49
48:B4:14:ILE:HD12	48:B4:22:ILE:HD12	1.93	0.49
23:BA:2122:U:H2'	23:BA:2123:G:C8	2.48	0.49
23:BA:2464:C:HO2'	23:BA:2465:C:H5"	1.77	0.49
23:BA:847:U:H5	23:BA:933:A:H62	1.57	0.49
23:BA:864:G:N2	23:BA:913:U:C2	2.81	0.49
1:CA:1381:U:H2'	1:CA:1381:U:O2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:404:U:H5'	4:CD:122:ARG:HD3	1.95	0.49
1:CA:685:G:O2'	1:CA:686:U:H5'	2.13	0.49
2:CB:135:GLN:O	2:CB:138:LEU:N	2.44	0.49
7:CG:51:GLN:HG3	7:CG:56:GLN:O	2.12	0.49
8:CH:44:PHE:HE2	8:CH:109:ILE:HD12	1.77	0.49
13:CM:49:THR:O	13:CM:52:GLU:N	2.46	0.49
17:CQ:95:TYR:O	17:CQ:98:LEU:HB2	2.12	0.49
23:DA:234:C:H2'	23:DA:235:U:C6	2.48	0.49
23:DA:330:A:O2'	23:DA:331:A:H8	1.96	0.49
23:DA:1816:G:H8	25:DD:62:TYR:CZ	2.31	0.49
1:AA:1210:C:H2'	1:AA:1211:U:H5"	1.93	0.49
4:AD:94:LEU:HA	4:AD:97:LEU:HD12	1.95	0.49
1:AA:1313:U:O4	19:AS:4:SER:HA	2.13	0.49
23:BA:1021:A:H62	23:BA:1141:U:H3	1.61	0.49
23:BA:1113:U:H2'	23:BA:1114:G:C8	2.48	0.49
23:BA:1506:C:C2'	23:BA:1507:A:H5'	2.39	0.49
23:BA:2138:C:H2'	23:BA:2139:C:C6	2.48	0.49
23:BA:2319:G:N2	36:BS:3:ARG:HB2	2.28	0.49
23:BA:2563:U:O2	23:BA:2565:A:H8	1.96	0.49
23:BA:774:A:HO2'	23:BA:775:G:H8	1.58	0.49
43:BZ:93:ASP:HB2	43:BZ:131:ARG:HH22	1.77	0.49
1:CA:1162:C:N4	1:CA:1174:G:H1	2.09	0.49
1:CA:165:C:H2'	1:CA:166:G:H8	1.77	0.49
6:CF:8:ILE:HD12	6:CF:26:ILE:HD13	1.93	0.49
52:D8:33:ASN:O	52:D8:34:TRP:O	2.30	0.49
23:DA:1300:U:H4'	23:DA:1301:A:C5'	2.43	0.49
23:DA:2133:G:C2	23:DA:2157:G:H2'	2.47	0.49
23:DA:2404:C:O3'	33:DP:77:ARG:NH2	2.46	0.49
23:DA:484:C:H2'	23:DA:485:C:H6	1.78	0.49
23:DA:90:U:HO2'	23:DA:92:A:H8	1.59	0.49
30:DI:85:GLU:HG3	30:DI:86:THR:H	1.78	0.49
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.13	0.48
46:B2:4:SER:HA	46:B2:7:ARG:NH1	2.28	0.48
23:BA:2321:G:H5"	23:BA:2322:A:OP2	2.13	0.48
23:BA:839:U:H2'	23:BA:840:C:C6	2.48	0.48
23:BA:90:U:O2'	23:BA:92:A:O4'	2.30	0.48
24:BB:44:G:C2	24:BB:48:A:C2	3.01	0.48
1:CA:1316:G:H2'	1:CA:1318:A:OP2	2.13	0.48
1:CA:530:G:H3'	1:CA:531:U:C5'	2.43	0.48
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.27	0.48
8:CH:33:GLU:HG2	8:CH:48:TYR:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1607:C:H4'	23:DA:1608:A:O5'	2.13	0.48
23:DA:587:C:P	33:DP:21:ARG:HH22	2.36	0.48
35:DR:97:VAL:HG22	35:DR:114:VAL:HG13	1.94	0.48
1:AA:1382:C:H2'	1:AA:1383:C:C6	2.48	0.48
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.78	0.48
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.48	0.48
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.95	0.48
4:AD:30:LYS:C	4:AD:32:ALA:H	2.09	0.48
5:AE:90:VAL:O	5:AE:120:THR:HA	2.14	0.48
16:AP:75:ARG:O	16:AP:78:GLY:N	2.34	0.48
53:B9:27:CYS:SG	53:B9:28:GLU:N	2.86	0.48
23:BA:2296:U:OP2	36:BS:9:ARG:NH2	2.39	0.48
28:BG:43:LEU:HB2	28:BG:89:GLY:HA2	1.94	0.48
33:BP:26:GLY:O	33:BP:27:HIS:CD2	2.66	0.48
1:CA:674:G:H2'	1:CA:675:A:C8	2.48	0.48
1:CA:69:G:N3	1:CA:70:G:C8	2.81	0.48
13:CM:65:LYS:NZ	13:CM:69:GLU:HG2	2.29	0.48
23:DA:1159:U:O2'	23:DA:1160:G:H5'	2.12	0.48
23:DA:1889:A:H2'	23:DA:1890:A:C8	2.48	0.48
23:DA:562:U:C4	23:DA:2036:C:O4'	2.66	0.48
23:DA:2336:A:H61	44:D0:43:THR:HG22	1.78	0.48
26:DE:59:VAL:O	26:DE:64:LYS:HE3	2.13	0.48
32:DO:23:ARG:HG3	32:DO:24:VAL:N	2.27	0.48
34:DQ:5:ARG:O	43:DZ:194:PRO:HD2	2.12	0.48
1:AA:738:C:H2'	1:AA:739:C:H6	1.79	0.48
5:AE:89:ILE:HD13	5:AE:90:VAL:H	1.78	0.48
11:AK:99:GLN:HG2	11:AK:105:VAL:HG11	1.96	0.48
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.95	0.48
23:BA:647:G:O5'	23:BA:647:G:H8	1.96	0.48
28:BG:16:ARG:HE	28:BG:31:VAL:HG21	1.77	0.48
28:BG:60:LEU:HB3	28:BG:68:PRO:HG3	1.95	0.48
31:BN:108:PRO:O	31:BN:113:GLY:HA3	2.13	0.48
37:BT:2:ASN:O	37:BT:6:LEU:HD22	2.13	0.48
43:BZ:7:ALA:HB3	43:BZ:61:LEU:HD12	1.94	0.48
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.13	0.48
1:CA:616:G:C2	1:CA:617:G:C8	3.00	0.48
5:CE:144:THR:OG1	5:CE:147:ASP:OD2	2.19	0.48
7:CG:44:TYR:HA	7:CG:47:CYS:HB2	1.96	0.48
10:CJ:33:GLN:C	10:CJ:33:GLN:HE21	2.11	0.48
22:CY:69:ASP:HB3	22:CY:72:THR:HB	1.95	0.48
23:DA:517:C:OP1	49:D5:16:ARG:NH2	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1268:A:H2'	23:DA:1269:A:O4'	2.13	0.48
23:DA:2576:G:H1'	56:DA:3845:HOH:O	2.13	0.48
24:DB:27:C:C4	24:DB:28:C:C4	3.00	0.48
30:DI:9:LEU:HD21	30:DI:35:LEU:HD13	1.96	0.48
1:AA:1049:U:OP1	14:AN:3:ARG:HB3	2.14	0.48
28:BG:179:PRO:HG3	48:B4:43:TYR:OH	2.13	0.48
52:B8:28:GLY:O	52:B8:36:LYS:NZ	2.46	0.48
23:BA:11:G:C2'	23:BA:12:U:H5'	2.43	0.48
23:BA:1430:C:H2'	23:BA:1431:U:H6	1.77	0.48
23:BA:1858:G:H1'	23:BA:1884:A:N6	2.28	0.48
23:BA:2320:A:H2'	23:BA:2320:A:N3	2.28	0.48
23:BA:27:G:O6	56:BA:4077:HOH:O	2.18	0.48
23:BA:784:A:C8	23:BA:792:G:C5	3.01	0.48
23:BA:811:U:O2'	33:BP:21:ARG:HG3	2.13	0.48
24:BB:2:C:H2'	24:BB:3:C:H6	1.79	0.48
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.76	0.48
1:CA:1358:U:H2'	1:CA:1359:C:O4'	2.13	0.48
1:CA:1446:U:H4'	1:CA:1447:A:C5	2.48	0.48
1:CA:735:C:H2'	1:CA:736:C:C6	2.42	0.48
1:CA:426:G:P	4:CD:36:ARG:NH1	2.86	0.48
23:DA:1165:U:H2'	23:DA:1166:C:C6	2.48	0.48
23:DA:1587:A:H2'	23:DA:1588:C:C6	2.49	0.48
23:DA:2173:A:H2'	23:DA:2174:C:H5'	1.95	0.48
27:DF:29:ASN:H	27:DF:112:MET:CE	2.27	0.48
29:DH:41:MET:HE3	29:DH:54:ARG:HA	1.96	0.48
31:DN:4:TYR:CD2	38:DU:100:VAL:HG11	2.49	0.48
37:DT:28:VAL:HG13	37:DT:86:ILE:HG23	1.96	0.48
1:AA:37:U:O2'	1:AA:547:A:N1	2.35	0.48
2:AB:120:ALA:C	2:AB:122:PHE:H	2.17	0.48
3:AC:52:LEU:HA	3:AC:70:VAL:HA	1.96	0.48
1:AA:1346:A:C2'	7:AG:10:ARG:HH22	2.27	0.48
16:AP:68:ASP:O	16:AP:71:ARG:HG2	2.13	0.48
23:BA:2130:U:O2'	23:BA:2158:A:N6	2.45	0.48
23:BA:764:A:H2	25:BD:219:PRO:HG3	1.78	0.48
24:BB:42:C:O2	28:BG:92:VAL:HA	2.14	0.48
1:CA:1064:G:O2'	1:CA:1065:U:OP2	2.31	0.48
1:CA:1293:G:H2'	1:CA:1294:G:H8	1.77	0.48
1:CA:148:G:O2'	1:CA:149:A:H5'	2.14	0.48
1:CA:601:C:H2'	1:CA:602:A:C8	2.49	0.48
1:CA:731:G:H5'	1:CA:766:A:H4'	1.94	0.48
1:CA:1112:C:H1'	3:CC:179:ARG:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:25:GLY:O	3:CC:27:LYS:N	2.45	0.48
1:CA:1060:C:C5	3:CC:2:GLY:HA3	2.48	0.48
10:CJ:51:ARG:CZ	10:CJ:61:GLU:HB2	2.43	0.48
22:CY:12:ILE:HG22	22:CY:13:THR:N	2.27	0.48
23:DA:1113:U:H2'	23:DA:1114:G:C8	2.48	0.48
23:DA:1581:G:H2'	23:DA:1582:C:O4'	2.12	0.48
23:DA:2138:C:H2'	23:DA:2139:C:C6	2.49	0.48
23:DA:2364:C:H2'	23:DA:2365:G:O4'	2.12	0.48
23:DA:236:C:H2'	23:DA:237:C:C6	2.48	0.48
23:DA:774:A:HO2'	23:DA:775:G:H8	1.60	0.48
23:DA:996:A:H4'	38:DU:91:ASP:OD1	2.14	0.48
1:AA:110:C:H2'	1:AA:111:G:O4'	2.13	0.48
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.13	0.48
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.13	0.48
1:AA:973:G:H3'	1:AA:974:A:H5"	1.96	0.48
3:AC:150:LYS:HB2	3:AC:173:VAL:HG21	1.95	0.48
14:AN:3:ARG:O	14:AN:6:LEU:HB2	2.13	0.48
16:AP:21:VAL:O	16:AP:33:ILE:HG12	2.13	0.48
17:AQ:84:LEU:O	17:AQ:87:LYS:HB2	2.14	0.48
23:BA:1210:A:H5"	23:BA:1212:G:O4'	2.14	0.48
23:BA:1239:G:H2'	23:BA:1240:U:O4'	2.14	0.48
23:BA:1604:C:H5'	56:BA:3876:HOH:O	2.12	0.48
23:BA:528:A:N1	23:BA:2042:A:H2'	2.27	0.48
1:CA:1087:G:C6	1:CA:1088:G:O6	2.66	0.48
1:CA:1150:U:O4	1:CA:1151:A:N6	2.46	0.48
1:CA:1163:C:C2	1:CA:1174:G:C2	3.02	0.48
1:CA:939:G:H1	1:CA:1344:C:N4	2.11	0.48
1:CA:684:A:H2'	1:CA:685:G:C8	2.49	0.48
1:CA:9:G:H2'	1:CA:10:A:H8	1.78	0.48
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.94	0.48
3:CC:9:GLY:HA2	3:CC:12:LEU:HG	1.96	0.48
1:CA:429:U:H5'	4:CD:9:CYS:HB2	1.95	0.48
8:CH:83:ILE:HB	8:CH:137:VAL:HG13	1.95	0.48
16:CP:51:VAL:CG1	16:CP:53:VAL:H	2.24	0.48
23:DA:2101:G:H2'	23:DA:2102:U:O4'	2.13	0.48
23:DA:2836:U:H2'	23:DA:2837:G:C8	2.48	0.48
23:DA:866:A:O2'	23:DA:867:C:H5'	2.13	0.48
34:DQ:42:ILE:HD13	34:DQ:97:VAL:HG21	1.95	0.48
1:AA:102:G:H2'	1:AA:103:C:H6	1.79	0.48
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.96	0.48
1:AA:363:A:N7	12:AL:30:ALA:HB1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:44:PHE:HE2	8:AH:109:ILE:HD12	1.78	0.48
11:AK:85:ARG:HG2	11:AK:112:THR:HA	1.95	0.48
13:AM:66:LEU:H	13:AM:70:LEU:HB2	1.78	0.48
10:AJ:62:HIS:HB2	14:AN:59:ALA:HB3	1.96	0.48
44:B0:72:ARG:HB2	44:B0:75:LEU:HB2	1.96	0.48
23:BA:185:U:H2'	23:BA:186:G:C8	2.49	0.48
43:BZ:111:VAL:HG12	43:BZ:112:ARG:N	2.28	0.48
1:CA:1043:C:H2'	1:CA:1044:A:O4'	2.13	0.48
1:CA:1144:G:N2	1:CA:1146:A:H62	2.12	0.48
12:CL:34:ARG:O	12:CL:61:THR:HG23	2.13	0.48
17:CQ:84:LEU:O	17:CQ:87:LYS:HB2	2.14	0.48
23:DA:1218:C:H5"	23:DA:1218:C:H6	1.79	0.48
23:DA:2052:G:H4'	26:DE:143:ASN:O	2.13	0.48
24:DB:33:G:H5'	28:DG:2:PRO:HD3	1.95	0.48
27:DF:150:GLY:HA2	27:DF:172:TRP:CD2	2.48	0.48
1:AA:1158:C:H5	1:AA:1181:G:H22	1.60	0.48
1:AA:1325:C:O2'	1:AA:1326:C:H5'	2.13	0.48
1:AA:149:A:O2'	1:AA:150:C:H6	1.97	0.48
1:AA:435:C:N4	1:AA:436:C:H41	2.11	0.48
1:AA:942:G:H21	9:AI:124:GLN:NE2	2.11	0.48
3:AC:16:ARG:NH1	3:AC:183:ASP:HA	2.29	0.48
13:AM:88:ARG:HG3	13:AM:98:VAL:HG13	1.95	0.48
45:B1:82:LEU:HA	45:B1:85:LEU:CD2	2.40	0.48
23:BA:2820:A:OP1	35:BR:4:LEU:HD23	2.14	0.48
23:BA:2869:G:H2'	23:BA:2870:C:O4'	2.14	0.48
23:BA:484:C:H2'	23:BA:485:C:C6	2.48	0.48
23:BA:664:C:H4'	23:BA:941:A:OP1	2.14	0.48
1:CA:149:A:O2'	1:CA:150:C:H6	1.97	0.48
1:CA:57:G:H2'	1:CA:58:C:H6	1.78	0.48
1:CA:659:U:H2'	1:CA:660:G:O4'	2.13	0.48
1:CA:976:G:P	14:CN:32:SER:H	2.37	0.48
9:CI:104:ARG:NH1	9:CI:105:ASP:O	2.43	0.48
14:CN:59:ALA:HB1	14:CN:61:TRP:CZ3	2.49	0.48
15:CO:21:ASP:OD2	15:CO:24:SER:HB3	2.14	0.48
23:DA:2377:A:H2'	23:DA:2378:A:C8	2.48	0.48
23:DA:2869:G:H2'	23:DA:2870:C:O4'	2.13	0.48
37:DT:51:ARG:HG3	37:DT:98:LYS:HE3	1.94	0.48
32:DO:101:PRO:HG3	37:DT:67:SER:OG	2.12	0.48
23:DA:446:G:OP1	38:DU:3:ARG:NH1	2.47	0.48
1:AA:1003:G:N3	1:AA:1004:A:H1'	2.28	0.48
1:AA:392:G:H2'	1:AA:393:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.96	0.48
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.49	0.48
1:AA:263:A:OP2	20:AT:79:ARG:NH1	2.47	0.48
23:BA:1378:A:OP1	51:B7:10:ARG:NH2	2.47	0.48
23:BA:1031:G:H21	53:B9:36:GLN:HE22	1.61	0.48
23:BA:375:C:H2'	23:BA:376:C:C6	2.49	0.48
39:BV:52:VAL:HG22	39:BV:55:ALA:HB3	1.96	0.48
43:BZ:45:ASP:OD2	43:BZ:49:ARG:NH1	2.46	0.48
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.48	0.48
1:CA:1443:G:O6	1:CA:1459:C:O2	2.32	0.48
1:CA:425:G:H4'	4:CD:45:GLN:NE2	2.27	0.48
44:D0:10:THR:HG22	44:D0:12:ASN:N	2.27	0.48
23:DA:2104:G:N7	23:DA:2186:G:N2	2.62	0.48
23:DA:226:G:H21	23:DA:228:A:H62	1.61	0.48
24:DB:6:C:C2'	24:DB:7:G:H5"	2.40	0.48
28:DG:43:LEU:HB2	28:DG:89:GLY:HA2	1.94	0.48
29:DH:67:LEU:O	29:DH:71:LEU:HB2	2.13	0.48
30:DI:77:LEU:CB	30:DI:142:VAL:HG12	2.43	0.48
38:DU:76:TYR:HH	38:DU:92:ARG:NH1	2.11	0.48
1:AA:1092:A:N3	1:AA:1183:A:N6	2.61	0.48
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.49	0.48
1:AA:659:U:H2'	1:AA:660:G:O4'	2.14	0.48
3:AC:51:GLY:HA3	3:AC:71:ALA:CB	2.44	0.48
4:AD:65:ARG:HG2	4:AD:75:PHE:CE1	2.49	0.48
9:AI:99:LEU:HB3	9:AI:101:PHE:HD1	1.79	0.48
1:AA:1288:A:O3'	21:AU:10:ARG:NH2	2.47	0.48
50:B6:21:TYR:CE2	50:B6:38:LYS:HG2	2.49	0.48
23:BA:1652:A:C2'	23:BA:1653:G:H5'	2.43	0.48
31:BN:56:ASN:N	31:BN:125:GLY:HA3	2.25	0.48
31:BN:24:GLY:HA2	31:BN:27:ALA:CB	2.42	0.48
1:CA:1030(C):G:H2'	1:CA:1030(D):A:C8	2.49	0.48
1:CA:1235:U:O2'	1:CA:1305:G:O5'	2.32	0.48
1:CA:269:C:H2'	1:CA:270:A:C8	2.49	0.48
1:CA:436:C:O2'	1:CA:437:U:OP2	2.28	0.48
1:CA:438:G:H5'	4:CD:123:HIS:HB3	1.96	0.48
1:CA:938:A:N6	1:CA:939:G:C6	2.82	0.48
1:CA:959:A:O2'	1:CA:961:U:H5'	2.14	0.48
3:CC:111:LEU:CD2	3:CC:146:ALA:HB2	2.44	0.48
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.96	0.48
1:CA:393:A:OP1	16:CP:13:HIS:HE1	1.97	0.48
50:D6:21:TYR:CE2	50:D6:38:LYS:HG2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:300:A:P	42:DY:86:ARG:NH2	2.86	0.48
23:DA:664:C:H4'	23:DA:941:A:OP1	2.14	0.48
23:DA:847:U:H5	23:DA:933:A:H62	1.59	0.48
35:DR:12:ARG:HG2	35:DR:16:HIS:ND1	2.29	0.48
36:DS:83:LYS:HB3	36:DS:84:GLN:O	2.14	0.48
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.49	0.47
1:AA:1144:G:N2	1:AA:1146:A:H62	2.12	0.47
10:AJ:16:LEU:HD23	10:AJ:17:ASP:N	2.28	0.47
10:AJ:68:HIS:H	10:AJ:68:HIS:CD2	2.32	0.47
20:AT:75:ASN:OD1	20:AT:75:ASN:N	2.46	0.47
23:BA:1165:U:H2'	23:BA:1166:C:C6	2.48	0.47
23:BA:1588:C:H2'	23:BA:1589:C:H6	1.79	0.47
23:BA:1593:G:H2'	23:BA:1594:G:C8	2.49	0.47
23:BA:2165:G:H2'	23:BA:2166:G:C8	2.48	0.47
23:BA:2193:G:H2'	23:BA:2194:G:C8	2.49	0.47
23:BA:284:U:H2'	23:BA:285:C:C6	2.49	0.47
23:BA:1252:G:O4'	38:BU:33:ARG:HD2	2.14	0.47
42:BY:38:ILE:HD11	42:BY:66:PRO:HG3	1.95	0.47
43:BZ:125:LEU:HG	43:BZ:164:ALA:HB3	1.96	0.47
34:BQ:5:ARG:O	43:BZ:194:PRO:HD2	2.14	0.47
1:CA:1306:A:H2'	1:CA:1307:U:C6	2.49	0.47
1:CA:942:G:C2	1:CA:1342:C:C2	3.02	0.47
1:CA:1323:G:H4'	1:CA:1363:C:C2	2.49	0.47
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.14	0.47
1:CA:767:A:H2'	1:CA:768:A:O4'	2.14	0.47
1:CA:930:C:C2'	1:CA:931:C:H5'	2.44	0.47
4:CD:120:LEU:HB3	4:CD:126:ILE:HD11	1.96	0.47
1:CA:545:C:H5"	4:CD:72:GLU:CB	2.44	0.47
7:CG:15:ASP:CB	7:CG:19:GLY:H	2.27	0.47
23:DA:2147:G:H2'	23:DA:2148:G:O4'	2.14	0.47
23:DA:2526:G:H5'	23:DA:2742:C:O2'	2.14	0.47
23:DA:478:A:N1	23:DA:500:G:H4'	2.29	0.47
23:DA:482:A:OP2	23:DA:507:A:N6	2.46	0.47
24:DB:45:A:O4'	28:DG:95:ARG:NH1	2.47	0.47
43:DZ:45:ASP:O	43:DZ:49:ARG:HG3	2.13	0.47
1:AA:1158:C:H5	1:AA:1181:G:N1	2.09	0.47
1:AA:269:C:H2'	1:AA:270:A:C8	2.49	0.47
1:AA:413:G:N2	1:AA:428:G:H1'	2.29	0.47
2:AB:127:ILE:C	2:AB:129:GLU:H	2.18	0.47
2:AB:71:VAL:HG13	2:AB:93:VAL:CG2	2.43	0.47
3:AC:131:ARG:NH1	5:AE:50:GLU:HG3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.49	0.47
15:AO:21:ASP:OD2	15:AO:24:SER:HB3	2.14	0.47
19:AS:52:TYR:CE2	19:AS:54:GLY:HA2	2.50	0.47
21:AU:12:LYS:O	21:AU:16:GLY:N	2.46	0.47
47:B3:8:LEU:HD13	47:B3:31:LEU:CD2	2.42	0.47
23:BA:2040:C:H2'	23:BA:2041:U:O4'	2.14	0.47
23:BA:2317:C:N3	23:BA:2318:G:N7	2.61	0.47
24:BB:13:A:N1	24:BB:69:G:O2'	2.38	0.47
27:BF:150:GLY:HA2	27:BF:172:TRP:CD2	2.49	0.47
1:CA:18:C:H4'	1:CA:1078:U:O2	2.14	0.47
1:CA:110:C:H2'	1:CA:111:G:O4'	2.14	0.47
1:CA:1321:C:C3'	1:CA:1322:C:H5"	2.44	0.47
1:CA:1441:G:N3	1:CA:1459:C:C5	2.82	0.47
1:CA:512:U:O2'	4:CD:42:GLN:NE2	2.44	0.47
2:CB:210:SER:O	2:CB:214:ILE:HG12	2.14	0.47
2:CB:54:THR:O	2:CB:58:ILE:HG13	2.14	0.47
2:CB:55:PHE:O	2:CB:59:GLU:N	2.38	0.47
2:CB:52:GLU:O	2:CB:56:ARG:HG2	2.13	0.47
4:CD:18:LYS:NZ	4:CD:31:CYS:HB3	2.29	0.47
14:CN:37:PHE:HZ	14:CN:56:VAL:HG21	1.78	0.47
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.32	0.47
44:D0:72:ARG:HB2	44:D0:75:LEU:HB2	1.96	0.47
23:DA:1028:A:N6	23:DA:1125:G:H2'	2.29	0.47
23:DA:11:G:C2'	23:DA:12:U:H5'	2.43	0.47
1:AA:1030(A):G:N2	1:AA:1032:G:O6	2.47	0.47
23:BA:1530:C:O2'	23:BA:1531:C:P	2.73	0.47
23:BA:2101:G:H2'	23:BA:2102:U:O4'	2.13	0.47
23:BA:2111:C:H42	23:BA:2147:G:N2	2.12	0.47
37:BT:120:ARG:HA	37:BT:123:GLN:HG2	1.95	0.47
1:CA:1004:A:H5"	1:CA:1025:U:C5	2.49	0.47
1:CA:1330:U:H4'	13:CM:23:TYR:HE2	1.77	0.47
1:CA:542:G:H2'	1:CA:543:C:H6	1.79	0.47
1:CA:947:G:H2'	1:CA:948:C:O4'	2.14	0.47
5:CE:36:ASP:OD2	5:CE:38:GLN:N	2.41	0.47
16:CP:5:ARG:HG3	16:CP:5:ARG:HH11	1.79	0.47
17:CQ:27:PHE:CE1	17:CQ:36:ILE:HD11	2.49	0.47
23:DA:1376:C:OP2	56:DA:4026:HOH:O	2.20	0.47
23:DA:2315:G:C6	23:DA:2316:C:C4	3.02	0.47
23:DA:89:G:H3'	23:DA:90:U:H5"	1.97	0.47
24:DB:105:A:OP1	43:DZ:72:ARG:NH1	2.46	0.47
29:DH:17:VAL:HG21	29:DH:50:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:28:GLY:HA3	29:DH:79:VAL:HB	1.95	0.47
43:DZ:150:LEU:O	43:DZ:171:ILE:HG13	2.14	0.47
1:AA:1122:U:C4	1:AA:1123:A:N7	2.82	0.47
1:AA:501:C:H1'	1:AA:549:C:H1'	1.96	0.47
1:AA:527:G:O2'	1:AA:535:A:N1	2.35	0.47
1:AA:687:A:O2'	1:AA:688:G:OP2	2.26	0.47
4:AD:110:PHE:HD1	4:AD:110:PHE:H	1.60	0.47
10:AJ:68:HIS:N	10:AJ:68:HIS:CD2	2.81	0.47
23:BA:1174:A:H1'	23:BA:1175:U:C5'	2.45	0.47
23:BA:1494:A:H2'	23:BA:1495:A:C8	2.49	0.47
24:BB:78:A:C2	24:BB:100:A:C4	3.02	0.47
1:CA:1297:C:H4'	1:CA:1298:C:H5'	1.97	0.47
1:CA:174:C:H2'	1:CA:175:C:H6	1.79	0.47
1:CA:516:U:C4	1:CA:517:G:C6	3.02	0.47
1:CA:664:G:N2	1:CA:741:G:H1	2.07	0.47
3:CC:130:VAL:HG12	3:CC:134:ILE:HD11	1.96	0.47
5:CE:89:ILE:HD13	5:CE:90:VAL:H	1.78	0.47
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.47	0.47
23:DA:1588:C:H2'	23:DA:1589:C:C6	2.50	0.47
23:DA:620:G:H5'	23:DA:620:G:N3	2.29	0.47
24:DB:116:G:H8	24:DB:116:G:OP2	1.97	0.47
25:DD:69:ARG:NH2	25:DD:128:GLY:O	2.40	0.47
32:DO:88:ASN:HD21	32:DO:90:GLN:HB2	1.79	0.47
36:DS:11:LYS:HG3	36:DS:91:PRO:HD3	1.97	0.47
1:AA:1365:G:C6	1:AA:1366:C:C4	3.03	0.47
1:AA:560:U:H4'	1:AA:561:U:O5'	2.15	0.47
1:AA:77:G:O6	1:AA:78:G:C6	2.68	0.47
2:AB:178:ARG:NH2	8:AH:68:ARG:HH22	2.13	0.47
2:AB:53:ARG:NH2	2:AB:198:ASP:O	2.37	0.47
17:AQ:88:TYR:HD2	17:AQ:89:LEU:HD23	1.79	0.47
13:AM:85:GLY:HA3	19:AS:74:PHE:CD1	2.50	0.47
23:BA:2303:G:O6	56:BA:4040:HOH:O	2.17	0.47
25:BD:108:PRO:HB3	25:BD:143:HIS:HE1	1.78	0.47
1:CA:1225:A:N3	1:CA:1225:A:H2'	2.29	0.47
1:CA:413:G:N7	4:CD:35:ARG:NH2	2.62	0.47
6:CF:36:ARG:CB	6:CF:36:ARG:HH11	2.27	0.47
1:CA:1292:U:H5'	9:CI:38:GLN:HE21	1.79	0.47
12:CL:71:PRO:O	12:CL:102:ARG:NH1	2.47	0.47
23:DA:1506:C:C2'	23:DA:1507:A:H5'	2.40	0.47
23:DA:2031:A:C6	23:DA:2498:C:H1'	2.49	0.47
23:DA:2076:U:H6	23:DA:2076:U:O5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2134:A:H62	23:DA:2157:G:H5'	1.79	0.47
23:DA:720:C:H2'	23:DA:721:C:C6	2.49	0.47
28:DG:96:ARG:O	28:DG:99:MET:HB3	2.14	0.47
29:DH:11:VAL:HG21	29:DH:50:VAL:HG23	1.96	0.47
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.15	0.47
1:AA:380:G:N2	1:AA:384:G:C5	2.83	0.47
1:AA:765:G:H5"	1:AA:766:A:OP1	2.14	0.47
4:AD:89:THR:OG1	56:AD:403:HOH:O	2.20	0.47
23:BA:2747:G:O6	23:BA:2755:C:H5"	2.13	0.47
25:BD:180:GLY:HA3	25:BD:275:LYS:HD3	1.96	0.47
26:BE:178:GLU:OE2	26:BE:178:GLU:N	2.41	0.47
30:BI:129:THR:HG22	30:BI:139:GLN:OE1	2.14	0.47
35:BR:37:THR:OG1	35:BR:40:LYS:HG3	2.15	0.47
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.79	0.47
1:CA:750:G:H1'	15:CO:23:GLY:H	1.79	0.47
1:CA:97:G:O2'	1:CA:98:G:H8	1.97	0.47
9:CI:18:PHE:CD1	9:CI:62:TYR:HD2	2.17	0.47
12:CL:84:LEU:HD22	12:CL:85:ILE:H	1.80	0.47
23:DA:886:C:H5"	56:DA:5037:HOH:O	2.14	0.47
23:DA:883:G:H1	23:DA:893:C:H42	1.63	0.47
26:DE:28:ALA:HB3	26:DE:93:VAL:CG1	2.45	0.47
26:DE:5:LEU:HD11	26:DE:79:ARG:HB2	1.96	0.47
30:DI:40:THR:O	30:DI:44:LEU:N	2.48	0.47
1:AA:1442:G:O6	1:AA:1442(A):G:O6	2.33	0.47
1:AA:767:A:H2'	1:AA:768:A:O4'	2.15	0.47
1:AA:939:G:H5"	7:AG:102:ARG:CZ	2.44	0.47
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	2.14	0.47
15:AO:17:ARG:HH11	15:AO:17:ARG:CG	2.26	0.47
16:AP:52:ASP:OD2	16:AP:55:ARG:HG2	2.14	0.47
1:AA:1456:G:HO2'	20:AT:39:LYS:HZ2	1.54	0.47
22:AY:23:ARG:HA	22:AY:23:ARG:HH11	1.79	0.47
23:BA:1047:G:H2'	23:BA:1110:G:N1	2.30	0.47
23:BA:1170:G:H5"	23:BA:1170:G:H8	1.80	0.47
23:BA:2134:A:H62	23:BA:2157:G:H5'	1.79	0.47
23:BA:2134:A:N6	23:BA:2157:G:H5'	2.30	0.47
23:BA:2128:C:N4	23:BA:2160:G:H1	2.12	0.47
23:BA:2169:A:H2'	23:BA:2170:A:C8	2.49	0.47
23:BA:652(I):C:H2'	23:BA:652(J):G:N7	2.28	0.47
23:BA:848:G:N9	23:BA:933:A:H8	2.13	0.47
23:BA:90:U:HO2'	23:BA:92:A:H8	1.57	0.47
1:CA:1119:C:N3	1:CA:1154:G:O6	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:990:C:C2	1:CA:1216:G:C2	3.03	0.47
1:CA:360:A:N1	56:CA:1926:HOH:O	2.35	0.47
1:CA:518:C:O2'	1:CA:530:G:N2	2.48	0.47
1:CA:631:G:H2'	1:CA:632:A:C8	2.50	0.47
1:CA:604:G:C2	1:CA:635:G:C5	3.03	0.47
1:CA:977:A:C2	1:CA:1224:G:N7	2.82	0.47
2:CB:127:ILE:C	2:CB:129:GLU:H	2.18	0.47
7:CG:99:LEU:HD22	7:CG:103:TRP:CZ2	2.49	0.47
9:CI:19:LEU:HB3	9:CI:59:PHE:CD1	2.50	0.47
15:CO:57:LEU:HA	15:CO:57:LEU:HD23	1.75	0.47
23:DA:1274:A:N3	23:DA:1297:C:H1'	2.30	0.47
23:DA:1494:A:C6	23:DA:1495:A:C6	3.03	0.47
23:DA:1588:C:H2'	23:DA:1589:C:H6	1.79	0.47
23:DA:747:U:O2	23:DA:2014:A:H1'	2.14	0.47
23:DA:2885:C:O2'	49:D5:34:PRO:HG3	2.15	0.47
23:DA:892:G:H8	23:DA:892:G:O5'	1.98	0.47
26:DE:75:VAL:HG13	26:DE:77:ILE:H	1.79	0.47
30:DI:72:LEU:HA	30:DI:75:LEU:HD13	1.96	0.47
32:DO:43:VAL:HG12	32:DO:54:GLU:HA	1.95	0.47
23:DA:1278:A:OP1	35:DR:36:THR:HG23	2.13	0.47
1:AA:1072:G:C5	1:AA:1073:U:C4	3.03	0.47
1:AA:1446:U:O2'	1:AA:1447:A:H3'	2.15	0.47
19:AS:40:ILE:O	19:AS:67:VAL:HG13	2.15	0.47
23:BA:1268:A:C2	23:BA:2013:A:C4	3.03	0.47
1:CA:1006:C:H2'	1:CA:1007:C:O4'	2.15	0.47
1:CA:1442:G:HO2'	1:CA:1442(A):G:P	2.30	0.47
1:CA:449:C:O2	16:CP:42:ARG:HD2	2.15	0.47
1:CA:834:C:H2'	1:CA:835:U:C6	2.49	0.47
1:CA:857:C:H2'	1:CA:858:G:O4'	2.15	0.47
3:CC:12:LEU:HA	3:CC:16:ARG:O	2.15	0.47
3:CC:186:PHE:HA	3:CC:198:VAL:O	2.15	0.47
18:CR:53:ARG:HH21	18:CR:60:ALA:H	1.62	0.47
47:D3:36:VAL:HG23	56:D3:101:HOH:O	2.15	0.47
23:DA:9:U:O2'	23:DA:10:G:OP1	2.32	0.47
23:DA:2317:C:C2	23:DA:2318:G:N7	2.83	0.47
23:DA:284:U:H2'	23:DA:285:C:C6	2.50	0.47
43:DZ:125:LEU:HB3	43:DZ:165:VAL:HG12	1.97	0.47
1:AA:1259:C:C4	1:AA:1260:C:O2	2.68	0.47
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.50	0.47
1:AA:390:C:H2'	1:AA:391:G:C8	2.50	0.47
1:AA:922:G:C6	1:AA:923:A:C6	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:97:G:O2'	1:AA:98:G:H8	1.97	0.47
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.15	0.47
9:AI:18:PHE:CD1	9:AI:62:TYR:HD2	2.33	0.47
48:B4:14:ILE:HG23	48:B4:31:ILE:HB	1.97	0.47
50:B6:16:CYS:HB2	50:B6:18:ARG:NH1	2.30	0.47
23:BA:1580:A:OP2	23:BA:1580:A:H8	1.97	0.47
23:BA:1914:C:H2'	23:BA:1915:U:H6	1.80	0.47
23:BA:2134:A:C2	23:BA:2159:G:H4'	2.50	0.47
23:BA:2601:C:H3'	56:BA:5519:HOH:O	2.13	0.47
23:BA:2690:C:OP2	23:BA:2690:C:H6	1.97	0.47
1:CA:199:G:O2'	1:CA:200:G:H5'	2.15	0.47
1:CA:321:A:C2	1:CA:333:G:C2	3.03	0.47
1:CA:387:U:OP1	56:CA:1903:HOH:O	2.20	0.47
3:CC:130:VAL:O	3:CC:132:ARG:N	2.42	0.47
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.45	0.47
10:CJ:32:ALA:O	10:CJ:76:ASN:N	2.44	0.47
20:CT:33:ILE:O	20:CT:37:SER:OG	2.26	0.47
23:DA:1593:G:H2'	23:DA:1594:G:C8	2.50	0.47
23:DA:2017:U:OP1	56:DA:3921:HOH:O	2.20	0.47
23:DA:2317:C:N3	23:DA:2318:G:N7	2.63	0.47
23:DA:263:C:H2'	23:DA:264:C:O4'	2.14	0.47
23:DA:1297:C:OP1	23:DA:2710:C:H4'	2.15	0.47
23:DA:438:G:H2'	23:DA:440:G:C8	2.50	0.47
23:DA:704:G:O2'	23:DA:726:G:N2	2.35	0.47
25:DD:68:LYS:O	25:DD:69:ARG:HB2	2.15	0.47
30:DI:29:TYR:O	30:DI:32:PRO:HD2	2.15	0.47
1:AA:1021:G:N2	1:AA:1022:G:H1'	2.29	0.47
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.15	0.47
1:AA:1300:G:O2'	1:AA:1301:U:P	2.73	0.47
1:AA:1442(B):A:C2	37:BT:118:ARG:NH2	2.82	0.47
1:AA:255:G:P	56:AA:2232:HOH:O	2.73	0.47
1:AA:448:A:P	1:AA:485:G:H22	2.37	0.47
1:AA:673:G:N2	1:AA:674:G:C2	2.83	0.47
2:AB:52:GLU:O	2:AB:56:ARG:HG2	2.14	0.47
5:AE:12:LEU:HB3	5:AE:31:LEU:HB2	1.97	0.47
7:AG:75:VAL:HA	7:AG:87:VAL:O	2.15	0.47
11:AK:34:ASP:OD2	11:AK:37:GLY:N	2.48	0.47
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.50	0.47
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.79	0.47
23:BA:1171:G:H3'	23:BA:1173:G:H5'	1.96	0.47
23:BA:747:U:O2	23:BA:2014:A:H1'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:92:A:H2'	23:BA:93:G:O4'	2.15	0.47
43:BZ:128:VAL:HG23	43:BZ:161:VAL:N	2.30	0.47
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.97	0.47
1:CA:1310:G:H1	1:CA:1327:C:H42	1.62	0.47
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.78	0.47
1:CA:620:C:H2'	1:CA:621:A:O4'	2.15	0.47
1:CA:937:A:H1'	1:CA:1379:G:N2	2.30	0.47
7:CG:24:THR:O	7:CG:27:ILE:HG12	2.15	0.47
10:CJ:12:ASP:HB3	10:CJ:15:THR:HG23	1.97	0.47
47:D3:12:PRO:O	47:D3:15:TYR:HB2	2.15	0.47
53:D9:32:HIS:O	53:D9:34:GLN:HG3	2.14	0.47
23:DA:1417:C:H2'	23:DA:1418:G:O4'	2.14	0.47
23:DA:2648:C:H2'	23:DA:2649:U:H6	1.79	0.47
23:DA:647:G:O5'	23:DA:647:G:H8	1.98	0.47
25:DD:101:GLU:OE1	25:DD:103:ARG:HD3	2.15	0.47
1:AA:1124:G:O2'	1:AA:1126:U:O4	2.30	0.47
1:AA:179:A:H2'	1:AA:180:U:H6	1.80	0.47
1:AA:620:C:H2'	1:AA:621:A:O4'	2.15	0.47
1:AA:502:G:OP1	12:AL:117:ARG:N	2.48	0.47
1:AA:954:G:O6	13:AM:104:ARG:NH1	2.48	0.47
13:AM:4:ILE:HG12	13:AM:5:ALA:N	2.30	0.47
46:B2:16:LEU:O	46:B2:67:LYS:NZ	2.48	0.47
23:BA:1176:G:N2	23:BA:1178:C:OP2	2.46	0.47
23:BA:2074:U:H2'	23:BA:2075:U:C6	2.50	0.47
23:BA:2137:C:C2	23:BA:2154:G:N2	2.83	0.47
23:BA:2224:G:H4'	23:BA:2226:C:C2	2.50	0.47
23:BA:263:C:H2'	23:BA:264:C:O4'	2.15	0.47
23:BA:459:U:OP2	23:BA:469:G:N1	2.39	0.47
1:CA:1028:C:H2'	1:CA:1029:C:C6	2.50	0.47
1:CA:129(A):G:C5	1:CA:189(H):G:H1'	2.50	0.47
1:CA:971:G:N1	1:CA:1363(A):A:OP2	2.38	0.47
1:CA:433:C:O2'	1:CA:434:U:H5'	2.15	0.47
1:CA:868:C:H2'	1:CA:869:G:O4'	2.15	0.47
5:CE:127:ASN:HA	5:CE:128:PRO:HD3	1.80	0.47
9:CI:27:THR:O	9:CI:63:ILE:HB	2.15	0.47
9:CI:83:ARG:O	9:CI:86:VAL:HG22	2.16	0.47
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.15	0.47
1:CA:966:G:C4	22:CY:62:VAL:HG11	2.50	0.47
52:D8:4:MET:HE3	52:D8:63:PRO:HG3	1.97	0.47
23:DA:2136:C:C4	23:DA:2137:C:H5	2.33	0.47
23:DA:2349:G:H3'	23:DA:2350:C:H5"	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:271(N):U:O2'	23:DA:271(O):C:H5'	2.15	0.47
23:DA:546:C:H6	23:DA:548:A:OP1	1.98	0.47
23:DA:740:U:H2'	23:DA:741:G:C8	2.50	0.47
25:DD:25:THR:HG21	25:DD:113:VAL:HG11	1.96	0.47
30:DI:101:LEU:O	30:DI:106:GLY:N	2.44	0.47
1:AA:1057:G:C4	1:AA:1204:A:C2	3.04	0.46
1:AA:1206:G:C6	1:AA:1207:G:C5	3.03	0.46
1:AA:1232:U:C4	1:AA:1233:G:N7	2.83	0.46
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.50	0.46
1:AA:1300:G:HO2'	1:AA:1301:U:P	2.37	0.46
1:AA:1446:U:H4'	1:AA:1447:A:C5	2.49	0.46
1:AA:148:G:O2'	1:AA:149:A:H5'	2.15	0.46
1:AA:149:A:O2'	1:AA:150:C:P	2.71	0.46
1:AA:228:A:H5'	16:AP:62:VAL:CG2	2.44	0.46
1:AA:68:G:H5'	1:AA:171:A:O2'	2.15	0.46
1:AA:690:G:C6	1:AA:691:G:C6	3.03	0.46
13:AM:81:LEU:O	13:AM:86:CYS:HB3	2.15	0.46
23:BA:2884:U:H1'	49:B5:53:ALA:HB2	1.97	0.46
23:BA:1292:U:H2'	23:BA:1293:C:C6	2.50	0.46
23:BA:1783:A:H5'	23:BA:2608:G:H4'	1.97	0.46
23:BA:2887:U:H2'	23:BA:2888:C:H6	1.79	0.46
26:BE:51:PHE:CD1	26:BE:52:LEU:HD22	2.50	0.46
40:BW:79:GLY:HA3	40:BW:100:THR:HG22	1.97	0.46
1:CA:1443:G:O6	1:CA:1459:C:C2	2.68	0.46
1:CA:561:U:HO2'	1:CA:562:C:P	2.37	0.46
1:CA:717:C:H5"	1:CA:717:C:H6	1.79	0.46
2:CB:53:ARG:NH2	2:CB:198:ASP:O	2.39	0.46
9:CI:44:VAL:HA	9:CI:45:ALA:HA	1.48	0.46
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HG3	2.43	0.46
20:CT:73:HIS:HB3	20:CT:74:LYS:HE2	1.96	0.46
23:DA:141:A:H8	23:DA:1408:C:O2'	1.95	0.46
23:DA:2554:U:H2'	23:DA:2555:U:C6	2.49	0.46
23:DA:857:C:OP2	44:D0:77:ARG:NH2	2.48	0.46
28:DG:28:VAL:O	28:DG:31:VAL:HG13	2.15	0.46
29:DH:13:LYS:HA	29:DH:14:GLY:HA2	1.63	0.46
23:DA:271(P):C:H4'	30:DI:42:SER:O	2.15	0.46
23:DA:811:U:O2'	33:DP:21:ARG:HG3	2.14	0.46
36:DS:105:ALA:O	36:DS:110:LEU:HB2	2.15	0.46
39:DV:65:GLY:HA3	39:DV:91:TYR:CZ	2.50	0.46
1:AA:685:G:O2'	1:AA:686:U:H5'	2.15	0.46
20:AT:47:GLY:HA2	20:AT:48:LYS:CB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1494:A:O2'	23:BA:1495:A:H5'	2.15	0.46
23:BA:1607:C:H4'	23:BA:1608:A:O5'	2.15	0.46
23:BA:2115:G:H21	23:BA:2171:A:N6	2.12	0.46
23:BA:2297:C:H1'	23:BA:2322:A:C2	2.50	0.46
28:BG:121:ASN:HA	28:BG:122:PRO:HD3	1.78	0.46
1:CA:1227:A:H3'	1:CA:1227:A:C8	2.50	0.46
1:CA:1493:A:C2	23:DA:1913:A:C6	3.03	0.46
1:CA:973:G:C6	1:CA:974:A:N6	2.83	0.46
7:CG:111:ARG:HB3	7:CG:113:GLU:OE1	2.15	0.46
8:CH:19:VAL:HG23	8:CH:21:LYS:HD3	1.98	0.46
20:CT:5:LYS:HA	20:CT:6:PRO:HD2	1.66	0.46
53:D9:17:ILE:HD12	53:D9:17:ILE:HA	1.78	0.46
23:DA:1939:U:OP1	23:DA:2604:U:O2'	2.30	0.46
23:DA:623:G:H2'	23:DA:624:C:C6	2.50	0.46
23:DA:904:C:H2'	23:DA:905:U:C6	2.50	0.46
28:DG:173:LEU:O	28:DG:178:PHE:HB2	2.15	0.46
30:DI:79:ILE:HA	30:DI:80:PRO:HD3	1.59	0.46
36:DS:59:LYS:HE2	36:DS:60:GLY:HA2	1.96	0.46
39:DV:49:THR:O	39:DV:49:THR:HG22	2.16	0.46
43:DZ:110:GLY:HA3	43:DZ:174:VAL:HG11	1.97	0.46
1:AA:1009:G:O2'	1:AA:1010:G:H5'	2.15	0.46
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.15	0.46
1:AA:1296:C:H4'	1:AA:1302:U:C5	2.50	0.46
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.49	0.46
1:AA:688:G:H2'	1:AA:689:C:C6	2.50	0.46
2:AB:178:ARG:HH21	8:AH:74:PRO:HG3	1.80	0.46
2:AB:42:ILE:HG21	2:AB:202:PRO:O	2.15	0.46
7:AG:146:GLU:O	7:AG:148:ASN:N	2.48	0.46
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.79	0.46
1:AA:128:G:O2'	17:AQ:3:LYS:HE2	2.16	0.46
23:BA:2173:A:H2'	23:BA:2174:C:H5'	1.97	0.46
23:BA:539:G:H2'	23:BA:540:C:C6	2.51	0.46
23:BA:883:G:H1	23:BA:893:C:H42	1.63	0.46
1:CA:224:C:H2'	1:CA:225:C:C6	2.50	0.46
1:CA:9:G:H2'	1:CA:10:A:C8	2.51	0.46
2:CB:120:ALA:C	2:CB:122:PHE:H	2.18	0.46
3:CC:164:ARG:HG2	3:CC:165:THR:H	1.80	0.46
10:CJ:9:ARG:HA	10:CJ:16:LEU:HD11	1.97	0.46
14:CN:29:ARG:HH12	14:CN:42:ILE:HD11	1.80	0.46
15:CO:26:GLU:H	15:CO:26:GLU:HG2	1.26	0.46
20:CT:67:ALA:HA	20:CT:72:LEU:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:298:G:H5"	23:DA:299:A:OP1	2.16	0.46
23:DA:455:C:N3	23:DA:473:G:H5'	2.30	0.46
23:DA:65:C:H2'	23:DA:66:C:H6	1.80	0.46
25:DD:24:ILE:HD13	25:DD:84:TYR:HB2	1.97	0.46
27:DF:21:ALA:O	27:DF:22:ALA:CB	2.63	0.46
32:DO:98:VAL:HG22	32:DO:118:ALA:HA	1.98	0.46
23:DA:2682:U:O2'	37:DT:58:ASN:ND2	2.47	0.46
1:AA:117:G:OP2	56:AA:2109:HOH:O	2.21	0.46
1:AA:1256:A:H5"	1:AA:1257:U:OP1	2.16	0.46
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.15	0.46
1:AA:392:G:H2'	1:AA:393:A:H8	1.80	0.46
1:AA:433:C:O2'	1:AA:434:U:H5'	2.15	0.46
2:AB:184:VAL:HG12	2:AB:197:VAL:HG13	1.98	0.46
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.48	0.46
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.16	0.46
1:AA:947:G:O3'	13:AM:109:THR:OG1	2.32	0.46
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.98	0.46
49:B5:11:THR:HG23	49:B5:15:ARG:HB3	1.97	0.46
23:BA:2836:U:C4	23:BA:2883:A:N6	2.84	0.46
23:BA:646:A:H2'	23:BA:647:G:O4'	2.16	0.46
23:BA:1816:G:H8	25:BD:62:TYR:CZ	2.33	0.46
33:BP:126:VAL:HG11	33:BP:148:LEU:HD13	1.97	0.46
1:CA:1096:C:C4	1:CA:1097:C:C5	3.04	0.46
1:CA:1333:A:H3'	1:CA:1334:G:H8	1.81	0.46
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.14	0.46
1:CA:601:C:H2'	1:CA:602:A:H8	1.79	0.46
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.96	0.46
2:CB:82:ARG:HG3	2:CB:92:TYR:CZ	2.50	0.46
5:CE:81:GLU:HB3	5:CE:88:LYS:HE2	1.98	0.46
13:CM:69:GLU:C	13:CM:71:ARG:N	2.69	0.46
52:D8:61:LEU:C	52:D8:63:PRO:HD3	2.35	0.46
23:DA:1221(A):C:C2	23:DA:1229:G:C2	3.04	0.46
23:DA:1243:G:O2'	33:DP:7:ARG:NH2	2.48	0.46
23:DA:143:G:H4'	41:DX:35:THR:HG21	1.97	0.46
23:DA:1503:U:H2'	23:DA:1504:C:H6	1.77	0.46
23:DA:2115:G:H21	23:DA:2171:A:N6	2.11	0.46
23:DA:271(P):C:OP1	30:DI:45:LYS:HD2	2.15	0.46
23:DA:2836:U:C4	23:DA:2883:A:N6	2.83	0.46
25:DD:145:VAL:HG12	25:DD:146:GLU:O	2.15	0.46
26:DE:173:VAL:CG2	26:DE:185:LYS:HB2	2.44	0.46
27:DF:108:LYS:O	27:DF:112:MET:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.49	0.46
1:AA:130:A:O2'	1:AA:131:C:O5'	2.30	0.46
1:AA:149:A:O2'	1:AA:150:C:C6	2.68	0.46
1:AA:414:A:H2'	1:AA:415:A:H8	1.79	0.46
2:AB:53:ARG:HH12	2:AB:199:TYR:HA	1.80	0.46
4:AD:176:LEU:HD12	4:AD:177:ASP:H	1.79	0.46
10:AJ:61:GLU:OE2	14:AN:45:ARG:NE	2.44	0.46
1:AA:194:C:O3'	20:AT:68:LYS:HD2	2.16	0.46
45:B1:3:LYS:HB3	45:B1:4:VAL:H	1.50	0.46
23:BA:95:G:O2'	46:B2:46:GLN:HA	2.15	0.46
24:BB:32:C:C2	24:BB:51:G:N2	2.83	0.46
28:BG:3:LEU:HD13	48:B4:25:TYR:CE1	2.50	0.46
1:CA:1055:A:C2	1:CA:1056:U:H1'	2.50	0.46
1:CA:1263:C:O2'	1:CA:1264:C:H5'	2.16	0.46
1:CA:179:A:H2'	1:CA:180:U:H6	1.80	0.46
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.34	0.46
1:CA:750:G:C2	15:CO:23:GLY:HA3	2.49	0.46
23:DA:1486:A:H2'	23:DA:1487:G:C8	2.48	0.46
23:DA:171:G:H2'	23:DA:172:C:C6	2.51	0.46
23:DA:2469:A:H5"	23:DA:2470:G:OP2	2.16	0.46
23:DA:452:G:OP2	56:DA:4159:HOH:O	2.20	0.46
23:DA:848:G:H2'	23:DA:849:A:C8	2.50	0.46
23:DA:958:U:H5"	34:DQ:14:ARG:HD3	1.97	0.46
23:DA:1278:A:OP1	35:DR:36:THR:CG2	2.64	0.46
41:DX:72:LYS:HE3	41:DX:73:ARG:O	2.14	0.46
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.99	0.46
1:AA:428:G:HO2'	1:AA:429:U:P	2.39	0.46
2:AB:54:THR:O	2:AB:58:ILE:HG13	2.14	0.46
3:AC:15:THR:CG2	3:AC:181:ASN:HA	2.43	0.46
10:AJ:35:SER:N	10:AJ:73:ASP:O	2.48	0.46
45:B1:51:VAL:HG11	45:B1:74:VAL:HG21	1.98	0.46
47:B3:10:LYS:NZ	47:B3:15:TYR:OH	2.48	0.46
23:BA:1274:A:N3	23:BA:1297:C:H1'	2.31	0.46
23:BA:1314:C:H5'	23:BA:1314:C:H6	1.81	0.46
23:BA:2295:C:O2'	23:BA:2296:U:H5'	2.15	0.46
23:BA:271(N):U:O2'	23:BA:271(O):C:H5'	2.15	0.46
23:BA:910:A:H62	34:BQ:12:GLN:HA	1.80	0.46
1:CA:1087:G:N1	1:CA:1088:G:C6	2.84	0.46
1:CA:116:A:OP2	1:CA:116:A:C8	2.69	0.46
1:CA:1215:G:C6	1:CA:1216:G:C5	3.04	0.46
1:CA:1316:G:N2	1:CA:1318:A:H3'	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:944:G:N1	1:CA:1338:G:OP2	2.42	0.46
1:CA:300:A:H1'	1:CA:565:U:O2	2.15	0.46
1:CA:36:C:OP1	12:CL:123:LYS:NZ	2.44	0.46
2:CB:186:ALA:O	2:CB:201:ILE:N	2.44	0.46
10:CJ:95:GLU:HG3	10:CJ:96:ILE:H	1.80	0.46
23:DA:1006:C:C2	23:DA:1138:G:N2	2.84	0.46
23:DA:1149:G:H2'	23:DA:1150:C:C6	2.50	0.46
23:DA:1321:A:H2'	23:DA:1322:A:O4'	2.16	0.46
23:DA:2557:G:H2'	23:DA:2558:C:C6	2.51	0.46
23:DA:848:G:N9	23:DA:933:A:H8	2.14	0.46
28:DG:41:GLN:HE22	28:DG:153:ARG:HB3	1.79	0.46
35:DR:67:LEU:HD13	35:DR:76:VAL:HG21	1.98	0.46
36:DS:101:LEU:O	36:DS:102:ALA:HB3	2.15	0.46
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.16	0.46
1:AA:254:G:OP1	17:AQ:66:SER:OG	2.33	0.46
1:AA:542:G:H2'	1:AA:543:C:H6	1.80	0.46
1:AA:868:C:H2'	1:AA:869:G:O4'	2.16	0.46
2:AB:87:ARG:NH1	2:AB:220:ASP:OD1	2.24	0.46
2:AB:98:LEU:HD23	2:AB:98:LEU:HA	1.80	0.46
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.16	0.46
13:AM:66:LEU:O	13:AM:70:LEU:HB2	2.16	0.46
23:BA:443:A:H1'	23:BA:1201:C:O4'	2.15	0.46
29:BH:113:VAL:HG11	29:BH:151:ILE:HD13	1.98	0.46
42:BY:97:ARG:HH11	42:BY:107:ASP:C	2.19	0.46
1:CA:1342:C:O2'	9:CI:124:GLN:HG3	2.15	0.46
1:CA:503:C:OP2	12:CL:116:SER:HB3	2.15	0.46
1:CA:757:U:OP1	1:CA:822:C:O2'	2.28	0.46
1:CA:983:A:H2	1:CA:984:C:C6	2.34	0.46
2:CB:27:LYS:HD2	2:CB:193:ASP:OD1	2.15	0.46
1:CA:438:G:H4'	4:CD:123:HIS:ND1	2.30	0.46
22:CY:5:ILE:HG21	22:CY:20:VAL:HG11	1.97	0.46
23:DA:1021:A:H8	23:DA:1022:G:H5"	1.79	0.46
23:DA:1540:U:H2'	23:DA:1541:G:O4'	2.15	0.46
23:DA:2687:U:OP2	56:DA:4444:HOH:O	2.20	0.46
23:DA:81:G:HO2'	23:DA:295:G:HO2'	1.63	0.46
23:DA:322:A:OP1	27:DF:168:ARG:HD2	2.16	0.46
23:DA:708:C:H5'	23:DA:709:U:OP2	2.16	0.46
23:DA:856:C:HO2'	23:DA:857:C:P	2.39	0.46
29:DH:40:GLU:OE1	29:DH:60:ARG:NH1	2.47	0.46
30:DI:77:LEU:HB3	30:DI:142:VAL:HG12	1.98	0.46
37:DT:18:ASP:OD1	37:DT:18:ASP:N	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DZ:121:HIS:HB3	43:DZ:123:ASP:O	2.16	0.46
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.46	0.46
1:AA:1149:C:P	9:AI:9:ARG:HH21	2.39	0.46
1:AA:114:U:H2'	1:AA:115:G:C8	2.50	0.46
1:AA:1200:C:O5'	1:AA:1201:A:H3'	2.16	0.46
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.98	0.46
23:BA:1668:A:H4'	23:BA:1669:A:O5'	2.16	0.46
23:BA:30:G:OP2	38:BU:5:LYS:HE2	2.15	0.46
23:BA:362:U:O2'	23:BA:363:G:H5"	2.16	0.46
23:BA:414:C:O2'	23:BA:415:A:H5'	2.16	0.46
24:BB:39:A:O2'	24:BB:46:A:N1	2.34	0.46
27:BF:179:GLU:H	27:BF:179:GLU:CD	2.19	0.46
30:BI:77:LEU:HA	30:BI:77:LEU:HD23	1.74	0.46
23:BA:1143:A:OP1	31:BN:25:ARG:NH2	2.49	0.46
36:BS:74:ALA:HA	36:BS:110:LEU:HD22	1.98	0.46
1:CA:1009:G:C2	1:CA:1010:G:C8	3.04	0.46
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.15	0.46
1:CA:1102:A:H5"	1:CA:1102:A:H8	1.79	0.46
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.81	0.46
1:CA:838:G:C2'	1:CA:839:U:H5"	2.46	0.46
1:CA:942:G:H21	9:CI:124:GLN:NE2	2.13	0.46
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.15	0.46
20:CT:43:LEU:CD1	20:CT:51:GLU:HG2	2.46	0.46
22:CY:67:HIS:HB3	22:CY:73:ALA:HB2	1.97	0.46
23:DA:1352:U:P	56:DA:4029:HOH:O	2.73	0.46
23:DA:1495:A:H2'	23:DA:1496:A:H8	1.81	0.46
23:DA:185:U:H2'	23:DA:186:G:C8	2.51	0.46
23:DA:2134:A:N3	23:DA:2159:G:O2'	2.41	0.46
23:DA:2295:C:O2'	23:DA:2296:U:H5'	2.16	0.46
23:DA:2430:A:H2'	23:DA:2430:A:N3	2.30	0.46
23:DA:2693:A:H2'	23:DA:2694:G:C8	2.49	0.46
23:DA:864:G:C6	23:DA:865:C:N4	2.84	0.46
24:DB:61:G:C2	24:DB:62:C:C2	3.04	0.46
25:DD:3:VAL:O	25:DD:3:VAL:HG12	2.15	0.46
30:DI:72:LEU:C	30:DI:74:ASN:H	2.19	0.46
32:DO:115:VAL:HG13	32:DO:121:VAL:HG21	1.96	0.46
1:AA:1120:G:H1	1:AA:1153:C:H42	1.64	0.46
1:AA:174:C:H2'	1:AA:175:C:H6	1.79	0.46
1:AA:191:G:C6	1:AA:192:U:N3	2.84	0.46
1:AA:413:G:H22	1:AA:428:G:H1'	1.80	0.46
2:AB:51:LEU:O	2:AB:55:PHE:HD2	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:119:ALA:O	9:AI:120:ARG:HG3	2.15	0.46
22:AY:87:LYS:O	22:AY:91:LYS:HB2	2.14	0.46
49:B5:36:CYS:O	49:B5:37:LYS:HD3	2.15	0.46
23:BA:1701:A:H5"	23:BA:1702:G:OP2	2.16	0.46
23:BA:181:A:H1'	23:BA:435:C:H5'	1.98	0.46
26:BE:60:ASN:OD1	26:BE:62:PRO:HD2	2.16	0.46
31:BN:1:MET:O	31:BN:2:LYS:HB2	2.16	0.46
35:BR:65:LEU:HD12	35:BR:65:LEU:HA	1.77	0.46
39:BV:29:PRO:HA	39:BV:61:VAL:HG22	1.98	0.46
43:BZ:144:LEU:HD12	43:BZ:148:ASP:HB3	1.97	0.46
1:CA:1000:U:C2'	1:CA:1001:A:H5'	2.46	0.46
1:CA:1084:G:C5	1:CA:1085:U:C4	3.04	0.46
1:CA:1227:A:H8	1:CA:1227:A:H3'	1.80	0.46
1:CA:1271:G:H5'	1:CA:1314:C:H5"	1.97	0.46
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.30	0.46
1:CA:624:C:H2'	1:CA:625:G:H8	1.81	0.46
1:CA:671:G:H2'	1:CA:672:U:C6	2.51	0.46
10:CJ:8:LEU:HG	10:CJ:8:LEU:H	1.59	0.46
23:DA:1009:A:O4'	38:DU:59:ARG:HG2	2.16	0.46
23:DA:1027:A:C6	23:DA:1126:A:C4	3.04	0.46
23:DA:1914:C:H2'	23:DA:1915:U:H6	1.79	0.46
23:DA:2297:C:H1'	23:DA:2322:A:C2	2.50	0.46
23:DA:2549:G:H5"	23:DA:2549:G:C8	2.51	0.46
23:DA:2581:G:H4'	23:DA:2582:G:C8	2.51	0.46
23:DA:307:G:H21	23:DA:330:A:H62	1.62	0.46
25:DD:12:SER:HB3	25:DD:208:LYS:HB3	1.98	0.46
31:DN:1:MET:O	31:DN:2:LYS:HB2	2.16	0.46
34:DQ:27:VAL:O	34:DQ:67:ARG:NH1	2.49	0.46
1:AA:1277:C:HO2'	1:AA:1279:A:H1'	1.81	0.46
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.50	0.46
1:AA:942:G:C2	1:AA:1342:C:C2	3.04	0.46
1:AA:616:G:C2	1:AA:617:G:C8	3.03	0.46
1:AA:90:U:H2'	1:AA:91:C:C6	2.51	0.46
4:AD:100:ARG:HH12	4:AD:137:SER:HB3	1.81	0.46
4:AD:61:LYS:HD2	4:AD:207:TYR:OH	2.16	0.46
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.80	0.46
23:BA:185:U:H2'	23:BA:186:G:H8	1.80	0.46
23:BA:2133:G:C2	23:BA:2157:G:H2'	2.51	0.46
23:BA:2136:C:C4	23:BA:2137:C:H5	2.34	0.46
23:BA:2244:U:O2'	56:BA:5438:HOH:O	2.19	0.46
23:BA:645:C:H2'	23:BA:645:C:O2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:993:G:OP1	38:BU:50:ARG:NH2	2.46	0.46
33:BP:59:LEU:HG	52:B8:58:ILE:HD13	1.97	0.46
35:BR:97:VAL:HG22	35:BR:114:VAL:HG13	1.97	0.46
1:CA:114:U:H2'	1:CA:115:G:C8	2.51	0.46
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.43	0.46
1:CA:1357:A:N7	1:CA:1358:U:C5	2.84	0.46
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.51	0.46
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.16	0.46
1:CA:263:A:OP2	20:CT:79:ARG:NH1	2.49	0.46
1:CA:343:U:H2'	1:CA:343:U:H6	1.49	0.46
1:CA:474:G:H2'	1:CA:475:G:H8	1.81	0.46
1:CA:688:G:H2'	1:CA:689:C:H6	1.80	0.46
3:CC:65:ALA:HA	3:CC:100:ALA:HB3	1.98	0.46
5:CE:104:ALA:O	5:CE:107:ARG:HB3	2.16	0.46
5:CE:8:GLU:HA	5:CE:33:VAL:O	2.15	0.46
11:CK:62:GLN:HG3	11:CK:97:ALA:HB2	1.98	0.46
1:CA:750:G:H21	15:CO:23:GLY:HA3	1.79	0.46
1:CA:177:C:P	20:CT:65:LYS:NZ	2.89	0.46
23:DA:1315:C:OP2	56:DA:3803:HOH:O	2.20	0.46
23:DA:1378:A:OP1	51:D7:10:ARG:NH2	2.49	0.46
23:DA:1488:G:H5"	23:DA:1488:G:C8	2.51	0.46
23:DA:2555:U:H5"	23:DA:2556:C:OP2	2.16	0.46
23:DA:2661:G:H2'	23:DA:2662:A:C8	2.51	0.46
26:DE:128:SER:OG	26:DE:129:HIS:N	2.49	0.46
27:DF:150:GLY:HA2	27:DF:172:TRP:CE3	2.51	0.46
43:DZ:144:LEU:HD21	43:DZ:150:LEU:HG	1.98	0.46
1:AA:1130:A:C4	1:AA:1146:A:C2	3.04	0.45
1:AA:1305:G:C2	1:AA:1331:G:O2'	2.69	0.45
1:AA:434:U:H2'	1:AA:435:C:H6	1.81	0.45
2:AB:82:ARG:HG3	2:AB:92:TYR:CZ	2.51	0.45
1:AA:1152:A:H5'	10:AJ:13:HIS:CG	2.52	0.45
15:AO:18:PHE:HB2	15:AO:19:PRO:HD2	1.98	0.45
23:BA:1173:G:O2'	23:BA:1174:A:O5'	2.34	0.45
23:BA:1494:A:C6	23:BA:1495:A:C6	3.04	0.45
23:BA:774:A:N3	23:BA:774:A:H2'	2.31	0.45
28:BG:149:VAL:HG22	28:BG:150:ASP:O	2.17	0.45
30:BI:9:LEU:HD21	30:BI:35:LEU:HD13	1.98	0.45
36:BS:101:LEU:HD23	36:BS:102:ALA:H	1.81	0.45
36:BS:34:HIS:O	36:BS:97:ARG:NH2	2.49	0.45
43:BZ:125:LEU:HB3	43:BZ:165:VAL:HG12	1.98	0.45
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.50	0.45
1:CA:625:G:H2'	1:CA:626:U:H6	1.81	0.45
1:CA:708:C:H2'	1:CA:709:G:H8	1.81	0.45
6:CF:61:LEU:HB3	6:CF:63:TYR:CE2	2.51	0.45
1:CA:1346:A:C5	7:CG:10:ARG:NH2	2.84	0.45
9:CI:26:VAL:HG22	9:CI:61:ALA:N	2.30	0.45
10:CJ:8:LEU:HD13	10:CJ:19:SER:OG	2.16	0.45
23:DA:1003:G:N2	23:DA:1153:C:C2	2.84	0.45
23:DA:1327:C:P	56:DA:4835:HOH:O	2.74	0.45
23:DA:2110:G:OP1	23:DA:2118:U:N3	2.47	0.45
23:DA:2549:G:H5"	23:DA:2549:G:H8	1.81	0.45
26:DE:101:ARG:CZ	26:DE:171:GLU:HB2	2.46	0.45
27:DF:129:PHE:HB2	27:DF:132:VAL:HG22	1.98	0.45
27:DF:179:GLU:H	27:DF:179:GLU:CD	2.19	0.45
28:DG:23:PHE:HB2	28:DG:25:TYR:CZ	2.51	0.45
28:DG:43:LEU:HD12	28:DG:43:LEU:HA	1.82	0.45
29:DH:84:SER:HA	29:DH:133:VAL:O	2.16	0.45
43:DZ:19:ARG:NH1	43:DZ:84:GLU:O	2.49	0.45
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.16	0.45
1:AA:1442(A):G:N7	1:AA:1442(B):A:N1	2.63	0.45
1:AA:473:G:H2'	1:AA:474:G:C8	2.48	0.45
2:AB:68:ILE:HG12	2:AB:161:ALA:HB3	1.97	0.45
8:AH:19:VAL:HG23	8:AH:21:LYS:HD3	1.97	0.45
10:AJ:54:PHE:C	10:AJ:55:LYS:O	2.54	0.45
10:AJ:96:ILE:H	10:AJ:96:ILE:HD12	1.81	0.45
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.41	0.45
23:BA:1020:A:N1	23:BA:1141:U:O2'	2.43	0.45
23:BA:1551:C:OP2	56:BA:5557:HOH:O	2.21	0.45
23:BA:236:C:H2'	23:BA:237:C:C6	2.51	0.45
23:BA:667:U:O2	52:B8:2:PRO:HD2	2.16	0.45
23:BA:866:A:O2'	23:BA:867:C:H5'	2.17	0.45
25:BD:10:THR:OG1	25:BD:13:ARG:HB2	2.16	0.45
27:BF:22:ALA:HB1	27:BF:24:LEU:HD22	1.98	0.45
43:BZ:35:ARG:HD2	43:BZ:35:ARG:HA	1.79	0.45
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.17	0.45
1:CA:1206:G:C6	1:CA:1207:G:C6	3.04	0.45
1:CA:1305:G:O2'	1:CA:1331:G:N2	2.42	0.45
1:CA:390:C:H2'	1:CA:391:G:C8	2.52	0.45
1:CA:684:A:C6	1:CA:685:G:C6	3.05	0.45
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.50	0.45
13:CM:49:THR:OG1	13:CM:52:GLU:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:9:ILE:HA	13:CM:10:PRO:HD3	1.47	0.45
16:CP:21:VAL:O	16:CP:33:ILE:HG12	2.17	0.45
16:CP:67:THR:H	16:CP:70:ALA:HB3	1.80	0.45
51:D7:1:MET:HB2	51:D7:1:MET:HE2	1.90	0.45
23:DA:1166:C:H2'	23:DA:1167:U:H6	1.81	0.45
23:DA:1647:G:H3'	23:DA:1647:G:P	2.56	0.45
23:DA:2319:G:N1	36:DS:3:ARG:HA	2.31	0.45
23:DA:855:G:H2'	23:DA:856:C:C6	2.51	0.45
23:DA:986:C:O2'	23:DA:987:G:H5'	2.16	0.45
30:DI:140:LEU:HD23	30:DI:140:LEU:HA	1.70	0.45
30:DI:97:ILE:O	30:DI:100:ALA:HB3	2.16	0.45
32:DO:113:LYS:H	32:DO:113:LYS:HG2	1.43	0.45
36:DS:35:ILE:HD13	36:DS:101:LEU:HD12	1.97	0.45
41:DX:41:ASN:O	41:DX:45:THR:HG23	2.16	0.45
1:AA:1227:A:C8	1:AA:1227:A:H3'	2.52	0.45
1:AA:1292:U:C2	1:AA:1293:G:N7	2.85	0.45
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.16	0.45
1:AA:841:U:C5	1:AA:848:C:H1'	2.52	0.45
3:AC:178:LEU:HA	3:AC:178:LEU:HD13	1.63	0.45
12:AL:54:LYS:N	12:AL:54:LYS:HD2	2.31	0.45
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.16	0.45
51:B7:24:THR:O	51:B7:28:ARG:HG3	2.16	0.45
23:BA:615:G:OP1	27:BF:40:GLN:NE2	2.47	0.45
23:BA:671:C:H2'	23:BA:672:C:C6	2.51	0.45
30:BI:47:LEU:HA	30:BI:47:LEU:HD23	1.76	0.45
23:BA:604:G:OP2	33:BP:90:ARG:NH1	2.50	0.45
37:BT:119:LYS:O	37:BT:123:GLN:HG2	2.17	0.45
1:CA:1128:C:H5	1:CA:1139:G:HO2'	1.64	0.45
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.82	0.45
1:CA:6:G:C4	5:CE:119:LEU:HD11	2.51	0.45
1:CA:69:G:C2	1:CA:70:G:C8	3.04	0.45
1:CA:69:G:H2'	1:CA:70:G:H8	1.80	0.45
1:CA:797:C:O2'	1:CA:798:G:H5'	2.16	0.45
2:CB:21:ARG:HB3	2:CB:39:ILE:HG12	1.98	0.45
8:CH:25:ASP:OD2	8:CH:60:ARG:HG3	2.16	0.45
12:CL:24:VAL:O	12:CL:26:ALA:N	2.48	0.45
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.80	0.45
17:CQ:66:SER:OG	17:CQ:67:LYS:O	2.34	0.45
23:DA:634:C:H2'	23:DA:635:C:C6	2.51	0.45
23:DA:64:A:O3'	41:DX:71:GLY:HA3	2.16	0.45
26:DE:143:ASN:HB2	26:DE:147:PRO:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DQ:134:ARG:O	34:DQ:138:ASP:HB2	2.16	0.45
40:DW:65:LEU:HD12	40:DW:68:ARG:HE	1.79	0.45
1:AA:540:G:H2'	1:AA:541:G:O4'	2.16	0.45
3:AC:19:GLU:HG3	3:AC:40:ARG:NH2	2.32	0.45
9:AI:99:LEU:HB3	9:AI:101:PHE:CD1	2.51	0.45
15:AO:26:GLU:HG2	15:AO:26:GLU:H	1.31	0.45
17:AQ:60:ILE:HG12	17:AQ:61:GLU:N	2.30	0.45
23:BA:9:U:O2'	23:BA:10:G:OP1	2.31	0.45
23:BA:1175:U:H4'	23:BA:1176:G:OP1	2.16	0.45
23:BA:1177:A:H3'	23:BA:1177:A:OP1	2.17	0.45
23:BA:1588:C:H2'	23:BA:1589:C:C6	2.51	0.45
23:BA:2683:C:O2	32:BO:70:LYS:NZ	2.31	0.45
23:BA:2789:C:O3'	23:BA:2790:A:H4'	2.17	0.45
23:BA:708:C:C6	23:BA:708:C:H5"	2.51	0.45
25:BD:134:ARG:HD3	25:BD:135:PHE:CZ	2.52	0.45
27:BF:8:GLN:HB3	27:BF:19:GLU:CG	2.47	0.45
27:BF:20:LEU:O	27:BF:21:ALA:O	2.34	0.45
30:BI:130:TYR:HB3	30:BI:138:ILE:HB	1.99	0.45
1:CA:941:G:C6	1:CA:1343:G:C6	3.05	0.45
1:CA:1452:C:HO2'	1:CA:1456:G:P	2.39	0.45
1:CA:1530:G:OP1	1:CA:1530:G:H4'	2.16	0.45
1:CA:841:U:H6	1:CA:841:U:OP1	1.99	0.45
15:CO:24:SER:O	15:CO:26:GLU:N	2.50	0.45
23:DA:118:A:N3	23:DA:178:G:H1'	2.31	0.45
23:DA:2713:A:N3	23:DA:2713:A:H2'	2.31	0.45
23:DA:2745:C:C4	23:DA:2746:U:C4	3.04	0.45
23:DA:2793:G:H2'	23:DA:2794:C:O4'	2.17	0.45
23:DA:2793:G:N2	23:DA:2804:C:H1'	2.31	0.45
23:DA:71:A:N7	41:DX:31:HIS:HE1	2.14	0.45
24:DB:37:C:C5	24:DB:38:C:C4	3.05	0.45
1:AA:1086:U:H2'	1:AA:1087:G:H8	1.81	0.45
1:AA:1240:U:P	7:AG:116:ALA:HB2	2.56	0.45
1:AA:1296:C:H4'	1:AA:1302:U:C4	2.52	0.45
1:AA:474:G:H2'	1:AA:475:G:C8	2.52	0.45
1:AA:622:A:C8	1:AA:623:C:C6	3.05	0.45
2:AB:101:MET:C	2:AB:102:LEU:HD12	2.37	0.45
5:AE:31:LEU:HD23	5:AE:45:PHE:HB2	1.97	0.45
5:AE:8:GLU:HA	5:AE:33:VAL:O	2.16	0.45
13:AM:96:LEU:HD13	13:AM:97:PRO:HD2	1.97	0.45
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.51	0.45
19:AS:36:ARG:NH2	19:AS:72:GLY:O	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:83:G:N2	23:BA:102:G:H1'	2.31	0.45
23:BA:171:G:H2'	23:BA:172:C:C6	2.50	0.45
23:BA:2115:G:H21	23:BA:2171:A:H61	1.64	0.45
23:BA:2208:A:H1'	23:BA:2219:G:C5	2.52	0.45
23:BA:481:G:C4	23:BA:507:A:C2	3.04	0.45
26:BE:75:VAL:HG13	26:BE:77:ILE:H	1.82	0.45
1:CA:775:G:C2'	1:CA:776:G:H5'	2.47	0.45
1:CA:948:C:N4	56:CA:2018:HOH:O	2.49	0.45
1:CA:992:U:HO2'	1:CA:993:G:P	2.29	0.45
3:CC:130:VAL:HG12	3:CC:131:ARG:H	1.81	0.45
13:CM:70:LEU:O	13:CM:74:VAL:HG23	2.16	0.45
17:CQ:60:ILE:O	17:CQ:62:SER:OG	2.34	0.45
23:DA:1455:G:P	56:DA:4907:HOH:O	2.74	0.45
23:DA:646:A:H2'	23:DA:647:G:O4'	2.17	0.45
25:DD:10:THR:OG1	25:DD:13:ARG:HB2	2.16	0.45
27:DF:129:PHE:CE2	27:DF:163:VAL:HG11	2.52	0.45
29:DH:149:ARG:NH1	29:DH:167:GLU:OE1	2.49	0.45
37:DT:23:ARG:HG3	37:DT:120:ARG:NH1	2.32	0.45
43:DZ:76:LEU:HA	43:DZ:76:LEU:HD12	1.81	0.45
1:AA:1216:G:OP1	14:AN:2:ALA:HA	2.16	0.45
1:AA:1305:G:O2'	1:AA:1331:G:N2	2.50	0.45
1:AA:952:U:H4'	1:AA:964:A:N1	2.32	0.45
7:AG:26:PHE:O	7:AG:30:ILE:HG13	2.17	0.45
52:B8:61:LEU:C	52:B8:63:PRO:HD3	2.37	0.45
23:BA:1581:G:H2'	23:BA:1582:C:O4'	2.17	0.45
23:BA:2291:U:H2'	23:BA:2292:C:C6	2.52	0.45
23:BA:244:A:C2	23:BA:255:A:C4	3.05	0.45
23:BA:414:C:H2'	23:BA:415:A:C8	2.51	0.45
23:BA:2319:G:C2	36:BS:3:ARG:HA	2.51	0.45
1:CA:107:G:H2'	1:CA:108:G:O4'	2.17	0.45
1:CA:1160:G:N3	1:CA:1160:G:H2'	2.32	0.45
1:CA:1277:C:C2'	1:CA:1278:U:H5'	2.46	0.45
1:CA:230:G:H2'	1:CA:231:G:O4'	2.17	0.45
1:CA:519:C:H2'	1:CA:520:A:C8	2.51	0.45
1:CA:942:G:H2'	1:CA:943:U:H6	1.82	0.45
1:CA:965:A:C2	1:CA:969:A:C2	3.05	0.45
4:CD:190:ASP:N	4:CD:190:ASP:OD1	2.50	0.45
6:CF:22:GLU:OE2	6:CF:82:ARG:HG2	2.17	0.45
7:CG:99:LEU:HB3	7:CG:103:TRP:CZ3	2.51	0.45
9:CI:99:LEU:HB3	9:CI:101:PHE:CE1	2.52	0.45
10:CJ:16:LEU:HD23	10:CJ:16:LEU:HA	1.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1204:A:N6	23:DA:1240:U:H2'	2.30	0.45
23:DA:1899:G:H2'	23:DA:1899:G:N3	2.31	0.45
23:DA:2208:A:H1'	23:DA:2219:G:C5	2.50	0.45
23:DA:2312:U:H5'	28:DG:88:ILE:HD11	1.99	0.45
23:DA:2327:A:H2'	23:DA:2328:A:H8	1.81	0.45
23:DA:475:U:C4	23:DA:481:G:O6	2.69	0.45
37:DT:2:ASN:O	37:DT:6:LEU:HD22	2.17	0.45
1:AA:671:G:H2'	1:AA:672:U:C6	2.50	0.45
10:AJ:55:LYS:O	10:AJ:56:HIS:CB	2.65	0.45
1:AA:35:G:O2'	12:AL:118:SER:O	2.23	0.45
13:AM:108:ARG:HD3	13:AM:108:ARG:HA	1.76	0.45
13:AM:15:VAL:HG23	13:AM:41:PRO:HA	1.98	0.45
1:AA:1318:A:H4'	19:AS:10:PHE:CZ	2.52	0.45
19:AS:36:ARG:HB3	19:AS:72:GLY:HA3	1.99	0.45
22:AY:84:GLN:O	22:AY:88:LEU:HG	2.17	0.45
23:BA:1047:G:HO2'	23:BA:1048:A:P	2.37	0.45
23:BA:1125:G:H5'	53:B9:37:GLY:HA2	1.97	0.45
23:BA:1149:G:H2'	23:BA:1150:C:C6	2.52	0.45
23:BA:2110:G:OP1	23:BA:2118:U:N3	2.49	0.45
23:BA:2687:U:H2'	23:BA:2688:U:O4'	2.15	0.45
34:BQ:1:MET:HG2	34:BQ:2:LEU:H	1.82	0.45
1:CA:1088:G:C6	1:CA:1089:G:N7	2.84	0.45
1:CA:1201:A:O2'	1:CA:1202:G:OP2	2.18	0.45
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.22	0.45
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.51	0.45
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.50	0.45
13:CM:65:LYS:HA	13:CM:66:LEU:CB	2.45	0.45
16:CP:52:ASP:OD2	16:CP:55:ARG:HG2	2.16	0.45
44:D0:14:ARG:HB2	44:D0:14:ARG:HH11	1.82	0.45
46:D2:51:ARG:O	46:D2:55:ARG:HD2	2.17	0.45
23:DA:1721:G:H5'	23:DA:1722:A:OP2	2.16	0.45
23:DA:2134:A:C2	23:DA:2159:G:H4'	2.51	0.45
23:DA:459:U:OP2	23:DA:469:G:N1	2.39	0.45
26:DE:52:LEU:O	26:DE:76:ARG:N	2.38	0.45
30:DI:4:ILE:HD11	30:DI:44:LEU:CD1	2.47	0.45
31:DN:108:PRO:O	31:DN:113:GLY:HA3	2.16	0.45
36:DS:74:ALA:HA	36:DS:110:LEU:HD22	1.99	0.45
43:DZ:91:LEU:HA	43:DZ:91:LEU:HD12	1.75	0.45
1:AA:142:G:H2'	1:AA:143:A:H8	1.82	0.45
4:AD:162:LEU:HA	4:AD:162:LEU:HD23	1.83	0.45
5:AE:139:LEU:HD23	5:AE:142:LEU:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:86:CYS:SG	13:AM:86:CYS:O	2.74	0.45
19:AS:20:LEU:HD21	19:AS:43:GLU:HG2	1.99	0.45
23:BA:2104:G:N2	23:BA:2105:C:C2	2.85	0.45
23:BA:2152:G:H2'	23:BA:2153:G:H8	1.82	0.45
23:BA:2172:U:H4'	23:BA:2173:A:OP2	2.16	0.45
28:BG:13:GLU:H	28:BG:13:GLU:HG3	1.55	0.45
30:BI:17:GLN:HG2	30:BI:18:VAL:N	2.32	0.45
1:CA:102:G:H2'	1:CA:103:C:H6	1.81	0.45
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.51	0.45
1:CA:1187:G:OP1	9:CI:113:LYS:HE2	2.16	0.45
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.36	0.45
1:CA:765:G:H5"	1:CA:766:A:OP1	2.17	0.45
3:CC:179:ARG:HH21	3:CC:206:GLU:CD	2.21	0.45
15:CO:18:PHE:HB2	15:CO:19:PRO:HD2	1.98	0.45
1:CA:750:G:N2	15:CO:23:GLY:HA3	2.32	0.45
17:CQ:13:ASP:N	17:CQ:13:ASP:OD1	2.50	0.45
17:CQ:45:HIS:HB2	17:CQ:65:ILE:HD13	1.99	0.45
20:CT:87:LYS:O	20:CT:91:LEU:HG	2.16	0.45
45:D1:21:ARG:HH11	45:D1:21:ARG:CG	2.18	0.45
23:DA:1239:G:H2'	23:DA:1240:U:O4'	2.17	0.45
23:DA:1507:A:O2'	23:DA:1508:A:C8	2.70	0.45
23:DA:2336:A:H61	44:D0:43:THR:CG2	2.30	0.45
28:DG:43:LEU:HB3	28:DG:44:GLY:H	1.54	0.45
30:DI:127:VAL:HA	30:DI:140:LEU:O	2.17	0.45
43:DZ:141:VAL:O	43:DZ:144:LEU:HB2	2.17	0.45
43:DZ:5:LEU:O	43:DZ:59:LEU:HA	2.17	0.45
1:AA:21:G:H2'	1:AA:22:G:C8	2.52	0.45
1:AA:559:A:H4'	1:AA:560:U:H3'	1.99	0.45
1:AA:967:C:H6	1:AA:967:C:O5'	1.99	0.45
17:AQ:13:ASP:OD1	17:AQ:13:ASP:N	2.50	0.45
20:AT:33:ILE:O	20:AT:37:SER:OG	2.30	0.45
48:B4:36:CYS:SG	48:B4:38:LYS:O	2.75	0.45
23:BA:1049:C:O2'	23:BA:1050:A:P	2.75	0.45
23:BA:1204:A:N6	23:BA:1240:U:H2'	2.32	0.45
23:BA:1540:U:H2'	23:BA:1541:G:O4'	2.16	0.45
23:BA:2564:A:C2	23:BA:2647:U:H4'	2.51	0.45
23:BA:2772:C:H2'	23:BA:2773:C:C6	2.51	0.45
43:BZ:151:HIS:C	43:BZ:153:SER:H	2.20	0.45
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.14	0.45
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.51	0.45
1:CA:38:G:C2	1:CA:397:A:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:403:C:P	4:CD:137:SER:OG	2.75	0.45
1:CA:877:C:H5"	8:CH:88:LYS:HD3	1.99	0.45
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.17	0.45
4:CD:36:ARG:HG2	4:CD:38:TYR:CZ	2.52	0.45
9:CI:28:VAL:N	9:CI:31:GLN:O	2.32	0.45
16:CP:53:VAL:O	16:CP:56:ALA:N	2.50	0.45
17:CQ:24:GLU:OE2	17:CQ:37:LYS:HD3	2.17	0.45
23:DA:1292:U:H2'	23:DA:1293:C:C6	2.52	0.45
23:DA:1530:C:O2'	23:DA:1531:C:P	2.75	0.45
23:DA:919:G:N2	23:DA:2269:A:OP2	2.48	0.45
23:DA:2815:C:H5'	49:D5:29:THR:HG21	1.99	0.45
23:DA:2854:G:H2'	23:DA:2855:C:C6	2.52	0.45
30:DI:120:ILE:HG21	30:DI:126:TYR:CE1	2.52	0.45
35:DR:109:ALA:HA	35:DR:110:PRO:HD2	1.83	0.45
1:AA:165:C:H2'	1:AA:166:G:H8	1.77	0.45
1:AA:44:G:H2'	1:AA:45:U:O4'	2.16	0.45
1:AA:721:G:H4'	1:AA:722:A:O4'	2.16	0.45
1:AA:790:A:C2	22:AY:29:LYS:HD3	2.52	0.45
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.32	0.45
19:AS:58:VAL:HA	19:AS:59:PRO:HD3	1.72	0.45
23:BA:1021:A:C3'	23:BA:1021:A:C8	3.00	0.45
23:BA:1669:A:H5"	23:BA:2550:G:OP1	2.17	0.45
23:BA:615:G:OP1	27:BF:40:GLN:HG2	2.17	0.45
27:BF:140:LEU:HA	27:BF:140:LEU:HD13	1.85	0.45
34:BQ:109:VAL:HG13	34:BQ:113:GLN:HB2	1.98	0.45
34:BQ:134:ARG:O	34:BQ:138:ASP:HB2	2.17	0.45
43:BZ:111:VAL:HG12	43:BZ:112:ARG:H	1.82	0.45
1:CA:436:C:H1'	1:CA:437:U:H5'	1.99	0.45
7:CG:15:ASP:O	7:CG:19:GLY:N	2.49	0.45
9:CI:26:VAL:CG1	9:CI:61:ALA:HB3	2.45	0.45
16:CP:72:ARG:HE	16:CP:73:LEU:HD23	1.82	0.45
23:DA:1124:C:H1'	53:D9:36:GLN:NE2	2.32	0.45
23:DA:1270:C:H5"	23:DA:1271:G:O5'	2.17	0.45
23:DA:13:A:N1	23:DA:525:U:H2'	2.31	0.45
25:DD:71:ASP:CB	25:DD:103:ARG:HH22	2.29	0.45
26:DE:51:PHE:CD1	26:DE:52:LEU:HD22	2.52	0.45
23:DA:2294:C:P	36:DS:89:ARG:HH22	2.39	0.45
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.52	0.44
1:AA:195:A:C6	1:AA:196:A:N1	2.85	0.44
1:AA:373:A:C2	1:AA:374:A:C8	3.05	0.44
16:AP:71:ARG:O	16:AP:75:ARG:N	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HD12	1.98	0.44
23:BA:1019:U:O2'	23:BA:1021:A:H2	1.80	0.44
23:BA:1497:U:H5"	23:BA:1498:C:H5	1.82	0.44
23:BA:2064:C:H2'	23:BA:2065:C:C6	2.52	0.44
23:BA:892:G:O5'	23:BA:892:G:H8	2.00	0.44
23:BA:897:C:H6	23:BA:897:C:O5'	2.01	0.44
23:BA:945:A:H2	56:BA:4190:HOH:O	1.98	0.44
1:CA:1151:A:C2	1:CA:1152:A:C5	3.04	0.44
1:CA:1261:A:H5'	1:CA:1283:G:O3'	2.18	0.44
1:CA:1392:G:H21	1:CA:1502:A:H8	1.65	0.44
1:CA:21:G:H2'	1:CA:22:G:C8	2.52	0.44
1:CA:380:G:N2	1:CA:384:G:C5	2.84	0.44
1:CA:950:U:H2'	1:CA:951:G:C8	2.52	0.44
3:CC:187:ALA:O	3:CC:198:VAL:HG23	2.16	0.44
1:CA:427:U:P	4:CD:13:ARG:HH22	2.39	0.44
5:CE:139:LEU:HD23	5:CE:142:LEU:HD11	1.99	0.44
7:CG:72:ARG:NH1	7:CG:142:GLU:OE1	2.50	0.44
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.17	0.44
1:CA:1115:C:H1'	14:CN:61:TRP:O	2.16	0.44
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.52	0.44
23:DA:1549:C:H2'	23:DA:1550:C:C6	2.52	0.44
23:DA:185:U:H4'	23:DA:218:A:H4'	1.99	0.44
23:DA:2391:G:O6	23:DA:2425:A:H8	2.00	0.44
23:DA:789:A:N1	56:DA:4269:HOH:O	2.36	0.44
36:DS:39:ILE:HD12	36:DS:85:VAL:HG21	1.98	0.44
1:AA:1300:G:O2'	1:AA:1301:U:H6	1.99	0.44
1:AA:1441:G:N2	1:AA:1459:C:C6	2.81	0.44
1:AA:397:A:N3	1:AA:397:A:H3'	2.32	0.44
1:AA:939:G:H2'	1:AA:940:C:C6	2.52	0.44
4:AD:10:ARG:HG3	4:AD:11:LEU:HD12	1.98	0.44
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.99	0.44
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	1.99	0.44
1:AA:1226:C:OP1	13:AM:91:ARG:NH1	2.50	0.44
17:AQ:24:GLU:OE2	17:AQ:37:LYS:HD3	2.16	0.44
45:B1:85:LEU:HB3	45:B1:89:GLU:HG3	1.98	0.44
23:BA:1638:C:H4'	23:BA:2710:C:O2	2.17	0.44
23:BA:184:C:H2'	23:BA:185:U:C6	2.53	0.44
23:BA:2147:G:H2'	23:BA:2148:G:C4'	2.47	0.44
23:BA:247:G:H4'	23:BA:386:G:C5	2.53	0.44
23:BA:252:G:P	33:BP:50:ARG:HH12	2.40	0.44
23:BA:2713:A:N3	23:BA:2713:A:H2'	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:848:G:H2'	23:BA:849:A:C8	2.52	0.44
23:BA:958:U:H5"	34:BQ:14:ARG:HD3	1.98	0.44
35:BR:26:LYS:HE2	35:BR:70:LEU:O	2.17	0.44
36:BS:59:LYS:HE2	36:BS:60:GLY:HA2	1.98	0.44
42:BY:76:CYS:HA	42:BY:77:PRO:HD3	1.90	0.44
43:BZ:144:LEU:HD21	43:BZ:150:LEU:HG	1.99	0.44
1:CA:1103:C:N3	1:CA:1104:G:C8	2.85	0.44
1:CA:1116:C:H2'	1:CA:1117:G:H5"	1.97	0.44
1:CA:922:G:N3	1:CA:1398:A:C2	2.82	0.44
1:CA:690:G:C6	1:CA:691:G:C6	3.05	0.44
3:CC:45:LYS:O	3:CC:47:LEU:N	2.48	0.44
9:CI:45:ALA:HB1	9:CI:47:LEU:N	2.31	0.44
22:CY:44:GLU:HB3	22:CY:47:GLY:C	2.38	0.44
23:DA:181:A:H1'	23:DA:435:C:H5'	1.98	0.44
24:DB:13:A:C2	24:DB:16:G:H1'	2.51	0.44
27:DF:47:GLY:HA3	27:DF:95:ARG:O	2.17	0.44
36:DS:97:ARG:O	36:DS:100:ALA:HB3	2.18	0.44
1:AA:77:G:O6	1:AA:78:G:N1	2.50	0.44
1:AA:814:A:N7	1:AA:816:A:C4	2.85	0.44
1:AA:858:G:O6	1:AA:869:G:H3'	2.17	0.44
1:AA:909:A:H2'	1:AA:910:C:O4'	2.18	0.44
1:AA:965:A:OP2	22:AY:8:LYS:NZ	2.51	0.44
17:AQ:88:TYR:CD2	17:AQ:89:LEU:HD23	2.53	0.44
23:BA:1866:C:H2'	23:BA:1876:A:O4'	2.17	0.44
23:BA:2308:G:O2'	23:BA:2310:A:N7	2.50	0.44
23:BA:2674:G:H2'	23:BA:2675:A:C8	2.52	0.44
23:BA:958:U:O2'	23:BA:959:A:OP2	2.35	0.44
23:BA:1803:A:H4'	25:BD:259:THR:HG23	1.98	0.44
1:CA:1372:U:C4	1:CA:1373:G:C4	3.06	0.44
1:CA:414:A:H2'	1:CA:415:A:H8	1.80	0.44
1:CA:719:C:O2	18:CR:50:ILE:HG12	2.17	0.44
1:CA:909:A:H2'	1:CA:910:C:O4'	2.16	0.44
2:CB:51:LEU:O	2:CB:55:PHE:HD2	2.00	0.44
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.17	0.44
20:CT:56:MET:HG3	20:CT:57:ARG:N	2.31	0.44
22:CY:26:LYS:HD3	22:CY:82:GLU:OE2	2.17	0.44
49:D5:11:THR:HG23	49:D5:15:ARG:HB3	1.98	0.44
23:DA:1185:C:H5"	23:DA:1186:G:OP1	2.17	0.44
23:DA:1379:A:H8	23:DA:1379:A:O5'	2.00	0.44
23:DA:2564:A:C2	23:DA:2647:U:H4'	2.52	0.44
23:DA:2778:A:O2'	23:DA:2781:A:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:526:A:H5"	23:DA:527:C:OP1	2.17	0.44
23:DA:887:A:H1'	23:DA:889:C:OP2	2.16	0.44
36:DS:101:LEU:HD23	36:DS:102:ALA:H	1.82	0.44
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.52	0.44
1:AA:951:G:C6	1:AA:1231:G:C6	3.05	0.44
1:AA:391:G:C6	1:AA:392:G:C5	3.05	0.44
1:AA:428:G:O2'	1:AA:429:U:OP2	2.30	0.44
3:AC:12:LEU:HD23	3:AC:12:LEU:HA	1.86	0.44
1:AA:750:G:C2	15:AO:23:GLY:HA3	2.52	0.44
16:AP:67:THR:H	16:AP:70:ALA:HB3	1.82	0.44
23:BA:1530:C:H2'	23:BA:1530:C:H6	1.60	0.44
23:BA:1700:A:H2'	23:BA:1701:A:O5'	2.17	0.44
23:BA:2009:G:OP1	40:BW:41:LYS:HE2	2.18	0.44
23:BA:2722:G:H2'	23:BA:2723:C:C6	2.53	0.44
27:BF:129:PHE:HB2	27:BF:132:VAL:HG22	1.99	0.44
35:BR:21:TYR:OH	35:BR:43:GLU:HG2	2.17	0.44
35:BR:51:LEU:HD23	35:BR:51:LEU:HA	1.81	0.44
40:BW:83:LYS:O	40:BW:84:ARG:HD3	2.17	0.44
1:CA:105:G:H2'	1:CA:106:C:C6	2.53	0.44
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.35	0.44
1:CA:1321:C:H5"	1:CA:1322:C:H5"	1.99	0.44
1:CA:685:G:C2	1:CA:686:U:C4	3.05	0.44
1:CA:959:A:H2'	1:CA:960:U:H4'	2.00	0.44
2:CB:133:LYS:O	2:CB:137:ARG:HG3	2.18	0.44
3:CC:136:GLN:O	3:CC:139:GLN:N	2.51	0.44
5:CE:59:GLY:O	5:CE:62:ALA:HB3	2.17	0.44
8:CH:51:VAL:HG11	8:CH:60:ARG:HH11	1.81	0.44
9:CI:83:ARG:HA	9:CI:86:VAL:HG22	1.99	0.44
14:CN:23:ARG:HD3	14:CN:29:ARG:O	2.17	0.44
14:CN:7:ILE:HG12	14:CN:23:ARG:HG2	2.00	0.44
45:D1:51:VAL:HG11	45:D1:74:VAL:HG21	1.99	0.44
45:D1:82:LEU:HA	45:D1:85:LEU:CD2	2.42	0.44
23:DA:2134:A:N6	23:DA:2157:G:H5'	2.32	0.44
23:DA:242:G:C8	52:D8:5:LYS:HG2	2.52	0.44
23:DA:2534:A:H3'	23:DA:2535:G:H5"	2.00	0.44
23:DA:1783:A:H5'	23:DA:2608:G:H4'	1.98	0.44
23:DA:330:A:O2'	23:DA:331:A:C8	2.69	0.44
30:DI:83:ALA:HB1	30:DI:87:LYS:O	2.17	0.44
31:DN:18:ALA:O	31:DN:19:GLU:HB3	2.17	0.44
33:DP:6:LEU:HA	33:DP:6:LEU:HD23	1.87	0.44
34:DQ:57:HIS:NE2	34:DQ:116:GLU:HB3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DQ:16:ARG:O	34:DQ:17:LEU:HD23	2.17	0.44
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.82	0.44
1:AA:455:C:H6	1:AA:455:C:O5'	2.00	0.44
1:AA:625:G:H2'	1:AA:626:U:H6	1.82	0.44
6:AF:75:LEU:O	6:AF:79:LEU:HG	2.17	0.44
46:B2:50:ILE:O	46:B2:51:ARG:HB3	2.17	0.44
23:BA:1794:U:H2'	23:BA:1795:C:H6	1.82	0.44
23:BA:2172:U:H1'	23:BA:2173:A:OP1	2.18	0.44
23:BA:2793:G:H2'	23:BA:2794:C:O4'	2.17	0.44
32:BO:115:VAL:HG13	32:BO:121:VAL:HG21	2.00	0.44
38:BU:92:ARG:HG2	38:BU:92:ARG:H	1.74	0.44
1:CA:1279:A:H5"	1:CA:1280:A:OP1	2.18	0.44
4:CD:193:ASP:OD2	56:CD:401:HOH:O	2.21	0.44
7:CG:111:ARG:NH1	7:CG:122:HIS:HB3	2.31	0.44
16:CP:28:ARG:CG	16:CP:28:ARG:HH11	2.26	0.44
23:DA:1745(A):C:H5'	23:DA:1746:G:OP2	2.17	0.44
23:DA:2122:U:H2'	23:DA:2123:G:C8	2.50	0.44
23:DA:2172:U:H4'	23:DA:2173:A:OP2	2.17	0.44
23:DA:2670:A:O2'	23:DA:2671:A:H5'	2.17	0.44
23:DA:769:G:O2'	23:DA:770:G:H5'	2.17	0.44
23:DA:830:G:H4'	23:DA:831:G:OP2	2.17	0.44
23:DA:864:G:N2	23:DA:913:U:C2	2.85	0.44
28:DG:3:LEU:HG	28:DG:3:LEU:H	1.67	0.44
28:DG:66:GLN:HE21	28:DG:66:GLN:HB3	1.67	0.44
32:DO:63:VAL:HG12	32:DO:106:LEU:HD11	1.98	0.44
35:DR:70:LEU:HA	35:DR:70:LEU:HD23	1.57	0.44
39:DV:29:PRO:HA	39:DV:61:VAL:HG22	2.00	0.44
1:AA:10:A:OP2	5:AE:126:ARG:HD2	2.17	0.44
1:AA:1442(A):G:C5	1:AA:1442(B):A:C6	3.06	0.44
1:AA:36:C:OP1	12:AL:123:LYS:NZ	2.50	0.44
1:AA:519:C:H2'	1:AA:520:A:C8	2.52	0.44
1:AA:76:C:O2'	1:AA:77:G:OP1	2.30	0.44
4:AD:94:LEU:O	4:AD:97:LEU:HB2	2.18	0.44
5:AE:57:LYS:HB3	5:AE:61:TYR:CE2	2.53	0.44
13:AM:4:ILE:HG12	13:AM:5:ALA:H	1.81	0.44
23:BA:1488:G:C8	23:BA:1488:G:H5"	2.51	0.44
23:BA:2096:U:H3	23:BA:2193:G:H1	1.66	0.44
23:BA:740:U:H2'	23:BA:741:G:C8	2.52	0.44
26:BE:173:VAL:CG2	26:BE:185:LYS:HB2	2.48	0.44
26:BE:59:VAL:O	26:BE:64:LYS:HE3	2.18	0.44
27:BF:11:VAL:HB	27:BF:18:ARG:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:116:LEU:HD22	30:BI:118:LYS:O	2.18	0.44
30:BI:72:LEU:O	30:BI:74:ASN:N	2.51	0.44
34:BQ:27:VAL:O	34:BQ:67:ARG:NH1	2.51	0.44
1:CA:1076:C:C2	1:CA:1082:G:N2	2.86	0.44
1:CA:1272:G:C6	1:CA:1273:G:C5	3.06	0.44
1:CA:297:G:N2	1:CA:300:A:OP2	2.49	0.44
1:CA:586:C:C2'	1:CA:587:G:H5'	2.47	0.44
7:CG:40:ALA:HB3	9:CI:41:VAL:HG21	2.00	0.44
10:CJ:63:PHE:HD1	14:CN:57:ARG:O	2.01	0.44
13:CM:67:GLU:HA	13:CM:69:GLU:O	2.18	0.44
17:CQ:57:VAL:HA	17:CQ:77:VAL:HG23	1.98	0.44
46:D2:65:ASN:OD1	46:D2:69:ARG:NH1	2.51	0.44
23:DA:1559:G:OP2	56:DA:4887:HOH:O	2.20	0.44
23:DA:1866:C:H2'	23:DA:1876:A:O4'	2.17	0.44
23:DA:2483:C:N3	34:DQ:124:LYS:NZ	2.62	0.44
23:DA:320:A:H4'	23:DA:322:A:N7	2.33	0.44
23:DA:493:G:H2'	23:DA:494:G:O4'	2.18	0.44
23:DA:720:C:H2'	23:DA:721:C:H6	1.82	0.44
25:DD:134:ARG:HD3	25:DD:135:PHE:CZ	2.51	0.44
31:DN:24:GLY:HA2	31:DN:27:ALA:CB	2.48	0.44
23:DA:1022:G:N7	31:DN:66:LYS:HE2	2.33	0.44
33:DP:1:MET:HE3	33:DP:5:ASP:HB2	2.00	0.44
37:DT:119:LYS:O	37:DT:123:GLN:HG2	2.18	0.44
23:DA:2009:G:OP1	40:DW:41:LYS:HE2	2.17	0.44
42:DY:23:ARG:HH11	42:DY:23:ARG:HB2	1.82	0.44
43:DZ:178:GLU:HA	43:DZ:178:GLU:OE2	2.18	0.44
1:AA:67:C:H4'	1:AA:172:A:C4'	2.48	0.44
1:AA:832:C:O2'	1:AA:833:U:P	2.76	0.44
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	2.00	0.44
1:AA:1318:A:H4'	19:AS:10:PHE:CE1	2.52	0.44
23:BA:1379:A:H8	23:BA:1379:A:O5'	2.01	0.44
23:BA:1503:U:H2'	23:BA:1504:C:H6	1.83	0.44
23:BA:1939:U:OP1	23:BA:2604:U:O2'	2.31	0.44
23:BA:2275:C:H5'	23:BA:2275:C:H6	1.81	0.44
23:BA:1297:C:OP1	23:BA:2710:C:H4'	2.18	0.44
23:BA:579:G:H2'	23:BA:580:C:C6	2.53	0.44
29:BH:3:ARG:HG2	29:BH:6:ARG:HG2	1.99	0.44
35:BR:70:LEU:HD23	35:BR:70:LEU:HA	1.72	0.44
43:BZ:6:LYS:HD3	43:BZ:8:TYR:OH	2.17	0.44
1:CA:1012:U:H2'	1:CA:1013:G:O4'	2.16	0.44
1:CA:1124:G:H8	1:CA:1124:G:OP2	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1505:G:H4'	1:CA:1506:U:H5"	1.98	0.44
1:CA:954:G:C5	1:CA:955:U:C4	3.06	0.44
12:CL:27:LEU:CB	12:CL:33:ARG:HD3	2.48	0.44
14:CN:3:ARG:HB3	14:CN:3:ARG:HE	1.53	0.44
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.18	0.44
44:D0:56:ASP:CG	44:D0:58:THR:HG1	2.21	0.44
46:D2:21:LEU:HD23	46:D2:21:LEU:HA	1.86	0.44
23:DA:1005:C:H2'	23:DA:1006:C:C6	2.52	0.44
23:DA:1263:U:C4	23:DA:1264:G:C6	3.05	0.44
23:DA:2137:C:C2	23:DA:2154:G:N2	2.85	0.44
23:DA:2198:A:O2'	23:DA:2224:G:N2	2.50	0.44
23:DA:2630:G:H2'	23:DA:2631:G:O4'	2.18	0.44
23:DA:831:G:O2'	33:DP:38:GLN:HG2	2.18	0.44
37:DT:16:ARG:HB2	37:DT:79:HIS:ND1	2.32	0.44
43:DZ:138:GLU:H	43:DZ:156:LYS:HZ1	1.65	0.44
1:AA:64:G:H4'	1:AA:65:U:H3'	1.99	0.44
1:AA:891:U:OP1	56:AA:2083:HOH:O	2.21	0.44
2:AB:133:LYS:O	2:AB:137:ARG:HG3	2.17	0.44
9:AI:49:PRO:O	9:AI:52:ALA:HB3	2.17	0.44
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE2	2.36	0.44
10:AJ:96:ILE:CD1	10:AJ:96:ILE:H	2.29	0.44
12:AL:71:PRO:O	12:AL:102:ARG:NH1	2.48	0.44
15:AO:31:LEU:HD23	15:AO:31:LEU:HA	1.58	0.44
23:BA:1188:U:H4'	39:BV:79:VAL:HG22	1.99	0.44
23:BA:2143:C:N3	23:BA:2148:G:O6	2.50	0.44
23:BA:2347:C:H2'	23:BA:2348:U:C6	2.53	0.44
23:BA:832:G:OP1	33:BP:38:GLN:O	2.36	0.44
23:BA:887:A:H1'	23:BA:889:C:OP2	2.18	0.44
25:BD:132:PRO:HD3	25:BD:190:TYR:CZ	2.53	0.44
26:BE:119:ARG:HG2	26:BE:160:TYR:CG	2.53	0.44
26:BE:108:SER:O	26:BE:162:ALA:HA	2.17	0.44
30:BI:81:VAL:O	30:BI:146:ALA:HA	2.17	0.44
33:BP:126:VAL:CG1	33:BP:148:LEU:HD13	2.48	0.44
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.53	0.44
1:CA:1347:G:H22	1:CA:1374:A:P	2.40	0.44
2:CB:42:ILE:HG21	2:CB:202:PRO:O	2.17	0.44
3:CC:141:VAL:HG11	3:CC:202:ILE:HG12	2.00	0.44
45:D1:58:ILE:HD11	45:D1:91:LYS:HG3	1.99	0.44
23:DA:2267:A:H2'	56:DA:4675:HOH:O	2.17	0.44
23:DA:2374:C:H3'	56:DA:5005:HOH:O	2.18	0.44
23:DA:29:U:H6	23:DA:29:U:O5'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:328:U:H4'	42:DY:68:HIS:CG	2.52	0.44
28:DG:6:ALA:HB3	28:DG:104:GLU:OE1	2.17	0.44
28:DG:64:THR:HB	28:DG:94:LEU:HD21	2.00	0.44
30:DI:62:LYS:HG2	30:DI:133:HIS:NE2	2.33	0.44
23:DA:637:A:H8	33:DP:117:GLU:HG3	1.82	0.44
33:DP:138:LEU:HA	33:DP:138:LEU:HD12	1.85	0.44
1:AA:1179:A:O3'	9:AI:103:THR:OG1	2.23	0.44
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.18	0.44
1:AA:63:C:H4'	1:AA:380:G:H4'	1.99	0.44
1:AA:750:G:H21	15:AO:23:GLY:HA3	1.83	0.44
4:AD:83:SER:HA	56:AD:403:HOH:O	2.18	0.44
5:AE:81:GLU:HB3	5:AE:88:LYS:HE2	2.00	0.44
13:AM:96:LEU:O	13:AM:110:ARG:HD3	2.17	0.44
23:BA:1495:A:H2'	23:BA:1496:A:H8	1.78	0.44
23:BA:2630:G:H2'	23:BA:2631:G:O4'	2.17	0.44
23:BA:590:A:H2'	23:BA:591:C:O4'	2.18	0.44
26:BE:73:GLU:HA	26:BE:74:PRO:HD3	1.63	0.44
1:CA:1006:C:C2'	1:CA:1007:C:H5'	2.48	0.44
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.53	0.44
1:CA:128:G:O2'	17:CQ:3:LYS:HE2	2.18	0.44
1:CA:927:G:N1	1:CA:1391:U:C2	2.85	0.44
1:CA:1426:C:H2'	1:CA:1427:U:C6	2.53	0.44
1:CA:520:A:N1	1:CA:536:C:H1'	2.33	0.44
1:CA:685:G:N2	1:CA:686:U:C4	2.86	0.44
1:CA:707:C:OP1	11:CK:85:ARG:NH1	2.48	0.44
1:CA:724:G:C2	1:CA:725:G:C8	3.06	0.44
1:CA:820:U:H4'	1:CA:821:G:OP2	2.18	0.44
3:CC:181:ASN:O	3:CC:203:PHE:HA	2.18	0.44
1:CA:619:U:O2	4:CD:133:VAL:HA	2.18	0.44
12:CL:85:ILE:HA	12:CL:85:ILE:HD13	1.69	0.44
23:DA:2420:C:OP2	52:D8:33:ASN:HB2	2.17	0.44
23:DA:530:G:C5	23:DA:2022:U:H5"	2.53	0.44
23:DA:783:A:H2'	23:DA:783:A:N3	2.32	0.44
23:DA:804:A:H5"	23:DA:805:G:OP1	2.18	0.44
24:DB:32:C:C2	24:DB:51:G:N2	2.86	0.44
36:DS:61:ASN:O	36:DS:65:VAL:HG23	2.18	0.44
37:DT:37:GLY:HA2	37:DT:38:ASN:HA	1.55	0.44
1:AA:1031:G:H2'	1:AA:1032:G:O4'	2.18	0.43
1:AA:1055:A:N6	1:AA:1206:G:C5	2.86	0.43
1:AA:380:G:C2	1:AA:384:G:C6	3.06	0.43
1:AA:624:C:H2'	1:AA:625:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:23:ARG:HH12	22:AY:26:LYS:CD	2.30	0.43
23:BA:1482:G:C6	23:BA:1507:A:C6	3.06	0.43
23:BA:234:C:H2'	23:BA:235:U:H6	1.83	0.43
23:BA:2389:G:H5"	23:BA:2390:U:O4'	2.18	0.43
23:BA:861:A:C2	23:BA:917:A:C4	3.06	0.43
23:BA:922:U:H2'	23:BA:923:C:C6	2.53	0.43
23:BA:1825:A:OP1	25:BD:249:PRO:HD3	2.18	0.43
30:BI:85:GLU:O	30:BI:86:THR:OG1	2.31	0.43
34:BQ:141:GLN:NE2	43:BZ:76:LEU:HD22	2.32	0.43
36:BS:87:PHE:CE1	36:BS:102:ALA:HB2	2.53	0.43
42:BY:20:TYR:CD2	42:BY:42:VAL:HG13	2.52	0.43
43:BZ:141:VAL:O	43:BZ:144:LEU:HB2	2.18	0.43
43:BZ:151:HIS:O	43:BZ:152:ALA:HB3	2.18	0.43
1:CA:501:C:H1'	1:CA:549:C:H1'	2.00	0.43
1:CA:56:U:H2'	1:CA:57:G:H8	1.82	0.43
1:CA:841:U:C5	1:CA:848:C:H1'	2.53	0.43
3:CC:11:ARG:O	3:CC:14:ILE:N	2.41	0.43
8:CH:112:LEU:HB3	8:CH:133:LEU:HA	2.00	0.43
19:CS:7:LYS:HD3	19:CS:7:LYS:HA	1.58	0.43
50:D6:11:LEU:HA	50:D6:11:LEU:HD23	1.74	0.43
50:D6:25:LYS:HE3	50:D6:30:THR:O	2.17	0.43
23:DA:1021:A:H62	23:DA:1141:U:H3	1.66	0.43
23:DA:1482:G:C6	23:DA:1507:A:C6	3.05	0.43
23:DA:1518:U:OP2	56:DA:4337:HOH:O	2.21	0.43
23:DA:185:U:H2'	23:DA:186:G:H8	1.83	0.43
1:CA:1493:A:N3	23:DA:1913:A:C6	2.85	0.43
23:DA:2064:C:H2'	23:DA:2065:C:C6	2.53	0.43
23:DA:245:G:O5'	33:DP:73:GLY:HA2	2.18	0.43
23:DA:465:G:C6	23:DA:466:A:N6	2.86	0.43
23:DA:481:G:C4	23:DA:507:A:C2	3.06	0.43
23:DA:813:U:H2'	23:DA:814:C:C6	2.53	0.43
34:DQ:1:MET:HG2	34:DQ:2:LEU:H	1.83	0.43
35:DR:67:LEU:HD13	35:DR:67:LEU:HA	1.73	0.43
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.50	0.43
1:AA:1244:C:C2	1:AA:1294:G:N2	2.85	0.43
1:AA:262:A:C6	1:AA:263:A:C6	3.05	0.43
1:AA:51:A:C2	1:AA:353:A:N1	2.86	0.43
2:AB:84:GLU:OE1	2:AB:216:SER:HA	2.18	0.43
4:AD:173:TRP:CE3	4:AD:193:ASP:HB3	2.54	0.43
4:AD:188:LEU:H	4:AD:188:LEU:CD2	2.27	0.43
8:AH:49:GLU:O	8:AH:51:VAL:HG13	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:881:G:P	12:AL:12:ARG:HH22	2.41	0.43
15:AO:15:PHE:CE2	15:AO:84:LYS:HD2	2.52	0.43
22:AY:23:ARG:HD2	22:AY:23:ARG:HA	1.81	0.43
46:B2:60:LEU:HD23	46:B2:60:LEU:HA	1.81	0.43
23:BA:2275:C:H5'	23:BA:2275:C:C6	2.53	0.43
23:BA:2317:C:N4	23:BA:2318:G:O6	2.51	0.43
23:BA:2778:A:O2'	23:BA:2781:A:H5'	2.18	0.43
23:BA:478:A:N1	23:BA:500:G:H4'	2.33	0.43
23:BA:601:C:O2'	23:BA:605:C:H5"	2.17	0.43
28:BG:125:PHE:HB3	28:BG:166:ASP:OD2	2.19	0.43
29:BH:84:SER:HA	29:BH:133:VAL:O	2.18	0.43
30:BI:106:GLY:HA2	30:BI:107:VAL:CB	2.47	0.43
40:BW:20:VAL:O	40:BW:23:LEU:HB2	2.17	0.43
1:CA:999:C:H2'	1:CA:1000:U:H6	1.83	0.43
1:CA:1321:C:H3'	1:CA:1322:C:H5"	2.01	0.43
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.83	0.43
1:CA:20:U:H2'	1:CA:21:G:O4'	2.18	0.43
2:CB:101:MET:C	2:CB:102:LEU:HD12	2.39	0.43
2:CB:87:ARG:NH2	2:CB:233:SER:HB2	2.33	0.43
3:CC:125:GLU:OE1	3:CC:190:ARG:N	2.41	0.43
23:DA:2279:G:O6	44:D0:14:ARG:HD2	2.18	0.43
46:D2:35:LEU:HD12	46:D2:53:LEU:HD12	2.00	0.43
23:DA:11:G:H2'	23:DA:12:U:C5'	2.48	0.43
23:DA:1840:G:C6	23:DA:1841:U:C4	3.06	0.43
23:DA:2125:G:H22	23:DA:2172:U:H5"	1.82	0.43
23:DA:2298:A:H2'	23:DA:2299:G:O4'	2.19	0.43
23:DA:2300:G:C6	23:DA:2301:C:C4	3.06	0.43
23:DA:2602:A:H1'	23:DA:2603:G:H5"	1.99	0.43
23:DA:325:G:O2'	23:DA:326:G:H5'	2.18	0.43
23:DA:927:G:H2'	23:DA:928:G:O4'	2.18	0.43
28:DG:148:MET:O	28:DG:149:VAL:HB	2.17	0.43
36:DS:26:LEU:HD22	36:DS:87:PHE:CE1	2.53	0.43
42:DY:98:VAL:HG12	42:DY:105:ALA:HA	1.99	0.43
43:DZ:93:ASP:HB2	43:DZ:131:ARG:HH22	1.83	0.43
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.99	0.43
1:AA:1281:U:H6	1:AA:1281:U:H2'	1.59	0.43
1:AA:104:G:H4'	1:AA:174:C:C4'	2.49	0.43
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.17	0.43
1:AA:911:U:OP2	12:AL:97:ARG:NH1	2.52	0.43
2:AB:189:ASP:OD1	2:AB:205:ASP:HB3	2.18	0.43
6:AF:8:ILE:HD12	6:AF:26:ILE:HD13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:552:U:H4'	12:AL:87:GLY:O	2.17	0.43
1:AA:192:U:H4'	20:AT:57:ARG:HD2	2.00	0.43
23:BA:1539:G:H2'	23:BA:1540:U:O4'	2.19	0.43
23:BA:2125:G:H22	23:BA:2172:U:H5"	1.82	0.43
23:BA:2111:C:H42	23:BA:2147:G:H22	1.66	0.43
23:BA:2318:G:O2'	23:BA:2319:G:H5"	2.19	0.43
23:BA:2576:G:H1'	56:BA:5409:HOH:O	2.18	0.43
23:BA:2854:G:H2'	23:BA:2855:C:C6	2.52	0.43
27:BF:108:LYS:O	27:BF:112:MET:HG3	2.18	0.43
28:BG:148:MET:O	28:BG:149:VAL:HB	2.19	0.43
36:BS:78:LEU:HA	36:BS:82:ILE:O	2.18	0.43
36:BS:84:GLN:HG2	36:BS:84:GLN:H	1.48	0.43
37:BT:113:LYS:O	37:BT:114:LEU:HD23	2.19	0.43
23:BA:1162:G:O2'	39:BV:90:PRO:HG2	2.18	0.43
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.53	0.43
1:CA:673:G:N2	1:CA:674:G:C2	2.86	0.43
1:CA:814:A:H2'	1:CA:816:A:H5"	1.99	0.43
7:CG:104:LEU:HA	7:CG:104:LEU:HD13	1.85	0.43
23:DA:2152:G:H2'	23:DA:2153:G:H8	1.82	0.43
23:DA:2308:G:O2'	23:DA:2310:A:N7	2.51	0.43
23:DA:65:C:H2'	23:DA:66:C:C6	2.53	0.43
1:AA:1029:C:N3	1:AA:1032:G:O6	2.51	0.43
1:AA:1004:A:N7	1:AA:1036:G:N1	2.67	0.43
1:AA:1054:C:H41	22:AY:45:PRO:HB2	1.84	0.43
1:AA:1530:G:H4'	1:AA:1530:G:OP1	2.18	0.43
1:AA:580:U:H2'	1:AA:581:G:O4'	2.19	0.43
1:AA:708:C:H2'	1:AA:709:G:H8	1.84	0.43
1:AA:78:G:N2	1:AA:92:C:N3	2.67	0.43
1:AA:841:U:OP1	1:AA:841:U:H6	2.01	0.43
1:AA:962:C:H2'	1:AA:963:G:O4'	2.18	0.43
4:AD:8:VAL:HG22	4:AD:21:LEU:CD1	2.48	0.43
15:AO:18:PHE:CD1	15:AO:18:PHE:C	2.91	0.43
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.84	0.43
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.99	0.43
23:BA:103:A:H8	23:BA:103:A:O5'	2.02	0.43
23:BA:11:G:H2'	23:BA:12:U:C5'	2.48	0.43
23:BA:2406:U:OP1	56:BA:4767:HOH:O	2.21	0.43
23:BA:601:C:O2	23:BA:605:C:H4'	2.18	0.43
23:BA:637:A:OP1	33:BP:133:SER:OG	2.30	0.43
23:BA:784:A:C5	25:BD:229:VAL:HG21	2.53	0.43
27:BF:129:PHE:CD2	27:BF:163:VAL:HG21	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:99:ALA:HB3	18:CR:29:PHE:CE1	2.53	0.43
9:CI:62:TYR:O	9:CI:63:ILE:HG13	2.18	0.43
21:CU:18:TYR:HD2	21:CU:22:ARG:HD2	1.82	0.43
22:CY:29:LYS:HG3	22:CY:30:TRP:CE3	2.53	0.43
23:DA:184:C:H2'	23:DA:185:U:C6	2.53	0.43
23:DA:2115:G:H21	23:DA:2171:A:H61	1.66	0.43
23:DA:866:A:C6	23:DA:914:C:C5	3.06	0.43
24:DB:48:A:H4'	36:DS:95:HIS:CD2	2.39	0.43
34:DQ:34:LEU:HD11	34:DQ:129:THR:HB	2.00	0.43
37:DT:56:GLY:O	37:DT:59:THR:HG23	2.18	0.43
39:DV:95:LEU:HD13	39:DV:97:LYS:HD3	2.00	0.43
23:DA:1598:C:H5'	41:DX:36:LYS:HB2	2.00	0.43
43:DZ:111:VAL:C	43:DZ:113:ALA:H	2.22	0.43
1:AA:1349:A:C2	1:AA:1374:A:C4	3.06	0.43
1:AA:174:C:H2'	1:AA:175:C:C6	2.53	0.43
1:AA:199:G:O2'	1:AA:200:G:H5'	2.18	0.43
1:AA:22:G:H4'	1:AA:885:G:C8	2.54	0.43
5:AE:59:GLY:O	5:AE:62:ALA:HB3	2.17	0.43
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB2	1.99	0.43
20:AT:18:GLN:O	20:AT:22:ARG:HG3	2.18	0.43
23:BA:1485:G:O2'	23:BA:1486:A:H5'	2.17	0.43
23:BA:297:C:H2'	23:BA:298:G:O4'	2.17	0.43
26:BE:101:ARG:CZ	26:BE:171:GLU:HB2	2.48	0.43
32:BO:70:LYS:HE2	32:BO:70:LYS:HB3	1.72	0.43
41:BX:26:TYR:CE1	41:BX:89:ILE:HG13	2.53	0.43
1:CA:1106:G:C6	1:CA:1107:C:C4	3.06	0.43
1:CA:1347:G:HO2'	1:CA:1373:G:H1	1.65	0.43
1:CA:455:C:H6	1:CA:455:C:O5'	2.02	0.43
1:CA:622:A:C8	1:CA:623:C:C5	3.06	0.43
1:CA:832:C:O2'	1:CA:833:U:P	2.77	0.43
4:CD:22:LYS:O	4:CD:113:SER:HB3	2.18	0.43
1:CA:10:A:OP2	5:CE:126:ARG:HD2	2.17	0.43
13:CM:86:CYS:SG	19:CS:73:GLU:HB3	2.59	0.43
23:DA:1405:U:H2'	23:DA:1406:U:H6	1.82	0.43
23:DA:1478:G:O2'	23:DA:1558:A:N1	2.52	0.43
23:DA:1652:A:C2'	23:DA:1653:G:H5'	2.49	0.43
23:DA:829:A:N7	23:DA:2248:C:H5'	2.34	0.43
23:DA:2287:A:O2'	23:DA:2288:A:H3'	2.19	0.43
23:DA:2317:C:N4	23:DA:2318:G:O6	2.51	0.43
23:DA:2464:C:O2'	23:DA:2465:C:P	2.76	0.43
23:DA:2679:A:H4'	26:DE:165:VAL:HG11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1803:A:H4'	25:DD:259:THR:CG2	2.48	0.43
23:DA:574:C:O2	26:DE:145:LYS:NZ	2.51	0.43
29:DH:164:TYR:HB2	29:DH:167:GLU:HB2	1.99	0.43
29:DH:69:ARG:HG3	29:DH:70:THR:N	2.34	0.43
35:DR:33:ARG:NH1	35:DR:115:GLU:OE2	2.43	0.43
43:DZ:35:ARG:HD2	43:DZ:35:ARG:HA	1.71	0.43
1:AA:203:U:H2'	1:AA:203:U:OP2	2.19	0.43
1:AA:7:G:H5'	1:AA:298:A:O4'	2.18	0.43
1:AA:958:A:C6	1:AA:959:A:C6	3.06	0.43
7:AG:126:ASP:HB3	7:AG:131:LYS:O	2.19	0.43
23:BA:1796:U:H2'	23:BA:1797:C:H6	1.79	0.43
23:BA:229:A:H3'	23:BA:229:A:C8	2.54	0.43
23:BA:708:C:H6	23:BA:708:C:H5"	1.83	0.43
29:BH:17:VAL:HG21	29:BH:50:VAL:HG21	1.99	0.43
1:CA:1073:U:OP1	5:CE:57:LYS:HE3	2.19	0.43
1:CA:17:U:O2'	1:CA:1079:G:H1'	2.18	0.43
1:CA:1446:U:O2'	1:CA:1447:A:H3'	2.18	0.43
1:CA:260:G:H2'	1:CA:261:U:C6	2.53	0.43
1:CA:96:U:O2'	1:CA:97:G:P	2.77	0.43
1:CA:991:U:O2'	1:CA:992:U:O5'	2.34	0.43
12:CL:54:LYS:HD2	12:CL:54:LYS:N	2.34	0.43
14:CN:23:ARG:HD2	14:CN:28:GLY:C	2.38	0.43
19:CS:62:ILE:HA	19:CS:66:MET:SD	2.58	0.43
23:DA:1701:A:H5"	23:DA:1702:G:OP2	2.18	0.43
23:DA:1858:G:H1'	23:DA:1884:A:N6	2.33	0.43
23:DA:2169:A:H2'	23:DA:2170:A:C8	2.53	0.43
29:DH:54:ARG:HD3	29:DH:65:HIS:ND1	2.34	0.43
29:DH:64:LEU:O	29:DH:68:THR:OG1	2.32	0.43
30:DI:72:LEU:HD23	30:DI:107:VAL:HG11	2.01	0.43
30:DI:25:TYR:HE2	30:DI:29:TYR:CD2	2.37	0.43
33:DP:70:GLN:O	33:DP:73:GLY:N	2.42	0.43
1:AA:101:A:O2'	1:AA:102:G:H5'	2.19	0.43
1:AA:1041:A:H2'	1:AA:1042:G:O4'	2.19	0.43
1:AA:1158:C:C4	1:AA:1160:G:C5	3.06	0.43
1:AA:1285:A:H8	1:AA:1285:A:O5'	2.02	0.43
1:AA:659:U:C2'	1:AA:660:G:H5'	2.48	0.43
1:AA:926:G:C6	22:AY:87:LYS:HG3	2.54	0.43
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.34	0.43
13:AM:3:ARG:HG3	13:AM:4:ILE:HB	2.00	0.43
47:B3:18:ASP:N	47:B3:18:ASP:OD1	2.44	0.43
23:BA:2125:G:H21	23:BA:2126:A:H62	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2153:G:H2'	23:BA:2154:G:C8	2.53	0.43
23:BA:2207:G:HO2'	23:BA:2208:A:P	2.33	0.43
23:BA:2464:C:O2'	23:BA:2465:C:P	2.76	0.43
25:BD:17:THR:O	25:BD:211:ARG:NH2	2.50	0.43
27:BF:165:ARG:HG2	27:BF:168:ARG:HH21	1.84	0.43
28:BG:82:LEU:HB3	28:BG:83:ARG:H	1.65	0.43
31:BN:42:TRP:HD1	31:BN:48:MET:HE1	1.84	0.43
23:BA:637:A:H8	33:BP:117:GLU:HG3	1.84	0.43
40:BW:12:ILE:HD13	40:BW:17:VAL:HG13	2.01	0.43
43:BZ:30:ASN:ND2	43:BZ:90:VAL:HB	2.34	0.43
43:BZ:98:MET:O	43:BZ:125:LEU:HD12	2.18	0.43
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.49	0.43
1:CA:1339:A:H8	1:CA:1339:A:O5'	2.02	0.43
1:CA:509:A:H5'	4:CD:54:TYR:CD2	2.53	0.43
3:CC:164:ARG:HE	3:CC:164:ARG:HB3	1.51	0.43
3:CC:180:ALA:HB1	3:CC:203:PHE:CE1	2.53	0.43
7:CG:111:ARG:NH1	7:CG:113:GLU:OE2	2.46	0.43
7:CG:72:ARG:HG2	7:CG:72:ARG:H	1.58	0.43
10:CJ:36:GLY:O	10:CJ:38:ILE:N	2.51	0.43
23:DA:1536:C:O2'	23:DA:1537:G:P	2.77	0.43
23:DA:1638:C:H4'	23:DA:2710:C:O2	2.19	0.43
23:DA:247:G:H4'	23:DA:386:G:C5	2.54	0.43
23:DA:2591:C:H2'	23:DA:2592:G:C8	2.54	0.43
23:DA:2772:C:H2'	23:DA:2773:C:C6	2.53	0.43
24:DB:13:A:H2'	24:DB:70:C:O2'	2.17	0.43
24:DB:41:U:H5"	56:DB:319:HOH:O	2.17	0.43
23:DA:918:A:H5"	24:DB:98:G:O2'	2.19	0.43
28:DG:121:ASN:HA	28:DG:122:PRO:HD3	1.80	0.43
36:DS:10:ARG:O	36:DS:14:VAL:HG13	2.19	0.43
38:DU:59:ARG:HH11	38:DU:59:ARG:CB	2.32	0.43
23:DA:1224:C:O2'	39:DV:85:LYS:HA	2.18	0.43
40:DW:12:ILE:HD13	40:DW:17:VAL:HG13	2.00	0.43
43:DZ:134:PRO:HB2	43:DZ:136:PHE:O	2.19	0.43
1:AA:1029:C:O2	1:AA:1033:G:C6	2.72	0.43
1:AA:1126:U:O2	1:AA:1127:G:C5	2.72	0.43
1:AA:516:U:C4	1:AA:517:G:C6	3.06	0.43
1:AA:738:C:H2'	1:AA:739:C:C6	2.53	0.43
1:AA:696:A:H1'	1:AA:786:G:O2'	2.19	0.43
1:AA:984:C:H2'	1:AA:985:C:H6	1.83	0.43
4:AD:149:ALA:O	4:AD:152:SER:OG	2.19	0.43
23:BA:1744:C:O2'	23:BA:1745:C:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1816:G:O6	25:BD:35:LYS:NZ	2.36	0.43
23:BA:1823:G:OP1	25:BD:54:ARG:NH1	2.51	0.43
23:BA:2123:G:N2	23:BA:2175:C:N3	2.60	0.43
23:BA:2316:C:H2'	23:BA:2317:C:C6	2.53	0.43
23:BA:2318:G:O2'	23:BA:2319:G:P	2.77	0.43
23:BA:2793:G:N2	23:BA:2804:C:H1'	2.33	0.43
23:BA:708:C:H5'	23:BA:709:U:OP2	2.18	0.43
23:BA:746:A:H2'	23:BA:2612:C:H5"	2.00	0.43
24:BB:33:G:C2	24:BB:50:G:C2	3.06	0.43
25:BD:238:GLY:O	25:BD:239:ARG:CB	2.59	0.43
28:BG:6:ALA:HB3	28:BG:104:GLU:OE1	2.19	0.43
30:BI:86:THR:O	30:BI:87:LYS:HB2	2.19	0.43
31:BN:109:LYS:N	31:BN:109:LYS:HD2	2.33	0.43
33:BP:133:SER:O	33:BP:137:LYS:HG3	2.19	0.43
37:BT:33:LYS:HG2	37:BT:34:VAL:N	2.33	0.43
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.53	0.43
1:CA:790:A:H61	1:CA:1498:U:P	2.42	0.43
1:CA:580:U:H2'	1:CA:581:G:O4'	2.19	0.43
1:CA:7:G:H5'	1:CA:298:A:O4'	2.18	0.43
1:CA:954:G:C6	1:CA:955:U:C4	3.07	0.43
2:CB:98:LEU:HA	2:CB:98:LEU:HD23	1.76	0.43
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.87	0.43
1:CA:509:A:O4'	4:CD:58:LEU:HD12	2.18	0.43
7:CG:113:GLU:HG3	7:CG:118:VAL:HG12	2.00	0.43
1:CA:1375:A:H4'	7:CG:29:LYS:NZ	2.34	0.43
23:DA:1581:G:H5"	23:DA:1581:G:H8	1.84	0.43
23:DA:2295:C:H5	36:DS:13:ARG:NH2	2.16	0.43
23:DA:2331:G:O2'	44:D0:43:THR:HG22	2.19	0.43
23:DA:2611:U:P	23:DA:2611:U:H3'	2.58	0.43
23:DA:271(Q):G:O2'	23:DA:271(R):G:P	2.76	0.43
23:DA:751:A:H5'	40:DW:90:ARG:HA	2.01	0.43
25:DD:92:ILE:HD12	25:DD:104:TYR:CD2	2.54	0.43
26:DE:14:ILE:HD11	26:DE:173:VAL:HG11	2.00	0.43
26:DE:1:MET:O	26:DE:84:PHE:HB2	2.18	0.43
23:DA:323:G:C8	27:DF:171:PRO:HG3	2.53	0.43
35:DR:75:LEU:O	35:DR:75:LEU:HD22	2.18	0.43
35:DR:81:ASP:O	35:DR:85:PRO:HG2	2.19	0.43
23:DA:1188:U:H4'	39:DV:79:VAL:HG22	1.99	0.43
1:AA:1001:A:O5'	1:AA:1001:A:H8	2.02	0.43
1:AA:1353:G:C2	1:AA:1370:G:C2	3.07	0.43
1:AA:1442(A):G:O2'	1:AA:1442(B):A:H2'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:992:U:O4	1:AA:1044:A:N7	2.52	0.43
2:AB:36:ARG:O	2:AB:39:ILE:N	2.51	0.43
6:AF:36:ARG:CB	6:AF:36:ARG:HH11	2.31	0.43
8:AH:119:LEU:HB3	8:AH:123:GLU:HB2	2.01	0.43
23:BA:2238:G:H2'	23:BA:2238:G:N3	2.32	0.43
23:BA:2364:C:H2'	23:BA:2365:G:O4'	2.18	0.43
23:BA:476:G:H4'	23:BA:502:A:N1	2.34	0.43
23:BA:792:G:H5"	23:BA:793:A:H5'	1.99	0.43
35:BR:2:ARG:NH1	35:BR:5:LYS:O	2.48	0.43
36:BS:27:SER:HA	36:BS:88:ASP:HB3	2.01	0.43
40:BW:14:PRO:HG2	40:BW:78:GLU:CG	2.44	0.43
43:BZ:31:ARG:H	43:BZ:31:ARG:HG3	1.36	0.43
1:CA:1002:G:H2'	1:CA:1003:G:O4'	2.18	0.43
1:CA:968:A:C8	1:CA:1062:U:H4'	2.54	0.43
1:CA:1088:G:C5	1:CA:1089:G:N7	2.87	0.43
1:CA:1104:G:C6	1:CA:1105:A:C5	3.07	0.43
1:CA:1287:A:C6	1:CA:1288:A:C6	3.07	0.43
1:CA:604:G:C2	1:CA:635:G:C4	3.07	0.43
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.81	0.43
4:CD:18:LYS:HZ2	4:CD:31:CYS:HB3	1.83	0.43
23:DA:2061:G:H5"	23:DA:2503:A:C2	2.53	0.43
23:DA:2165:G:H2'	23:DA:2166:G:C8	2.54	0.43
23:DA:315:G:H2'	23:DA:316:C:C6	2.54	0.43
23:DA:735:A:H3'	23:DA:736:C:C6	2.54	0.43
23:DA:746:A:H2'	23:DA:2612:C:H5"	2.00	0.43
23:DA:886:C:H6	56:DA:5037:HOH:O	2.02	0.43
23:DA:978:G:C2	23:DA:986:C:C2	3.06	0.43
27:DF:129:PHE:HB2	27:DF:132:VAL:CG2	2.49	0.43
23:DA:832:G:OP1	33:DP:38:GLN:O	2.36	0.43
43:DZ:85:HIS:HE1	43:DZ:87:ASP:OD2	2.01	0.43
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.18	0.43
1:AA:1285:A:H4'	1:AA:1286:A:C5'	2.49	0.43
1:AA:1309:G:OP2	13:AM:99:ARG:NH2	2.44	0.43
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.34	0.43
1:AA:224:C:H2'	1:AA:225:C:C6	2.53	0.43
1:AA:523:A:H61	12:AL:53:ARG:NH1	2.17	0.43
1:AA:815:A:N7	1:AA:1509:C:O2'	2.30	0.43
1:AA:923:A:H2'	1:AA:924:C:O4'	2.18	0.43
1:AA:955:U:O2'	19:AS:83:HIS:CD2	2.72	0.43
20:AT:55:ILE:O	20:AT:58:LYS:N	2.52	0.43
50:B6:35:GLU:OE2	50:B6:50:ARG:HD3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1557:C:H5"	23:BA:1558:A:OP2	2.19	0.43
23:BA:226:G:H21	23:BA:228:A:H62	1.67	0.43
23:BA:455:C:N3	23:BA:473:G:H5'	2.34	0.43
36:BS:3:ARG:HG3	36:BS:4:LEU:N	2.27	0.43
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.53	0.43
1:CA:397:A:H3'	1:CA:397:A:N3	2.33	0.43
1:CA:436:C:O2'	1:CA:437:U:P	2.76	0.43
1:CA:516:U:C5	1:CA:517:G:C6	3.06	0.43
2:CB:56:ARG:O	2:CB:60:ASP:HB2	2.19	0.43
3:CC:24:ALA:HB3	3:CC:29:TYR:HB2	1.99	0.43
1:CA:1492:A:OP1	12:CL:47:LYS:HE3	2.18	0.43
13:CM:66:LEU:HD23	13:CM:66:LEU:N	2.34	0.43
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.34	0.43
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HD12	2.00	0.43
45:D1:94:LEU:O	45:D1:97:LEU:HB2	2.19	0.43
23:DA:1539:G:H2'	23:DA:1540:U:O4'	2.19	0.43
23:DA:1700:A:H2'	23:DA:1701:A:O5'	2.19	0.43
23:DA:208:C:H2'	23:DA:209:C:C6	2.54	0.43
23:DA:2103:C:O2	23:DA:2187:G:C2	2.72	0.43
23:DA:2689:U:H4'	23:DA:2690:C:H5'	2.01	0.43
23:DA:72:U:OP1	41:DX:1:MET:N	2.52	0.43
24:DB:31:C:O2'	24:DB:53:A:N6	2.52	0.43
31:DN:56:ASN:N	31:DN:125:GLY:HA3	2.28	0.43
33:DP:1:MET:CE	33:DP:5:ASP:HB2	2.49	0.43
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.40	0.42
1:AA:1151:A:O2'	1:AA:1152:A:H8	2.02	0.42
1:AA:1492:A:C8	23:BA:1913:A:C2	3.07	0.42
1:AA:68:G:C4'	1:AA:171:A:H1'	2.48	0.42
1:AA:438:G:O2'	1:AA:494:U:O4	2.29	0.42
1:AA:857:C:H2'	1:AA:858:G:O4'	2.19	0.42
2:AB:12:GLU:O	2:AB:16:HIS:HB2	2.18	0.42
2:AB:215:LEU:HD23	2:AB:215:LEU:HA	1.73	0.42
15:AO:85:LEU:HA	15:AO:85:LEU:HD23	1.86	0.42
23:BA:1003:G:N2	23:BA:1153:C:C2	2.87	0.42
23:BA:1048:A:O2'	23:BA:1049:C:H5"	2.19	0.42
23:BA:1651:G:OP1	35:BR:40:LYS:HE3	2.18	0.42
23:BA:1843:C:H5'	25:BD:253:GLN:NE2	2.33	0.42
23:BA:1987:G:H2'	23:BA:1988:C:H6	1.84	0.42
23:BA:2430:A:N3	23:BA:2430:A:H2'	2.34	0.42
23:BA:2552:U:C2	23:BA:2554:U:H5'	2.54	0.42
25:BD:8:PRO:CB	25:BD:14:ARG:HB2	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:33:LEU:HD12	27:BF:33:LEU:HA	1.81	0.42
28:BG:66:GLN:HE21	28:BG:66:GLN:HB3	1.64	0.42
23:BA:1140:C:O3'	31:BN:25:ARG:NH1	2.52	0.42
35:BR:59:ASP:OD2	35:BR:59:ASP:N	2.48	0.42
38:BU:105:VAL:O	38:BU:108:GLU:HB2	2.18	0.42
39:BV:60:GLU:HB2	39:BV:97:LYS:HE2	2.01	0.42
1:CA:1084:G:C6	1:CA:1085:U:C4	3.07	0.42
1:CA:1516:G:N1	1:CA:1519:A:OP2	2.52	0.42
1:CA:584:G:H5'	17:CQ:91:ARG:NH2	2.32	0.42
11:CK:20:TYR:HB2	11:CK:31:THR:HG23	2.01	0.42
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.19	0.42
46:D2:53:LEU:HA	46:D2:53:LEU:HD23	1.90	0.42
23:DA:667:U:O2	52:D8:2:PRO:HD2	2.19	0.42
23:DA:1794:U:H2'	23:DA:1795:C:H6	1.83	0.42
23:DA:583:G:OP2	38:DU:10:ARG:HD2	2.19	0.42
25:DD:72:LYS:HG3	25:DD:103:ARG:NH2	2.34	0.42
28:DG:16:ARG:HE	28:DG:31:VAL:CG2	2.31	0.42
35:DR:29:LEU:HD23	35:DR:70:LEU:HD11	2.01	0.42
37:DT:51:ARG:HG3	37:DT:98:LYS:CE	2.49	0.42
43:DZ:70:LEU:O	43:DZ:89:PHE:N	2.43	0.42
1:AA:1063:C:H3'	1:AA:1064:G:H2'	2.01	0.42
1:AA:1300:G:C6	1:AA:1334:G:C5	3.07	0.42
1:AA:1375:A:C6	1:AA:1376:U:C4	3.07	0.42
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.20	0.42
1:AA:228:A:H5'	16:AP:62:VAL:HG22	2.00	0.42
1:AA:358:U:H2'	1:AA:359:U:C6	2.53	0.42
2:AB:50:GLU:OE1	2:AB:200:ILE:HG12	2.19	0.42
3:AC:16:ARG:HH12	3:AC:183:ASP:HA	1.84	0.42
8:AH:21:LYS:O	8:AH:63:LEU:HD23	2.19	0.42
1:AA:1124:G:H5'	10:AJ:35:SER:OG	2.19	0.42
10:AJ:8:LEU:HA	10:AJ:95:GLU:O	2.18	0.42
15:AO:74:ASP:HA	15:AO:75:PRO:HD2	1.84	0.42
17:AQ:57:VAL:HA	17:AQ:77:VAL:HG23	2.00	0.42
23:BA:1176:G:H1'	23:BA:1177:A:P	2.60	0.42
23:BA:2693:A:H2'	23:BA:2694:G:H8	1.85	0.42
23:BA:963:U:OP2	56:BA:5120:HOH:O	2.20	0.42
33:BP:1:MET:HE2	33:BP:5:ASP:HB2	2.01	0.42
35:BR:12:ARG:HG2	35:BR:16:HIS:ND1	2.33	0.42
40:BW:37:ARG:HD3	40:BW:38:TYR:CE2	2.54	0.42
23:BA:751:A:H5'	40:BW:90:ARG:HA	2.00	0.42
1:CA:983:A:H1'	1:CA:1049:U:O2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1138:G:O2'	1:CA:1140:C:OP1	2.30	0.42
1:CA:1147:C:H2'	9:CI:16:ARG:HH12	1.84	0.42
1:CA:1349:A:C2'	1:CA:1350:A:H8	2.28	0.42
1:CA:559:A:H4'	1:CA:560:U:H3'	2.01	0.42
9:CI:43:ALA:HA	9:CI:74:ILE:HG21	1.99	0.42
13:CM:69:GLU:O	13:CM:71:ARG:N	2.47	0.42
14:CN:40:CYS:SG	14:CN:43:CYS:HB2	2.58	0.42
23:DA:1482:G:O6	23:DA:1507:A:N6	2.52	0.42
23:DA:1999:C:H4'	23:DA:2723:C:O2	2.20	0.42
23:DA:2171:A:H1'	23:DA:2172:U:C6	2.54	0.42
23:DA:2405:G:OP1	33:DP:77:ARG:NH2	2.52	0.42
23:DA:602:G:O2'	23:DA:655:A:N6	2.52	0.42
23:DA:708:C:C6	23:DA:708:C:H5"	2.54	0.42
23:DA:873:G:N2	23:DA:905:U:O2	2.52	0.42
23:DA:92:A:H2'	23:DA:93:G:O4'	2.19	0.42
23:DA:947:G:N2	23:DA:971:C:C2	2.87	0.42
28:DG:114:ILE:HB	28:DG:117:PHE:HB2	2.02	0.42
28:DG:68:PRO:HB2	28:DG:90:LEU:HB3	2.01	0.42
29:DH:3:ARG:HG2	29:DH:6:ARG:HG2	2.00	0.42
30:DI:25:TYR:CE2	30:DI:29:TYR:CD2	3.07	0.42
30:DI:44:LEU:HA	30:DI:44:LEU:HD12	1.68	0.42
33:DP:133:SER:O	33:DP:137:LYS:HG3	2.19	0.42
33:DP:38:GLN:O	33:DP:39:LYS:HB3	2.20	0.42
35:DR:59:ASP:N	35:DR:59:ASP:OD2	2.50	0.42
36:DS:102:ALA:HA	36:DS:105:ALA:CB	2.48	0.42
42:DY:5:MET:HG2	42:DY:30:VAL:HG11	2.01	0.42
1:AA:321:A:C2	1:AA:333:G:C2	3.07	0.42
1:AA:1080:A:H5"	5:AE:16:THR:HG21	2.02	0.42
1:AA:1400:C:O3'	22:AY:80:LYS:HD3	2.19	0.42
23:BA:1321:A:H2'	23:BA:1322:A:O4'	2.19	0.42
23:BA:139(A):G:H22	41:BX:44:GLU:CD	2.22	0.42
23:BA:2300:G:C6	23:BA:2301:C:C4	3.07	0.42
23:BA:305:U:H2'	23:BA:306:U:C6	2.54	0.42
25:BD:68:LYS:O	25:BD:69:ARG:HB2	2.19	0.42
25:BD:80:ALA:HB3	25:BD:94:LEU:HD13	2.02	0.42
23:BA:2784:C:H1'	26:BE:37:ARG:NH1	2.34	0.42
27:BF:104:LYS:O	27:BF:108:LYS:HB2	2.18	0.42
30:BI:128:LEU:HD23	30:BI:128:LEU:HA	1.90	0.42
39:BV:65:GLY:HA3	39:BV:91:TYR:CZ	2.54	0.42
1:CA:1304:G:C6	1:CA:1305:G:N1	2.87	0.42
1:CA:174:C:H2'	1:CA:175:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:617:G:H4'	16:CP:44:THR:O	2.18	0.42
1:CA:751:U:H4'	15:CO:24:SER:HB2	2.01	0.42
1:CA:979:C:H42	14:CN:18:VAL:HB	1.85	0.42
3:CC:66:VAL:O	3:CC:68:VAL:HG23	2.19	0.42
9:CI:67:GLY:O	9:CI:73:GLN:NE2	2.37	0.42
13:CM:48:LEU:O	13:CM:53:VAL:HG23	2.19	0.42
15:CO:18:PHE:C	15:CO:18:PHE:CD1	2.92	0.42
1:CA:1456:G:HO2'	20:CT:39:LYS:NZ	2.15	0.42
46:D2:50:ILE:O	46:D2:51:ARG:HB3	2.19	0.42
23:DA:1688:U:H5'	23:DA:1689:A:OP1	2.19	0.42
23:DA:2070:G:C2	23:DA:2442:C:C2	3.07	0.42
23:DA:2104:G:N3	23:DA:2104:G:H2'	2.34	0.42
23:DA:2318:G:O2'	23:DA:2319:G:H5"	2.19	0.42
23:DA:478:A:N6	23:DA:502:A:H62	2.16	0.42
23:DA:525:U:H5'	23:DA:556:G:OP1	2.19	0.42
23:DA:572:A:H5"	23:DA:573:G:OP2	2.19	0.42
23:DA:615:G:OP1	27:DF:40:GLN:NE2	2.52	0.42
24:DB:33:G:C2	24:DB:50:G:C2	3.08	0.42
25:DD:77:ALA:HB2	25:DD:97:TYR:CD2	2.54	0.42
27:DF:11:VAL:HB	27:DF:18:ARG:HB3	2.01	0.42
31:DN:48:MET:H	31:DN:48:MET:HG3	1.75	0.42
35:DR:2:ARG:NH1	35:DR:5:LYS:O	2.45	0.42
42:DY:15:VAL:HG21	42:DY:42:VAL:HG11	2.01	0.42
1:AA:102:G:H2'	1:AA:103:C:C6	2.55	0.42
1:AA:1346:A:C8	1:AA:1348:U:C2	3.08	0.42
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.19	0.42
9:AI:27:THR:HG23	9:AI:31:GLN:N	2.35	0.42
17:AQ:44:ALA:HA	17:AQ:71:PHE:O	2.20	0.42
20:AT:72:LEU:HD23	20:AT:73:HIS:N	2.34	0.42
48:B4:15:ILE:HB	48:B4:32:TYR:CD2	2.54	0.42
23:BA:1531:C:N4	23:BA:1538:G:H1	2.15	0.42
23:BA:2104:G:N3	23:BA:2104:G:H2'	2.34	0.42
23:BA:2173:A:C3'	23:BA:2174:C:H5'	2.49	0.42
23:BA:323:G:C8	27:BF:171:PRO:HG3	2.54	0.42
23:BA:652(S):C:H3'	23:BA:652(T):C:C6	2.55	0.42
23:BA:717:G:H2'	23:BA:718:A:O4'	2.19	0.42
33:BP:1:MET:CE	33:BP:5:ASP:HB2	2.49	0.42
23:BA:587:C:P	33:BP:21:ARG:HH22	2.39	0.42
36:BS:102:ALA:HA	36:BS:105:ALA:CB	2.49	0.42
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.54	0.42
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1274:G:H21	1:CA:1275:A:H62	1.67	0.42
1:CA:1442(A):G:N7	1:CA:1442(B):A:C2	2.86	0.42
1:CA:1441:G:N2	1:CA:1459:C:C6	2.83	0.42
1:CA:982:U:OP1	1:CA:982:U:H6	2.02	0.42
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.83	0.42
4:CD:176:LEU:HD12	4:CD:177:ASP:H	1.85	0.42
1:CA:538:G:P	12:CL:115:LYS:H	2.41	0.42
1:CA:1458:G:H5"	20:CT:31:SER:CB	2.50	0.42
23:DA:1289:C:H2'	23:DA:1290:C:C6	2.54	0.42
23:DA:1666:G:O2'	23:DA:1667:G:H5'	2.20	0.42
23:DA:2005:A:OP1	56:DA:3823:HOH:O	2.22	0.42
23:DA:2492:U:H2'	23:DA:2493:U:H6	1.84	0.42
23:DA:2833:G:O2'	23:DA:2834:G:P	2.77	0.42
32:DO:102:VAL:HB	32:DO:106:LEU:HD12	2.01	0.42
43:DZ:54:HIS:CG	43:DZ:101:PRO:HG3	2.54	0.42
1:AA:1007:C:N3	1:AA:1022:G:C6	2.86	0.42
1:AA:1158:C:C4	1:AA:1160:G:C4	3.08	0.42
1:AA:1170:A:C8	1:AA:1171:G:C8	3.08	0.42
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.54	0.42
6:AF:91:VAL:HG12	6:AF:92:LYS:O	2.20	0.42
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	2.01	0.42
46:B2:65:ASN:OD1	46:B2:69:ARG:NH1	2.51	0.42
50:B6:11:LEU:HB2	50:B6:21:TYR:HB2	2.00	0.42
50:B6:44:ARG:HH11	50:B6:44:ARG:HB3	1.84	0.42
51:B7:30:VAL:O	51:B7:34:ARG:HG3	2.18	0.42
23:BA:1027:A:C6	23:BA:1126:A:C4	3.07	0.42
23:BA:1507:A:O2'	23:BA:1508:A:C8	2.70	0.42
23:BA:1639:U:H4'	23:BA:2699:C:H4'	2.01	0.42
23:BA:253:C:OP2	52:B8:5:LYS:NZ	2.40	0.42
23:BA:271(P):C:OP1	30:BI:45:LYS:HD3	2.19	0.42
28:BG:146:TYR:O	28:BG:149:VAL:HG12	2.19	0.42
28:BG:173:LEU:O	28:BG:178:PHE:HB2	2.20	0.42
29:BH:11:VAL:HG21	29:BH:50:VAL:HG23	2.01	0.42
35:BR:56:LYS:NZ	35:BR:90:ARG:O	2.52	0.42
40:BW:88:ARG:HG3	40:BW:92:ARG:HH21	1.84	0.42
23:BA:64:A:O3'	41:BX:71:GLY:HA3	2.20	0.42
1:CA:1097:C:H1'	1:CA:1169:A:C2	2.54	0.42
1:CA:1332:A:O5'	1:CA:1332:A:H8	2.02	0.42
1:CA:428:G:HO2'	1:CA:429:U:P	2.42	0.42
3:CC:139:GLN:HG3	3:CC:143:GLU:OE1	2.20	0.42
4:CD:159:ARG:O	4:CD:163:GLU:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:31:CYS:HB3	4:CD:33:MET:HB2	2.00	0.42
5:CE:31:LEU:HD23	5:CE:45:PHE:HB2	2.01	0.42
7:CG:13:GLN:HA	7:CG:14:PRO:HD3	1.86	0.42
15:CO:9:GLN:HA	15:CO:12:ILE:HD12	2.01	0.42
16:CP:14:ASN:OD1	16:CP:16:HIS:CE1	2.72	0.42
1:CA:1456:G:N1	20:CT:51:GLU:OE1	2.51	0.42
52:D8:54:GLU:O	52:D8:58:ILE:HG13	2.19	0.42
23:DA:1406:U:H2'	23:DA:1407:C:H6	1.84	0.42
23:DA:2536:G:C6	23:DA:2537:U:C4	3.07	0.42
23:DA:479:A:N3	23:DA:481:G:H5"	2.34	0.42
23:DA:582:G:H2'	23:DA:583:G:C8	2.54	0.42
23:DA:645:C:O2	23:DA:645:C:H2'	2.18	0.42
24:DB:17:C:H2'	24:DB:18:G:O4'	2.19	0.42
26:DE:144:ARG:HB3	26:DE:145:LYS:H	1.51	0.42
27:DF:195:ASP:HB3	27:DF:197:ASP:H	1.85	0.42
28:DG:82:LEU:HB3	28:DG:83:ARG:H	1.63	0.42
23:DA:581:C:OP1	38:DU:33:ARG:HG3	2.20	0.42
1:AA:1349:A:C2	1:AA:1374:A:C5	3.08	0.42
1:AA:373:A:N3	1:AA:374:A:C8	2.88	0.42
1:AA:520:A:N1	1:AA:536:C:H1'	2.35	0.42
1:AA:600:C:H2'	1:AA:601:C:H6	1.81	0.42
2:AB:42:ILE:HD13	2:AB:203:GLY:HA2	2.02	0.42
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	2.01	0.42
1:AA:1492:A:OP1	12:AL:47:LYS:HE3	2.19	0.42
19:AS:12:ASP:OD1	19:AS:37:ARG:HD3	2.19	0.42
20:AT:92:LEU:O	20:AT:96:GLY:HA2	2.19	0.42
23:BA:1179:C:O2'	23:BA:1180:C:H5'	2.19	0.42
23:BA:1247:A:OP1	27:BF:95:ARG:NH2	2.48	0.42
23:BA:1405:U:H2'	23:BA:1406:U:H6	1.85	0.42
23:BA:1858:G:H8	23:BA:1858:G:OP2	2.03	0.42
23:BA:234:C:H2'	23:BA:235:U:C6	2.55	0.42
23:BA:484:C:H2'	23:BA:485:C:H6	1.84	0.42
24:BB:42:C:O2	28:BG:93:THR:N	2.45	0.42
28:BG:161:THR:HG22	28:BG:163:ALA:H	1.84	0.42
28:BG:43:LEU:HD12	28:BG:43:LEU:HA	1.83	0.42
40:BW:66:GLU:HA	40:BW:69:LEU:CD1	2.50	0.42
43:BZ:5:LEU:O	43:BZ:59:LEU:HA	2.20	0.42
1:CA:1112:C:O2	3:CC:179:ARG:HG2	2.18	0.42
1:CA:1163:C:N3	1:CA:1174:G:C2	2.88	0.42
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.20	0.42
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1429:C:O2'	23:DA:1704:G:H5'	2.20	0.42
1:CA:435:C:H42	1:CA:436:C:H41	1.67	0.42
1:CA:527:G:O2'	1:CA:535:A:N1	2.40	0.42
1:CA:728:A:N1	1:CA:729:A:C6	2.88	0.42
1:CA:974:A:H8	1:CA:974:A:OP1	2.02	0.42
1:CA:990:C:O2	1:CA:1215:G:N1	2.37	0.42
2:CB:12:GLU:O	2:CB:16:HIS:HB2	2.20	0.42
2:CB:41:ILE:HD13	2:CB:41:ILE:HA	1.91	0.42
5:CE:41:VAL:HG23	5:CE:67:VAL:HG13	2.02	0.42
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.53	0.42
22:CY:58:ASN:HB2	22:CY:88:LEU:HD22	2.00	0.42
45:D1:3:LYS:HB3	45:D1:4:VAL:H	1.49	0.42
52:D8:39:LYS:HA	52:D8:42:ARG:NH1	2.35	0.42
23:DA:2173:A:C3'	23:DA:2174:C:H5'	2.49	0.42
23:DA:2206:G:H3'	23:DA:2207:G:H8	1.78	0.42
23:DA:2312:U:H5'	28:DG:88:ILE:CD1	2.50	0.42
23:DA:590:A:H2'	23:DA:591:C:O4'	2.19	0.42
28:DG:11:TYR:OH	28:DG:33:ARG:HG3	2.19	0.42
23:DA:2547:U:O2	32:DO:23:ARG:NH2	2.52	0.42
40:DW:1:MET:HE2	40:DW:2:GLU:H	1.83	0.42
1:AA:1118:C:H1'	1:AA:1179:A:C5	2.55	0.42
1:AA:1379:G:C6	1:AA:1380:U:C4	3.07	0.42
1:AA:1392:G:O5'	1:AA:1392:G:H8	2.03	0.42
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.19	0.42
1:AA:945:G:C2	1:AA:946:A:C8	3.08	0.42
2:AB:9:GLU:O	2:AB:11:LEU:N	2.53	0.42
5:AE:95:ALA:HB1	5:AE:96:PRO:HD2	2.01	0.42
9:AI:40:LEU:H	9:AI:40:LEU:HD23	1.84	0.42
10:AJ:50:ILE:HA	10:AJ:60:ARG:HG2	2.02	0.42
12:AL:27:LEU:C	12:AL:29:GLY:H	2.23	0.42
19:AS:20:LEU:HD21	19:AS:43:GLU:CG	2.50	0.42
23:BA:54:G:O2'	51:B7:35:ARG:HD3	2.20	0.42
51:B7:47:ARG:HG3	51:B7:47:ARG:HH11	1.84	0.42
23:BA:1496:A:H5"	23:BA:1497:U:OP1	2.20	0.42
23:BA:2153:G:H2'	23:BA:2154:G:H8	1.84	0.42
23:BA:2158:A:H1'	23:BA:2159:G:C8	2.54	0.42
23:BA:2787:C:H1'	26:BE:62:PRO:HG3	2.02	0.42
28:BG:124:SER:HB2	28:BG:131:TYR:CE1	2.55	0.42
29:BH:46:GLU:OE1	29:BH:51:ARG:NH2	2.42	0.42
30:BI:133:HIS:HA	30:BI:134:PRO:HD2	1.83	0.42
23:BA:1022:G:N7	31:BN:66:LYS:HE2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1065:U:H3	1:CA:1109:C:H5"	1.84	0.42
1:CA:1220:G:H1'	19:CS:52:TYR:CE2	2.54	0.42
1:CA:1314:C:H2'	1:CA:1315:U:H6	1.85	0.42
1:CA:1442(A):G:C5	1:CA:1442(B):A:C6	3.07	0.42
1:CA:1443:G:N3	1:CA:1443:G:H2'	2.35	0.42
1:CA:1461:G:O5'	1:CA:1461:G:H8	2.03	0.42
1:CA:474:G:H2'	1:CA:475:G:C8	2.55	0.42
1:CA:953:G:C2	1:CA:954:G:H1'	2.55	0.42
3:CC:43:LEU:O	3:CC:47:LEU:HB2	2.19	0.42
9:CI:27:THR:HG1	9:CI:28:VAL:H	1.66	0.42
11:CK:99:GLN:HG2	11:CK:105:VAL:HG11	2.01	0.42
23:DA:1514:U:H2'	23:DA:1515:G:H8	1.84	0.42
23:DA:1271:G:N2	23:DA:1617:C:O4'	2.53	0.42
23:DA:196:A:H62	33:DP:38:GLN:NE2	2.18	0.42
23:DA:2224:G:H4'	23:DA:2226:C:C2	2.54	0.42
23:DA:2093:G:C6	23:DA:2225:A:C8	3.08	0.42
23:DA:2291:U:H2'	23:DA:2292:C:C6	2.54	0.42
23:DA:2375:G:C8	56:DA:5005:HOH:O	2.51	0.42
23:DA:311:A:C6	23:DA:328:U:C4	3.08	0.42
23:DA:438:G:H2'	23:DA:440:G:H8	1.84	0.42
23:DA:862:G:H2'	23:DA:863:A:O4'	2.19	0.42
28:DG:73:ALA:O	28:DG:84:LYS:HA	2.20	0.42
34:DQ:29:PHE:HB2	34:DQ:105:GLU:OE2	2.19	0.42
23:DA:1651:G:OP1	35:DR:40:LYS:HE3	2.19	0.42
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.55	0.42
1:AA:1442(A):G:C4	1:AA:1442(B):A:C4	3.08	0.42
1:AA:1442:G:O2'	1:AA:1442(A):G:P	2.77	0.42
1:AA:97:G:O2'	1:AA:98:G:H5"	2.19	0.42
3:AC:54:ARG:HG2	3:AC:55:VAL:N	2.35	0.42
4:AD:22:LYS:HG3	4:AD:26:CYS:SG	2.59	0.42
6:AF:61:LEU:HB3	6:AF:63:TYR:CE2	2.54	0.42
6:AF:22:GLU:OE2	6:AF:82:ARG:HG2	2.20	0.42
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	2.02	0.42
12:AL:124:LYS:HA	12:AL:125:PRO:HD3	1.92	0.42
23:BA:127:A:H5"	23:BA:128:C:C6	2.55	0.42
23:BA:1482:G:O6	23:BA:1507:A:N6	2.53	0.42
23:BA:1529:G:O2'	23:BA:1530:C:H5'	2.20	0.42
23:BA:546:C:H6	23:BA:548:A:OP1	2.03	0.42
23:BA:729:G:C5	25:BD:208:LYS:HB2	2.55	0.42
26:BE:144:ARG:HB3	26:BE:145:LYS:H	1.44	0.42
30:BI:27:ARG:HD2	45:B1:71:TYR:CZ	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:93:ASP:HB2	43:BZ:131:ARG:NH2	2.34	0.42
1:CA:1490:C:H2'	1:CA:1491:G:O4'	2.19	0.42
1:CA:1492:A:H2'	1:CA:1492:A:N3	2.35	0.42
1:CA:250:A:H4'	1:CA:251:G:O5'	2.19	0.42
1:CA:500:G:H2'	1:CA:501:C:C6	2.55	0.42
1:CA:573:A:P	56:CA:1921:HOH:O	2.72	0.42
1:CA:756:C:H2'	1:CA:757:U:O4'	2.20	0.42
2:CB:35:GLU:HA	2:CB:39:ILE:O	2.20	0.42
3:CC:40:ARG:O	3:CC:44:GLU:HB2	2.19	0.42
7:CG:70:LYS:HA	7:CG:71:PRO:HD2	1.81	0.42
7:CG:81:GLY:O	7:CG:83:ALA:N	2.53	0.42
13:CM:106:ASN:HB3	13:CM:107:ALA:H	1.38	0.42
19:CS:33:THR:HA	19:CS:34:TRP:CE3	2.55	0.42
19:CS:58:VAL:HA	19:CS:59:PRO:HD3	1.69	0.42
23:DA:1000:A:C6	23:DA:1001:A:C6	3.08	0.42
23:DA:1190:G:O2'	23:DA:1191:G:H5'	2.20	0.42
23:DA:1253:A:C5	56:DA:4833:HOH:O	2.68	0.42
23:DA:2172:U:H1'	23:DA:2173:A:OP1	2.20	0.42
23:DA:297:C:H2'	23:DA:298:G:O4'	2.19	0.42
23:DA:75:G:H4'	46:D2:55:ARG:NH1	2.34	0.42
25:DD:148:GLU:OE1	25:DD:151:LYS:NZ	2.43	0.42
30:DI:62:LYS:HE2	30:DI:133:HIS:NE2	2.35	0.42
36:DS:84:GLN:H	36:DS:84:GLN:HG2	1.48	0.42
38:DU:36:ARG:HD2	38:DU:40:PHE:CZ	2.55	0.42
1:AA:1366:C:O2'	1:AA:1367:C:H5'	2.19	0.42
1:AA:663:A:H2'	1:AA:664:G:O4'	2.20	0.42
8:AH:97:VAL:O	8:AH:100:ILE:HG13	2.20	0.42
11:AK:27:ASN:OD1	11:AK:28:THR:N	2.47	0.42
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.19	0.42
45:B1:19:GLN:CB	45:B1:35:THR:HG22	2.50	0.42
23:BA:1784:A:H4'	23:BA:1785:A:O5'	2.20	0.42
23:BA:1858:G:H1'	23:BA:1884:A:H62	1.83	0.42
23:BA:1971:A:OP2	25:BD:242:ARG:NH2	2.53	0.42
23:BA:590:A:OP1	27:BF:95:ARG:NH1	2.53	0.42
25:BD:25:THR:HG21	25:BD:113:VAL:HG11	2.01	0.42
26:BE:101:ARG:O	26:BE:201:THR:HG22	2.19	0.42
28:BG:16:ARG:HE	28:BG:31:VAL:CG2	2.32	0.42
30:BI:114:LEU:HD12	30:BI:115:ALA:H	1.85	0.42
34:BQ:84:GLY:O	34:BQ:85:LYS:HB2	2.20	0.42
23:BA:1224:C:O2'	39:BV:85:LYS:HA	2.20	0.42
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1272:G:H5'	1:CA:1273:G:OP2	2.19	0.42
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.50	0.42
1:CA:1386:G:C2	1:CA:1387:G:N7	2.88	0.42
1:CA:1442:G:O6	1:CA:1442(A):G:O6	2.38	0.42
1:CA:279:A:OP2	17:CQ:95:TYR:OH	2.31	0.42
1:CA:391:G:C6	1:CA:392:G:C5	3.08	0.42
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.18	0.42
3:CC:92:ALA:HB1	3:CC:97:LYS:O	2.19	0.42
5:CE:78:HIS:CD2	5:CE:142:LEU:HD23	2.55	0.42
8:CH:123:GLU:O	8:CH:127:LEU:HB2	2.19	0.42
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HG3	2.00	0.42
11:CK:22:HIS:HB3	11:CK:29:ILE:HB	2.02	0.42
12:CL:110:VAL:HG23	12:CL:120:TYR:HB3	2.02	0.42
23:DA:1038:C:N4	23:DA:1117:G:H1	2.13	0.42
23:DA:1168:G:C2	23:DA:1182:A:C2	3.08	0.42
23:DA:1784:A:H4'	23:DA:1785:A:C5'	2.50	0.42
23:DA:2153:G:H2'	23:DA:2154:G:C8	2.55	0.42
23:DA:2318:G:N3	23:DA:2318:G:H2'	2.33	0.42
23:DA:2519:U:C6	23:DA:2542:A:N6	2.88	0.42
23:DA:2687:U:H2'	23:DA:2688:U:O4'	2.19	0.42
23:DA:2849:U:H4'	23:DA:2868:A:C2	2.55	0.42
23:DA:519:U:H2'	23:DA:520:G:C8	2.55	0.42
23:DA:760:G:H2'	23:DA:761:A:O4'	2.20	0.42
27:DF:132:VAL:CG2	27:DF:163:VAL:HG22	2.50	0.42
27:DF:34:TRP:CE2	33:DP:8:PRO:HD3	2.55	0.42
30:DI:29:TYR:C	30:DI:32:PRO:HD2	2.40	0.42
33:DP:95:VAL:HG22	33:DP:125:VAL:HG12	2.02	0.42
1:AA:1442(A):G:C5	1:AA:1442(B):A:C5	3.08	0.42
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.20	0.42
1:AA:56:U:H2'	1:AA:57:G:H8	1.83	0.42
1:AA:947:G:N2	1:AA:1235:U:O2	2.53	0.42
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.20	0.42
4:AD:189:PRO:CB	4:AD:194:LEU:HD11	2.49	0.42
9:AI:19:LEU:HA	9:AI:19:LEU:HD23	1.68	0.42
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.19	0.42
13:AM:6:GLY:HA3	13:AM:67:GLU:HG3	2.02	0.42
3:AC:22:TRP:CH2	14:AN:54:PRO:HG2	2.54	0.42
1:AA:1226:C:H4'	19:AS:80:TYR:OH	2.19	0.42
23:BA:1899:G:H2'	23:BA:1899:G:N3	2.34	0.42
23:BA:2406:U:H2'	23:BA:2406:U:OP2	2.19	0.42
23:BA:2660:A:H2'	23:BA:2661:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:35:G:H2'	23:BA:36:G:O4'	2.19	0.42
23:BA:825:C:OP1	56:BA:4662:HOH:O	2.22	0.42
23:BA:862:G:H2'	23:BA:863:A:O4'	2.20	0.42
33:BP:100:LEU:HA	33:BP:100:LEU:HD23	1.80	0.42
38:BU:76:TYR:HH	38:BU:92:ARG:NH1	2.16	0.42
1:CA:1010:G:O6	1:CA:1019:C:N3	2.53	0.42
1:CA:1058:G:N2	10:CJ:53:PRO:HG3	2.34	0.42
1:CA:1122:U:H2'	1:CA:1123:A:O4'	2.19	0.42
1:CA:124:G:H4'	1:CA:291:C:O2'	2.18	0.42
1:CA:1262:C:N3	1:CA:1273:G:N2	2.68	0.42
1:CA:1316:G:H21	1:CA:1318:A:H3'	1.85	0.42
1:CA:1357:A:C8	1:CA:1358:U:C5	3.07	0.42
1:CA:109:A:H2'	1:CA:326:G:N2	2.34	0.42
1:CA:380:G:C2	1:CA:384:G:C6	3.08	0.42
1:CA:404:U:H2'	1:CA:405:U:H6	1.85	0.42
1:CA:604:G:H2'	1:CA:605:U:O4'	2.20	0.42
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	2.01	0.42
10:CJ:35:SER:OG	10:CJ:73:ASP:HB2	2.20	0.42
11:CK:62:GLN:NE2	11:CK:93:GLN:OE1	2.50	0.42
1:CA:192:U:C4'	20:CT:102:GLY:HA2	2.50	0.42
20:CT:18:GLN:O	20:CT:22:ARG:HG3	2.20	0.42
22:CY:58:ASN:ND2	22:CY:58:ASN:H	2.18	0.42
23:DA:1179:C:O2'	23:DA:1180:C:H5'	2.20	0.42
23:DA:1507:A:HO2'	23:DA:1508:A:P	2.40	0.42
23:DA:2153:G:H2'	23:DA:2154:G:H8	1.84	0.42
24:DB:31:C:H4'	28:DG:29:TRP:CH2	2.55	0.42
25:DD:17:THR:O	25:DD:211:ARG:NH2	2.51	0.42
26:DE:115:GLY:O	26:DE:119:ARG:HB2	2.20	0.42
28:DG:125:PHE:CZ	28:DG:170:ARG:HA	2.55	0.42
36:DS:83:LYS:HE2	36:DS:83:LYS:HA	2.02	0.42
1:AA:1005:A:O2'	1:AA:1036:G:N2	2.53	0.41
1:AA:993:G:H4'	1:AA:994:A:OP2	2.19	0.41
2:AB:119:GLU:HG2	2:AB:153:ARG:HH22	1.85	0.41
4:AD:36:ARG:HG2	4:AD:38:TYR:CZ	2.54	0.41
5:AE:31:LEU:HD22	5:AE:43:LEU:HD11	2.01	0.41
17:AQ:13:ASP:O	17:AQ:15:MET:N	2.53	0.41
47:B3:4:LEU:O	47:B3:36:VAL:HA	2.19	0.41
53:B9:17:ILE:HD12	53:B9:17:ILE:HA	1.77	0.41
23:BA:1561:G:OP2	56:BA:4643:HOH:O	2.21	0.41
23:BA:2554:U:H2'	23:BA:2555:U:C6	2.55	0.41
23:BA:1999:C:H4'	23:BA:2723:C:O2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:361:G:O2'	23:BA:362:U:H5'	2.20	0.41
23:BA:71:A:N7	41:BX:31:HIS:HE1	2.18	0.41
23:BA:783:A:N3	23:BA:783:A:H2'	2.35	0.41
23:BA:89:G:H3'	23:BA:90:U:H5"	2.03	0.41
29:BH:71:LEU:HA	29:BH:71:LEU:HD12	1.74	0.41
30:BI:69:LYS:HG3	30:BI:138:ILE:HG12	2.02	0.41
43:BZ:101:PRO:O	43:BZ:102:LEU:HD12	2.20	0.41
1:CA:1004:A:C5'	1:CA:1025:U:C5	3.03	0.41
1:CA:1121:U:C4	1:CA:1122:U:C5	3.08	0.41
1:CA:1310:G:H2'	1:CA:1311:G:C8	2.55	0.41
1:CA:1442(A):G:C5	1:CA:1442(B):A:C5	3.08	0.41
1:CA:1452:C:H2'	1:CA:1452:C:H6	1.67	0.41
1:CA:460:G:O6	1:CA:470:C:H5"	2.20	0.41
1:CA:911:U:OP2	12:CL:97:ARG:NH1	2.53	0.41
1:CA:920:U:C2	1:CA:921:U:C5	3.08	0.41
3:CC:36:ASP:OD1	3:CC:57:ILE:HG21	2.20	0.41
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.18	0.41
7:CG:72:ARG:HH12	7:CG:138:LYS:NZ	2.18	0.41
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	2.01	0.41
12:CL:59:ARG:HG2	12:CL:65:GLU:HB2	2.01	0.41
23:DA:1557:C:H5"	23:DA:1558:A:OP2	2.20	0.41
23:DA:2096:U:H3	23:DA:2193:G:H1	1.68	0.41
23:DA:2464:C:H1'	56:DA:4976:HOH:O	2.20	0.41
23:DA:2542:A:O4'	56:DA:4629:HOH:O	2.21	0.41
23:DA:2722:G:H2'	23:DA:2723:C:C6	2.54	0.41
23:DA:2740:A:C6	23:DA:2764:A:C8	3.08	0.41
23:DA:781:A:N1	23:DA:1776:G:O2'	2.47	0.41
23:DA:945:A:C4	23:DA:2448:A:C2	3.07	0.41
25:DD:166:GLN:HB2	25:DD:174:ILE:HG22	2.02	0.41
25:DD:221:VAL:HG22	25:DD:226:MET:HE2	2.01	0.41
25:DD:232:PRO:HB3	25:DD:244:ARG:CZ	2.50	0.41
26:DE:174:ASP:OD2	26:DE:175:VAL:N	2.52	0.41
26:DE:181:LEU:HD12	26:DE:181:LEU:HA	1.80	0.41
27:DF:167:ALA:HB1	27:DF:173:VAL:HG11	2.01	0.41
28:DG:146:TYR:O	28:DG:149:VAL:HG12	2.20	0.41
1:AA:1003:G:C6	1:AA:1004:A:C2	3.08	0.41
1:AA:1052:U:O4	1:AA:1200:C:C2	2.73	0.41
1:AA:1378:C:C5	1:AA:1379:G:C8	3.08	0.41
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.55	0.41
1:AA:1490:C:H2'	1:AA:1491:G:O4'	2.20	0.41
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:127:ASN:HA	5:AE:128:PRO:HD3	1.88	0.41
7:AG:48:LYS:O	7:AG:52:GLU:HG2	2.20	0.41
8:AH:51:VAL:HG11	8:AH:60:ARG:HH11	1.85	0.41
12:AL:24:VAL:HG12	12:AL:26:ALA:HB2	2.02	0.41
14:AN:6:LEU:HD23	14:AN:23:ARG:HH12	1.84	0.41
20:AT:64:ASP:OD1	20:AT:81:LYS:NZ	2.48	0.41
1:AA:1054:C:N4	22:AY:45:PRO:HB2	2.34	0.41
46:B2:28:LYS:HE3	46:B2:56:GLN:OE1	2.20	0.41
23:BA:2315:G:C6	23:BA:2316:C:C4	3.09	0.41
23:BA:2549:G:H8	23:BA:2549:G:H5"	1.85	0.41
23:BA:271(O):C:H2'	23:BA:271(P):C:C6	2.55	0.41
36:BS:96:GLY:N	36:BS:99:LYS:HB3	2.34	0.41
40:BW:58:ALA:HB1	40:BW:64:MET:HB2	2.01	0.41
1:CA:1038:C:H2'	1:CA:1039:C:O4'	2.20	0.41
1:CA:1060:C:C2'	1:CA:1061:G:H5'	2.50	0.41
1:CA:1090:U:H1'	1:CA:1170:A:H2	1.85	0.41
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.20	0.41
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.55	0.41
1:CA:163:C:H2'	1:CA:164:U:O4'	2.20	0.41
1:CA:203:U:H2'	1:CA:203:U:OP2	2.20	0.41
1:CA:429:U:H4'	1:CA:430:A:O5'	2.19	0.41
1:CA:706:A:H2'	1:CA:707:C:H5'	2.02	0.41
1:CA:925:G:H1'	1:CA:1502:A:C4	2.55	0.41
4:CD:171:GLY:HA2	4:CD:172:PRO:HD3	1.89	0.41
4:CD:173:TRP:NE1	4:CD:174:LEU:HG	2.35	0.41
4:CD:22:LYS:HG3	4:CD:26:CYS:SG	2.60	0.41
11:CK:103:LEU:HD23	11:CK:103:LEU:HA	1.91	0.41
14:CN:29:ARG:HE	14:CN:40:CYS:HB2	1.85	0.41
14:CN:5:ALA:O	14:CN:9:LYS:HB2	2.20	0.41
1:CA:472:A:O3'	16:CP:81:ARG:HA	2.19	0.41
44:D0:49:LYS:O	44:D0:50:ASN:HB2	2.20	0.41
50:D6:40:CYS:HA	50:D6:41:PRO:HD3	1.70	0.41
23:DA:1997:G:O2'	23:DA:1998:G:H5'	2.20	0.41
23:DA:2420:C:H6	23:DA:2420:C:O5'	2.03	0.41
23:DA:30:G:H2'	23:DA:31:C:H6	1.85	0.41
23:DA:89:G:H3'	23:DA:90:U:C5'	2.50	0.41
24:DB:19:G:OP2	24:DB:19:G:H8	2.03	0.41
28:DG:11:TYR:O	28:DG:16:ARG:HG2	2.20	0.41
42:DY:97:ARG:HG2	42:DY:97:ARG:H	1.65	0.41
1:AA:1005:A:C6	1:AA:1025:U:H1'	2.55	0.41
1:AA:1028:C:C2	1:AA:1033:G:N2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:112:G:H4'	1:AA:389:A:H4'	2.02	0.41
1:AA:939:G:H5"	7:AG:102:ARG:NH2	2.35	0.41
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.20	0.41
10:AJ:45:ARG:HB3	10:AJ:65:LEU:HB3	2.02	0.41
1:AA:189(F):U:O2	17:AQ:63:ARG:NH2	2.53	0.41
18:AR:33:ASP:OD1	18:AR:36:ASN:HB2	2.21	0.41
28:BG:105:LYS:NZ	48:B4:25:TYR:O	2.49	0.41
23:BA:1745(A):C:H5'	23:BA:1746:G:OP2	2.20	0.41
23:BA:2836:U:H2'	23:BA:2837:G:C8	2.55	0.41
24:BB:1:U:O2	24:BB:1:U:H2'	2.20	0.41
25:BD:92:ILE:HD12	25:BD:104:TYR:CD2	2.56	0.41
25:BD:130:ALA:HA	25:BD:192:THR:HA	2.02	0.41
27:BF:164:ARG:O	27:BF:168:ARG:HB2	2.21	0.41
27:BF:34:TRP:CE2	33:BP:8:PRO:HD3	2.55	0.41
43:BZ:5:LEU:HD23	43:BZ:47:VAL:HG21	2.03	0.41
1:CA:1192:C:C5	1:CA:1193:G:C8	3.08	0.41
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.54	0.41
1:CA:222:U:C2	1:CA:223:U:C5	3.08	0.41
1:CA:97:G:O2'	1:CA:98:G:OP2	2.31	0.41
2:CB:180:LEU:HD23	2:CB:180:LEU:HA	1.85	0.41
3:CC:181:ASN:N	3:CC:205:GLY:O	2.52	0.41
1:CA:1148:U:OP1	9:CI:7:THR:HG21	2.20	0.41
23:DA:361:G:O2'	23:DA:362:U:H5'	2.21	0.41
23:DA:363(B):G:C4	23:DA:363(C):G:C8	3.09	0.41
23:DA:742:G:H4'	23:DA:1676:A:H5'	2.03	0.41
28:DG:13:GLU:HG3	28:DG:13:GLU:H	1.56	0.41
33:DP:126:VAL:HG11	33:DP:148:LEU:HD13	2.01	0.41
1:AA:1503:A:C5	1:AA:1531:A:H8	2.38	0.41
1:AA:3:G:N3	1:AA:3:G:H2'	2.36	0.41
1:AA:502:G:P	12:AL:116:SER:HA	2.60	0.41
1:AA:953:G:C4	1:AA:1229:A:C2	3.08	0.41
2:AB:92:TYR:HE1	2:AB:94:ASN:HB2	1.85	0.41
10:AJ:46:ARG:NE	10:AJ:64:GLU:OE1	2.54	0.41
15:AO:57:LEU:HA	15:AO:57:LEU:HD23	1.84	0.41
53:B9:32:HIS:O	53:B9:34:GLN:HG3	2.19	0.41
23:BA:2173:A:N6	23:BA:2174:C:O2	2.53	0.41
23:BA:438:G:H2'	23:BA:440:G:C8	2.55	0.41
23:BA:634:C:H2'	23:BA:635:C:C6	2.55	0.41
30:BI:51:ILE:HA	30:BI:51:ILE:HD13	1.79	0.41
35:BR:29:LEU:HD23	35:BR:70:LEU:HD11	2.02	0.41
41:BX:5:TYR:CZ	46:B2:30:ARG:HB2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1118:C:H2'	1:CA:1119:C:O4'	2.20	0.41
1:CA:1169:A:C2	1:CA:1170:A:C4	3.08	0.41
1:CA:1442:G:C2'	1:CA:1442(A):G:H5'	2.50	0.41
1:CA:373:A:C2	1:CA:374:A:C8	3.09	0.41
1:CA:375:U:O3'	16:CP:6:LEU:HB2	2.20	0.41
4:CD:19:LEU:HD12	4:CD:19:LEU:HA	1.87	0.41
5:CE:53:LEU:HD12	5:CE:53:LEU:H	1.85	0.41
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.21	0.41
1:CA:537:G:H5"	12:CL:113:ARG:NH1	2.35	0.41
14:CN:29:ARG:NE	14:CN:40:CYS:HB2	2.36	0.41
19:CS:48:THR:HA	19:CS:60:VAL:O	2.21	0.41
23:DA:1614:A:H8	23:DA:1614:A:P	2.43	0.41
23:DA:2078:C:C4	23:DA:2079:U:C4	3.09	0.41
23:DA:252:G:P	33:DP:50:ARG:HH12	2.42	0.41
23:DA:2540:C:H2'	23:DA:2541:A:O4'	2.20	0.41
23:DA:2660:A:H2'	23:DA:2661:G:O4'	2.20	0.41
23:DA:638:G:H2'	23:DA:639:U:O4'	2.20	0.41
24:DB:1:U:O2	24:DB:1:U:H2'	2.21	0.41
24:DB:37:C:C5	24:DB:38:C:C5	3.09	0.41
35:DR:100:LEU:HA	35:DR:100:LEU:HD12	1.74	0.41
1:AA:105:G:H2'	1:AA:106:C:C6	2.56	0.41
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.21	0.41
1:AA:586:C:C2'	1:AA:587:G:H5'	2.51	0.41
1:AA:706:A:H2'	1:AA:707:C:H5'	2.02	0.41
1:AA:940:C:OP1	7:AG:29:LYS:NZ	2.53	0.41
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	2.02	0.41
4:AD:155:LEU:HD23	4:AD:156:GLU:H	1.85	0.41
21:AU:3:LYS:HD3	21:AU:14:TRP:CD1	2.55	0.41
50:B6:23:THR:OG1	50:B6:24:GLU:N	2.54	0.41
50:B6:25:LYS:HE3	50:B6:30:THR:O	2.21	0.41
50:B6:35:GLU:CD	50:B6:50:ARG:HH11	2.23	0.41
23:BA:1354:A:H2'	23:BA:1355:G:O4'	2.20	0.41
23:BA:1489:U:HO2'	23:BA:1490:A:H8	1.68	0.41
23:BA:118:A:N3	23:BA:178:G:H1'	2.35	0.41
26:BE:47:VAL:HG23	26:BE:84:PHE:O	2.20	0.41
24:BB:31:C:H4'	28:BG:29:TRP:CH2	2.55	0.41
34:BQ:72:LYS:HA	34:BQ:73:PRO:HD3	1.87	0.41
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.21	0.41
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.20	0.41
1:CA:1370:G:N7	9:CI:109:VAL:HG11	2.35	0.41
1:CA:166:G:H2'	1:CA:167:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:615:C:H2'	1:CA:616:G:O4'	2.20	0.41
2:CB:111:ARG:HA	2:CB:111:ARG:HH11	1.85	0.41
3:CC:180:ALA:HB1	3:CC:203:PHE:HE1	1.85	0.41
3:CC:9:GLY:HA3	14:CN:49:HIS:HA	2.01	0.41
7:CG:46:ALA:HB2	7:CG:117:ALA:O	2.20	0.41
18:CR:31:LEU:HD23	18:CR:31:LEU:O	2.20	0.41
6:CF:49:ALA:HB2	18:CR:78:LEU:O	2.21	0.41
45:D1:67:ILE:N	45:D1:68:PRO:HD2	2.34	0.41
23:DA:1041:C:H5'	23:DA:1042:G:OP2	2.21	0.41
23:DA:2103:C:N3	23:DA:2104:G:N7	2.68	0.41
23:DA:2317:C:H2'	23:DA:2318:G:H5'	2.03	0.41
23:DA:2788:C:N4	23:DA:2789:C:N4	2.68	0.41
23:DA:530:G:N1	56:DA:3959:HOH:O	2.36	0.41
23:DA:536:A:H2'	23:DA:537:C:C6	2.56	0.41
23:DA:1825:A:O4'	25:DD:254:THR:HG21	2.21	0.41
26:DE:117:MET:O	26:DE:118:LYS:HB3	2.21	0.41
38:DU:39:LEU:HD23	38:DU:39:LEU:HA	1.89	0.41
43:DZ:19:ARG:HB2	43:DZ:19:ARG:HE	1.74	0.41
1:AA:293:G:C6	1:AA:294:U:C4	3.08	0.41
1:AA:429:U:H4'	1:AA:430:A:O5'	2.21	0.41
1:AA:532:A:H5'	56:AA:2283:HOH:O	2.19	0.41
1:AA:66:G:O4'	1:AA:173:U:C5	2.74	0.41
1:AA:73:G:C6	1:AA:76:C:C4	3.09	0.41
1:AA:954:G:H2'	1:AA:955:U:O4'	2.20	0.41
2:AB:71:VAL:O	2:AB:165:VAL:HG23	2.20	0.41
2:AB:27:LYS:HD2	2:AB:193:ASP:OD1	2.21	0.41
9:AI:65:VAL:O	9:AI:66:ARG:HG3	2.21	0.41
12:AL:85:ILE:HA	12:AL:85:ILE:HD13	1.70	0.41
14:AN:40:CYS:SG	14:AN:43:CYS:CB	2.99	0.41
23:BA:1510:G:H2'	23:BA:1511:C:C6	2.55	0.41
23:BA:2103:C:N3	23:BA:2104:G:N7	2.68	0.41
23:BA:690:G:H2'	23:BA:691:C:C6	2.56	0.41
27:BF:150:GLY:HA2	27:BF:172:TRP:CE3	2.56	0.41
29:BH:140:LYS:HB2	29:BH:140:LYS:HE3	1.81	0.41
29:BH:38:SER:HA	29:BH:39:PRO:HD3	1.84	0.41
29:BH:8:PRO:O	29:BH:69:ARG:NH1	2.53	0.41
42:BY:79:CYS:HB2	42:BY:81:LYS:H	1.86	0.41
43:BZ:91:LEU:HA	43:BZ:91:LEU:HD12	1.84	0.41
1:CA:1012:U:C4	1:CA:1013:G:C5	3.09	0.41
1:CA:113:G:H2'	1:CA:114:U:C6	2.56	0.41
3:CC:139:GLN:O	3:CC:143:GLU:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:151:VAL:HA	3:CC:199:LYS:O	2.21	0.41
3:CC:52:LEU:HB2	3:CC:69:HIS:O	2.19	0.41
4:CD:94:LEU:HA	4:CD:97:LEU:HD12	2.02	0.41
16:CP:52:ASP:HB3	16:CP:55:ARG:HB2	2.01	0.41
44:D0:27:GLU:HB2	44:D0:69:PHE:HD1	1.85	0.41
23:DA:1142(A):A:C4	23:DA:1144:G:C8	3.08	0.41
23:DA:2262:U:H4'	23:DA:2328:A:C2	2.56	0.41
23:DA:225:A:O2'	23:DA:257:A:H4'	2.20	0.41
23:DA:2789:C:H5"	23:DA:2790:A:OP2	2.21	0.41
23:DA:476:G:H4'	23:DA:502:A:N1	2.36	0.41
23:DA:686:G:N2	23:DA:788:A:H61	2.18	0.41
33:DP:82:GLY:HA2	33:DP:113:LYS:O	2.20	0.41
33:DP:132:LYS:HE2	33:DP:132:LYS:HB2	1.84	0.41
35:DR:54:LEU:O	35:DR:57:ARG:HB2	2.20	0.41
24:DB:29:A:OP2	36:DS:32:LEU:HD12	2.20	0.41
43:DZ:99:TYR:HA	43:DZ:124:ILE:O	2.20	0.41
1:AA:1292:U:N3	1:AA:1293:G:N7	2.69	0.41
1:AA:1310:G:H5'	13:AM:77:ASN:ND2	2.35	0.41
1:AA:1493:A:C2	1:AA:1494:G:C8	3.08	0.41
1:AA:433:C:C2'	1:AA:434:U:H5'	2.51	0.41
1:AA:691:G:H2'	1:AA:692:U:C6	2.55	0.41
1:AA:756:C:H2'	1:AA:757:U:O4'	2.21	0.41
1:AA:954:G:OP1	22:AY:17:ARG:NH2	2.53	0.41
6:AF:10:LEU:HD21	6:AF:61:LEU:HD22	2.03	0.41
22:AY:12:ILE:CG2	22:AY:17:ARG:HE	2.33	0.41
23:BA:1987:G:H2'	23:BA:1988:C:C6	2.55	0.41
23:BA:2171:A:H1'	23:BA:2172:U:C6	2.55	0.41
23:BA:2273:A:H2'	23:BA:2274:A:C8	2.56	0.41
23:BA:2404:C:O3'	33:BP:77:ARG:NH2	2.53	0.41
23:BA:569:U:C4	23:BA:570:G:C6	3.09	0.41
28:BG:61:ALA:O	28:BG:65:GLY:N	2.47	0.41
29:BH:5:GLY:HA2	29:BH:69:ARG:HB3	2.03	0.41
31:BN:69:GLN:O	31:BN:71:ILE:HD12	2.21	0.41
37:BT:23:ARG:HG3	37:BT:120:ARG:NH1	2.34	0.41
1:CA:44:G:H2'	1:CA:45:U:O4'	2.21	0.41
1:CA:648:A:H2'	1:CA:649:G:C8	2.56	0.41
1:CA:659:U:C2'	1:CA:660:G:H5'	2.51	0.41
1:CA:678:U:H2'	1:CA:679:C:C6	2.56	0.41
1:CA:22:G:H4'	1:CA:885:G:C8	2.55	0.41
1:CA:975:A:H5'	1:CA:975:A:H8	1.86	0.41
6:CF:10:LEU:HD21	6:CF:61:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.03	0.41
1:CA:1371:G:OP1	9:CI:11:LYS:O	2.39	0.41
1:CA:376:G:P	16:CP:67:THR:HG21	2.60	0.41
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.20	0.41
20:CT:4:LYS:HA	20:CT:4:LYS:HD3	1.95	0.41
28:DG:105:LYS:NZ	48:D4:25:TYR:O	2.53	0.41
23:DA:1170:G:H5"	23:DA:1170:G:H8	1.85	0.41
23:DA:1452:A:O2'	23:DA:1453:U:H2'	2.20	0.41
23:DA:2094:G:C2	23:DA:2196:C:C2	3.09	0.41
23:DA:2536:G:C5	23:DA:2537:U:C5	3.09	0.41
23:DA:2699:C:H2'	23:DA:2700:C:O4'	2.21	0.41
23:DA:338:G:H2'	23:DA:339:U:H6	1.85	0.41
23:DA:422:A:H2'	23:DA:423:A:C8	2.55	0.41
23:DA:671:C:H2'	23:DA:672:C:C6	2.55	0.41
23:DA:86:C:H4'	23:DA:104:U:H1'	2.01	0.41
23:DA:998:C:H3'	56:DA:4571:HOH:O	2.19	0.41
23:DA:2305:A:H5"	28:DG:134:GLY:HA3	2.02	0.41
29:DH:71:LEU:HA	29:DH:71:LEU:HD12	1.68	0.41
23:DA:30:G:OP2	38:DU:5:LYS:HE2	2.20	0.41
39:DV:40:LEU:HD11	39:DV:101:GLY:HA2	2.02	0.41
42:DY:97:ARG:HH11	42:DY:107:ASP:C	2.23	0.41
43:DZ:98:MET:O	43:DZ:125:LEU:HD12	2.20	0.41
1:AA:1256:A:H5'	1:AA:1258:G:H1'	2.03	0.41
1:AA:163:C:H2'	1:AA:164:U:O4'	2.20	0.41
1:AA:270:A:H2'	1:AA:271:C:H6	1.86	0.41
1:AA:411:A:C6	1:AA:429:U:C4	3.09	0.41
1:AA:741:G:H2'	1:AA:742:G:O4'	2.21	0.41
2:AB:56:ARG:O	2:AB:60:ASP:HB2	2.21	0.41
5:AE:57:LYS:HB3	5:AE:61:TYR:HE2	1.84	0.41
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.36	0.41
13:AM:65:LYS:O	13:AM:70:LEU:HG	2.20	0.41
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	2.20	0.41
1:AA:719:C:C2	18:AR:50:ILE:HG12	2.56	0.41
33:BP:68:GLN:HG3	52:B8:12:LYS:HG2	2.03	0.41
23:BA:2250:G:OP2	23:BA:2275:C:H2'	2.20	0.41
23:BA:242:G:C8	52:B8:5:LYS:HG2	2.56	0.41
23:BA:2712:U:OP1	23:BA:2714:G:H4'	2.21	0.41
23:BA:287:C:H2'	23:BA:288:C:H6	1.86	0.41
23:BA:362:U:H6	23:BA:362:U:H2'	1.54	0.41
23:BA:748:G:C8	40:BW:89:ALA:HB1	2.55	0.41
24:BB:43:C:OP1	48:B4:2:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:91:SER:HB3	30:BI:121:LYS:HD3	2.02	0.41
35:BR:67:LEU:HD13	35:BR:67:LEU:HA	1.87	0.41
37:BT:56:GLY:O	37:BT:59:THR:HG23	2.20	0.41
23:BA:2682:U:O2'	37:BT:58:ASN:ND2	2.53	0.41
43:BZ:145:GLU:H	43:BZ:148:ASP:HB2	1.85	0.41
43:BZ:76:LEU:HA	43:BZ:76:LEU:HD12	1.83	0.41
1:CA:149:A:O2'	1:CA:150:C:C6	2.67	0.41
1:CA:200:G:H1	1:CA:217:C:H42	1.68	0.41
1:CA:741:G:H2'	1:CA:742:G:O4'	2.21	0.41
1:CA:936:C:H2'	1:CA:937:A:O4'	2.20	0.41
2:CB:111:ARG:HD3	2:CB:111:ARG:HA	1.83	0.41
2:CB:179:LYS:HA	8:CH:72:PRO:HG3	2.02	0.41
2:CB:71:VAL:HG13	2:CB:93:VAL:HG21	2.02	0.41
1:CA:546:G:OP1	4:CD:73:ARG:HB2	2.21	0.41
7:CG:68:ASN:ND2	7:CG:128:ALA:O	2.53	0.41
1:CA:538:G:P	12:CL:115:LYS:HB2	2.60	0.41
12:CL:8:ASN:O	12:CL:12:ARG:HG3	2.21	0.41
16:CP:72:ARG:HG3	16:CP:72:ARG:NH1	2.36	0.41
47:D3:3:ARG:HD3	47:D3:60:GLU:OE1	2.21	0.41
48:D4:15:ILE:HB	48:D4:32:TYR:CD2	2.56	0.41
50:D6:23:THR:OG1	50:D6:24:GLU:N	2.54	0.41
23:DA:1180:C:H2'	23:DA:1181:C:H6	1.86	0.41
23:DA:1324:G:C5	23:DA:1328:G:O6	2.73	0.41
23:DA:1531:C:N4	23:DA:1538:G:H1	2.15	0.41
23:DA:1790:C:H2'	23:DA:1791:A:C5	2.56	0.41
23:DA:2600:A:O2'	23:DA:2601:C:H5'	2.21	0.41
23:DA:2768:C:H2'	23:DA:2769:C:O4'	2.19	0.41
23:DA:699:A:C2	23:DA:1633:G:N3	2.89	0.41
25:DD:183:ARG:HG3	25:DD:270:ILE:HG12	2.03	0.41
26:DE:60:ASN:OD1	26:DE:62:PRO:HD2	2.21	0.41
23:DA:659:C:H4'	27:DF:100:THR:O	2.21	0.41
33:DP:101:VAL:HA	33:DP:106:LEU:O	2.21	0.41
33:DP:126:VAL:CG1	33:DP:148:LEU:HD13	2.51	0.41
34:DQ:72:LYS:HA	34:DQ:73:PRO:HD3	1.89	0.41
36:DS:11:LYS:HD3	36:DS:15:ARG:NH1	2.35	0.41
43:DZ:152:ALA:N	43:DZ:171:ILE:HG12	2.35	0.41
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.55	0.41
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.53	0.41
1:AA:938:A:N6	1:AA:939:G:C6	2.89	0.41
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.35	0.41
12:AL:27:LEU:CB	12:AL:33:ARG:HD3	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:32:PHE:HB3	12:AL:84:LEU:HD11	2.03	0.41
13:AM:73:GLU:O	13:AM:76:ALA:HB3	2.21	0.41
22:AY:93:GLU:C	22:AY:95:ARG:H	2.22	0.41
46:B2:51:ARG:O	46:B2:55:ARG:HD2	2.21	0.41
23:BA:1177:A:H2'	23:BA:1177:A:OP2	2.21	0.41
23:BA:1429:G:HO2'	23:BA:1430:C:H5'	1.86	0.41
23:BA:2118:U:O2'	23:BA:2119:A:H5"	2.21	0.41
23:BA:2093:G:C6	23:BA:2225:A:C8	3.08	0.41
23:BA:2464:C:O2'	23:BA:2465:C:H6	2.03	0.41
23:BA:330:A:O2'	23:BA:331:A:H8	2.03	0.41
23:BA:695:G:OP1	23:BA:1380:G:O2'	2.28	0.41
25:BD:183:ARG:HG3	25:BD:270:ILE:HG12	2.03	0.41
27:BF:103:LYS:HA	27:BF:106:ARG:HG2	2.03	0.41
27:BF:64:ILE:HG21	27:BF:78:ILE:HG23	2.03	0.41
31:BN:30:ILE:HG22	31:BN:34:LEU:HD22	2.02	0.41
37:BT:45:PHE:CE1	37:BT:74:ARG:HG3	2.56	0.41
1:CA:1238:A:OP1	1:CA:1335:C:H1'	2.20	0.41
1:CA:134:A:H61	16:CP:25:ARG:NH1	2.18	0.41
1:CA:1365:G:H5'	56:CA:2156:HOH:O	2.21	0.41
1:CA:1380:U:C2	7:CG:3:ARG:NH1	2.89	0.41
1:CA:1493:A:C2	1:CA:1494:G:C8	3.09	0.41
1:CA:473:G:H2'	1:CA:474:G:C8	2.51	0.41
1:CA:542:G:H2'	1:CA:543:C:C6	2.54	0.41
2:CB:185:ILE:HG22	2:CB:199:TYR:CD1	2.55	0.41
3:CC:6:HIS:HD2	3:CC:7:PRO:HD2	1.86	0.41
9:CI:106:ALA:O	9:CI:108:VAL:HG23	2.20	0.41
15:CO:29:VAL:HG11	15:CO:81:LEU:HD21	2.03	0.41
22:CY:23:ARG:HG3	22:CY:78:ILE:HG13	2.03	0.41
44:D0:70:GLN:HG2	44:D0:72:ARG:HG2	2.03	0.41
45:D1:49:VAL:O	45:D1:59:THR:HA	2.20	0.41
48:D4:42:PHE:CB	48:D4:43:TYR:HB2	2.49	0.41
50:D6:9:LEU:HD21	50:D6:25:LYS:HB3	2.03	0.41
52:D8:34:TRP:CE2	52:D8:35:GLN:HB3	2.56	0.41
23:DA:1031:G:H21	53:D9:36:GLN:HE22	1.68	0.41
23:DA:1021:A:C3'	23:DA:1021:A:C8	3.03	0.41
23:DA:1314:C:H5'	23:DA:1314:C:H6	1.86	0.41
23:DA:1702:G:H2'	23:DA:1703:G:O4'	2.20	0.41
23:DA:2040:C:H2'	23:DA:2041:U:O4'	2.20	0.41
23:DA:2095:C:H2'	23:DA:2096:U:O4'	2.21	0.41
23:DA:2473:U:C2	23:DA:2474:C:C6	3.09	0.41
23:DA:265:A:H1'	23:DA:266:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2721:A:O2'	23:DA:2874:C:H5'	2.21	0.41
26:DE:116:VAL:HG13	26:DE:122:PHE:CB	2.50	0.41
30:DI:88:ILE:HG22	30:DI:89:TYR:N	2.36	0.41
36:DS:87:PHE:CE1	36:DS:102:ALA:HB2	2.56	0.41
37:DT:56:GLY:O	37:DT:59:THR:CG2	2.69	0.41
38:DU:61:TRP:CD2	38:DU:93:LYS:HA	2.56	0.41
1:AA:994:A:N7	1:AA:1216:G:H4'	2.36	0.41
1:AA:954:G:H21	1:AA:1227:A:H62	1.68	0.41
1:AA:984:C:H2'	1:AA:985:C:C6	2.56	0.41
2:AB:25:ASN:O	2:AB:27:LYS:N	2.53	0.41
9:AI:46:ALA:HB2	9:AI:74:ILE:HG22	2.02	0.41
13:AM:87:TYR:C	13:AM:89:GLY:N	2.74	0.41
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.21	0.41
23:BA:1022:G:H22	23:BA:1142(A):A:H2	1.55	0.41
23:BA:1028:A:N6	23:BA:1125:G:H2'	2.35	0.41
23:BA:1686:C:C2'	23:BA:1687:G:H5'	2.51	0.41
23:BA:2497:A:H5"	56:BA:4022:HOH:O	2.21	0.41
23:BA:2637:U:C2'	23:BA:2638:G:H5'	2.51	0.41
23:BA:271(K):U:H4'	23:BA:271(L):U:OP2	2.15	0.41
23:BA:2838:G:C6	23:BA:2839:G:C5	3.09	0.41
25:BD:24:ILE:HD13	25:BD:84:TYR:HB2	2.03	0.41
35:BR:17:ARG:HD2	35:BR:17:ARG:HH11	1.63	0.41
1:CA:1066:C:O2'	1:CA:1067:A:H5'	2.20	0.41
1:CA:1089:G:H1	1:CA:1096:C:N4	2.14	0.41
1:CA:443:C:H2'	1:CA:444:C:H6	1.86	0.41
1:CA:561:U:O2'	1:CA:562:C:P	2.78	0.41
1:CA:872:A:C4	1:CA:874:G:N7	2.89	0.41
2:CB:71:VAL:HG13	2:CB:93:VAL:HG23	2.03	0.41
1:CA:1055:A:O2'	3:CC:161:GLU:O	2.35	0.41
3:CC:46:GLU:H	3:CC:46:GLU:CD	2.24	0.41
8:CH:21:LYS:O	8:CH:63:LEU:HD23	2.21	0.41
9:CI:74:ILE:HA	9:CI:77:ILE:HD12	2.03	0.41
13:CM:13:LYS:O	13:CM:18:ALA:HB2	2.21	0.41
16:CP:48:TRP:N	16:CP:48:TRP:CD1	2.88	0.41
19:CS:35:SER:O	19:CS:37:ARG:N	2.54	0.41
22:CY:17:ARG:O	22:CY:20:VAL:HG12	2.21	0.41
50:D6:44:ARG:HB3	50:D6:44:ARG:HH11	1.86	0.41
23:DA:1549:C:H2'	23:DA:1550:C:H6	1.86	0.41
23:DA:2716:U:O2'	23:DA:2717:G:H5'	2.21	0.41
23:DA:573:G:O2'	23:DA:574:C:H3'	2.20	0.41
23:DA:708:C:H6	23:DA:708:C:H5"	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:886:C:H1'	23:DA:890:A:N6	2.36	0.41
25:DD:33:LEU:HD23	25:DD:33:LEU:HA	1.86	0.41
30:DI:85:GLU:CG	30:DI:86:THR:H	2.34	0.41
31:DN:5:VAL:H	38:DU:64:ARG:HH22	1.68	0.41
39:DV:68:LYS:HE3	39:DV:68:LYS:HB3	1.70	0.41
1:AA:1091:U:C2	1:AA:1095:U:N3	2.89	0.41
1:AA:142:G:H2'	1:AA:143:A:C8	2.56	0.41
1:AA:167:G:O2'	1:AA:168:G:H5'	2.20	0.41
1:AA:475:G:C2'	1:AA:476:G:H5'	2.51	0.41
1:AA:53:A:N1	1:AA:54:C:C2	2.89	0.41
1:AA:561:U:HO2'	1:AA:562:C:P	2.43	0.41
1:AA:561:U:O2'	1:AA:562:C:P	2.80	0.41
1:AA:611:A:H2	1:AA:630:G:H22	1.69	0.41
1:AA:657:G:C2	1:AA:658:G:C8	3.08	0.41
1:AA:751:U:H4'	15:AO:24:SER:HB2	2.03	0.41
1:AA:834:C:H2'	1:AA:835:U:C6	2.56	0.41
1:AA:965:A:H5'	1:AA:969:A:O4'	2.21	0.41
3:AC:6:HIS:HA	3:AC:7:PRO:HD3	1.64	0.41
1:AA:9:G:H5"	5:AE:126:ARG:HD3	2.03	0.41
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.20	0.41
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.51	0.41
19:AS:75:ALA:HA	19:AS:76:PRO:HD3	1.90	0.41
23:BA:857:C:H4'	44:B0:23:VAL:HG21	2.01	0.41
23:BA:2103:C:O2	23:BA:2187:G:C2	2.73	0.41
23:BA:2134:A:HO2'	23:BA:2159:G:N2	2.19	0.41
23:BA:30:G:H2'	23:BA:31:C:C6	2.56	0.41
23:BA:720:C:H2'	23:BA:721:C:C6	2.55	0.41
28:BG:128:ARG:HE	28:BG:128:ARG:HB2	1.57	0.41
31:BN:48:MET:H	31:BN:48:MET:HG3	1.58	0.41
33:BP:47:ASP:OD2	33:BP:50:ARG:NH2	2.53	0.41
34:BQ:103:MET:CE	34:BQ:125:LEU:HD13	2.51	0.41
38:BU:58:ARG:HA	38:BU:61:TRP:CE3	2.56	0.41
1:CA:1187:G:H3'	1:CA:1188:A:H8	1.85	0.41
1:CA:1299:A:C6	1:CA:1301:U:C2	3.09	0.41
1:CA:1338:G:C2	1:CA:1339:A:C4	3.09	0.41
1:CA:1338:G:C6	1:CA:1339:A:C6	3.09	0.41
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.86	0.41
1:CA:547:A:H5'	56:CA:2174:HOH:O	2.20	0.41
1:CA:977:A:N1	1:CA:1224:G:C8	2.89	0.41
7:CG:46:ALA:O	7:CG:50:ILE:N	2.48	0.41
8:CH:49:GLU:OE2	8:CH:62:TYR:OH	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:37:PHE:HB3	9:CI:43:ALA:HB1	2.02	0.41
15:CO:15:PHE:CE2	15:CO:84:LYS:HD2	2.56	0.41
52:D8:30:ARG:HA	52:D8:30:ARG:HD3	1.82	0.41
23:DA:83:G:H22	23:DA:102:G:H1'	1.84	0.41
23:DA:107:C:H2'	23:DA:108:U:H6	1.86	0.41
23:DA:2147:G:H2'	23:DA:2148:G:C4'	2.51	0.41
23:DA:2158:A:H1'	23:DA:2159:G:C8	2.55	0.41
23:DA:2266:A:H4'	23:DA:2267:A:C4	2.55	0.41
23:DA:2316:C:H2'	23:DA:2317:C:H6	1.84	0.41
23:DA:414:C:O2'	23:DA:415:A:H5'	2.21	0.41
23:DA:960:A:H5"	23:DA:961:C:OP2	2.21	0.41
23:DA:784:A:C5	25:DD:229:VAL:HG21	2.56	0.41
28:DG:57:ALA:HA	28:DG:68:PRO:HG2	2.01	0.41
31:DN:109:LYS:HD2	31:DN:109:LYS:N	2.35	0.41
41:DX:54:VAL:HG13	41:DX:81:VAL:HG12	2.02	0.41
1:AA:1024:G:H8	1:AA:1024:G:P	2.44	0.40
1:AA:1030(B):C:H2'	1:AA:1030(C):G:H5'	2.03	0.40
1:AA:152:A:N6	1:AA:170:U:C2	2.89	0.40
1:AA:723:U:H6	1:AA:723:U:H2'	1.73	0.40
1:AA:785:G:C2'	1:AA:786:G:H5'	2.51	0.40
4:AD:188:LEU:HA	4:AD:189:PRO:HD3	1.97	0.40
5:AE:143:ARG:HH11	5:AE:143:ARG:HD2	1.76	0.40
12:AL:7:ILE:HA	12:AL:7:ILE:HD13	1.88	0.40
23:BA:1290:C:H2'	23:BA:1291:C:H6	1.85	0.40
23:BA:2345:G:N3	23:BA:2381:C:H2'	2.36	0.40
23:BA:2492:U:H2'	23:BA:2493:U:H6	1.86	0.40
23:BA:2705:A:H2'	23:BA:2706:G:O4'	2.21	0.40
26:BE:117:MET:O	26:BE:118:LYS:HB3	2.21	0.40
26:BE:52:LEU:O	26:BE:76:ARG:N	2.45	0.40
31:BN:20:GLY:HA2	31:BN:61:ARG:HD3	2.04	0.40
36:BS:67:ARG:O	36:BS:71:ARG:HG3	2.21	0.40
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.56	0.40
1:CA:1246:C:H2'	1:CA:1247:U:H6	1.86	0.40
1:CA:1367:C:N3	1:CA:1368:G:C8	2.89	0.40
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.21	0.40
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.85	0.40
1:CA:116:A:H61	1:CA:313:A:H1'	1.85	0.40
1:CA:453:A:C6	1:CA:454:C:C4	3.09	0.40
1:CA:668:G:O4'	15:CO:49:ASP:HB2	2.20	0.40
1:CA:983:A:H3'	1:CA:983:A:N3	2.36	0.40
3:CC:35:GLU:HG2	3:CC:36:ASP:N	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:95:ALA:HB1	5:CE:96:PRO:HD2	2.02	0.40
7:CG:90:GLU:H	7:CG:90:GLU:CD	2.24	0.40
12:CL:32:PHE:HB3	12:CL:84:LEU:HD11	2.03	0.40
15:CO:3:ILE:HD13	15:CO:3:ILE:H	1.85	0.40
23:DA:1488:G:H5'	23:DA:1489:U:OP2	2.20	0.40
23:DA:1816:G:O6	25:DD:35:LYS:NZ	2.42	0.40
23:DA:1913:A:OP2	23:DA:1913:A:H3'	2.20	0.40
23:DA:2119:A:C6	23:DA:2170:A:C5	3.09	0.40
23:DA:2597:G:H2'	23:DA:2598:A:C8	2.56	0.40
23:DA:2702:U:H4'	23:DA:2703:C:OP1	2.22	0.40
23:DA:271(P):C:C2'	23:DA:271(Q):G:H5'	2.51	0.40
23:DA:296:C:O2'	23:DA:297:C:H5'	2.20	0.40
23:DA:445:C:O2'	23:DA:446:G:H5'	2.21	0.40
23:DA:597:U:H2'	23:DA:598:G:C8	2.56	0.40
23:DA:601:C:OP1	27:DF:108:LYS:HE3	2.20	0.40
23:DA:614:U:H2'	23:DA:614(A):U:O4'	2.21	0.40
23:DA:922:U:H2'	23:DA:923:C:C6	2.56	0.40
31:DN:14:VAL:HG13	31:DN:138:LEU:HG	2.03	0.40
33:DP:97:PRO:HD3	33:DP:126:VAL:O	2.20	0.40
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.85	0.40
1:AA:1503:A:N9	1:AA:1531:A:H8	2.19	0.40
1:AA:232:G:H1'	1:AA:262:A:N1	2.36	0.40
1:AA:593:G:C2	1:AA:647:C:O2	2.74	0.40
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.85	0.40
8:AH:14:ARG:O	8:AH:18:ARG:HD3	2.21	0.40
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	2.03	0.40
12:AL:84:LEU:HD22	12:AL:85:ILE:H	1.84	0.40
45:B1:86:SER:O	45:B1:89:GLU:HG2	2.20	0.40
46:B2:3:LEU:HA	46:B2:3:LEU:HD23	1.87	0.40
23:BA:1558:A:N3	23:BA:1558:A:O4'	2.54	0.40
23:BA:1701:A:OP2	56:BA:5549:HOH:O	2.22	0.40
23:BA:2298:A:H2'	23:BA:2299:G:O4'	2.22	0.40
23:BA:225:A:O2'	23:BA:257:A:H4'	2.22	0.40
23:BA:265:A:H1'	23:BA:266:G:O4'	2.21	0.40
23:BA:300:A:P	42:BY:86:ARG:NH2	2.94	0.40
25:BD:221:VAL:HG22	25:BD:226:MET:CE	2.51	0.40
25:BD:232:PRO:HB3	25:BD:244:ARG:CZ	2.51	0.40
27:BF:29:ASN:H	27:BF:112:MET:CE	2.34	0.40
29:BH:54:ARG:HD3	29:BH:65:HIS:ND1	2.35	0.40
31:BN:128:HIS:H	31:BN:128:HIS:CD2	2.39	0.40
33:BP:52:GLU:HB3	33:BP:55:ARG:HD2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BS:39:ILE:HD12	36:BS:85:VAL:HG21	2.02	0.40
39:BV:61:VAL:HG22	39:BV:61:VAL:O	2.21	0.40
43:BZ:160:GLY:CA	43:BZ:161:VAL:HB	2.38	0.40
1:CA:1088:G:C6	1:CA:1089:G:C5	3.10	0.40
1:CA:116:A:OP2	56:CA:1949:HOH:O	2.22	0.40
1:CA:1492:A:H3'	1:CA:1493:A:O4'	2.21	0.40
3:CC:109:PRO:O	3:CC:112:SER:HB3	2.22	0.40
3:CC:19:GLU:HB2	3:CC:40:ARG:HH22	1.86	0.40
3:CC:52:LEU:CB	3:CC:70:VAL:HA	2.51	0.40
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.36	0.40
5:CE:18:ARG:O	5:CE:24:ARG:HB2	2.22	0.40
11:CK:45:GLY:O	11:CK:50:TYR:HB2	2.21	0.40
13:CM:52:GLU:O	13:CM:56:LEU:HB2	2.20	0.40
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.21	0.40
17:CQ:85:VAL:O	17:CQ:89:LEU:HG	2.22	0.40
44:D0:72:ARG:CB	44:D0:75:LEU:HB2	2.51	0.40
50:D6:30:THR:OG1	50:D6:30:THR:O	2.39	0.40
23:DA:819:A:C4	23:DA:1189:A:C2	3.08	0.40
23:DA:1589:C:H2'	23:DA:1590:U:C6	2.57	0.40
23:DA:1786:A:H1'	23:DA:1938:A:N6	2.36	0.40
23:DA:2104:G:N2	23:DA:2105:C:C2	2.89	0.40
23:DA:2136:C:C5	23:DA:2137:C:H5	2.39	0.40
23:DA:2238:G:N3	23:DA:2238:G:H2'	2.36	0.40
23:DA:729:G:C5	25:DD:208:LYS:HB2	2.56	0.40
26:DE:119:ARG:HG2	26:DE:160:TYR:HB2	2.02	0.40
31:DN:23:LEU:HD12	31:DN:99:LEU:HD23	2.02	0.40
34:DQ:48:GLU:O	34:DQ:52:VAL:HG23	2.21	0.40
35:DR:97:VAL:CG2	35:DR:114:VAL:HG13	2.51	0.40
38:DU:16:LYS:HB3	38:DU:16:LYS:HE2	1.66	0.40
1:AA:1492:A:H2'	1:AA:1492:A:N3	2.36	0.40
1:AA:40:C:C2	1:AA:402:G:N2	2.81	0.40
3:AC:180:ALA:HB1	3:AC:182:ILE:HG13	2.04	0.40
3:AC:125:GLU:HG2	3:AC:189:ALA:HB1	2.04	0.40
4:AD:30:LYS:CB	4:AD:35:ARG:HD2	2.51	0.40
7:AG:41:ARG:H	7:AG:41:ARG:HG3	1.43	0.40
10:AJ:55:LYS:HG2	10:AJ:56:HIS:N	2.36	0.40
12:AL:47:LYS:HA	12:AL:48:PRO:HA	1.80	0.40
1:AA:1329:A:OP1	13:AM:28:ALA:HB3	2.22	0.40
23:BA:1164:G:H2'	23:BA:1165:U:C6	2.57	0.40
23:BA:1173:G:OP2	23:BA:1173:G:H2'	2.21	0.40
23:BA:2061:G:H5"	23:BA:2503:A:C2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2526:G:H5'	23:BA:2742:C:O2'	2.21	0.40
25:BD:4:LYS:HG2	25:BD:18:VAL:CG2	2.51	0.40
27:BF:162:LEU:HA	27:BF:162:LEU:HD12	1.93	0.40
39:BV:5:VAL:HG11	39:BV:57:VAL:HG21	2.04	0.40
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.56	0.40
1:CA:1442:G:C8	1:CA:1442(A):G:C4	3.10	0.40
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.20	0.40
1:CA:926:G:O4'	22:CY:91:LYS:HE2	2.21	0.40
4:CD:8:VAL:HG22	4:CD:21:LEU:CD1	2.51	0.40
7:CG:148:ASN:HD22	7:CG:151:TYR:HD1	1.66	0.40
7:CG:56:GLN:HB2	7:CG:57:GLU:H	1.59	0.40
11:CK:21:ILE:HB	11:CK:84:VAL:HG22	2.03	0.40
13:CM:30:ALA:O	13:CM:34:LEU:HG	2.21	0.40
13:CM:44:ARG:HB2	13:CM:47:ASP:OD2	2.21	0.40
15:CO:74:ASP:HA	15:CO:75:PRO:HD2	1.84	0.40
17:CQ:87:LYS:HD3	17:CQ:87:LYS:HA	1.82	0.40
47:D3:8:LEU:HD23	47:D3:8:LEU:HA	1.81	0.40
23:DA:1022:G:C5	23:DA:1140:C:C4	3.09	0.40
23:DA:1371:G:O6	56:DA:4328:HOH:O	2.22	0.40
23:DA:150:C:H2'	23:DA:151:C:C6	2.56	0.40
23:DA:1686:C:H2'	23:DA:1687:G:O4'	2.21	0.40
23:DA:1744:C:O2'	23:DA:1745:C:H5'	2.22	0.40
23:DA:836:G:C5	23:DA:837:C:C4	3.09	0.40
33:DP:52:GLU:HB3	33:DP:55:ARG:HD2	2.03	0.40
34:DQ:39:PRO:HA	34:DQ:97:VAL:O	2.22	0.40
36:DS:110:LEU:HD12	36:DS:110:LEU:HA	2.01	0.40
36:DS:90:GLY:HA3	36:DS:91:PRO:HD2	1.78	0.40
40:DW:58:ALA:HB1	40:DW:64:MET:HB2	2.01	0.40
43:DZ:48:PHE:HE2	43:DZ:71:VAL:HG11	1.87	0.40
1:AA:1004:A:N7	1:AA:1036:G:C2	2.90	0.40
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.22	0.40
1:AA:1380:U:C2	7:AG:3:ARG:NH1	2.90	0.40
1:AA:1452:C:HO2'	1:AA:1456:G:P	2.42	0.40
1:AA:257:G:H2'	1:AA:258:G:O4'	2.21	0.40
2:AB:21:ARG:HB3	2:AB:39:ILE:HG12	2.02	0.40
3:AC:150:LYS:HB2	3:AC:150:LYS:HE3	1.83	0.40
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.56	0.40
19:AS:74:PHE:N	19:AS:74:PHE:CD2	2.89	0.40
20:AT:10:LEU:CG	20:AT:11:SER:H	2.35	0.40
23:BA:1174:A:H5'	23:BA:1177:A:N6	2.26	0.40
23:BA:1575:C:H2'	23:BA:1576:U:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1721:G:H8	23:BA:1741:A:H62	1.70	0.40
23:BA:271(Q):G:O2'	23:BA:271(R):G:OP2	2.39	0.40
23:BA:776:G:H4'	23:BA:777:A:O5'	2.21	0.40
23:BA:856:C:HO2'	23:BA:857:C:P	2.44	0.40
31:BN:39:ARG:HA	31:BN:40:PRO:HD3	1.96	0.40
34:BQ:42:ILE:HD13	34:BQ:97:VAL:HG21	2.04	0.40
37:BT:128:GLU:O	37:BT:129:ARG:C	2.59	0.40
1:CA:1094:G:OP1	56:CA:2093:HOH:O	2.21	0.40
1:CA:1118:C:OP1	9:CI:9:ARG:NH1	2.36	0.40
1:CA:1150:U:C4	1:CA:1151:A:N7	2.90	0.40
1:CA:1189:C:H4'	3:CC:10:PHE:CE1	2.57	0.40
1:CA:1350:A:H2'	1:CA:1351:U:C6	2.56	0.40
1:CA:257:G:H2'	1:CA:258:G:O4'	2.21	0.40
1:CA:66:G:OP1	1:CA:66:G:H8	2.05	0.40
1:CA:930:C:H2'	1:CA:931:C:H5'	2.04	0.40
1:CA:953:G:C6	1:CA:954:G:C5	3.10	0.40
5:CE:90:VAL:O	5:CE:120:THR:HA	2.21	0.40
20:CT:41:ILE:HD12	20:CT:42:GLN:N	2.36	0.40
33:DP:68:GLN:HG3	52:D8:12:LYS:HG2	2.03	0.40
23:DA:1385:G:H4'	23:DA:1386:C:OP1	2.22	0.40
23:DA:2295:C:OP1	36:DS:10:ARG:NH1	2.55	0.40
23:DA:374:A:H5'	56:DA:4884:HOH:O	2.20	0.40
23:DA:548:A:O2'	23:DA:549:G:OP1	2.37	0.40
23:DA:863:A:P	34:DQ:22:LYS:HG3	2.61	0.40
23:DA:982:C:H6	23:DA:982:C:O5'	2.04	0.40
25:DD:132:PRO:HD3	25:DD:190:TYR:CZ	2.57	0.40
27:DF:129:PHE:HD1	27:DF:142:TRP:CE2	2.39	0.40
27:DF:132:VAL:HG23	27:DF:163:VAL:HG22	2.04	0.40
40:DW:20:VAL:O	40:DW:23:LEU:HB2	2.20	0.40
43:DZ:182:LYS:HE3	43:DZ:186:GLU:OE2	2.22	0.40
1:AA:1060:C:O2'	10:AJ:56:HIS:HD2	2.04	0.40
1:AA:1291:G:C5	1:AA:1292:U:C5	3.09	0.40
1:AA:735:C:H2'	1:AA:736:C:C6	2.46	0.40
1:AA:954:G:C6	1:AA:955:U:N3	2.90	0.40
2:AB:92:TYR:CE1	2:AB:94:ASN:HB2	2.57	0.40
7:AG:29:LYS:HD3	7:AG:29:LYS:HA	1.96	0.40
8:AH:39:LEU:O	8:AH:44:PHE:N	2.53	0.40
11:AK:84:VAL:HG11	11:AK:91:ARG:HD2	2.04	0.40
15:AO:9:GLN:HA	15:AO:12:ILE:HD12	2.02	0.40
23:BA:1889:A:H2'	23:BA:1890:A:C8	2.56	0.40
23:BA:2114:A:H3'	23:BA:2115:G:H8	1.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2318:G:N3	23:BA:2318:G:H2'	2.36	0.40
23:BA:2637:U:O2'	23:BA:2638:G:H5'	2.21	0.40
23:BA:2833:G:O2'	23:BA:2834:G:P	2.80	0.40
23:BA:2850:A:OP2	23:BA:2866:U:C5	2.72	0.40
23:BA:443:A:N7	27:BF:45:ARG:HG2	2.37	0.40
23:BA:614:U:H2'	23:BA:614(A):U:O4'	2.22	0.40
30:BI:86:THR:HG22	30:BI:122:GLU:OE2	2.21	0.40
30:BI:131:LYS:C	30:BI:133:HIS:H	2.25	0.40
31:BN:94:HIS:HB3	31:BN:97:ARG:HD3	2.03	0.40
37:BT:16:ARG:HB2	37:BT:79:HIS:ND1	2.36	0.40
41:BX:33:LYS:HD3	41:BX:33:LYS:HA	1.88	0.40
1:CA:1245:A:C6	1:CA:1246:C:C4	3.09	0.40
1:CA:1309:G:O3'	13:CM:77:ASN:ND2	2.54	0.40
1:CA:130:A:O2'	1:CA:131:C:O5'	2.30	0.40
1:CA:1356:G:N2	1:CA:1367:C:C2	2.89	0.40
1:CA:658:G:C6	1:CA:659:U:C4	3.09	0.40
1:CA:790:A:H1'	22:CY:29:LYS:O	2.21	0.40
1:CA:858:G:O6	1:CA:869:G:H3'	2.21	0.40
1:CA:93:G:H1'	1:CA:96:U:H5'	2.04	0.40
2:CB:215:LEU:HA	2:CB:215:LEU:HD23	1.74	0.40
5:CE:89:ILE:HD13	5:CE:90:VAL:N	2.37	0.40
12:CL:27:LEU:CB	12:CL:62:SER:HB3	2.51	0.40
45:D1:86:SER:O	45:D1:89:GLU:HG2	2.22	0.40
23:DA:250:G:P	52:D8:13:ARG:HH22	2.44	0.40
23:DA:228:A:H2'	23:DA:230:U:O4'	2.21	0.40
23:DA:2296:U:O2'	23:DA:2297:C:OP2	2.26	0.40
23:DA:2492:U:H2'	23:DA:2493:U:C6	2.56	0.40
23:DA:2756:U:H1'	23:DA:2757:A:H5"	2.03	0.40
23:DA:795:C:H2'	23:DA:796:C:C6	2.57	0.40
23:DA:897:C:O5'	23:DA:897:C:H6	2.04	0.40
24:DB:95:C:H2'	24:DB:96:U:C6	2.57	0.40
25:DD:106:ILE:O	25:DD:108:PRO:HD3	2.20	0.40
25:DD:85:ASP:OD2	25:DD:88:ARG:NH1	2.43	0.40
26:DE:72:VAL:HA	26:DE:73:GLU:HB3	2.04	0.40
29:DH:71:LEU:O	29:DH:74:ASN:HB2	2.22	0.40
30:DI:68:LEU:HA	30:DI:68:LEU:HD13	1.49	0.40
42:DY:20:TYR:N	42:DY:20:TYR:CD1	2.89	0.40
43:DZ:56:VAL:HG23	43:DZ:133:ILE:HD13	2.04	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BR:308:HOH:O	56:BV:310:HOH:O[4_445]	2.03	0.17
39:BV:101:GLY:O	56:BA:5729:HOH:O[4_545]	2.17	0.03

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	AB	227/256 (89%)	185 (82%)	40 (18%)	2 (1%)	17 40
2	CB	233/256 (91%)	187 (80%)	43 (18%)	3 (1%)	12 30
3	AC	204/239 (85%)	176 (86%)	28 (14%)	0	100 100
3	CC	204/239 (85%)	169 (83%)	31 (15%)	4 (2%)	7 19
4	AD	206/209 (99%)	186 (90%)	20 (10%)	0	100 100
4	CD	206/209 (99%)	182 (88%)	23 (11%)	1 (0%)	29 54
5	AE	146/162 (90%)	128 (88%)	17 (12%)	1 (1%)	22 46
5	CE	146/162 (90%)	130 (89%)	15 (10%)	1 (1%)	22 46
6	AF	98/101 (97%)	96 (98%)	2 (2%)	0	100 100
6	CF	97/101 (96%)	95 (98%)	2 (2%)	0	100 100
7	AG	153/156 (98%)	132 (86%)	20 (13%)	1 (1%)	22 46
7	CG	153/156 (98%)	130 (85%)	22 (14%)	1 (1%)	22 46
8	AH	136/138 (99%)	129 (95%)	7 (5%)	0	100 100
8	CH	136/138 (99%)	128 (94%)	8 (6%)	0	100 100
9	AI	123/128 (96%)	108 (88%)	13 (11%)	2 (2%)	9 24
9	CI	123/128 (96%)	104 (85%)	14 (11%)	5 (4%)	3 6
10	AJ	94/105 (90%)	72 (77%)	15 (16%)	7 (7%)	1 1
10	CJ	94/105 (90%)	72 (77%)	18 (19%)	4 (4%)	2 5
11	AK	112/129 (87%)	103 (92%)	9 (8%)	0	100 100
11	CK	112/129 (87%)	104 (93%)	8 (7%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
12	AL	120/132 (91%)	109 (91%)	10 (8%)	1 (1%)	19 43
12	CL	120/132 (91%)	109 (91%)	10 (8%)	1 (1%)	19 43
13	AM	112/126 (89%)	86 (77%)	22 (20%)	4 (4%)	3 7
13	CM	110/126 (87%)	86 (78%)	18 (16%)	6 (6%)	2 3
14	AN	58/61 (95%)	50 (86%)	7 (12%)	1 (2%)	9 23
14	CN	58/61 (95%)	49 (84%)	5 (9%)	4 (7%)	1 1
15	AO	86/89 (97%)	81 (94%)	5 (6%)	0	100 100
15	CO	86/89 (97%)	79 (92%)	7 (8%)	0	100 100
16	AP	80/88 (91%)	74 (92%)	5 (6%)	1 (1%)	12 30
16	CP	80/88 (91%)	74 (92%)	5 (6%)	1 (1%)	12 30
17	AQ	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	15 37
17	CQ	97/105 (92%)	89 (92%)	8 (8%)	0	100 100
18	AR	66/88 (75%)	55 (83%)	11 (17%)	0	100 100
18	CR	66/88 (75%)	56 (85%)	10 (15%)	0	100 100
19	AS	79/93 (85%)	67 (85%)	11 (14%)	1 (1%)	12 30
19	CS	76/93 (82%)	57 (75%)	18 (24%)	1 (1%)	12 30
20	AT	94/106 (89%)	77 (82%)	17 (18%)	0	100 100
20	CT	102/106 (96%)	79 (78%)	20 (20%)	3 (3%)	4 10
21	AU	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
21	CU	21/27 (78%)	16 (76%)	5 (24%)	0	100 100
22	AY	93/119 (78%)	85 (91%)	7 (8%)	1 (1%)	14 34
22	CY	92/119 (77%)	87 (95%)	5 (5%)	0	100 100
25	BD	273/276 (99%)	262 (96%)	8 (3%)	3 (1%)	14 34
25	DD	273/276 (99%)	262 (96%)	8 (3%)	3 (1%)	14 34
26	BE	202/206 (98%)	191 (95%)	8 (4%)	3 (2%)	10 26
26	DE	202/206 (98%)	187 (93%)	12 (6%)	3 (2%)	10 26
27	BF	201/210 (96%)	189 (94%)	10 (5%)	2 (1%)	15 37
27	DF	201/210 (96%)	191 (95%)	8 (4%)	2 (1%)	15 37
28	BG	179/182 (98%)	149 (83%)	26 (14%)	4 (2%)	6 17
28	DG	179/182 (98%)	148 (83%)	29 (16%)	2 (1%)	14 34
29	BH	172/180 (96%)	161 (94%)	10 (6%)	1 (1%)	25 50

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
29	DH	172/180 (96%)	160 (93%)	9 (5%)	3 (2%)	9 23
30	BI	144/148 (97%)	116 (81%)	24 (17%)	4 (3%)	5 11
30	DI	144/148 (97%)	119 (83%)	22 (15%)	3 (2%)	7 18
31	BN	138/140 (99%)	125 (91%)	11 (8%)	2 (1%)	11 28
31	DN	138/140 (99%)	125 (91%)	11 (8%)	2 (1%)	11 28
32	BO	120/122 (98%)	118 (98%)	2 (2%)	0	100 100
32	DO	120/122 (98%)	118 (98%)	2 (2%)	0	100 100
33	BP	147/150 (98%)	132 (90%)	13 (9%)	2 (1%)	11 28
33	DP	147/150 (98%)	130 (88%)	15 (10%)	2 (1%)	11 28
34	BQ	139/141 (99%)	132 (95%)	6 (4%)	1 (1%)	22 46
34	DQ	139/141 (99%)	131 (94%)	6 (4%)	2 (1%)	11 28
35	BR	116/118 (98%)	114 (98%)	2 (2%)	0	100 100
35	DR	116/118 (98%)	115 (99%)	1 (1%)	0	100 100
36	BS	108/112 (96%)	99 (92%)	8 (7%)	1 (1%)	17 40
36	DS	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	17 40
37	BT	129/146 (88%)	125 (97%)	4 (3%)	0	100 100
37	DT	128/146 (88%)	124 (97%)	3 (2%)	1 (1%)	19 43
38	BU	114/118 (97%)	114 (100%)	0	0	100 100
38	DU	114/118 (97%)	114 (100%)	0	0	100 100
39	BV	99/101 (98%)	93 (94%)	6 (6%)	0	100 100
39	DV	99/101 (98%)	93 (94%)	6 (6%)	0	100 100
40	BW	110/113 (97%)	109 (99%)	1 (1%)	0	100 100
40	DW	109/113 (96%)	108 (99%)	1 (1%)	0	100 100
41	BX	93/96 (97%)	85 (91%)	8 (9%)	0	100 100
41	DX	93/96 (97%)	88 (95%)	4 (4%)	1 (1%)	14 34
42	BY	105/110 (96%)	93 (89%)	12 (11%)	0	100 100
42	DY	105/110 (96%)	97 (92%)	8 (8%)	0	100 100
43	BZ	196/206 (95%)	178 (91%)	14 (7%)	4 (2%)	7 19
43	DZ	201/206 (98%)	181 (90%)	15 (8%)	5 (2%)	5 14
44	B0	74/85 (87%)	72 (97%)	2 (3%)	0	100 100
44	D0	75/85 (88%)	71 (95%)	4 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
45	B1	95/98 (97%)	92 (97%)	1 (1%)	2 (2%)	7 18
45	D1	95/98 (97%)	92 (97%)	1 (1%)	2 (2%)	7 18
46	B2	68/72 (94%)	64 (94%)	4 (6%)	0	100 100
46	D2	69/72 (96%)	65 (94%)	4 (6%)	0	100 100
47	B3	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
47	D3	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
48	B4	44/71 (62%)	35 (80%)	8 (18%)	1 (2%)	6 16
48	D4	44/71 (62%)	34 (77%)	10 (23%)	0	100 100
49	B5	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
49	D5	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
50	B6	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
50	D6	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
51	B7	46/49 (94%)	44 (96%)	1 (2%)	1 (2%)	6 17
51	D7	46/49 (94%)	44 (96%)	1 (2%)	1 (2%)	6 17
52	B8	62/65 (95%)	60 (97%)	1 (2%)	1 (2%)	9 24
52	D8	62/65 (95%)	59 (95%)	1 (2%)	2 (3%)	4 9
53	B9	34/37 (92%)	34 (100%)	0	0	100 100
53	D9	34/37 (92%)	34 (100%)	0	0	100 100
All	All	11568/12366 (94%)	10478 (91%)	965 (8%)	125 (1%)	14 34

All (125) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
10	AJ	56	HIS
13	AM	84	ILE
27	BF	21	ALA
28	BG	82	LEU
30	BI	107	VAL
33	BP	27	HIS
43	BZ	161	VAL
3	CC	26	LYS
3	CC	67	THR
3	CC	101	LEU
13	CM	7	VAL
13	CM	45	VAL
14	CN	13	THR

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Mol	Chain	Res	Type
14	CN	14	PRO
20	CT	6	PRO
28	DG	82	LEU
33	DP	27	HIS
43	DZ	161	VAL
52	D8	34	TRP
52	D8	35	GLN
7	AG	147	ALA
10	AJ	55	LYS
10	AJ	57	LYS
13	AM	10	PRO
16	AP	53	VAL
19	AS	47	HIS
25	BD	239	ARG
27	BF	18	ARG
28	BG	149	VAL
29	BH	71	LEU
45	B1	3	LYS
10	CJ	94	VAL
13	CM	50	GLU
13	CM	95	GLY
16	CP	53	VAL
25	DD	239	ARG
27	DF	18	ARG
27	DF	22	ALA
28	DG	149	VAL
29	DH	71	LEU
9	AI	45	ALA
9	AI	54	ASP
12	AL	26	ALA
22	AY	95	ARG
26	BE	118	LYS
28	BG	81	LYS
43	BZ	193	GLU
9	CI	54	ASP
12	CL	26	ALA
13	CM	10	PRO
14	CN	59	ALA
14	CN	60	SER
30	DI	122	GLU
31	DN	18	ALA
34	DQ	135	ASP

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Mol	Chain	Res	Type
43	DZ	199	LYS
45	D1	3	LYS
2	AB	10	LEU
10	AJ	30	SER
10	AJ	94	VAL
25	BD	275	LYS
26	BE	52	LEU
30	BI	75	LEU
30	BI	87	LYS
31	BN	18	ALA
33	BP	39	LYS
34	BQ	135	ASP
36	BS	83	LYS
51	B7	46	VAL
9	CI	88	TYR
9	CI	119	ALA
19	CS	36	ARG
20	CT	8	ARG
20	CT	9	ASN
25	DD	275	LYS
26	DE	52	LEU
30	DI	117	GLU
33	DP	39	LYS
37	DT	36	GLU
41	DX	23	GLU
43	DZ	193	GLU
51	D7	46	VAL
5	AE	146	ALA
17	AQ	14	LYS
45	B1	83	GLU
48	B4	28	LYS
52	B8	35	GLN
2	CB	10	LEU
5	CE	146	ALA
10	CJ	56	HIS
13	CM	49	THR
26	DE	118	LYS
29	DH	65	HIS
43	DZ	191	VAL
45	D1	83	GLU
13	AM	66	LEU
14	AN	59	ALA

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Mol	Chain	Res	Type
28	BG	14	GLU
30	BI	73	GLU
31	BN	5	VAL
43	BZ	191	VAL
9	CI	103	THR
25	BD	3	VAL
2	CB	239	VAL
7	CG	55	GLY
9	CI	21	PRO
10	CJ	34	VAL
25	DD	3	VAL
34	DQ	62	GLY
36	DS	49	VAL
10	AJ	75	ILE
13	AM	7	VAL
26	BE	72	VAL
2	CB	194	PRO
3	CC	76	VAL
29	DH	92	ILE
43	DZ	157	LEU
43	BZ	157	LEU
26	DE	72	VAL
30	DI	107	VAL
31	DN	5	VAL
2	AB	194	PRO
10	AJ	34	VAL
4	CD	28	SER
10	CJ	90	LEU

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	AB	177/220 (80%)	148 (84%)	29 (16%)	2 6
2	CB	181/220 (82%)	151 (83%)	30 (17%)	2 5
3	AC	114/188 (61%)	97 (85%)	17 (15%)	3 7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	CC	114/188 (61%)	86 (75%)	28 (25%)	0 2
4	AD	139/181 (77%)	119 (86%)	20 (14%)	3 8
4	CD	142/181 (78%)	120 (84%)	22 (16%)	2 7
5	AE	108/123 (88%)	95 (88%)	13 (12%)	5 11
5	CE	108/123 (88%)	94 (87%)	14 (13%)	4 10
6	AF	77/90 (86%)	66 (86%)	11 (14%)	3 8
6	CF	75/90 (83%)	65 (87%)	10 (13%)	4 9
7	AG	104/127 (82%)	91 (88%)	13 (12%)	4 10
7	CG	103/127 (81%)	83 (81%)	20 (19%)	1 3
8	AH	103/119 (87%)	87 (84%)	16 (16%)	2 7
8	CH	104/119 (87%)	88 (85%)	16 (15%)	2 7
9	AI	62/99 (63%)	53 (86%)	9 (14%)	3 8
9	CI	62/99 (63%)	53 (86%)	9 (14%)	3 8
10	AJ	52/92 (56%)	41 (79%)	11 (21%)	1 3
10	CJ	52/92 (56%)	40 (77%)	12 (23%)	1 2
11	AK	81/99 (82%)	73 (90%)	8 (10%)	8 18
11	CK	81/99 (82%)	73 (90%)	8 (10%)	8 18
12	AL	92/109 (84%)	83 (90%)	9 (10%)	8 18
12	CL	91/109 (84%)	85 (93%)	6 (7%)	16 38
13	AM	63/101 (62%)	46 (73%)	17 (27%)	0 1
13	CM	62/101 (61%)	45 (73%)	17 (27%)	0 1
14	AN	46/50 (92%)	38 (83%)	8 (17%)	2 5
14	CN	45/50 (90%)	33 (73%)	12 (27%)	0 1
15	AO	77/80 (96%)	64 (83%)	13 (17%)	2 5
15	CO	77/80 (96%)	64 (83%)	13 (17%)	2 5
16	AP	63/74 (85%)	50 (79%)	13 (21%)	1 3
16	CP	65/74 (88%)	51 (78%)	14 (22%)	1 3
17	AQ	94/97 (97%)	82 (87%)	12 (13%)	4 10
17	CQ	93/97 (96%)	81 (87%)	12 (13%)	4 10
18	AR	49/77 (64%)	40 (82%)	9 (18%)	1 4
18	CR	49/77 (64%)	40 (82%)	9 (18%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	AS	43/80 (54%)	37 (86%)	6 (14%)	3 8
19	CS	44/80 (55%)	32 (73%)	12 (27%)	0 1
20	AT	62/82 (76%)	53 (86%)	9 (14%)	3 8
20	CT	72/82 (88%)	61 (85%)	11 (15%)	2 7
21	AU	18/22 (82%)	15 (83%)	3 (17%)	2 5
21	CU	14/22 (64%)	11 (79%)	3 (21%)	1 3
22	AY	82/104 (79%)	70 (85%)	12 (15%)	3 7
22	CY	79/104 (76%)	63 (80%)	16 (20%)	1 3
25	BD	215/218 (99%)	191 (89%)	24 (11%)	6 13
25	DD	215/218 (99%)	190 (88%)	25 (12%)	5 12
26	BE	163/166 (98%)	140 (86%)	23 (14%)	3 8
26	DE	163/166 (98%)	139 (85%)	24 (15%)	3 7
27	BF	158/166 (95%)	134 (85%)	24 (15%)	3 7
27	DF	157/166 (95%)	135 (86%)	22 (14%)	3 8
28	BG	128/156 (82%)	107 (84%)	21 (16%)	2 6
28	DG	128/156 (82%)	107 (84%)	21 (16%)	2 6
29	BH	141/148 (95%)	125 (89%)	16 (11%)	6 13
29	DH	141/148 (95%)	128 (91%)	13 (9%)	9 21
30	BI	100/124 (81%)	73 (73%)	27 (27%)	0 1
30	DI	100/124 (81%)	75 (75%)	25 (25%)	0 1
31	BN	117/119 (98%)	99 (85%)	18 (15%)	2 7
31	DN	117/119 (98%)	99 (85%)	18 (15%)	2 7
32	BO	98/100 (98%)	89 (91%)	9 (9%)	9 21
32	DO	98/100 (98%)	91 (93%)	7 (7%)	14 34
33	BP	114/116 (98%)	94 (82%)	20 (18%)	2 4
33	DP	114/116 (98%)	95 (83%)	19 (17%)	2 5
34	BQ	111/111 (100%)	94 (85%)	17 (15%)	2 7
34	DQ	111/111 (100%)	95 (86%)	16 (14%)	3 8
35	BR	101/101 (100%)	81 (80%)	20 (20%)	1 3
35	DR	101/101 (100%)	81 (80%)	20 (20%)	1 3
36	BS	84/88 (96%)	70 (83%)	14 (17%)	2 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
36	DS	86/88 (98%)	70 (81%)	16 (19%)	1 4
37	BT	110/127 (87%)	90 (82%)	20 (18%)	1 4
37	DT	110/127 (87%)	93 (84%)	17 (16%)	2 7
38	BU	93/94 (99%)	80 (86%)	13 (14%)	3 8
38	DU	93/94 (99%)	81 (87%)	12 (13%)	4 10
39	BV	80/82 (98%)	65 (81%)	15 (19%)	1 4
39	DV	81/82 (99%)	65 (80%)	16 (20%)	1 3
40	BW	89/92 (97%)	77 (86%)	12 (14%)	4 9
40	DW	89/92 (97%)	78 (88%)	11 (12%)	4 11
41	BX	75/78 (96%)	66 (88%)	9 (12%)	5 11
41	DX	73/78 (94%)	66 (90%)	7 (10%)	8 19
42	BY	80/91 (88%)	66 (82%)	14 (18%)	2 4
42	DY	79/91 (87%)	64 (81%)	15 (19%)	1 4
43	BZ	159/179 (89%)	137 (86%)	22 (14%)	3 8
43	DZ	155/179 (87%)	136 (88%)	19 (12%)	4 11
44	B0	59/67 (88%)	52 (88%)	7 (12%)	5 12
44	D0	61/67 (91%)	51 (84%)	10 (16%)	2 6
45	B1	78/83 (94%)	65 (83%)	13 (17%)	2 5
45	D1	78/83 (94%)	66 (85%)	12 (15%)	2 7
46	B2	65/67 (97%)	57 (88%)	8 (12%)	4 11
46	D2	63/67 (94%)	55 (87%)	8 (13%)	4 10
47	B3	49/52 (94%)	44 (90%)	5 (10%)	7 17
47	D3	50/52 (96%)	44 (88%)	6 (12%)	5 11
48	B4	39/63 (62%)	34 (87%)	5 (13%)	4 10
48	D4	39/63 (62%)	35 (90%)	4 (10%)	7 16
49	B5	50/52 (96%)	43 (86%)	7 (14%)	3 8
49	D5	49/52 (94%)	44 (90%)	5 (10%)	7 17
50	B6	50/52 (96%)	40 (80%)	10 (20%)	1 3
50	D6	48/52 (92%)	37 (77%)	11 (23%)	1 2
51	B7	41/42 (98%)	35 (85%)	6 (15%)	3 7
51	D7	38/42 (90%)	32 (84%)	6 (16%)	2 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
52	B8	52/55 (94%)	45 (86%)	7 (14%)	4 9
52	D8	52/55 (94%)	45 (86%)	7 (14%)	4 9
53	B9	32/34 (94%)	30 (94%)	2 (6%)	18 40
53	D9	32/34 (94%)	31 (97%)	1 (3%)	40 69
All	All	8871/10274 (86%)	7518 (85%)	1353 (15%)	2 7

All (1353) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	21	ARG
2	AB	24	TRP
2	AB	67	THR
2	AB	74	LYS
2	AB	75	LYS
2	AB	80	ILE
2	AB	87	ARG
2	AB	93	VAL
2	AB	97	TRP
2	AB	111	ARG
2	AB	126	GLU
2	AB	139	LYS
2	AB	150	SER
2	AB	158	LEU
2	AB	160	ASP
2	AB	170	GLU
2	AB	175	ARG
2	AB	185	ILE
2	AB	187	LEU
2	AB	198	ASP
2	AB	200	ILE
2	AB	205	ASP
2	AB	221	LEU
2	AB	224	GLN
2	AB	231	GLU
2	AB	233	SER
3	AC	3	ASN
3	AC	15	THR
3	AC	32	LEU

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Mol	Chain	Res	Type
3	AC	49	SER
3	AC	52	LEU
3	AC	59	ARG
3	AC	69	HIS
3	AC	70	VAL
3	AC	102	ASN
3	AC	104	GLN
3	AC	111	LEU
3	AC	131	ARG
3	AC	144	SER
3	AC	175	LEU
3	AC	178	LEU
3	AC	184	TYR
3	AC	196	LEU
4	AD	8	VAL
4	AD	15	GLU
4	AD	19	LEU
4	AD	28	SER
4	AD	36	ARG
4	AD	53	ASP
4	AD	58	LEU
4	AD	65	ARG
4	AD	83	SER
4	AD	106	TYR
4	AD	120	LEU
4	AD	122	ARG
4	AD	127	THR
4	AD	135	LEU
4	AD	137	SER
4	AD	158	ILE
4	AD	170	VAL
4	AD	188	LEU
4	AD	194	LEU
4	AD	196	LEU
5	AE	12	LEU
5	AE	31	LEU
5	AE	34	VAL
5	AE	41	VAL
5	AE	47	LYS
5	AE	65	ASN
5	AE	76	ILE
5	AE	78	HIS

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Mol	Chain	Res	Type
5	AE	89	ILE
5	AE	91	LEU
5	AE	137	GLU
5	AE	144	THR
5	AE	147	ASP
6	AF	15	ASP
6	AF	36	ARG
6	AF	40	VAL
6	AF	55	ASP
6	AF	64	GLN
6	AF	69	GLU
6	AF	70	ASP
6	AF	75	LEU
6	AF	86	ARG
6	AF	89	MET
6	AF	98	LEU
7	AG	12	LEU
7	AG	15	ASP
7	AG	32	ARG
7	AG	41	ARG
7	AG	51	GLN
7	AG	75	VAL
7	AG	95	ARG
7	AG	98	SER
7	AG	104	LEU
7	AG	113	GLU
7	AG	138	LYS
7	AG	144	MET
7	AG	146	GLU
8	AH	21	LYS
8	AH	25	ASP
8	AH	26	VAL
8	AH	29	SER
8	AH	52	ASP
8	AH	63	LEU
8	AH	78	GLN
8	AH	83	ILE
8	AH	84	ARG
8	AH	85	ARG
8	AH	109	ILE
8	AH	112	LEU
8	AH	115	SER

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Mol	Chain	Res	Type
8	AH	121	ASP
8	AH	127	LEU
8	AH	133	LEU
9	AI	14	VAL
9	AI	31	GLN
9	AI	40	LEU
9	AI	64	THR
9	AI	66	ARG
9	AI	88	TYR
9	AI	104	ARG
9	AI	107	ARG
9	AI	108	VAL
10	AJ	16	LEU
10	AJ	21	GLN
10	AJ	35	SER
10	AJ	54	PHE
10	AJ	55	LYS
10	AJ	67	THR
10	AJ	68	HIS
10	AJ	94	VAL
10	AJ	96	ILE
10	AJ	97	GLU
10	AJ	100	THR
11	AK	16	SER
11	AK	31	THR
11	AK	48	ILE
11	AK	84	VAL
11	AK	96	ARG
11	AK	104	GLN
11	AK	109	VAL
11	AK	114	VAL
12	AL	33	ARG
12	AL	43	VAL
12	AL	53	ARG
12	AL	60	LEU
12	AL	67	THR
12	AL	80	HIS
12	AL	83	VAL
12	AL	84	LEU
12	AL	97	ARG
13	AM	3	ARG
13	AM	4	ILE

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Mol	Chain	Res	Type
13	AM	14	ARG
13	AM	15	VAL
13	AM	19	LEU
13	AM	47	ASP
13	AM	49	THR
13	AM	56	LEU
13	AM	64	TRP
13	AM	66	LEU
13	AM	69	GLU
13	AM	70	LEU
13	AM	71	ARG
13	AM	78	ILE
13	AM	86	CYS
13	AM	96	LEU
13	AM	110	ARG
14	AN	8	GLU
14	AN	18	VAL
14	AN	22	THR
14	AN	24	CYS
14	AN	25	VAL
14	AN	33	VAL
14	AN	44	LEU
14	AN	50	LYS
15	AO	3	ILE
15	AO	10	LYS
15	AO	17	ARG
15	AO	24	SER
15	AO	26	GLU
15	AO	35	ARG
15	AO	39	LEU
15	AO	41	GLU
15	AO	65	ARG
15	AO	66	LEU
15	AO	73	GLU
15	AO	76	GLU
15	AO	83	GLU
16	AP	1	MET
16	AP	2	VAL
16	AP	20	VAL
16	AP	28	ARG
16	AP	32	TYR
16	AP	33	ILE

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Mol	Chain	Res	Type
16	AP	38	TYR
16	AP	45	THR
16	AP	47	ASP
16	AP	62	VAL
16	AP	67	THR
16	AP	69	THR
16	AP	76	GLN
17	AQ	9	VAL
17	AQ	13	ASP
17	AQ	49	GLU
17	AQ	50	LYS
17	AQ	53	LEU
17	AQ	60	ILE
17	AQ	62	SER
17	AQ	68	ARG
17	AQ	74	LEU
17	AQ	77	VAL
17	AQ	82	MET
17	AQ	86	GLU
18	AR	21	LYS
18	AR	29	PHE
18	AR	31	LEU
18	AR	32	ARG
18	AR	58	LEU
18	AR	76	LEU
18	AR	82	THR
18	AR	85	LEU
18	AR	86	VAL
19	AS	7	LYS
19	AS	14	HIS
19	AS	31	ILE
19	AS	34	TRP
19	AS	37	ARG
19	AS	66	MET
20	AT	10	LEU
20	AT	13	LEU
20	AT	24	LEU
20	AT	37	SER
20	AT	39	LYS
20	AT	56	MET
20	AT	73	HIS
20	AT	75	ASN

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Mol	Chain	Res	Type
20	AT	84	LEU
21	AU	9	ARG
21	AU	10	ARG
21	AU	15	ARG
22	AY	13	THR
22	AY	16	ILE
22	AY	20	VAL
22	AY	23	ARG
22	AY	24	LEU
22	AY	41	LEU
22	AY	42	SER
22	AY	44	GLU
22	AY	53	THR
22	AY	76	GLU
22	AY	77	LEU
22	AY	95	ARG
25	BD	12	SER
25	BD	13	ARG
25	BD	38	LYS
25	BD	61	LEU
25	BD	72	LYS
25	BD	94	LEU
25	BD	103	ARG
25	BD	106	ILE
25	BD	111	LEU
25	BD	138	VAL
25	BD	140	THR
25	BD	141	VAL
25	BD	154	LYS
25	BD	192	THR
25	BD	200	ASP
25	BD	211	ARG
25	BD	217	ARG
25	BD	221	VAL
25	BD	229	VAL
25	BD	242	ARG
25	BD	253	GLN
25	BD	257	LEU
25	BD	259	THR
25	BD	260	ARG
26	BE	12	THR
26	BE	21	VAL

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Mol	Chain	Res	Type
26	BE	24	THR
26	BE	33	VAL
26	BE	49	LEU
26	BE	52	LEU
26	BE	73	GLU
26	BE	75	VAL
26	BE	77	ILE
26	BE	82	ARG
26	BE	87	GLU
26	BE	93	VAL
26	BE	111	ARG
26	BE	116	VAL
26	BE	119	ARG
26	BE	128	SER
26	BE	144	ARG
26	BE	154	LYS
26	BE	163	GLU
26	BE	167	VAL
26	BE	175	VAL
26	BE	181	LEU
26	BE	184	VAL
27	BF	15	SER
27	BF	18	ARG
27	BF	19	GLU
27	BF	24	LEU
27	BF	33	LEU
27	BF	53	THR
27	BF	57	VAL
27	BF	74	ARG
27	BF	82	ILE
27	BF	88	VAL
27	BF	106	ARG
27	BF	108	LYS
27	BF	110	LEU
27	BF	117	ARG
27	BF	140	LEU
27	BF	145	GLU
27	BF	158	THR
27	BF	161	GLU
27	BF	162	LEU
27	BF	170	LEU
27	BF	192	LEU

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Mol	Chain	Res	Type
27	BF	197	ASP
27	BF	201	VAL
27	BF	205	ARG
28	BG	3	LEU
28	BG	5	VAL
28	BG	9	ARG
28	BG	13	GLU
28	BG	28	VAL
28	BG	31	VAL
28	BG	43	LEU
28	BG	47	LYS
28	BG	60	LEU
28	BG	71	THR
28	BG	80	PHE
28	BG	128	ARG
28	BG	133	LEU
28	BG	135	LEU
28	BG	143	GLU
28	BG	148	MET
28	BG	152	LEU
28	BG	153	ARG
28	BG	159	VAL
28	BG	165	THR
28	BG	170	ARG
29	BH	3	ARG
29	BH	6	ARG
29	BH	15	VAL
29	BH	24	VAL
29	BH	41	MET
29	BH	45	VAL
29	BH	69	ARG
29	BH	71	LEU
29	BH	77	LYS
29	BH	95	ARG
29	BH	98	LEU
29	BH	106	THR
29	BH	116	GLU
29	BH	122	THR
29	BH	139	GLN
29	BH	171	LEU
30	BI	1	MET
30	BI	9	LEU

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Mol	Chain	Res	Type
30	BI	15	VAL
30	BI	38	LEU
30	BI	41	GLU
30	BI	42	SER
30	BI	43	ASN
30	BI	47	LEU
30	BI	57	ARG
30	BI	61	ARG
30	BI	68	LEU
30	BI	75	LEU
30	BI	77	LEU
30	BI	78	THR
30	BI	85	GLU
30	BI	92	VAL
30	BI	101	LEU
30	BI	102	SER
30	BI	114	LEU
30	BI	116	LEU
30	BI	117	GLU
30	BI	121	LYS
30	BI	127	VAL
30	BI	140	LEU
30	BI	142	VAL
30	BI	144	VAL
30	BI	145	VAL
31	BN	9	VAL
31	BN	33	LEU
31	BN	34	LEU
31	BN	43	THR
31	BN	46	VAL
31	BN	48	MET
31	BN	55	VAL
31	BN	61	ARG
31	BN	62	VAL
31	BN	67	LEU
31	BN	68	GLU
31	BN	73	THR
31	BN	87	LEU
31	BN	89	LYS
31	BN	99	LEU
31	BN	120	LEU
31	BN	133	GLN

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Mol	Chain	Res	Type
31	BN	140	VAL
32	BO	10	VAL
32	BO	17	ARG
32	BO	20	MET
32	BO	24	VAL
32	BO	35	VAL
32	BO	53	LYS
32	BO	94	ARG
32	BO	97	ARG
32	BO	113	LYS
33	BP	1	MET
33	BP	21	ARG
33	BP	50	ARG
33	BP	55	ARG
33	BP	56	SER
33	BP	59	LEU
33	BP	65	ARG
33	BP	70	GLN
33	BP	71	VAL
33	BP	75	ILE
33	BP	76	LYS
33	BP	83	VAL
33	BP	95	VAL
33	BP	106	LEU
33	BP	112	LEU
33	BP	119	GLU
33	BP	132	LYS
33	BP	144	GLU
33	BP	148	LEU
33	BP	149	GLU
34	BQ	1	MET
34	BQ	6	ARG
34	BQ	7	MET
34	BQ	8	LYS
34	BQ	16	ARG
34	BQ	21	THR
34	BQ	31	ASP
34	BQ	35	VAL
34	BQ	42	ILE
34	BQ	45	GLN
34	BQ	55	VAL
34	BQ	59	ARG

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Mol	Chain	Res	Type
34	BQ	63	LYS
34	BQ	75	THR
34	BQ	109	VAL
34	BQ	110	THR
34	BQ	135	ASP
35	BR	1	MET
35	BR	6	SER
35	BR	18	LEU
35	BR	28	LEU
35	BR	29	LEU
35	BR	33	ARG
35	BR	36	THR
35	BR	44	LEU
35	BR	54	LEU
35	BR	57	ARG
35	BR	60	LEU
35	BR	65	LEU
35	BR	67	LEU
35	BR	73	VAL
35	BR	75	LEU
35	BR	79	LEU
35	BR	86	ARG
35	BR	100	LEU
35	BR	111	LEU
35	BR	114	VAL
36	BS	12	PHE
36	BS	13	ARG
36	BS	14	VAL
36	BS	15	ARG
36	BS	20	ARG
36	BS	25	ARG
36	BS	36	TYR
36	BS	38	GLN
36	BS	49	VAL
36	BS	52	SER
36	BS	78	LEU
36	BS	84	GLN
36	BS	95	HIS
36	BS	110	LEU
37	BT	6	LEU
37	BT	8	LYS
37	BT	16	ARG

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Mol	Chain	Res	Type
37	BT	17	THR
37	BT	23	ARG
37	BT	28	VAL
37	BT	36	GLU
37	BT	49	VAL
37	BT	53	ARG
37	BT	59	THR
37	BT	67	SER
37	BT	75	ILE
37	BT	78	LEU
37	BT	89	VAL
37	BT	93	ARG
37	BT	95	ARG
37	BT	96	ARG
37	BT	107	ASP
37	BT	118	ARG
37	BT	124	ASP
38	BU	8	VAL
38	BU	19	LYS
38	BU	27	LEU
38	BU	31	SER
38	BU	36	ARG
38	BU	52	ARG
38	BU	59	ARG
38	BU	60	LEU
38	BU	74	LEU
38	BU	83	LEU
38	BU	92	ARG
38	BU	104	GLN
38	BU	108	GLU
39	BV	13	ARG
39	BV	18	LEU
39	BV	21	ARG
39	BV	28	GLU
39	BV	32	THR
39	BV	35	LEU
39	BV	46	VAL
39	BV	61	VAL
39	BV	62	LEU
39	BV	72	VAL
39	BV	79	VAL
39	BV	85	LYS

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Mol	Chain	Res	Type
39	BV	89	GLN
39	BV	95	LEU
39	BV	100	ARG
40	BW	11	ARG
40	BW	15	ARG
40	BW	17	VAL
40	BW	19	LEU
40	BW	23	LEU
40	BW	27	LYS
40	BW	51	LEU
40	BW	68	ARG
40	BW	83	LYS
40	BW	96	ILE
40	BW	100	THR
40	BW	107	LEU
41	BX	35	THR
41	BX	45	THR
41	BX	52	VAL
41	BX	54	VAL
41	BX	57	LEU
41	BX	60	ARG
41	BX	66	LEU
41	BX	68	ARG
41	BX	92	LEU
42	BY	6	HIS
42	BY	19	LYS
42	BY	23	ARG
42	BY	29	GLU
42	BY	34	LYS
42	BY	47	LYS
42	BY	55	TYR
42	BY	64	GLU
42	BY	70	SER
42	BY	72	VAL
42	BY	73	ARG
42	BY	91	GLU
42	BY	97	ARG
42	BY	106	LEU
43	BZ	5	LEU
43	BZ	6	LYS
43	BZ	11	GLU
43	BZ	18	LEU

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Mol	Chain	Res	Type
43	BZ	19	ARG
43	BZ	61	LEU
43	BZ	72	ARG
43	BZ	76	LEU
43	BZ	86	VAL
43	BZ	91	LEU
43	BZ	119	GLU
43	BZ	124	ILE
43	BZ	128	VAL
43	BZ	138	GLU
43	BZ	144	LEU
43	BZ	154	ASP
43	BZ	155	LEU
43	BZ	156	LYS
43	BZ	161	VAL
43	BZ	170	THR
43	BZ	171	ILE
43	BZ	181	GLU
44	B0	9	SER
44	B0	19	LYS
44	B0	20	ARG
44	B0	32	ARG
44	B0	53	MET
44	B0	55	ARG
44	B0	74	ARG
45	B1	4	VAL
45	B1	21	ARG
45	B1	26	ARG
45	B1	30	VAL
45	B1	32	LYS
45	B1	35	THR
45	B1	40	ARG
45	B1	46	LEU
45	B1	58	ILE
45	B1	59	THR
45	B1	80	LEU
45	B1	83	GLU
45	B1	95	LEU
46	B2	28	LYS
46	B2	30	ARG
46	B2	32	LEU
46	B2	52	ASP

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Mol	Chain	Res	Type
46	B2	53	LEU
46	B2	55	ARG
46	B2	64	LEU
46	B2	68	ARG
47	B3	8	LEU
47	B3	18	ASP
47	B3	23	LEU
47	B3	31	LEU
47	B3	44	ARG
48	B4	14	ILE
48	B4	22	ILE
48	B4	33	VAL
48	B4	39	CYS
48	B4	43	TYR
49	B5	9	LYS
49	B5	15	ARG
49	B5	16	ARG
49	B5	29	THR
49	B5	37	LYS
49	B5	40	LYS
49	B5	55	ARG
50	B6	4	GLU
50	B6	6	ARG
50	B6	13	CYS
50	B6	30	THR
50	B6	33	LYS
50	B6	35	GLU
50	B6	38	LYS
50	B6	40	CYS
50	B6	44	ARG
50	B6	48	VAL
51	B7	1	MET
51	B7	8	ASN
51	B7	9	ARG
51	B7	24	THR
51	B7	43	THR
51	B7	47	ARG
52	B8	6	THR
52	B8	14	VAL
52	B8	26	LYS
52	B8	29	LYS
52	B8	31	HIS

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Mol	Chain	Res	Type
52	B8	32	LEU
52	B8	41	ILE
53	B9	4	ARG
53	B9	18	ARG
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	21	ARG
2	CB	24	TRP
2	CB	67	THR
2	CB	75	LYS
2	CB	80	ILE
2	CB	87	ARG
2	CB	93	VAL
2	CB	94	ASN
2	CB	97	TRP
2	CB	111	ARG
2	CB	126	GLU
2	CB	139	LYS
2	CB	150	SER
2	CB	158	LEU
2	CB	160	ASP
2	CB	170	GLU
2	CB	175	ARG
2	CB	185	ILE
2	CB	187	LEU
2	CB	198	ASP
2	CB	200	ILE
2	CB	205	ASP
2	CB	221	LEU
2	CB	224	GLN
2	CB	231	GLU
2	CB	238	LEU
2	CB	240	GLN
3	CC	8	ILE
3	CC	19	GLU
3	CC	20	SER
3	CC	29	TYR
3	CC	30	ARG
3	CC	35	GLU
3	CC	40	ARG
3	CC	46	GLU

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Mol	Chain	Res	Type
3	CC	47	LEU
3	CC	49	SER
3	CC	52	LEU
3	CC	55	VAL
3	CC	102	ASN
3	CC	103	VAL
3	CC	128	PHE
3	CC	132	ARG
3	CC	136	GLN
3	CC	140	ARG
3	CC	143	GLU
3	CC	152	ILE
3	CC	162	GLN
3	CC	164	ARG
3	CC	165	THR
3	CC	167	TRP
3	CC	178	LEU
3	CC	179	ARG
3	CC	192	THR
3	CC	196	LEU
4	CD	8	VAL
4	CD	15	GLU
4	CD	19	LEU
4	CD	28	SER
4	CD	31	CYS
4	CD	36	ARG
4	CD	53	ASP
4	CD	58	LEU
4	CD	65	ARG
4	CD	83	SER
4	CD	106	TYR
4	CD	110	PHE
4	CD	120	LEU
4	CD	122	ARG
4	CD	127	THR
4	CD	135	LEU
4	CD	158	ILE
4	CD	170	VAL
4	CD	181	MET
4	CD	188	LEU
4	CD	194	LEU
4	CD	196	LEU

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Mol	Chain	Res	Type
5	CE	12	LEU
5	CE	31	LEU
5	CE	34	VAL
5	CE	41	VAL
5	CE	47	LYS
5	CE	65	ASN
5	CE	76	ILE
5	CE	78	HIS
5	CE	89	ILE
5	CE	91	LEU
5	CE	93	PRO
5	CE	137	GLU
5	CE	144	THR
5	CE	147	ASP
6	CF	15	ASP
6	CF	36	ARG
6	CF	40	VAL
6	CF	55	ASP
6	CF	64	GLN
6	CF	69	GLU
6	CF	70	ASP
6	CF	72	VAL
6	CF	75	LEU
6	CF	82	ARG
7	CG	10	ARG
7	CG	12	LEU
7	CG	22	LEU
7	CG	32	ARG
7	CG	41	ARG
7	CG	47	CYS
7	CG	56	GLN
7	CG	57	GLU
7	CG	61	VAL
7	CG	72	ARG
7	CG	80	VAL
7	CG	104	LEU
7	CG	110	GLN
7	CG	114	ARG
7	CG	124	LEU
7	CG	135	VAL
7	CG	143	ARG
7	CG	144	MET

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Mol	Chain	Res	Type
7	CG	146	GLU
7	CG	155	ARG
8	CH	21	LYS
8	CH	25	ASP
8	CH	26	VAL
8	CH	29	SER
8	CH	52	ASP
8	CH	63	LEU
8	CH	78	GLN
8	CH	83	ILE
8	CH	84	ARG
8	CH	85	ARG
8	CH	109	ILE
8	CH	112	LEU
8	CH	115	SER
8	CH	121	ASP
8	CH	127	LEU
8	CH	133	LEU
9	CI	7	THR
9	CI	14	VAL
9	CI	40	LEU
9	CI	64	THR
9	CI	87	GLN
9	CI	104	ARG
9	CI	105	ASP
9	CI	109	VAL
9	CI	117	HIS
10	CJ	8	LEU
10	CJ	33	GLN
10	CJ	34	VAL
10	CJ	35	SER
10	CJ	44	VAL
10	CJ	49	VAL
10	CJ	55	LYS
10	CJ	62	HIS
10	CJ	67	THR
10	CJ	94	VAL
10	CJ	95	GLU
10	CJ	96	ILE
11	CK	31	THR
11	CK	48	ILE
11	CK	63	LEU

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Mol	Chain	Res	Type
11	CK	84	VAL
11	CK	96	ARG
11	CK	104	GLN
11	CK	109	VAL
11	CK	114	VAL
12	CL	33	ARG
12	CL	43	VAL
12	CL	53	ARG
12	CL	60	LEU
12	CL	84	LEU
12	CL	97	ARG
13	CM	4	ILE
13	CM	15	VAL
13	CM	22	ILE
13	CM	23	TYR
13	CM	27	LYS
13	CM	40	ASN
13	CM	49	THR
13	CM	55	ARG
13	CM	56	LEU
13	CM	60	VAL
13	CM	64	TRP
13	CM	77	ASN
13	CM	92	HIS
13	CM	104	ARG
13	CM	108	ARG
13	CM	109	THR
13	CM	110	ARG
14	CN	3	ARG
14	CN	4	LYS
14	CN	7	ILE
14	CN	18	VAL
14	CN	22	THR
14	CN	31	ARG
14	CN	32	SER
14	CN	33	VAL
14	CN	41	ARG
14	CN	42	ILE
14	CN	43	CYS
14	CN	60	SER
15	CO	3	ILE
15	CO	10	LYS

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Mol	Chain	Res	Type
15	CO	17	ARG
15	CO	24	SER
15	CO	26	GLU
15	CO	35	ARG
15	CO	39	LEU
15	CO	41	GLU
15	CO	65	ARG
15	CO	66	LEU
15	CO	73	GLU
15	CO	76	GLU
15	CO	83	GLU
16	CP	1	MET
16	CP	2	VAL
16	CP	20	VAL
16	CP	28	ARG
16	CP	32	TYR
16	CP	33	ILE
16	CP	38	TYR
16	CP	45	THR
16	CP	47	ASP
16	CP	62	VAL
16	CP	67	THR
16	CP	69	THR
16	CP	72	ARG
16	CP	76	GLN
17	CQ	9	VAL
17	CQ	13	ASP
17	CQ	49	GLU
17	CQ	50	LYS
17	CQ	53	LEU
17	CQ	60	ILE
17	CQ	62	SER
17	CQ	68	ARG
17	CQ	74	LEU
17	CQ	77	VAL
17	CQ	82	MET
17	CQ	86	GLU
18	CR	21	LYS
18	CR	29	PHE
18	CR	31	LEU
18	CR	32	ARG
18	CR	58	LEU

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Mol	Chain	Res	Type
18	CR	76	LEU
18	CR	82	THR
18	CR	85	LEU
18	CR	86	VAL
19	CS	7	LYS
19	CS	11	VAL
19	CS	23	ASN
19	CS	36	ARG
19	CS	37	ARG
19	CS	43	GLU
19	CS	53	ASN
19	CS	57	HIS
19	CS	62	ILE
19	CS	70	LYS
19	CS	77	THR
19	CS	79	THR
20	CT	4	LYS
20	CT	10	LEU
20	CT	13	LEU
20	CT	24	LEU
20	CT	37	SER
20	CT	39	LYS
20	CT	54	LYS
20	CT	56	MET
20	CT	73	HIS
20	CT	75	ASN
20	CT	84	LEU
21	CU	10	ARG
21	CU	21	TYR
21	CU	22	ARG
22	CY	5	ILE
22	CY	16	ILE
22	CY	24	LEU
22	CY	26	LYS
22	CY	32	THR
22	CY	40	ILE
22	CY	42	SER
22	CY	58	ASN
22	CY	61	LEU
22	CY	64	SER
22	CY	74	ILE
22	CY	76	GLU

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Mol	Chain	Res	Type
22	CY	77	LEU
22	CY	88	LEU
22	CY	93	GLU
22	CY	96	ARG
25	DD	12	SER
25	DD	13	ARG
25	DD	37	LEU
25	DD	61	LEU
25	DD	72	LYS
25	DD	94	LEU
25	DD	103	ARG
25	DD	106	ILE
25	DD	111	LEU
25	DD	113	VAL
25	DD	138	VAL
25	DD	140	THR
25	DD	141	VAL
25	DD	154	LYS
25	DD	192	THR
25	DD	200	ASP
25	DD	211	ARG
25	DD	217	ARG
25	DD	221	VAL
25	DD	229	VAL
25	DD	242	ARG
25	DD	253	GLN
25	DD	257	LEU
25	DD	259	THR
25	DD	260	ARG
26	DE	12	THR
26	DE	21	VAL
26	DE	24	THR
26	DE	33	VAL
26	DE	49	LEU
26	DE	52	LEU
26	DE	75	VAL
26	DE	77	ILE
26	DE	78	LEU
26	DE	79	ARG
26	DE	82	ARG
26	DE	87	GLU
26	DE	93	VAL

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Mol	Chain	Res	Type
26	DE	111	ARG
26	DE	116	VAL
26	DE	119	ARG
26	DE	128	SER
26	DE	144	ARG
26	DE	154	LYS
26	DE	163	GLU
26	DE	170	LEU
26	DE	175	VAL
26	DE	179	GLU
26	DE	181	LEU
27	DF	15	SER
27	DF	18	ARG
27	DF	24	LEU
27	DF	33	LEU
27	DF	53	THR
27	DF	57	VAL
27	DF	74	ARG
27	DF	82	ILE
27	DF	88	VAL
27	DF	106	ARG
27	DF	108	LYS
27	DF	110	LEU
27	DF	117	ARG
27	DF	140	LEU
27	DF	145	GLU
27	DF	158	THR
27	DF	161	GLU
27	DF	162	LEU
27	DF	170	LEU
27	DF	192	LEU
27	DF	197	ASP
27	DF	201	VAL
28	DG	3	LEU
28	DG	5	VAL
28	DG	9	ARG
28	DG	13	GLU
28	DG	28	VAL
28	DG	31	VAL
28	DG	43	LEU
28	DG	47	LYS
28	DG	60	LEU

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Mol	Chain	Res	Type
28	DG	71	THR
28	DG	80	PHE
28	DG	128	ARG
28	DG	133	LEU
28	DG	135	LEU
28	DG	143	GLU
28	DG	148	MET
28	DG	152	LEU
28	DG	153	ARG
28	DG	159	VAL
28	DG	165	THR
28	DG	170	ARG
29	DH	15	VAL
29	DH	24	VAL
29	DH	41	MET
29	DH	45	VAL
29	DH	69	ARG
29	DH	71	LEU
29	DH	77	LYS
29	DH	95	ARG
29	DH	98	LEU
29	DH	106	THR
29	DH	116	GLU
29	DH	139	GLN
29	DH	171	LEU
30	DI	1	MET
30	DI	9	LEU
30	DI	15	VAL
30	DI	38	LEU
30	DI	41	GLU
30	DI	42	SER
30	DI	43	ASN
30	DI	47	LEU
30	DI	48	GLU
30	DI	58	LEU
30	DI	61	ARG
30	DI	72	LEU
30	DI	75	LEU
30	DI	76	THR
30	DI	77	LEU
30	DI	86	THR
30	DI	87	LYS

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Mol	Chain	Res	Type
30	DI	101	LEU
30	DI	105	HIS
30	DI	116	LEU
30	DI	121	LYS
30	DI	123	LEU
30	DI	127	VAL
30	DI	140	LEU
30	DI	144	VAL
31	DN	9	VAL
31	DN	33	LEU
31	DN	34	LEU
31	DN	39	ARG
31	DN	43	THR
31	DN	46	VAL
31	DN	48	MET
31	DN	55	VAL
31	DN	61	ARG
31	DN	62	VAL
31	DN	67	LEU
31	DN	73	THR
31	DN	87	LEU
31	DN	89	LYS
31	DN	99	LEU
31	DN	120	LEU
31	DN	133	GLN
31	DN	140	VAL
32	DO	8	LEU
32	DO	10	VAL
32	DO	17	ARG
32	DO	24	VAL
32	DO	53	LYS
32	DO	94	ARG
32	DO	113	LYS
33	DP	1	MET
33	DP	21	ARG
33	DP	50	ARG
33	DP	55	ARG
33	DP	59	LEU
33	DP	65	ARG
33	DP	70	GLN
33	DP	71	VAL
33	DP	75	ILE

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Mol	Chain	Res	Type
33	DP	76	LYS
33	DP	83	VAL
33	DP	95	VAL
33	DP	106	LEU
33	DP	112	LEU
33	DP	119	GLU
33	DP	132	LYS
33	DP	144	GLU
33	DP	148	LEU
33	DP	149	GLU
34	DQ	1	MET
34	DQ	6	ARG
34	DQ	7	MET
34	DQ	8	LYS
34	DQ	16	ARG
34	DQ	21	THR
34	DQ	22	LYS
34	DQ	31	ASP
34	DQ	35	VAL
34	DQ	45	GLN
34	DQ	55	VAL
34	DQ	59	ARG
34	DQ	63	LYS
34	DQ	75	THR
34	DQ	110	THR
34	DQ	135	ASP
35	DR	1	MET
35	DR	6	SER
35	DR	18	LEU
35	DR	28	LEU
35	DR	29	LEU
35	DR	33	ARG
35	DR	36	THR
35	DR	44	LEU
35	DR	54	LEU
35	DR	57	ARG
35	DR	60	LEU
35	DR	65	LEU
35	DR	67	LEU
35	DR	73	VAL
35	DR	75	LEU
35	DR	79	LEU

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Mol	Chain	Res	Type
35	DR	86	ARG
35	DR	100	LEU
35	DR	111	LEU
35	DR	114	VAL
36	DS	12	PHE
36	DS	13	ARG
36	DS	14	VAL
36	DS	15	ARG
36	DS	20	ARG
36	DS	25	ARG
36	DS	31	SER
36	DS	36	TYR
36	DS	38	GLN
36	DS	49	VAL
36	DS	52	SER
36	DS	78	LEU
36	DS	83	LYS
36	DS	84	GLN
36	DS	95	HIS
36	DS	110	LEU
37	DT	6	LEU
37	DT	8	LYS
37	DT	13	ARG
37	DT	16	ARG
37	DT	17	THR
37	DT	28	VAL
37	DT	36	GLU
37	DT	49	VAL
37	DT	59	THR
37	DT	64	ARG
37	DT	67	SER
37	DT	93	ARG
37	DT	95	ARG
37	DT	96	ARG
37	DT	107	ASP
37	DT	118	ARG
37	DT	124	ASP
38	DU	8	VAL
38	DU	19	LYS
38	DU	27	LEU
38	DU	31	SER
38	DU	36	ARG

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Mol	Chain	Res	Type
38	DU	59	ARG
38	DU	60	LEU
38	DU	74	LEU
38	DU	83	LEU
38	DU	92	ARG
38	DU	104	GLN
38	DU	108	GLU
39	DV	13	ARG
39	DV	18	LEU
39	DV	21	ARG
39	DV	32	THR
39	DV	35	LEU
39	DV	46	VAL
39	DV	52	VAL
39	DV	61	VAL
39	DV	62	LEU
39	DV	68	LYS
39	DV	72	VAL
39	DV	79	VAL
39	DV	85	LYS
39	DV	89	GLN
39	DV	95	LEU
39	DV	100	ARG
40	DW	11	ARG
40	DW	15	ARG
40	DW	17	VAL
40	DW	19	LEU
40	DW	23	LEU
40	DW	27	LYS
40	DW	51	LEU
40	DW	68	ARG
40	DW	83	LYS
40	DW	100	THR
40	DW	107	LEU
41	DX	35	THR
41	DX	45	THR
41	DX	52	VAL
41	DX	57	LEU
41	DX	60	ARG
41	DX	66	LEU
41	DX	92	LEU
42	DY	2	ARG

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Mol	Chain	Res	Type
42	DY	6	HIS
42	DY	8	LYS
42	DY	19	LYS
42	DY	23	ARG
42	DY	29	GLU
42	DY	34	LYS
42	DY	47	LYS
42	DY	49	VAL
42	DY	55	TYR
42	DY	64	GLU
42	DY	70	SER
42	DY	73	ARG
42	DY	97	ARG
42	DY	106	LEU
43	DZ	11	GLU
43	DZ	18	LEU
43	DZ	19	ARG
43	DZ	61	LEU
43	DZ	72	ARG
43	DZ	74	VAL
43	DZ	76	LEU
43	DZ	86	VAL
43	DZ	91	LEU
43	DZ	124	ILE
43	DZ	128	VAL
43	DZ	138	GLU
43	DZ	144	LEU
43	DZ	154	ASP
43	DZ	155	LEU
43	DZ	156	LYS
43	DZ	161	VAL
43	DZ	170	THR
43	DZ	181	GLU
44	D0	9	SER
44	D0	14	ARG
44	D0	19	LYS
44	D0	20	ARG
44	D0	41	ARG
44	D0	46	LYS
44	D0	53	MET
44	D0	55	ARG
44	D0	68	GLU

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Mol	Chain	Res	Type
44	D0	74	ARG
45	D1	4	VAL
45	D1	21	ARG
45	D1	26	ARG
45	D1	30	VAL
45	D1	35	THR
45	D1	40	ARG
45	D1	46	LEU
45	D1	58	ILE
45	D1	59	THR
45	D1	80	LEU
45	D1	83	GLU
45	D1	95	LEU
46	D2	28	LYS
46	D2	30	ARG
46	D2	32	LEU
46	D2	53	LEU
46	D2	55	ARG
46	D2	64	LEU
46	D2	68	ARG
46	D2	71	ASN
47	D3	8	LEU
47	D3	18	ASP
47	D3	23	LEU
47	D3	31	LEU
47	D3	44	ARG
47	D3	54	VAL
48	D4	14	ILE
48	D4	22	ILE
48	D4	39	CYS
48	D4	43	TYR
49	D5	15	ARG
49	D5	16	ARG
49	D5	29	THR
49	D5	40	LYS
49	D5	55	ARG
50	D6	4	GLU
50	D6	6	ARG
50	D6	13	CYS
50	D6	30	THR
50	D6	33	LYS
50	D6	35	GLU

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Mol	Chain	Res	Type
50	D6	38	LYS
50	D6	40	CYS
50	D6	44	ARG
50	D6	48	VAL
50	D6	52	VAL
51	D7	1	MET
51	D7	8	ASN
51	D7	9	ARG
51	D7	10	ARG
51	D7	24	THR
51	D7	43	THR
52	D8	14	VAL
52	D8	26	LYS
52	D8	29	LYS
52	D8	31	HIS
52	D8	32	LEU
52	D8	34	TRP
52	D8	41	ILE
53	D9	18	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (69) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	40	HIS
3	AC	6	HIS
3	AC	176	HIS
4	AD	129	ASN
6	AF	73	ASN
7	AG	28	ASN
9	AI	73	GLN
9	AI	124	GLN
10	AJ	56	HIS
11	AK	99	GLN
15	AO	28	GLN
16	AP	14	ASN
16	AP	16	HIS
19	AS	83	HIS
22	AY	31	GLN
25	BD	253	GLN
26	BE	143	ASN
27	BF	169	ASN
28	BG	40	ASN

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Mol	Chain	Res	Type
31	BN	133	GLN
33	BP	38	GLN
33	BP	70	GLN
37	BT	58	ASN
41	BX	31	HIS
41	BX	82	GLN
43	BZ	34	ASN
53	B9	36	GLN
3	CC	6	HIS
3	CC	37	GLN
3	CC	118	GLN
3	CC	162	GLN
4	CD	42	GLN
4	CD	45	GLN
4	CD	125	HIS
4	CD	129	ASN
7	CG	56	GLN
7	CG	106	GLN
7	CG	110	GLN
9	CI	3	GLN
9	CI	38	GLN
9	CI	87	GLN
9	CI	124	GLN
10	CJ	68	HIS
11	CK	99	GLN
13	CM	92	HIS
14	CN	52	GLN
15	CO	28	GLN
16	CP	13	HIS
16	CP	16	HIS
22	CY	31	GLN
22	CY	33	HIS
22	CY	36	ASN
22	CY	38	HIS
22	CY	58	ASN
25	DD	253	GLN
27	DF	8	GLN
27	DF	69	HIS
27	DF	75	HIS
27	DF	169	ASN
28	DG	40	ASN
30	DI	43	ASN

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Mol	Chain	Res	Type
31	DN	133	GLN
33	DP	27	HIS
33	DP	38	GLN
37	DT	58	ASN
41	DX	31	HIS
41	DX	82	GLN
43	DZ	34	ASN
53	D9	36	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1490/1522 (97%)	306 (20%)	32 (2%)
1	CA	1490/1522 (97%)	328 (22%)	34 (2%)
23	BA	2819/2915 (96%)	514 (18%)	72 (2%)
23	DA	2788/2915 (95%)	485 (17%)	64 (2%)
24	BB	119/122 (97%)	19 (15%)	0
24	DB	119/122 (97%)	21 (17%)	0
All	All	8825/9118 (96%)	1673 (18%)	202 (2%)

All (1673) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	7	G
1	AA	9	G
1	AA	32	A
1	AA	39	G
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	59	A
1	AA	61	G
1	AA	67	C
1	AA	77	G
1	AA	78	G
1	AA	79	G
1	AA	91	C
1	AA	92	C
1	AA	93	G
1	AA	96	U

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Mol	Chain	Res	Type
1	AA	97	G
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	145	G
1	AA	146	G
1	AA	150	C
1	AA	156	G
1	AA	163	C
1	AA	173	U
1	AA	182	U
1	AA	189(G)	G
1	AA	195	A
1	AA	197	A
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	289	G
1	AA	306	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	384	G
1	AA	388	G
1	AA	391	G
1	AA	397	A
1	AA	398	C

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Mol	Chain	Res	Type
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	437	U
1	AA	439	A
1	AA	441	A
1	AA	442	C
1	AA	452	A
1	AA	458	C
1	AA	461	A
1	AA	476	G
1	AA	485	G
1	AA	495	A
1	AA	496	A
1	AA	498	U
1	AA	505	G
1	AA	506	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	536	C
1	AA	545	C
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	572	A
1	AA	573	A

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Mol	Chain	Res	Type
1	AA	576	G
1	AA	588	G
1	AA	596	C
1	AA	617	G
1	AA	623	C
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	653	A
1	AA	665	A
1	AA	666	G
1	AA	673	G
1	AA	687	A
1	AA	688	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	749	C
1	AA	755	G
1	AA	764	C
1	AA	777	A
1	AA	793	U
1	AA	794	A
1	AA	817	C
1	AA	821	G
1	AA	827	U
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	851	G
1	AA	853	G
1	AA	859	A
1	AA	860	A
1	AA	902	G
1	AA	913	A
1	AA	914	A
1	AA	926	G
1	AA	927	G

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Mol	Chain	Res	Type
1	AA	934	C
1	AA	935	A
1	AA	937	A
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	989	C
1	AA	992	U
1	AA	993	G
1	AA	1000	U
1	AA	1002	G
1	AA	1003	G
1	AA	1004	A
1	AA	1005	A
1	AA	1006	C
1	AA	1007	C
1	AA	1009	G
1	AA	1010	G
1	AA	1011	G
1	AA	1022	G
1	AA	1023	G
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1029	C
1	AA	1030	C
1	AA	1030(A)	G
1	AA	1030(B)	C
1	AA	1030(C)	G
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1036	G
1	AA	1037	C

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Mol	Chain	Res	Type
1	AA	1044	A
1	AA	1053	G
1	AA	1054	C
1	AA	1055	A
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1081	G
1	AA	1082	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1128	C
1	AA	1129	C
1	AA	1130	A
1	AA	1133	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1146	A
1	AA	1147	C
1	AA	1152	A
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1166	G
1	AA	1168	A
1	AA	1180	A
1	AA	1181	G
1	AA	1182	G
1	AA	1189	C
1	AA	1196	U
1	AA	1197	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	G

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Mol	Chain	Res	Type
1	AA	1203	C
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1225	A
1	AA	1227	A
1	AA	1230	C
1	AA	1236	A
1	AA	1238	A
1	AA	1240	U
1	AA	1249	C
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1270	C
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1282	C
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1290	G
1	AA	1294	G
1	AA	1297	C
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1320	C
1	AA	1321	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1346	A
1	AA	1347	G
1	AA	1353	G
1	AA	1359	C
1	AA	1360	A
1	AA	1363	C
1	AA	1364	U

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Mol	Chain	Res	Type
1	AA	1370	G
1	AA	1381	U
1	AA	1397	C
1	AA	1398	A
1	AA	1406	U
1	AA	1416	G
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1457	G
1	AA	1459	C
1	AA	1460	A
1	AA	1461	G
1	AA	1487	G
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1497	G
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1508	G
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
23	BA	10	G
23	BA	15	G
23	BA	34	C
23	BA	45	C
23	BA	69	C
23	BA	71	A

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Mol	Chain	Res	Type
23	BA	72	U
23	BA	74	A
23	BA	75	G
23	BA	84	A
23	BA	90	U
23	BA	99	U
23	BA	102	G
23	BA	103	A
23	BA	118	A
23	BA	119	A
23	BA	120	U
23	BA	139(A)	G
23	BA	141	A
23	BA	154	G
23	BA	154(A)	C
23	BA	173	G
23	BA	181	A
23	BA	182	A
23	BA	196	A
23	BA	199	A
23	BA	200	U
23	BA	204	A
23	BA	205	G
23	BA	215	G
23	BA	216	A
23	BA	221	A
23	BA	222	A
23	BA	225	A
23	BA	229	A
23	BA	233	A
23	BA	248	G
23	BA	250	G
23	BA	271(I)	G
23	BA	271(K)	U
23	BA	271(L)	U
23	BA	271(M)	G
23	BA	271(N)	U
23	BA	271(O)	C
23	BA	271(R)	G
23	BA	272(B)	G
23	BA	275	G
23	BA	279	C

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Mol	Chain	Res	Type
23	BA	286	C
23	BA	311	A
23	BA	329	G
23	BA	330	A
23	BA	332	A
23	BA	333	G
23	BA	342	G
23	BA	352	G
23	BA	363	G
23	BA	363(F)	A
23	BA	386	G
23	BA	396	G
23	BA	405	U
23	BA	406	G
23	BA	411	G
23	BA	412	A
23	BA	415	A
23	BA	422	A
23	BA	427	U
23	BA	428	A
23	BA	444	C
23	BA	448	U
23	BA	454	A
23	BA	456	C
23	BA	470	A
23	BA	475	U
23	BA	480	A
23	BA	481	G
23	BA	482	A
23	BA	504	U
23	BA	505	A
23	BA	509	C
23	BA	529	A
23	BA	530	G
23	BA	531	C
23	BA	532	A
23	BA	533	G
23	BA	545	G
23	BA	546	C
23	BA	549	G
23	BA	563	G
23	BA	573	G

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Mol	Chain	Res	Type
23	BA	575	A
23	BA	586	A
23	BA	587	C
23	BA	588	U
23	BA	603	A
23	BA	604	G
23	BA	606	U
23	BA	607	U
23	BA	614(B)	G
23	BA	615	G
23	BA	619	G
23	BA	627	A
23	BA	634	C
23	BA	637	A
23	BA	645	C
23	BA	646	A
23	BA	647	G
23	BA	652(B)	A
23	BA	652(C)	G
23	BA	652(E)	G
23	BA	652(F)	G
23	BA	652(G)	G
23	BA	652(P)	G
23	BA	652(Q)	G
23	BA	652(R)	C
23	BA	652(T)	C
23	BA	652(U)	G
23	BA	669	G
23	BA	686	G
23	BA	707	G
23	BA	708	C
23	BA	730	C
23	BA	752	A
23	BA	753	C
23	BA	764	A
23	BA	765	G
23	BA	774	A
23	BA	775	G
23	BA	776	G
23	BA	782	A
23	BA	784	A
23	BA	785	G

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Mol	Chain	Res	Type
23	BA	790	C
23	BA	792	G
23	BA	805	G
23	BA	812	C
23	BA	819	A
23	BA	827	U
23	BA	828	U
23	BA	830	G
23	BA	857	C
23	BA	859	G
23	BA	866	A
23	BA	880	G
23	BA	884	C
23	BA	885	C
23	BA	886	C
23	BA	888	C
23	BA	889	C
23	BA	890	A
23	BA	896	A
23	BA	897	C
23	BA	899	A
23	BA	900	A
23	BA	901	A
23	BA	910	A
23	BA	916	G
23	BA	917	A
23	BA	932	G
23	BA	938	G
23	BA	941	A
23	BA	945	A
23	BA	946	G
23	BA	958	U
23	BA	959	A
23	BA	961	C
23	BA	974	G
23	BA	975	C
23	BA	983	A
23	BA	994	C
23	BA	996	A
23	BA	1005	C
23	BA	1012	U
23	BA	1013	C

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Mol	Chain	Res	Type
23	BA	1022	G
23	BA	1026	U
23	BA	1027	A
23	BA	1033	U
23	BA	1038	C
23	BA	1039	G
23	BA	1042	G
23	BA	1043	C
23	BA	1044	G
23	BA	1045	A
23	BA	1046	A
23	BA	1047	G
23	BA	1048	A
23	BA	1049	C
23	BA	1050	A
23	BA	1052	C
23	BA	1107	G
23	BA	1108	U
23	BA	1109	C
23	BA	1110	G
23	BA	1111	A
23	BA	1112	G
23	BA	1128	A
23	BA	1129	A
23	BA	1130	U
23	BA	1135	C
23	BA	1136	G
23	BA	1139	G
23	BA	1144	G
23	BA	1155	A
23	BA	1156	A
23	BA	1171	G
23	BA	1173	G
23	BA	1174	A
23	BA	1175	U
23	BA	1176	G
23	BA	1177	A
23	BA	1178	C
23	BA	1210	A
23	BA	1211	U
23	BA	1219	G
23	BA	1220	A

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Mol	Chain	Res	Type
23	BA	1253	A
23	BA	1256	G
23	BA	1271	G
23	BA	1272	A
23	BA	1273	U
23	BA	1300	U
23	BA	1301	A
23	BA	1303	G
23	BA	1305	C
23	BA	1308	A
23	BA	1314	C
23	BA	1321	A
23	BA	1329	U
23	BA	1345	C
23	BA	1352	U
23	BA	1359	A
23	BA	1360	A
23	BA	1365	A
23	BA	1370	C
23	BA	1373	A
23	BA	1380	G
23	BA	1384	A
23	BA	1385	G
23	BA	1386	C
23	BA	1404	C
23	BA	1416	G
23	BA	1417	C
23	BA	1419	A
23	BA	1421	G
23	BA	1427	A
23	BA	1428	C
23	BA	1430	C
23	BA	1436	G
23	BA	1437	C
23	BA	1445	A
23	BA	1449	A
23	BA	1450	G
23	BA	1452	A
23	BA	1459	G
23	BA	1467	C
23	BA	1471	A
23	BA	1472	A

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Mol	Chain	Res	Type
23	BA	1482	G
23	BA	1487	G
23	BA	1488	G
23	BA	1489	U
23	BA	1493	C
23	BA	1496	A
23	BA	1497	U
23	BA	1507	A
23	BA	1508	A
23	BA	1509	C
23	BA	1509(A)	A
23	BA	1525	G
23	BA	1531	C
23	BA	1541	G
23	BA	1542	A
23	BA	1543	C
23	BA	1545	A
23	BA	1558	A
23	BA	1559	G
23	BA	1566	A
23	BA	1569	A
23	BA	1578	U
23	BA	1580	A
23	BA	1581	G
23	BA	1582	C
23	BA	1584	C
23	BA	1586	A
23	BA	1588	C
23	BA	1598	C
23	BA	1608	A
23	BA	1609	A
23	BA	1610	A
23	BA	1617	C
23	BA	1631	C
23	BA	1640	C
23	BA	1647	G
23	BA	1648	C
23	BA	1653	G
23	BA	1654	A
23	BA	1674	G
23	BA	1696	G
23	BA	1700	A

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Mol	Chain	Res	Type
23	BA	1701	A
23	BA	1721	G
23	BA	1722	A
23	BA	1739	U
23	BA	1740	G
23	BA	1742	G
23	BA	1746	G
23	BA	1756	G
23	BA	1762	A
23	BA	1763	G
23	BA	1764	G
23	BA	1769	G
23	BA	1773	A
23	BA	1780	A
23	BA	1782	C
23	BA	1791	A
23	BA	1799	G
23	BA	1800	C
23	BA	1801	G
23	BA	1816	G
23	BA	1820	U
23	BA	1829	A
23	BA	1830	C
23	BA	1835	G
23	BA	1839	G
23	BA	1847	A
23	BA	1858	G
23	BA	1861	G
23	BA	1877	A
23	BA	1878	G
23	BA	1881	C
23	BA	1882	C
23	BA	1889	A
23	BA	1900	A
23	BA	1906	G
23	BA	1913	A
23	BA	1914	C
23	BA	1929	G
23	BA	1930	G
23	BA	1934	C
23	BA	1936	A
23	BA	1937	A

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Mol	Chain	Res	Type
23	BA	1938	A
23	BA	1955	U
23	BA	1963	U
23	BA	1965	C
23	BA	1967	C
23	BA	1969	A
23	BA	1970	A
23	BA	1971	A
23	BA	1972	A
23	BA	1982	C
23	BA	1991	U
23	BA	1992	G
23	BA	1993	U
23	BA	1997	G
23	BA	2020	A
23	BA	2023	G
23	BA	2031	A
23	BA	2033	A
23	BA	2036	C
23	BA	2043	C
23	BA	2055	C
23	BA	2056	G
23	BA	2060	A
23	BA	2061	G
23	BA	2062	A
23	BA	2069	G
23	BA	2102	U
23	BA	2103	C
23	BA	2105	C
23	BA	2107	C
23	BA	2108	C
23	BA	2113	U
23	BA	2116	G
23	BA	2117	A
23	BA	2118	U
23	BA	2120	G
23	BA	2123	G
23	BA	2126	A
23	BA	2127	G
23	BA	2131	G
23	BA	2133	G
23	BA	2134	A

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Mol	Chain	Res	Type
23	BA	2138	C
23	BA	2142	C
23	BA	2144	U
23	BA	2145	C
23	BA	2146	C
23	BA	2147	G
23	BA	2148	G
23	BA	2154	G
23	BA	2159	G
23	BA	2160	G
23	BA	2165	G
23	BA	2166	G
23	BA	2172	U
23	BA	2173	A
23	BA	2174	C
23	BA	2184	G
23	BA	2185	C
23	BA	2186	G
23	BA	2187	G
23	BA	2190	G
23	BA	2191	G
23	BA	2192	G
23	BA	2193	G
23	BA	2198	A
23	BA	2199	A
23	BA	2200	C
23	BA	2206	G
23	BA	2207	G
23	BA	2208	A
23	BA	2218	U
23	BA	2219	G
23	BA	2225	A
23	BA	2238	G
23	BA	2239	G
23	BA	2268	A
23	BA	2275	C
23	BA	2283	C
23	BA	2287	A
23	BA	2289	G
23	BA	2296	U
23	BA	2297	C
23	BA	2305	A

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Mol	Chain	Res	Type
23	BA	2311	A
23	BA	2318	G
23	BA	2319	G
23	BA	2320	A
23	BA	2321	G
23	BA	2325	G
23	BA	2327	A
23	BA	2334	G
23	BA	2347	C
23	BA	2350	C
23	BA	2383	G
23	BA	2385	C
23	BA	2393	A
23	BA	2400	G
23	BA	2406	U
23	BA	2410	G
23	BA	2414	G
23	BA	2419	U
23	BA	2422	A
23	BA	2423	U
23	BA	2425	A
23	BA	2429	G
23	BA	2430	A
23	BA	2431	U
23	BA	2435	A
23	BA	2439	A
23	BA	2441	C
23	BA	2448	A
23	BA	2465	C
23	BA	2469	A
23	BA	2474	C
23	BA	2476	A
23	BA	2478	A
23	BA	2498	C
23	BA	2502	G
23	BA	2505	G
23	BA	2506	U
23	BA	2518	A
23	BA	2525	G
23	BA	2529	G
23	BA	2535	G
23	BA	2549	G

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Mol	Chain	Res	Type
23	BA	2554	U
23	BA	2555	U
23	BA	2566	A
23	BA	2567	G
23	BA	2573	C
23	BA	2609	U
23	BA	2611	U
23	BA	2612	C
23	BA	2615	U
23	BA	2629	A
23	BA	2630	G
23	BA	2663	G
23	BA	2673	G
23	BA	2675	A
23	BA	2689	U
23	BA	2690	C
23	BA	2691	C
23	BA	2702	U
23	BA	2703	C
23	BA	2712(A)	A
23	BA	2713	A
23	BA	2714	G
23	BA	2726	U
23	BA	2733	A
23	BA	2757	A
23	BA	2758	A
23	BA	2760	C
23	BA	2765	A
23	BA	2766	G
23	BA	2778	A
23	BA	2789	C
23	BA	2790	A
23	BA	2791	C
23	BA	2802	G
23	BA	2803	C
23	BA	2808	U
23	BA	2820	A
23	BA	2821	A
23	BA	2834	G
23	BA	2835	A
23	BA	2847	U
23	BA	2872	G

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Mol	Chain	Res	Type
23	BA	2880	C
23	BA	2892	A
23	BA	2895	U
23	BA	2897	U
24	BB	2	C
24	BB	7	G
24	BB	9	G
24	BB	13	A
24	BB	19	G
24	BB	20	C
24	BB	24	G
24	BB	25	A
24	BB	40	U
24	BB	42	C
24	BB	47	C
24	BB	53	A
24	BB	54	G
24	BB	56	G
24	BB	73	A
24	BB	75	G
24	BB	106	G
24	BB	110	G
24	BB	116	G
1	CA	7	G
1	CA	9	G
1	CA	22	G
1	CA	32	A
1	CA	39	G
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	52	G
1	CA	61	G
1	CA	65	U
1	CA	66	G
1	CA	67	C
1	CA	96	U
1	CA	97	G
1	CA	115	G
1	CA	116	A
1	CA	120	A
1	CA	121	C

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Mol	Chain	Res	Type
1	CA	131	C
1	CA	144	G
1	CA	145	G
1	CA	146	G
1	CA	150	C
1	CA	156	G
1	CA	163	C
1	CA	173	U
1	CA	182	U
1	CA	189(G)	G
1	CA	195	A
1	CA	197	A
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	289	G
1	CA	306	G
1	CA	320	C
1	CA	321	A
1	CA	328	C
1	CA	332	G
1	CA	344	A
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	384	G
1	CA	388	G
1	CA	391	G
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	414	A

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Mol	Chain	Res	Type
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	424	G
1	CA	428	G
1	CA	429	U
1	CA	430	A
1	CA	434	U
1	CA	437	U
1	CA	439	A
1	CA	441	A
1	CA	442	C
1	CA	452	A
1	CA	458	C
1	CA	461	A
1	CA	476	G
1	CA	485	G
1	CA	495	A
1	CA	496	A
1	CA	498	U
1	CA	505	G
1	CA	506	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	521	G
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	536	C
1	CA	545	C
1	CA	547	A
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	588	G

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Mol	Chain	Res	Type
1	CA	596	C
1	CA	617	G
1	CA	623	C
1	CA	630	G
1	CA	631	G
1	CA	632	A
1	CA	653	A
1	CA	665	A
1	CA	673	G
1	CA	687	A
1	CA	688	G
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	764	C
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	817	C
1	CA	827	U
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	851	G
1	CA	853	G
1	CA	859	A
1	CA	860	A
1	CA	884	U
1	CA	902	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	944	G
1	CA	954	G
1	CA	959	A

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Mol	Chain	Res	Type
1	CA	961	U
1	CA	966	G
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	981	U
1	CA	984	C
1	CA	989	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	995	C
1	CA	998	G
1	CA	1001	A
1	CA	1002	G
1	CA	1003	G
1	CA	1005	A
1	CA	1006	C
1	CA	1007	C
1	CA	1011	G
1	CA	1019	C
1	CA	1020	U
1	CA	1021	G
1	CA	1024	G
1	CA	1025	U
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1030(B)	C
1	CA	1030(C)	G
1	CA	1032	G
1	CA	1037	C
1	CA	1038	C
1	CA	1042	G
1	CA	1044	A
1	CA	1046	A
1	CA	1050	G
1	CA	1053	G

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Mol	Chain	Res	Type
1	CA	1054	C
1	CA	1055	A
1	CA	1056	U
1	CA	1057	G
1	CA	1058	G
1	CA	1062	U
1	CA	1063	C
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1073	U
1	CA	1081	G
1	CA	1084	G
1	CA	1086	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1108	G
1	CA	1109	C
1	CA	1113	C
1	CA	1117	G
1	CA	1119	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1127	G
1	CA	1128	C
1	CA	1129	C
1	CA	1130	A
1	CA	1133	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1146	A
1	CA	1147	C
1	CA	1152	A
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1171	G

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Mol	Chain	Res	Type
1	CA	1182	G
1	CA	1184	G
1	CA	1185	G
1	CA	1187	G
1	CA	1190	G
1	CA	1194	U
1	CA	1196	U
1	CA	1197	G
1	CA	1201	A
1	CA	1202	G
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1224	G
1	CA	1225	A
1	CA	1227	A
1	CA	1228	C
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1248	A
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1263	C
1	CA	1267	C
1	CA	1269	A
1	CA	1273	G
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1288	A
1	CA	1295	G
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G

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Mol	Chain	Res	Type
1	CA	1307	U
1	CA	1318	A
1	CA	1319	A
1	CA	1320	C
1	CA	1322	C
1	CA	1324	A
1	CA	1331	G
1	CA	1335	C
1	CA	1336	C
1	CA	1345	U
1	CA	1346	A
1	CA	1347	G
1	CA	1358	U
1	CA	1363	C
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1365	G
1	CA	1368	G
1	CA	1370	G
1	CA	1379	G
1	CA	1380	U
1	CA	1381	U
1	CA	1383	C
1	CA	1397	C
1	CA	1398	A
1	CA	1406	U
1	CA	1416	G
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G
1	CA	1459	C
1	CA	1460	A
1	CA	1461	G
1	CA	1487	G
1	CA	1492	A
1	CA	1493	A

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Mol	Chain	Res	Type
1	CA	1494	G
1	CA	1497	G
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1508	G
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
23	DA	10	G
23	DA	15	G
23	DA	34	C
23	DA	45	C
23	DA	69	C
23	DA	71	A
23	DA	72	U
23	DA	74	A
23	DA	75	G
23	DA	84	A
23	DA	90	U
23	DA	99	U
23	DA	102	G
23	DA	103	A
23	DA	118	A
23	DA	119	A
23	DA	120	U
23	DA	139(A)	G
23	DA	141	A
23	DA	154	G
23	DA	154(A)	C
23	DA	157	U
23	DA	173	G
23	DA	181	A
23	DA	182	A
23	DA	196	A
23	DA	197	A

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Mol	Chain	Res	Type
23	DA	204	A
23	DA	205	G
23	DA	215	G
23	DA	216	A
23	DA	221	A
23	DA	222	A
23	DA	225	A
23	DA	229	A
23	DA	233	A
23	DA	248	G
23	DA	250	G
23	DA	265	A
23	DA	271(I)	G
23	DA	271(K)	U
23	DA	271(L)	U
23	DA	271(M)	G
23	DA	271(N)	U
23	DA	271(O)	C
23	DA	271(R)	G
23	DA	272(B)	G
23	DA	286	C
23	DA	311	A
23	DA	324	A
23	DA	329	G
23	DA	330	A
23	DA	332	A
23	DA	333	G
23	DA	342	G
23	DA	352	G
23	DA	363	G
23	DA	363(F)	A
23	DA	386	G
23	DA	396	G
23	DA	405	U
23	DA	406	G
23	DA	411	G
23	DA	412	A
23	DA	415	A
23	DA	422	A
23	DA	427	U
23	DA	428	A
23	DA	429	A

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Mol	Chain	Res	Type
23	DA	444	C
23	DA	448	U
23	DA	454	A
23	DA	455	C
23	DA	470	A
23	DA	475	U
23	DA	480	A
23	DA	481	G
23	DA	482	A
23	DA	504	U
23	DA	505	A
23	DA	509	C
23	DA	530	G
23	DA	531	C
23	DA	532	A
23	DA	533	G
23	DA	545	G
23	DA	546	C
23	DA	549	G
23	DA	556	G
23	DA	563	G
23	DA	573	G
23	DA	575	A
23	DA	586	A
23	DA	587	C
23	DA	588	U
23	DA	603	A
23	DA	604	G
23	DA	606	U
23	DA	607	U
23	DA	614(B)	G
23	DA	615	G
23	DA	619	G
23	DA	627	A
23	DA	637	A
23	DA	645	C
23	DA	646	A
23	DA	647	G
23	DA	652(B)	A
23	DA	652(C)	G
23	DA	652(E)	G
23	DA	652(U)	G

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Mol	Chain	Res	Type
23	DA	669	G
23	DA	686	G
23	DA	707	G
23	DA	708	C
23	DA	730	C
23	DA	752	A
23	DA	753	C
23	DA	764	A
23	DA	765	G
23	DA	775	G
23	DA	776	G
23	DA	782	A
23	DA	784	A
23	DA	785	G
23	DA	790	C
23	DA	792	G
23	DA	805	G
23	DA	812	C
23	DA	819	A
23	DA	827	U
23	DA	828	U
23	DA	830	G
23	DA	857	C
23	DA	859	G
23	DA	866	A
23	DA	880	G
23	DA	884	C
23	DA	885	C
23	DA	886	C
23	DA	888	C
23	DA	889	C
23	DA	890	A
23	DA	896	A
23	DA	897	C
23	DA	899	A
23	DA	900	A
23	DA	901	A
23	DA	910	A
23	DA	916	G
23	DA	917	A
23	DA	932	G
23	DA	938	G

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Mol	Chain	Res	Type
23	DA	941	A
23	DA	945	A
23	DA	946	G
23	DA	958	U
23	DA	959	A
23	DA	961	C
23	DA	974	G
23	DA	975	C
23	DA	983	A
23	DA	996	A
23	DA	1005	C
23	DA	1012	U
23	DA	1013	C
23	DA	1022	G
23	DA	1026	U
23	DA	1027	A
23	DA	1033	U
23	DA	1038	C
23	DA	1039	G
23	DA	1042	G
23	DA	1043	C
23	DA	1128	A
23	DA	1129	A
23	DA	1130	U
23	DA	1135	C
23	DA	1136	G
23	DA	1139	G
23	DA	1155	A
23	DA	1170	G
23	DA	1171	G
23	DA	1210	A
23	DA	1211	U
23	DA	1219	G
23	DA	1220	A
23	DA	1253	A
23	DA	1256	G
23	DA	1271	G
23	DA	1272	A
23	DA	1273	U
23	DA	1287	A
23	DA	1288	U
23	DA	1300	U

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Mol	Chain	Res	Type
23	DA	1301	A
23	DA	1303	G
23	DA	1305	C
23	DA	1308	A
23	DA	1314	C
23	DA	1321	A
23	DA	1329	U
23	DA	1345	C
23	DA	1352	U
23	DA	1359	A
23	DA	1360	A
23	DA	1365	A
23	DA	1370	C
23	DA	1373	A
23	DA	1380	G
23	DA	1384	A
23	DA	1385	G
23	DA	1386	C
23	DA	1404	C
23	DA	1416	G
23	DA	1417	C
23	DA	1419	A
23	DA	1421	G
23	DA	1427	A
23	DA	1428	C
23	DA	1436	G
23	DA	1437	C
23	DA	1445	A
23	DA	1449	A
23	DA	1450	G
23	DA	1452	A
23	DA	1459	G
23	DA	1467	C
23	DA	1471	A
23	DA	1472	A
23	DA	1482	G
23	DA	1488	G
23	DA	1489	U
23	DA	1493	C
23	DA	1496	A
23	DA	1497	U
23	DA	1507	A

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Mol	Chain	Res	Type
23	DA	1508	A
23	DA	1509	C
23	DA	1509(A)	A
23	DA	1525	G
23	DA	1531	C
23	DA	1533	G
23	DA	1537	G
23	DA	1541	G
23	DA	1542	A
23	DA	1543	C
23	DA	1547	C
23	DA	1558	A
23	DA	1559	G
23	DA	1566	A
23	DA	1569	A
23	DA	1578	U
23	DA	1580	A
23	DA	1581	G
23	DA	1582	C
23	DA	1584	C
23	DA	1586	A
23	DA	1588	C
23	DA	1598	C
23	DA	1608	A
23	DA	1609	A
23	DA	1610	A
23	DA	1617	C
23	DA	1631	C
23	DA	1640	C
23	DA	1647	G
23	DA	1648	C
23	DA	1654	A
23	DA	1674	G
23	DA	1696	G
23	DA	1700	A
23	DA	1701	A
23	DA	1703	G
23	DA	1721	G
23	DA	1722	A
23	DA	1739	U
23	DA	1740	G
23	DA	1742	G

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Mol	Chain	Res	Type
23	DA	1746	G
23	DA	1756	G
23	DA	1762	A
23	DA	1763	G
23	DA	1764	G
23	DA	1773	A
23	DA	1780	A
23	DA	1782	C
23	DA	1791	A
23	DA	1799	G
23	DA	1800	C
23	DA	1801	G
23	DA	1816	G
23	DA	1820	U
23	DA	1829	A
23	DA	1830	C
23	DA	1835	G
23	DA	1839	G
23	DA	1847	A
23	DA	1858	G
23	DA	1861	G
23	DA	1877	A
23	DA	1878	G
23	DA	1881	C
23	DA	1882	C
23	DA	1889	A
23	DA	1900	A
23	DA	1906	G
23	DA	1913	A
23	DA	1914	C
23	DA	1929	G
23	DA	1930	G
23	DA	1934	C
23	DA	1936	A
23	DA	1937	A
23	DA	1938	A
23	DA	1955	U
23	DA	1963	U
23	DA	1967	C
23	DA	1969	A
23	DA	1970	A
23	DA	1971	A

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Mol	Chain	Res	Type
23	DA	1972	A
23	DA	1982	C
23	DA	1991	U
23	DA	1992	G
23	DA	1993	U
23	DA	1997	G
23	DA	2020	A
23	DA	2023	G
23	DA	2031	A
23	DA	2033	A
23	DA	2036	C
23	DA	2043	C
23	DA	2055	C
23	DA	2056	G
23	DA	2060	A
23	DA	2061	G
23	DA	2062	A
23	DA	2069	G
23	DA	2102	U
23	DA	2103	C
23	DA	2105	C
23	DA	2107	C
23	DA	2108	C
23	DA	2113	U
23	DA	2116	G
23	DA	2117	A
23	DA	2118	U
23	DA	2120	G
23	DA	2126	A
23	DA	2127	G
23	DA	2131	G
23	DA	2133	G
23	DA	2134	A
23	DA	2138	C
23	DA	2142	C
23	DA	2144	U
23	DA	2145	C
23	DA	2146	C
23	DA	2147	G
23	DA	2148	G
23	DA	2154	G
23	DA	2159	G

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Mol	Chain	Res	Type
23	DA	2160	G
23	DA	2165	G
23	DA	2166	G
23	DA	2172	U
23	DA	2173	A
23	DA	2174	C
23	DA	2185	C
23	DA	2186	G
23	DA	2187	G
23	DA	2190	G
23	DA	2191	G
23	DA	2192	G
23	DA	2193	G
23	DA	2198	A
23	DA	2199	A
23	DA	2200	C
23	DA	2206	G
23	DA	2207	G
23	DA	2208	A
23	DA	2218	U
23	DA	2219	G
23	DA	2225	A
23	DA	2239	G
23	DA	2240	C
23	DA	2267	A
23	DA	2268	A
23	DA	2275	C
23	DA	2283	C
23	DA	2287	A
23	DA	2289	G
23	DA	2296	U
23	DA	2297	C
23	DA	2305	A
23	DA	2311	A
23	DA	2318	G
23	DA	2319	G
23	DA	2320	A
23	DA	2321	G
23	DA	2325	G
23	DA	2327	A
23	DA	2334	G
23	DA	2336	A

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Mol	Chain	Res	Type
23	DA	2347	C
23	DA	2350	C
23	DA	2370	G
23	DA	2383	G
23	DA	2385	C
23	DA	2393	A
23	DA	2400	G
23	DA	2406	U
23	DA	2410	G
23	DA	2414	G
23	DA	2422	A
23	DA	2423	U
23	DA	2425	A
23	DA	2429	G
23	DA	2430	A
23	DA	2431	U
23	DA	2435	A
23	DA	2439	A
23	DA	2441	C
23	DA	2448	A
23	DA	2465	C
23	DA	2469	A
23	DA	2474	C
23	DA	2476	A
23	DA	2478	A
23	DA	2498	C
23	DA	2502	G
23	DA	2505	G
23	DA	2506	U
23	DA	2518	A
23	DA	2525	G
23	DA	2529	G
23	DA	2535	G
23	DA	2549	G
23	DA	2554	U
23	DA	2555	U
23	DA	2566	A
23	DA	2567	G
23	DA	2573	C
23	DA	2602	A
23	DA	2603	G
23	DA	2611	U

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Mol	Chain	Res	Type
23	DA	2612	C
23	DA	2615	U
23	DA	2629	A
23	DA	2630	G
23	DA	2663	G
23	DA	2673	G
23	DA	2675	A
23	DA	2689	U
23	DA	2690	C
23	DA	2702	U
23	DA	2703	C
23	DA	2712(A)	A
23	DA	2713	A
23	DA	2714	G
23	DA	2726	U
23	DA	2733	A
23	DA	2757	A
23	DA	2758	A
23	DA	2760	C
23	DA	2765	A
23	DA	2766	G
23	DA	2778	A
23	DA	2789	C
23	DA	2790	A
23	DA	2791	C
23	DA	2802	G
23	DA	2803	C
23	DA	2808	U
23	DA	2820	A
23	DA	2821	A
23	DA	2834	G
23	DA	2835	A
23	DA	2847	U
23	DA	2872	G
23	DA	2880	C
23	DA	2892	A
23	DA	2895	U
23	DA	2897	U
24	DB	2	C
24	DB	5	C
24	DB	7	G
24	DB	9	G

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Mol	Chain	Res	Type
24	DB	13	A
24	DB	19	G
24	DB	20	C
24	DB	24	G
24	DB	25	A
24	DB	40	U
24	DB	42	C
24	DB	47	C
24	DB	50	G
24	DB	53	A
24	DB	54	G
24	DB	56	G
24	DB	73	A
24	DB	75	G
24	DB	106	G
24	DB	110	G
24	DB	116	G

All (202) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	60	A
1	AA	76	C
1	AA	115	G
1	AA	119	A
1	AA	189(E)	U
1	AA	243	A
1	AA	266	G
1	AA	428	G
1	AA	429	U
1	AA	495	A
1	AA	509	A
1	AA	560	U
1	AA	561	U
1	AA	687	A
1	AA	748	C
1	AA	913	A
1	AA	991	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A

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Mol	Chain	Res	Type
1	AA	1126	U
1	AA	1129	C
1	AA	1136	U
1	AA	1165	C
1	AA	1201	A
1	AA	1285	A
1	AA	1300	G
1	AA	1442	G
1	AA	1456	G
1	AA	1493	A
1	AA	1530	G
23	BA	9	U
23	BA	71	A
23	BA	102	G
23	BA	196	A
23	BA	199	A
23	BA	215	G
23	BA	249	C
23	BA	271(K)	U
23	BA	271(M)	G
23	BA	278	A
23	BA	363(E)	U
23	BA	405	U
23	BA	474	G
23	BA	481	G
23	BA	587	C
23	BA	669	G
23	BA	685	A
23	BA	686	G
23	BA	746	A
23	BA	752	A
23	BA	764	A
23	BA	774	A
23	BA	827	U
23	BA	856	C
23	BA	900	A
23	BA	945	A
23	BA	958	U
23	BA	974	G
23	BA	1026	U
23	BA	1047	G
23	BA	1049	C

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Mol	Chain	Res	Type
23	BA	1106	G
23	BA	1108	U
23	BA	1142(A)	A
23	BA	1155	A
23	BA	1174	A
23	BA	1175	U
23	BA	1176	G
23	BA	1210	A
23	BA	1300	U
23	BA	1379	A
23	BA	1420	U
23	BA	1427	A
23	BA	1507	A
23	BA	1530	C
23	BA	1558	A
23	BA	1608	A
23	BA	1609	A
23	BA	1617	C
23	BA	1653	G
23	BA	1799	G
23	BA	1800	C
23	BA	1819	A
23	BA	1992	G
23	BA	2122	U
23	BA	2126	A
23	BA	2171	A
23	BA	2172	U
23	BA	2207	G
23	BA	2275	C
23	BA	2288	A
23	BA	2318	G
23	BA	2406	U
23	BA	2422	A
23	BA	2430	A
23	BA	2439	A
23	BA	2689	U
23	BA	2726	U
23	BA	2756	U
23	BA	2778	A
23	BA	2789	C
23	BA	2802	G
1	CA	4	U

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Mol	Chain	Res	Type
1	CA	60	A
1	CA	65	U
1	CA	115	G
1	CA	119	A
1	CA	189(E)	U
1	CA	243	A
1	CA	266	G
1	CA	353	A
1	CA	428	G
1	CA	429	U
1	CA	495	A
1	CA	509	A
1	CA	560	U
1	CA	561	U
1	CA	687	A
1	CA	748	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1049	U
1	CA	1061	G
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1129	C
1	CA	1136	U
1	CA	1183	A
1	CA	1201	A
1	CA	1256	A
1	CA	1300	G
1	CA	1442	G
1	CA	1456	G
1	CA	1493	A
23	DA	9	U
23	DA	71	A
23	DA	102	G
23	DA	196	A
23	DA	199	A
23	DA	215	G
23	DA	249	C
23	DA	271(K)	U
23	DA	271(M)	G

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Mol	Chain	Res	Type
23	DA	310	A
23	DA	363(E)	U
23	DA	405	U
23	DA	474	G
23	DA	481	G
23	DA	587	C
23	DA	669	G
23	DA	685	A
23	DA	746	A
23	DA	752	A
23	DA	764	A
23	DA	774	A
23	DA	827	U
23	DA	856	C
23	DA	859	G
23	DA	900	A
23	DA	958	U
23	DA	974	G
23	DA	1026	U
23	DA	1155	A
23	DA	1210	A
23	DA	1300	U
23	DA	1301	A
23	DA	1379	A
23	DA	1420	U
23	DA	1427	A
23	DA	1507	A
23	DA	1530	C
23	DA	1558	A
23	DA	1608	A
23	DA	1617	C
23	DA	1653	G
23	DA	1799	G
23	DA	1800	C
23	DA	1819	A
23	DA	1913	A
23	DA	1992	G
23	DA	2126	A
23	DA	2171	A
23	DA	2172	U
23	DA	2207	G
23	DA	2288	A

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Mol	Chain	Res	Type
23	DA	2318	G
23	DA	2406	U
23	DA	2422	A
23	DA	2430	A
23	DA	2439	A
23	DA	2602	A
23	DA	2611	U
23	DA	2689	U
23	DA	2726	U
23	DA	2756	U
23	DA	2778	A
23	DA	2789	C
23	DA	2802	G

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

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 1945 ligands modelled in this entry, 1945 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1493/1522 (98%)	0.01	76 (5%) 28 26	37, 73, 129, 165	0
1	CA	1491/1522 (97%)	0.16	99 (6%) 18 16	40, 84, 135, 175	0
2	AB	229/256 (89%)	0.66	28 (12%) 4 3	76, 103, 123, 135	0
2	CB	235/256 (91%)	1.48	77 (32%) 0 0	80, 108, 127, 135	0
3	AC	206/239 (86%)	0.23	11 (5%) 26 25	62, 81, 98, 105	0
3	CC	206/239 (86%)	1.19	51 (24%) 0 0	85, 109, 122, 130	0
4	AD	208/209 (99%)	0.91	32 (15%) 2 1	64, 85, 105, 113	0
4	CD	208/209 (99%)	0.71	29 (13%) 2 2	68, 85, 103, 111	0
5	AE	148/162 (91%)	0.03	0 100 100	59, 73, 86, 101	0
5	CE	148/162 (91%)	0.52	13 (8%) 10 8	62, 77, 91, 105	0
6	AF	100/101 (99%)	0.01	3 (3%) 50 51	61, 72, 85, 100	0
6	CF	99/101 (98%)	0.16	3 (3%) 50 51	62, 74, 86, 95	0
7	AG	155/156 (99%)	-0.05	7 (4%) 33 31	64, 76, 91, 100	0
7	CG	155/156 (99%)	1.17	41 (26%) 0 0	86, 102, 111, 118	0
8	AH	138/138 (100%)	0.44	6 (4%) 35 33	61, 75, 83, 94	0
8	CH	138/138 (100%)	0.57	14 (10%) 7 5	64, 79, 87, 95	0
9	AI	125/128 (97%)	0.57	14 (11%) 5 4	64, 93, 106, 114	0
9	CI	125/128 (97%)	1.97	45 (36%) 0 0	89, 118, 126, 133	0
10	AJ	96/105 (91%)	1.22	20 (20%) 1 0	63, 96, 120, 124	0
10	CJ	96/105 (91%)	2.18	41 (42%) 0 0	95, 118, 135, 144	0
11	AK	114/129 (88%)	0.43	9 (7%) 12 10	50, 72, 91, 107	0
11	CK	114/129 (88%)	0.75	14 (12%) 4 3	54, 77, 95, 109	0
12	AL	122/132 (92%)	0.56	5 (4%) 37 36	54, 68, 82, 95	0
12	CL	122/132 (92%)	0.89	19 (15%) 2 1	55, 72, 85, 99	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	114/126 (90%)	0.11	7 (6%) 21 20	68, 82, 97, 102	0
13	CM	112/126 (88%)	1.59	39 (34%) 0 0	94, 117, 126, 134	0
14	AN	60/61 (98%)	0.46	4 (6%) 17 16	68, 79, 92, 102	0
14	CN	60/61 (98%)	1.54	19 (31%) 0 0	99, 110, 121, 128	0
15	AO	88/89 (98%)	0.34	3 (3%) 45 45	52, 73, 90, 94	0
15	CO	88/89 (98%)	0.63	11 (12%) 3 3	58, 77, 91, 96	0
16	AP	82/88 (93%)	1.04	13 (15%) 1 1	68, 82, 100, 110	0
16	CP	82/88 (93%)	0.46	4 (4%) 29 28	66, 79, 94, 103	0
17	AQ	99/105 (94%)	0.38	3 (3%) 50 51	57, 74, 87, 92	0
17	CQ	99/105 (94%)	0.62	9 (9%) 9 7	60, 75, 85, 94	0
18	AR	68/88 (77%)	0.08	3 (4%) 34 33	62, 73, 92, 96	0
18	CR	68/88 (77%)	0.58	9 (13%) 3 2	65, 76, 92, 96	0
19	AS	81/93 (87%)	0.63	9 (11%) 5 4	74, 89, 105, 128	0
19	CS	78/93 (83%)	2.18	34 (43%) 0 0	100, 118, 130, 133	0
20	AT	96/106 (90%)	0.85	11 (11%) 4 4	66, 82, 100, 106	0
20	CT	104/106 (98%)	0.81	13 (12%) 3 3	64, 83, 103, 119	0
21	AU	23/27 (85%)	0.71	3 (13%) 3 2	71, 80, 83, 90	0
21	CU	23/27 (85%)	1.82	9 (39%) 0 0	97, 106, 115, 119	0
22	AY	95/119 (79%)	0.05	2 (2%) 63 65	51, 64, 81, 92	0
22	CY	94/119 (78%)	2.31	51 (54%) 0 0	76, 95, 113, 120	0
23	BA	2827/2915 (96%)	-0.05	108 (3%) 40 39	24, 40, 120, 169	0
23	DA	2798/2915 (95%)	-0.28	147 (5%) 26 25	27, 46, 118, 170	0
24	BB	120/122 (98%)	-0.23	1 (0%) 86 87	39, 65, 76, 119	0
24	DB	120/122 (98%)	0.80	24 (20%) 1 0	50, 81, 97, 130	0
25	BD	275/276 (99%)	-0.13	0 100 100	24, 39, 51, 79	0
25	DD	275/276 (99%)	-0.26	1 (0%) 92 93	26, 43, 55, 84	0
26	BE	204/206 (99%)	-0.15	0 100 100	24, 44, 64, 81	0
26	DE	204/206 (99%)	-0.12	3 (1%) 73 76	27, 48, 69, 84	0
27	BF	203/210 (96%)	0.08	1 (0%) 91 92	25, 49, 82, 113	0
27	DF	203/210 (96%)	0.19	13 (6%) 19 18	28, 58, 84, 115	0
28	BG	181/182 (99%)	0.18	5 (2%) 53 54	64, 83, 108, 138	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DG	181/182 (99%)	2.11	84 (46%) 0 0	78, 96, 116, 140	0
29	BH	174/180 (96%)	0.17	3 (1%) 70 72	49, 64, 80, 92	0
29	DH	174/180 (96%)	1.61	55 (31%) 0 0	61, 78, 92, 101	0
30	BI	146/148 (98%)	0.41	12 (8%) 11 9	46, 75, 91, 98	0
30	DI	146/148 (98%)	0.56	12 (8%) 11 9	49, 81, 99, 107	0
31	BN	140/140 (100%)	0.04	0 100 100	30, 44, 66, 83	0
31	DN	140/140 (100%)	-0.05	4 (2%) 51 52	35, 52, 73, 86	0
32	BO	122/122 (100%)	-0.17	0 100 100	34, 43, 62, 65	0
32	DO	122/122 (100%)	-0.35	1 (0%) 86 87	37, 47, 65, 68	0
33	BP	149/150 (99%)	0.16	1 (0%) 87 89	25, 51, 77, 96	0
33	DP	149/150 (99%)	0.46	17 (11%) 5 4	30, 60, 87, 99	0
34	BQ	141/141 (100%)	0.08	0 100 100	31, 47, 59, 74	0
34	DQ	141/141 (100%)	0.12	6 (4%) 35 33	39, 55, 69, 79	0
35	BR	118/118 (100%)	-0.01	0 100 100	30, 39, 51, 62	0
35	DR	118/118 (100%)	-0.27	0 100 100	33, 42, 55, 67	0
36	BS	110/112 (98%)	0.14	0 100 100	48, 62, 77, 85	0
36	DS	110/112 (98%)	1.46	27 (24%) 0 0	59, 74, 87, 93	0
37	BT	131/146 (89%)	-0.19	1 (0%) 86 87	38, 46, 76, 103	0
37	DT	130/146 (89%)	-0.25	2 (1%) 73 76	41, 50, 73, 105	0
38	BU	116/118 (98%)	0.08	1 (0%) 84 85	28, 38, 53, 70	0
38	DU	116/118 (98%)	-0.16	1 (0%) 84 85	33, 45, 61, 70	0
39	BV	101/101 (100%)	0.01	1 (0%) 82 83	27, 48, 67, 83	0
39	DV	101/101 (100%)	0.59	9 (8%) 9 7	32, 59, 76, 85	0
40	BW	112/113 (99%)	-0.19	0 100 100	28, 35, 52, 92	0
40	DW	111/113 (98%)	-0.37	0 100 100	32, 40, 58, 85	0
41	BX	95/96 (98%)	-0.05	0 100 100	33, 43, 65, 84	0
41	DX	95/96 (98%)	-0.04	2 (2%) 63 65	39, 50, 68, 89	0
42	BY	107/110 (97%)	-0.08	0 100 100	44, 55, 77, 88	0
42	DY	107/110 (97%)	0.70	14 (13%) 3 2	53, 63, 82, 91	0
43	BZ	198/206 (96%)	-0.07	0 100 100	48, 68, 91, 103	0
43	DZ	203/206 (98%)	0.96	37 (18%) 1 1	57, 78, 100, 126	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	B0	76/85 (89%)	-0.01	0 100 100	37, 44, 57, 75	0
44	D0	77/85 (90%)	0.41	7 (9%) 9 7	44, 52, 67, 101	0
45	B1	97/98 (98%)	0.10	2 (2%) 63 65	31, 44, 74, 82	0
45	D1	97/98 (98%)	-0.11	3 (3%) 49 49	33, 48, 78, 85	0
46	B2	70/72 (97%)	0.16	1 (1%) 75 77	42, 56, 67, 93	0
46	D2	71/72 (98%)	0.48	7 (9%) 7 5	51, 65, 76, 94	0
47	B3	59/60 (98%)	0.07	1 (1%) 70 72	33, 42, 66, 84	0
47	D3	59/60 (98%)	0.63	6 (10%) 6 5	39, 50, 76, 96	0
48	B4	46/71 (64%)	0.14	2 (4%) 35 33	73, 96, 111, 116	0
48	D4	46/71 (64%)	1.28	12 (26%) 0 0	89, 107, 118, 124	0
49	B5	59/60 (98%)	-0.12	0 100 100	23, 38, 56, 68	0
49	D5	59/60 (98%)	-0.14	2 (3%) 45 45	27, 43, 61, 73	0
50	B6	53/54 (98%)	-0.23	0 100 100	40, 46, 59, 66	0
50	D6	53/54 (98%)	-0.06	0 100 100	47, 52, 60, 70	0
51	B7	48/49 (97%)	-0.03	0 100 100	26, 30, 51, 71	0
51	D7	48/49 (97%)	-0.20	0 100 100	28, 33, 54, 82	0
52	B8	64/65 (98%)	0.07	0 100 100	34, 38, 45, 57	0
52	D8	64/65 (98%)	0.06	1 (1%) 72 74	38, 44, 50, 60	0
53	B9	36/37 (97%)	0.12	0 100 100	38, 46, 57, 69	0
53	D9	36/37 (97%)	0.09	1 (2%) 53 54	45, 55, 66, 76	0
All	All	20617/21484 (95%)	0.22	1551 (7%) 14 12	23, 63, 117, 175	0

All (1551) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	CA	1036	G	16.0
1	CA	1030(B)	C	12.9
23	DA	2139	C	12.4
9	CI	30	GLY	11.6
23	DA	2154	G	11.2
23	DA	2153	G	10.4
23	DA	2138	C	10.3
23	DA	2155	G	10.0
28	DG	17	PRO	9.8
9	CI	36	TYR	9.7

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Mol	Chain	Res	Type	RSRZ
36	DS	56	LEU	9.6
23	BA	2132	U	9.5
23	DA	2147	G	9.3
10	CJ	27	ALA	9.2
23	DA	2137	C	9.0
1	CA	1030(A)	G	9.0
23	BA	2793	G	9.0
23	BA	2133	G	8.9
23	DA	2148	G	8.9
23	BA	888	C	8.8
23	DA	2159	G	8.8
13	CM	6	GLY	8.7
23	DA	2803	C	8.7
23	DA	2140	C	8.6
23	DA	2146	C	8.6
23	BA	2116	G	8.5
23	DA	2136	C	8.4
2	CB	70	PHE	8.3
2	CB	133	LYS	8.3
4	AD	23	GLY	8.3
28	DG	13	GLU	8.2
23	DA	2156	G	8.2
23	DA	2168	G	8.2
23	DA	2164	C	8.2
11	CK	13	GLN	8.1
1	CA	1026	G	8.1
28	DG	35	GLU	7.9
23	DA	2160	G	7.9
19	CS	71	LEU	7.9
23	DA	229	A	7.8
9	CI	64	THR	7.8
1	CA	1035	A	7.7
23	DA	2125	G	7.7
9	CI	7	THR	7.7
28	DG	2	PRO	7.6
28	DG	19	LEU	7.6
1	CA	1257	U	7.5
2	CB	163	PHE	7.5
1	AA	1030(B)	C	7.5
43	DZ	203	GLU	7.4
23	DA	2173	A	7.4
23	DA	2116	G	7.4

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Mol	Chain	Res	Type	RSRZ
23	BA	2805	G	7.3
23	BA	2147	G	7.2
10	CJ	77	PRO	7.2
23	DA	2165	G	7.1
23	DA	2124	G	7.1
23	BA	2129	C	7.1
23	BA	2792	G	7.1
1	CA	1001	A	7.1
1	CA	1001(A)	G	7.0
23	DA	2793	G	7.0
23	BA	652(I)	C	6.9
1	AA	1036	G	6.9
23	DA	2802	G	6.9
23	BA	2135	A	6.9
19	CS	12	ASP	6.8
1	CA	1028	C	6.8
23	DA	2167	U	6.8
20	CT	106	ALA	6.8
4	AD	120	LEU	6.8
2	CB	122	PHE	6.8
1	AA	1026	G	6.8
23	DA	2134	A	6.8
23	BA	2803	C	6.8
23	BA	2158	A	6.7
2	CB	165	VAL	6.7
10	CJ	34	VAL	6.7
7	CG	156	TRP	6.7
23	DA	2158	A	6.7
23	DA	2162	G	6.7
19	CS	49	ILE	6.7
20	AT	95	ALA	6.7
23	BA	2157	G	6.6
23	DA	2157	G	6.6
9	CI	66	ARG	6.6
23	DA	2145	C	6.6
9	CI	69	GLY	6.6
19	CS	69	HIS	6.6
1	CA	1002	G	6.6
10	CJ	45	ARG	6.6
23	DA	2135	A	6.5
23	BA	652(J)	G	6.5
23	DA	2133	G	6.5

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Mol	Chain	Res	Type	RSRZ
1	CA	1030	C	6.4
36	DS	52	SER	6.4
28	DG	155	MET	6.4
23	BA	2131	G	6.3
23	DA	2804	C	6.3
29	DH	59	ARG	6.3
36	DS	55	ALA	6.3
1	AA	1024	G	6.2
2	CB	214	ILE	6.2
1	AA	1001(A)	G	6.2
48	D4	40	HIS	6.2
28	DG	73	ALA	6.2
23	BA	2159	G	6.2
22	CY	92	GLY	6.2
10	CJ	33	GLN	6.1
13	CM	7	VAL	6.1
13	CM	64	TRP	6.1
1	AA	1027	C	6.1
23	DA	2152	G	6.1
1	CA	1286	A	6.1
3	CC	87	LEU	6.0
23	BA	2794	C	6.0
1	AA	1030(C)	G	6.0
23	DA	2144	U	6.0
2	CB	132	LYS	6.0
23	DA	2166	G	5.9
23	DA	2170	A	5.9
28	DG	29	TRP	5.9
1	CA	1030(C)	G	5.9
23	DA	2141	G	5.9
19	CS	64	GLU	5.9
23	DA	2174	C	5.9
36	DS	54	LEU	5.9
29	DH	141	VAL	5.9
23	BA	652(Q)	G	5.9
23	DA	2169	A	5.9
23	DA	2142	C	5.9
13	CM	110	ARG	5.8
28	BG	49	ASP	5.8
28	DG	25	TYR	5.8
9	CI	88	TYR	5.8
23	DA	2110	G	5.8

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Mol	Chain	Res	Type	RSRZ
10	CJ	26	ALA	5.8
23	DA	2132	U	5.8
28	DG	176	LEU	5.8
22	CY	42	SER	5.7
9	CI	59	PHE	5.7
23	BA	652(S)	C	5.7
23	BA	2130	U	5.7
23	DA	2120	G	5.7
1	AA	91	C	5.7
1	CA	1037	C	5.7
1	AA	3	G	5.7
23	BA	2160	G	5.7
10	AJ	10	GLY	5.7
7	AG	156	TRP	5.7
1	AA	1023	G	5.7
1	AA	1257	U	5.7
39	DV	1	MET	5.7
9	CI	63	ILE	5.6
9	CI	9	ARG	5.6
1	CA	1003	G	5.6
1	CA	1034	G	5.6
23	BA	2153	G	5.6
13	CM	102	ARG	5.6
23	BA	2804	C	5.6
23	DA	2179	C	5.6
2	CB	232	PRO	5.6
23	DA	2131	G	5.5
10	CJ	65	LEU	5.5
1	AA	1001	A	5.5
23	BA	2126	A	5.5
23	DA	2172	U	5.5
1	CA	1029	C	5.5
1	CA	1129	C	5.5
28	DG	72	ARG	5.5
23	DA	2126	A	5.5
23	DA	2112	G	5.4
29	DH	43	VAL	5.4
1	AA	841	U	5.4
13	CM	65	LYS	5.4
1	AA	97	G	5.4
1	CA	1027	C	5.4
23	BA	2108	C	5.4

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Mol	Chain	Res	Type	RSRZ
23	DA	2171	A	5.3
23	DA	2794	C	5.3
22	CY	71	TYR	5.3
23	DA	2111	C	5.3
47	D3	60	GLU	5.3
28	DG	69	ALA	5.3
9	CI	26	VAL	5.2
1	AA	1002	G	5.2
1	AA	1037	C	5.2
7	CG	118	VAL	5.2
23	BA	2894	G	5.2
23	DA	652(T)	C	5.2
36	DS	46	VAL	5.2
2	AB	121	LEU	5.2
24	DB	118	G	5.2
14	CN	37	PHE	5.2
23	BA	2125	G	5.2
36	DS	57	LYS	5.1
28	DG	138	GLN	5.1
28	DG	149	VAL	5.1
1	AA	202	U	5.1
23	DA	2106	G	5.1
36	DS	39	ILE	5.1
23	DA	1509	C	5.1
23	DA	2118	U	5.1
23	DA	2805	G	5.1
19	AS	61	TYR	5.1
28	DG	182	LYS	5.1
19	CS	63	THR	5.1
9	CI	67	GLY	5.1
23	BA	2136	C	5.0
48	D4	44	THR	5.0
19	CS	52	TYR	5.0
23	DA	2119	A	5.0
23	DA	2143	C	5.0
28	DG	157	ILE	5.0
19	CS	36	ARG	5.0
22	CY	45	PRO	5.0
23	DA	2161	C	5.0
23	DA	2178	C	5.0
43	DZ	12	GLY	5.0
42	DY	1	MET	5.0

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Mol	Chain	Res	Type	RSRZ
23	DA	1042	G	5.0
23	DA	2176	A	4.9
1	AA	1005	A	4.9
29	DH	58	GLU	4.9
7	CG	78	ARG	4.9
2	CB	97	TRP	4.9
19	CS	35	SER	4.9
10	CJ	67	THR	4.9
27	DF	208	GLY	4.9
4	CD	4	TYR	4.9
13	CM	92	HIS	4.9
1	CA	1030(D)	A	4.9
23	BA	2168	G	4.9
22	CY	3	MET	4.9
10	CJ	23	ILE	4.8
36	DS	58	LEU	4.8
23	DA	2104	G	4.8
22	CY	50	ALA	4.8
29	DH	101	ARG	4.8
22	CY	46	GLN	4.8
2	CB	188	ALA	4.8
2	AB	125	PRO	4.8
23	BA	2134	A	4.8
19	CS	53	ASN	4.8
1	AA	1028	C	4.8
2	CB	68	ILE	4.8
29	DH	4	ILE	4.8
36	DS	48	LEU	4.8
23	BA	2167	U	4.8
14	CN	55	GLY	4.7
10	AJ	24	VAL	4.7
23	DA	280	C	4.7
29	DH	71	LEU	4.7
28	DG	39	ILE	4.7
23	BA	652(H)	C	4.7
23	BA	2173	A	4.7
10	CJ	47	PHE	4.7
23	DA	2792	G	4.7
4	AD	108	LEU	4.7
10	AJ	8	LEU	4.7
11	CK	126	ARG	4.7
19	CS	34	TRP	4.7

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Mol	Chain	Res	Type	RSRZ
1	AA	90	U	4.6
23	BA	2144	U	4.6
28	DG	12	TYR	4.6
1	AA	1030	C	4.6
23	BA	2139	C	4.6
22	CY	61	LEU	4.6
9	CI	65	VAL	4.6
11	CK	42	TRP	4.6
21	CU	10	ARG	4.6
10	CJ	20	ALA	4.6
3	CC	66	VAL	4.6
1	CA	1131	G	4.5
23	BA	2155	G	4.5
10	CJ	70	ARG	4.5
11	CK	32	ILE	4.5
3	CC	65	ALA	4.5
29	DH	82	GLY	4.5
21	CU	14	TRP	4.5
4	AD	175	SER	4.5
10	AJ	72	VAL	4.5
36	DS	45	GLY	4.5
23	DA	2310	A	4.5
1	AA	1000	U	4.5
2	CB	187	LEU	4.5
31	DN	140	VAL	4.5
23	DA	2163	C	4.5
22	CY	9	GLN	4.5
12	CL	69	TYR	4.5
1	AA	1031	G	4.5
2	AB	127	ILE	4.4
2	CB	81	VAL	4.4
12	CL	64	TYR	4.4
23	DA	2105	C	4.4
1	AA	1447	A	4.4
13	CM	72	ALA	4.4
22	CY	37	PRO	4.4
23	BA	1176	G	4.4
29	DH	115	VAL	4.4
49	D5	60	VAL	4.4
1	CA	1459	C	4.4
23	BA	2161	C	4.4
23	DA	2113	U	4.4

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Mol	Chain	Res	Type	RSRZ
34	DQ	60	ARG	4.4
7	CG	75	VAL	4.4
8	CH	1	MET	4.4
23	BA	2156	G	4.4
23	DA	888	C	4.3
11	CK	75	TYR	4.3
18	CR	58	LEU	4.3
2	AB	131	PRO	4.3
4	CD	7	PRO	4.3
9	AI	44	VAL	4.3
14	CN	54	PRO	4.3
29	DH	175	LYS	4.3
28	DG	137	GLU	4.3
23	BA	1509	C	4.3
2	CB	37	ASN	4.3
1	AA	1021	G	4.3
2	AB	130	ARG	4.3
3	AC	193	TYR	4.3
22	CY	39	ILE	4.3
22	CY	65	GLY	4.3
1	CA	1006	C	4.3
23	DA	2177	C	4.3
28	DG	49	ASP	4.3
34	DQ	59	ARG	4.3
23	DA	2114	A	4.3
2	CB	140	HIS	4.3
23	DA	2107	C	4.3
28	DG	120	LEU	4.3
5	CE	12	LEU	4.2
36	DS	73	LEU	4.2
23	DA	2894	G	4.2
30	DI	85	GLU	4.2
23	BA	2145	C	4.2
23	BA	2117	A	4.2
4	CD	35	ARG	4.2
20	CT	99	LEU	4.2
48	D4	7	PRO	4.2
1	AA	203	U	4.2
2	AB	16	HIS	4.2
23	DA	1043	C	4.2
29	DH	2	SER	4.2
4	AD	138	TYR	4.2

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Mol	Chain	Res	Type	RSRZ
22	CY	38	HIS	4.2
29	DH	5	GLY	4.2
7	CG	82	GLY	4.2
13	CM	69	GLU	4.2
28	DG	160	VAL	4.2
29	DH	110	SER	4.2
29	DH	83	TYR	4.1
18	CR	22	VAL	4.1
2	AB	128	GLU	4.1
23	DA	2896	C	4.1
23	BA	2154	G	4.1
23	DA	1115	G	4.1
29	DH	50	VAL	4.1
23	DA	2115	G	4.1
1	CA	1040	U	4.1
19	CS	68	GLY	4.1
37	BT	38	ASN	4.1
9	CI	37	PHE	4.1
23	DA	2801(A)	A	4.1
7	CG	76	ARG	4.1
23	DA	2149	G	4.1
9	CI	115	GLY	4.1
1	CA	1132	C	4.0
9	CI	68	GLY	4.0
1	CA	1020	U	4.0
23	DA	2109	U	4.0
28	DG	9	ARG	4.0
1	AA	1035	A	4.0
1	AA	93	G	4.0
1	AA	204	U	4.0
9	CI	46	ALA	4.0
2	AB	122	PHE	4.0
23	DA	2123	G	4.0
22	CY	70	MET	4.0
2	CB	15	VAL	4.0
22	CY	10	MET	4.0
23	DA	1041	C	4.0
44	D0	85	ALA	4.0
22	CY	41	LEU	4.0
1	AA	1137	C	4.0
3	CC	8	ILE	4.0
22	CY	15	ALA	4.0

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Mol	Chain	Res	Type	RSRZ
28	DG	92	VAL	4.0
28	DG	85	GLY	3.9
22	CY	77	LEU	3.9
48	D4	43	TYR	3.9
23	DA	652(B)	A	3.9
1	AA	848	C	3.9
23	DA	2790	A	3.9
13	CM	66	LEU	3.9
7	CG	32	ARG	3.9
10	CJ	66	ARG	3.9
28	DG	88	ILE	3.9
19	CS	9	VAL	3.9
28	DG	89	GLY	3.9
23	BA	2152	G	3.9
3	CC	23	TYR	3.9
29	DH	48	GLY	3.9
23	BA	2801(A)	A	3.9
1	CA	1033	G	3.8
23	BA	2143	C	3.8
23	DA	11	G	3.8
10	CJ	54	PHE	3.8
38	DU	88	ILE	3.8
9	CI	17	VAL	3.8
1	CA	1248	A	3.8
23	BA	2146	C	3.8
23	BA	2174	C	3.8
24	DB	64	C	3.8
23	DA	2180	U	3.8
1	AA	1030(A)	G	3.8
1	CA	1031	G	3.8
11	AK	60	ALA	3.8
16	AP	7	ALA	3.8
28	DG	84	LYS	3.8
28	DG	21	ARG	3.8
2	CB	31	TYR	3.8
4	AD	104	VAL	3.8
8	CH	96	GLY	3.8
19	CS	82	GLY	3.8
28	DG	87	PRO	3.8
1	AA	96	U	3.8
28	DG	65	GLY	3.8
46	D2	41	ILE	3.8

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Mol	Chain	Res	Type	RSRZ
2	CB	48	MET	3.8
1	CA	1023	G	3.8
1	CA	1024	G	3.8
23	BA	2141	G	3.8
13	AM	87	TYR	3.8
14	CN	36	PHE	3.8
4	CD	183	GLY	3.8
9	AI	46	ALA	3.8
10	CJ	78	ASN	3.8
8	CH	131	GLY	3.8
10	CJ	29	ARG	3.7
1	CA	1007	C	3.7
7	CG	4	ARG	3.7
3	AC	68	VAL	3.7
42	DY	42	VAL	3.7
2	CB	101	MET	3.7
7	CG	41	ARG	3.7
9	CI	61	ALA	3.7
3	CC	153	VAL	3.7
23	DA	272(A)	U	3.7
4	AD	158	ILE	3.7
28	DG	135	LEU	3.7
42	DY	89	PHE	3.7
43	DZ	198	LYS	3.7
20	CT	3	GLN	3.7
42	DY	44	ILE	3.7
1	AA	98	G	3.7
23	DA	2127	G	3.7
28	DG	80	PHE	3.7
42	DY	55	TYR	3.7
1	AA	1006	C	3.7
10	CJ	36	GLY	3.7
23	BA	2124	G	3.7
13	CM	76	ALA	3.6
3	CC	81	GLY	3.6
10	AJ	34	VAL	3.6
10	CJ	72	VAL	3.6
1	CA	1021	G	3.6
22	CY	4	ASN	3.6
11	CK	31	THR	3.6
9	CI	85	LEU	3.6
43	DZ	162	GLU	3.6

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Mol	Chain	Res	Type	RSRZ
4	AD	170	VAL	3.6
9	CI	28	VAL	3.6
10	AJ	38	ILE	3.6
11	CK	14	VAL	3.6
23	DA	1114	G	3.6
13	CM	88	ARG	3.6
23	BA	652(B)	A	3.6
8	CH	95	VAL	3.6
23	BA	652(G)	G	3.6
33	DP	91	PHE	3.6
7	CG	81	GLY	3.6
7	CG	80	VAL	3.6
14	CN	56	VAL	3.6
23	BA	2142	C	3.6
19	CS	38	SER	3.6
9	CI	8	GLY	3.6
23	BA	2172	U	3.6
4	CD	36	ARG	3.6
13	CM	9	ILE	3.6
1	AA	1029	C	3.6
1	AA	1038	C	3.6
23	BA	2107	C	3.6
23	BA	2896	C	3.6
28	DG	178	PHE	3.6
23	BA	1026	U	3.6
26	DE	204	ALA	3.6
23	BA	2802	G	3.6
24	DB	117	G	3.6
9	AI	8	GLY	3.6
48	D4	25	TYR	3.6
23	BA	2164	C	3.6
24	DB	5	C	3.6
28	DG	172	LEU	3.6
3	CC	160	ALA	3.5
22	CY	51	ASP	3.5
12	CL	33	ARG	3.5
28	DG	16	ARG	3.5
3	AC	47	LEU	3.5
36	DS	31	SER	3.5
24	DB	120	A	3.5
2	CB	201	ILE	3.5
23	BA	272(A)	U	3.5

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Mol	Chain	Res	Type	RSRZ
10	CJ	40	LEU	3.5
1	CA	1005	A	3.5
1	CA	1442(A)	G	3.5
23	DA	614(B)	G	3.5
4	AD	148	VAL	3.5
7	CG	34	GLY	3.5
14	CN	25	VAL	3.5
22	CY	49	VAL	3.5
2	CB	143	GLU	3.5
5	CE	149	GLU	3.5
23	BA	2115	G	3.5
1	CA	1019	C	3.5
2	CB	142	LEU	3.5
23	DA	2108	C	3.5
43	DZ	125	LEU	3.5
16	AP	80	PHE	3.5
2	AB	101	MET	3.5
33	DP	94	GLU	3.5
19	CS	67	VAL	3.5
28	DG	28	VAL	3.5
2	CB	118	LEU	3.5
1	AA	71	C	3.5
1	AA	1004	A	3.5
29	DH	132	ARG	3.5
21	CU	13	ILE	3.5
38	BU	117	GLN	3.5
14	CN	8	GLU	3.4
9	CI	15	ALA	3.4
1	AA	1009	G	3.4
23	DA	2151	G	3.4
3	CC	57	ILE	3.4
28	DG	133	LEU	3.4
8	AH	58	TYR	3.4
10	CJ	32	ALA	3.4
28	DG	131	TYR	3.4
4	CD	45	GLN	3.4
2	CB	130	ARG	3.4
13	CM	114	ARG	3.4
2	CB	136	VAL	3.4
3	AC	87	LEU	3.4
23	DA	2807	G	3.4
7	CG	2	ALA	3.4

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Mol	Chain	Res	Type	RSRZ
1	AA	218	C	3.4
2	CB	115	LEU	3.4
14	AN	18	VAL	3.4
28	DG	26	GLN	3.4
23	DA	645	C	3.4
9	CI	20	ARG	3.4
23	DA	6	A	3.4
1	AA	1033	G	3.4
1	AA	1034	G	3.4
2	CB	123	ALA	3.4
4	CD	161	ASN	3.4
17	CQ	98	LEU	3.4
48	D4	8	LYS	3.4
2	CB	41	ILE	3.4
10	AJ	66	ARG	3.4
2	CB	193	ASP	3.4
23	DA	2791	C	3.4
10	CJ	76	ASN	3.4
1	CA	1014	A	3.4
28	BG	2	PRO	3.4
1	AA	1032	G	3.4
23	BA	2151	G	3.4
5	CE	13	ILE	3.4
23	BA	2109	U	3.4
29	DH	30	LYS	3.4
23	DA	2117	A	3.4
23	DA	614(A)	U	3.3
7	CG	116	ALA	3.3
43	DZ	177	PRO	3.3
16	AP	58	TYR	3.3
23	DA	2175	C	3.3
39	DV	46	VAL	3.3
22	CY	7	SER	3.3
1	AA	70	G	3.3
29	DH	34	GLU	3.3
30	BI	75	LEU	3.3
43	DZ	196	VAL	3.3
3	CC	71	ALA	3.3
3	CC	189	ALA	3.3
23	DA	2121	G	3.3
22	CY	75	ASN	3.3
2	CB	161	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
14	CN	2	ALA	3.3
19	CS	42	PRO	3.3
23	BA	2171	A	3.3
10	CJ	35	SER	3.3
30	BI	107	VAL	3.3
1	AA	201	C	3.3
1	CA	1320	C	3.3
20	AT	103	GLY	3.3
28	DG	34	LEU	3.3
3	CC	206	GLU	3.3
7	AG	85	TYR	3.3
27	DF	13	SER	3.3
19	CS	62	ILE	3.3
22	CY	74	ILE	3.3
1	CA	1009	G	3.3
20	CT	4	LYS	3.3
52	D8	21	LYS	3.3
42	DY	43	ASN	3.3
1	CA	1130	A	3.3
28	DG	8	LYS	3.3
1	AA	92	C	3.2
1	CA	1149	C	3.2
3	CC	35	GLU	3.2
12	CL	120	TYR	3.2
15	CO	10	LYS	3.2
22	CY	29	LYS	3.2
29	DH	123	PHE	3.2
5	CE	11	ILE	3.2
29	DH	102	ALA	3.2
29	DH	41	MET	3.2
10	AJ	69	ASN	3.2
11	CK	123	LYS	3.2
3	CC	145	GLY	3.2
39	DV	42	GLY	3.2
1	AA	1007	C	3.2
17	CQ	65	ILE	3.2
23	BA	2128	C	3.2
23	BA	2175	C	3.2
1	AA	99	U	3.2
1	AA	1025	U	3.2
9	AI	15	ALA	3.2
33	DP	90	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
23	BA	2790	A	3.2
28	DG	102	PHE	3.2
4	CD	122	ARG	3.2
14	CN	52	GLN	3.2
43	DZ	197	ILE	3.2
12	CL	27	LEU	3.2
30	BI	128	LEU	3.2
27	DF	132	VAL	3.2
44	D0	11	ARG	3.2
3	CC	199	LYS	3.2
43	DZ	93	ASP	3.2
10	CJ	8	LEU	3.2
28	DG	3	LEU	3.2
20	CT	105	SER	3.2
23	DA	2897	U	3.2
37	DT	37	GLY	3.2
7	CG	73	MET	3.2
29	DH	35	VAL	3.2
43	DZ	191	VAL	3.2
9	CI	19	LEU	3.2
9	CI	10	ARG	3.2
28	DG	41	GLN	3.2
5	CE	45	PHE	3.2
28	DG	5	VAL	3.2
12	CL	85	ILE	3.2
24	DB	56	G	3.2
7	CG	36	LYS	3.2
43	DZ	155	LEU	3.2
4	CD	119	GLN	3.2
1	CA	1000	U	3.1
1	CA	1285	A	3.1
19	CS	73	GLU	3.1
28	DG	15	VAL	3.1
4	CD	6	GLY	3.1
9	CI	110	GLU	3.1
1	CA	1446	U	3.1
23	DA	1113	U	3.1
3	CC	202	ILE	3.1
7	CG	117	ALA	3.1
9	CI	38	GLN	3.1
2	CB	164	VAL	3.1
7	CG	104	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
1	CA	1039	C	3.1
23	BA	652(R)	C	3.1
23	BA	2163	C	3.1
21	CU	24	ARG	3.1
8	CH	116	LYS	3.1
25	DD	276	LYS	3.1
28	DG	82	LEU	3.1
2	CB	63	MET	3.1
14	AN	2	ALA	3.1
1	AA	65	U	3.1
23	DA	1037	G	3.1
23	DA	2150	U	3.1
14	CN	29	ARG	3.1
22	CY	47	GLY	3.1
1	CA	841	U	3.1
16	AP	38	TYR	3.1
24	DB	21	G	3.1
2	CB	62	ALA	3.1
23	DA	282	A	3.1
33	DP	135	LEU	3.1
36	DS	110	LEU	3.1
2	AB	134	GLU	3.1
5	CE	14	ARG	3.1
29	DH	57	ASP	3.1
9	CI	70	LYS	3.1
3	CC	159	GLY	3.0
27	DF	139	PHE	3.0
43	DZ	1	MET	3.0
23	BA	2807	G	3.0
2	CB	209	ARG	3.0
13	CM	75	ALA	3.0
20	AT	55	ILE	3.0
2	CB	92	TYR	3.0
7	CG	37	ASN	3.0
18	CR	21	LYS	3.0
3	CC	113	ALA	3.0
8	CH	124	ALA	3.0
23	DA	1170	G	3.0
3	CC	194	GLY	3.0
29	DH	74	ASN	3.0
28	DG	109	VAL	3.0
30	DI	57	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
4	CD	11	LEU	3.0
36	DS	80	LEU	3.0
23	DA	2185	C	3.0
4	AD	135	LEU	3.0
7	AG	42	ILE	3.0
2	CB	240	GLN	3.0
19	AS	52	TYR	3.0
1	AA	1129	C	3.0
23	BA	652(C)	G	3.0
23	DA	352	G	3.0
23	DA	2129	C	3.0
4	AD	169	LYS	3.0
42	DY	65	ALA	3.0
1	AA	1020	U	3.0
23	BA	890	A	3.0
23	BA	2118	U	3.0
23	BA	2176	A	3.0
2	CB	134	GLU	3.0
3	CC	19	GLU	3.0
15	CO	7	GLU	3.0
11	CK	43	SER	3.0
1	CA	1163	C	3.0
4	AD	124	GLY	3.0
36	DS	37	ALA	3.0
19	CS	65	ASN	3.0
23	BA	2114	A	3.0
13	CM	98	VAL	3.0
29	DH	67	LEU	3.0
27	DF	131	GLY	3.0
1	CA	1150	U	2.9
23	BA	2897	U	2.9
43	DZ	156	LYS	2.9
28	DG	126	ASP	2.9
21	CU	2	GLY	2.9
42	DY	90	LEU	2.9
46	D2	63	VAL	2.9
43	DZ	194	PRO	2.9
29	DH	46	GLU	2.9
13	AM	43	THR	2.9
7	CG	31	MET	2.9
18	CR	66	LEU	2.9
3	CC	28	GLN	2.9

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Mol	Chain	Res	Type	RSRZ
43	DZ	202	GLU	2.9
39	DV	101	GLY	2.9
43	DZ	9	TYR	2.9
29	DH	49	VAL	2.9
4	AD	111	ALA	2.9
23	DA	281	G	2.9
10	CJ	69	ASN	2.9
2	CB	185	ILE	2.9
29	DH	148	ILE	2.9
13	CM	99	ARG	2.9
1	AA	999	C	2.9
1	CA	848	C	2.9
48	D4	1	MET	2.9
12	AL	56	ALA	2.9
24	DB	63	G	2.9
30	DI	35	LEU	2.9
5	CE	33	VAL	2.9
2	CB	77	ALA	2.9
23	BA	2113	U	2.9
3	AC	167	TRP	2.9
23	BA	2140	C	2.9
3	CC	172	ARG	2.9
4	AD	2	GLY	2.9
23	BA	1106	G	2.9
2	AB	37	ASN	2.9
3	CC	167	TRP	2.9
9	CI	29	ASN	2.9
12	CL	94	PRO	2.9
5	CE	109	ILE	2.9
18	AR	31	LEU	2.9
36	DS	47	THR	2.9
26	DE	72	VAL	2.9
30	DI	107	VAL	2.9
43	DZ	161	VAL	2.9
9	AI	125	TYR	2.9
9	CI	62	TYR	2.9
9	CI	6	GLY	2.8
23	DA	2312	U	2.8
29	DH	6	ARG	2.8
34	DQ	1	MET	2.8
33	DP	109	GLY	2.8
43	DZ	160	GLY	2.8

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Mol	Chain	Res	Type	RSRZ
1	CA	1041	A	2.8
23	DA	1584	C	2.8
24	DB	4	C	2.8
24	DB	65	C	2.8
2	AB	227	GLY	2.8
3	CC	22	TRP	2.8
2	CB	57	PHE	2.8
4	CD	5	ILE	2.8
21	CU	22	ARG	2.8
22	CY	40	ILE	2.8
29	DH	89	ILE	2.8
23	BA	278	A	2.8
6	CF	35	ALA	2.8
11	CK	37	GLY	2.8
3	CC	152	ILE	2.8
19	AS	74	PHE	2.8
43	DZ	201	LYS	2.8
9	AI	26	VAL	2.8
20	AT	101	GLY	2.8
23	BA	2165	G	2.8
23	BA	2892	A	2.8
47	D3	6	VAL	2.8
48	B4	17	GLY	2.8
29	DH	112	PRO	2.8
3	CC	179	ARG	2.8
4	AD	125	HIS	2.8
29	DH	77	LYS	2.8
22	CY	24	LEU	2.8
28	DG	90	LEU	2.8
36	DS	40	ILE	2.8
18	CR	56	THR	2.8
21	CU	11	GLY	2.8
22	CY	94	ALA	2.8
36	DS	59	LYS	2.8
24	DB	23	G	2.8
20	AT	46	GLU	2.8
1	AA	1019	C	2.8
6	AF	98	LEU	2.8
7	CG	26	PHE	2.8
20	AT	91	LEU	2.8
33	DP	88	LEU	2.8
12	CL	39	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
15	AO	88	ARG	2.8
43	DZ	199	LYS	2.8
29	DH	36	PRO	2.8
29	DH	128	PRO	2.8
43	DZ	56	VAL	2.8
16	AP	59	TRP	2.8
7	CG	38	LEU	2.8
24	DB	11	C	2.8
2	CB	197	VAL	2.7
4	CD	42	GLN	2.7
10	AJ	20	ALA	2.7
13	CM	53	VAL	2.7
42	DY	16	ALA	2.7
1	CA	723	U	2.7
29	BH	2	SER	2.7
22	CY	67	HIS	2.7
7	CG	33	ASP	2.7
2	CB	55	PHE	2.7
3	CC	155	GLY	2.7
17	CQ	76	LEU	2.7
7	CG	27	ILE	2.7
7	CG	28	ASN	2.7
42	DY	93	GLY	2.7
13	CM	55	ARG	2.7
23	BA	2169	A	2.7
24	DB	62	C	2.7
2	CB	152	PHE	2.7
4	CD	69	GLY	2.7
27	DF	7	TYR	2.7
13	AM	114	ARG	2.7
27	DF	16	GLY	2.7
22	AY	35	ILE	2.7
3	CC	60	ALA	2.7
4	AD	117	ALA	2.7
9	AI	126	SER	2.7
36	DS	33	LYS	2.7
36	DS	49	VAL	2.7
23	DA	652(E)	G	2.7
28	DG	97	ASP	2.7
10	AJ	36	GLY	2.7
4	AD	4	TYR	2.7
4	CD	157	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
20	CT	53	LEU	2.7
13	CM	22	ILE	2.7
29	DH	121	ILE	2.7
2	CB	26	PRO	2.7
22	CY	20	VAL	2.7
29	DH	52	VAL	2.7
34	DQ	81	VAL	2.7
36	DS	51	ALA	2.7
19	AS	47	HIS	2.7
36	DS	34	HIS	2.7
1	CA	938	A	2.7
3	AC	81	GLY	2.7
7	CG	130	GLY	2.7
23	DA	885	C	2.7
43	DZ	114	GLY	2.7
1	AA	1022	G	2.7
20	AT	53	LEU	2.7
28	DG	79	ASN	2.7
3	CC	26	LYS	2.7
28	DG	71	THR	2.7
2	CB	239	VAL	2.7
7	CG	146	GLU	2.7
27	DF	134	GLY	2.7
2	CB	139	LYS	2.7
22	CY	8	LYS	2.7
1	CA	1460	A	2.7
27	DF	172	TRP	2.7
23	DA	2296	U	2.7
10	AJ	27	ALA	2.7
18	CR	60	ALA	2.7
20	CT	44	ALA	2.7
43	DZ	13	GLU	2.7
12	CL	95	GLY	2.7
30	BI	68	LEU	2.7
3	CC	29	TYR	2.7
22	CY	12	ILE	2.7
28	BG	88	ILE	2.7
1	AA	63	C	2.7
10	AJ	97	GLU	2.7
15	CO	38	ARG	2.7
21	AU	17	THR	2.7
23	BA	889	C	2.7

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Mol	Chain	Res	Type	RSRZ
24	DB	53	A	2.7
2	CB	135	GLN	2.7
10	CJ	68	HIS	2.7
22	CY	84	GLN	2.7
12	AL	52	LEU	2.7
4	CD	26	CYS	2.7
45	D1	83	GLU	2.7
4	AD	153	ARG	2.7
11	AK	21	ILE	2.7
45	D1	26	ARG	2.7
1	CA	1161	C	2.6
10	CJ	10	GLY	2.6
12	CL	26	ALA	2.6
23	DA	2130	U	2.6
53	D9	37	GLY	2.6
9	CI	44	VAL	2.6
3	CC	142	MET	2.6
2	AB	132	LYS	2.6
13	CM	59	TYR	2.6
13	CM	78	ILE	2.6
21	AU	18	TYR	2.6
7	CG	9	VAL	2.6
13	CM	15	VAL	2.6
3	AC	101	LEU	2.6
33	DP	92	GLU	2.6
1	AA	1030(D)	A	2.6
1	CA	1377	A	2.6
24	BB	120	A	2.6
24	DB	66	A	2.6
33	DP	15	ARG	2.6
33	DP	102	ARG	2.6
10	AJ	73	ASP	2.6
8	CH	45	ILE	2.6
2	CB	88	ALA	2.6
13	CM	5	ALA	2.6
9	AI	41	VAL	2.6
10	CJ	62	HIS	2.6
15	CO	6	GLU	2.6
29	DH	24	VAL	2.6
29	DH	99	VAL	2.6
36	DS	69	VAL	2.6
2	CB	137	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
20	AT	80	ARG	2.6
30	BI	140	LEU	2.6
43	DZ	18	LEU	2.6
1	AA	1039	C	2.6
9	CI	18	PHE	2.6
22	CY	48	PHE	2.6
1	AA	149	A	2.6
19	AS	46	GLY	2.6
23	BA	6	A	2.6
43	DZ	137	ILE	2.6
9	AI	61	ALA	2.6
9	CI	98	PRO	2.6
19	AS	50	ALA	2.6
7	AG	153	HIS	2.6
28	DG	40	ASN	2.6
28	DG	108	ASN	2.6
28	DG	136	ARG	2.6
4	CD	33	MET	2.6
8	CH	127	LEU	2.6
19	CS	70	LYS	2.6
3	CC	39	ILE	2.6
29	DH	60	ARG	2.6
10	CJ	49	VAL	2.6
13	CM	95	GLY	2.6
22	CY	87	LYS	2.6
1	CA	1322	C	2.6
19	CS	29	ARG	2.6
24	DB	20	C	2.6
43	DZ	3	TYR	2.6
12	CL	55	VAL	2.6
1	AA	161	A	2.6
17	CQ	100	LYS	2.6
31	DN	116	LEU	2.6
19	CS	10	PHE	2.6
48	D4	19	GLY	2.6
1	CA	1265	G	2.6
23	DA	879	G	2.6
4	AD	37	PRO	2.6
13	AM	2	ALA	2.6
22	CY	79	ASN	2.6
1	CA	1141	C	2.6
23	BA	2179	C	2.6

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Mol	Chain	Res	Type	RSRZ
42	DY	45	VAL	2.6
2	AB	231	GLU	2.6
9	AI	37	PHE	2.6
19	CS	74	PHE	2.6
1	CA	1275	A	2.6
23	DA	2309	A	2.6
9	CI	21	PRO	2.5
9	CI	27	THR	2.5
10	CJ	38	ILE	2.5
19	CS	31	ILE	2.5
23	DA	1963	U	2.5
43	DZ	50	GLN	2.5
1	CA	1221	G	2.5
7	CG	113	GLU	2.5
16	AP	17	TYR	2.5
23	DA	2308	G	2.5
4	AD	101	LEU	2.5
10	CJ	85	LEU	2.5
15	CO	31	LEU	2.5
15	CO	34	LEU	2.5
39	DV	20	LEU	2.5
43	DZ	71	VAL	2.5
2	CB	21	ARG	2.5
2	CB	217	ARG	2.5
9	AI	59	PHE	2.5
20	CT	86	ARG	2.5
1	AA	1531	A	2.5
1	CA	1250	A	2.5
3	CC	44	GLU	2.5
4	CD	146	ILE	2.5
4	CD	158	ILE	2.5
12	CL	100	ILE	2.5
13	CM	8	GLU	2.5
29	DH	159	GLU	2.5
30	BI	79	ILE	2.5
17	CQ	95	TYR	2.5
21	CU	15	ARG	2.5
10	AJ	37	PRO	2.5
13	CM	113	PRO	2.5
2	CB	34	ALA	2.5
2	CB	60	ASP	2.5
22	CY	19	HIS	2.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1286	A	2.5
1	CA	1261	A	2.5
2	CB	100	GLY	2.5
3	CC	196	LEU	2.5
11	CK	71	LYS	2.5
13	AM	108	ARG	2.5
23	DA	878	A	2.5
28	DG	175	LEU	2.5
23	DA	652(U)	G	2.5
29	DH	55	PRO	2.5
11	CK	74	ALA	2.5
19	CS	50	ALA	2.5
3	CC	103	VAL	2.5
3	CC	204	LEU	2.5
14	CN	34	TYR	2.5
14	CN	53	LEU	2.5
43	DZ	38	TYR	2.5
47	D3	26	LEU	2.5
14	CN	16	PHE	2.5
23	DA	1508	A	2.5
28	DG	27	ASN	2.5
4	CD	25	ARG	2.5
34	DQ	5	ARG	2.5
10	CJ	75	ILE	2.5
23	BA	2123	G	2.5
48	D4	45	GLY	2.5
8	AH	59	LEU	2.5
5	CE	133	TYR	2.5
6	AF	6	VAL	2.5
7	AG	154	TYR	2.5
22	CY	14	PRO	2.5
7	CG	42	ILE	2.5
12	AL	26	ALA	2.5
28	DG	24	GLY	2.5
4	AD	133	VAL	2.5
12	CL	18	VAL	2.5
47	D3	59	VAL	2.5
18	AR	29	PHE	2.5
17	AQ	25	ARG	2.5
4	CD	160	GLN	2.5
16	CP	13	HIS	2.5
22	CY	72	THR	2.5

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Mol	Chain	Res	Type	RSRZ
4	CD	18	LYS	2.5
4	AD	112	VAL	2.5
2	CB	148	TYR	2.5
9	CI	114	TYR	2.5
28	DG	180	PHE	2.5
2	CB	90	MET	2.5
12	AL	41	ARG	2.5
19	AS	66	MET	2.5
1	CA	1220	G	2.5
30	BI	70	GLU	2.4
13	CM	51	ALA	2.4
2	CB	200	ILE	2.4
30	BI	101	LEU	2.4
15	CO	11	VAL	2.4
45	B1	2	SER	2.4
2	CB	30	ARG	2.4
19	CS	72	GLY	2.4
1	AA	180	U	2.4
1	CA	1022	G	2.4
1	CA	1160	G	2.4
30	DI	59	ALA	2.4
30	DI	72	LEU	2.4
10	CJ	30	SER	2.4
30	DI	3	VAL	2.4
2	CB	236	TYR	2.4
9	CI	5	TYR	2.4
9	CI	11	LYS	2.4
1	CA	1176	A	2.4
10	CJ	39	PRO	2.4
1	AA	1008	C	2.4
3	CC	6	HIS	2.4
14	CN	10	ALA	2.4
23	BA	2138	C	2.4
23	DA	1178	C	2.4
43	DZ	55	HIS	2.4
3	CC	127	ARG	2.4
12	AL	85	ILE	2.4
1	CA	1032	G	2.4
28	DG	4	ASP	2.4
28	DG	150	ASP	2.4
13	CM	87	TYR	2.4
19	CS	80	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
23	DA	2809	A	2.4
29	DH	111	HIS	2.4
2	CB	120	ALA	2.4
22	CY	73	ALA	2.4
44	D0	72	ARG	2.4
13	AM	56	LEU	2.4
29	DH	7	LEU	2.4
31	DN	23	LEU	2.4
10	CJ	6	ILE	2.4
23	DA	2128	C	2.4
23	DA	2808	U	2.4
19	CS	11	VAL	2.4
43	DZ	37	VAL	2.4
29	DH	93	GLY	2.4
19	CS	66	MET	2.4
42	DY	5	MET	2.4
22	CY	82	GLU	2.4
28	DG	171	ALA	2.4
42	DY	94	LYS	2.4
11	AK	13	GLN	2.4
1	CA	1308	U	2.4
8	AH	61	VAL	2.4
12	CL	29	GLY	2.4
24	DB	22	U	2.4
28	DG	48	GLU	2.4
2	CB	131	PRO	2.4
1	CA	1174	G	2.4
3	CC	187	ALA	2.4
4	CD	134	ASP	2.4
2	AB	228	GLY	2.4
9	AI	34	ASN	2.4
5	CE	121	LYS	2.4
1	AA	1459	C	2.4
2	CB	231	GLU	2.4
23	DA	886	C	2.4
23	DA	1739	U	2.4
28	BG	151	ALA	2.4
4	AD	180	GLY	2.4
9	CI	113	LYS	2.4
3	CC	186	PHE	2.4
4	CD	105	VAL	2.4
1	CA	1493	A	2.3

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Mol	Chain	Res	Type	RSRZ
2	AB	148	TYR	2.3
28	DG	11	TYR	2.3
2	CB	190	THR	2.3
7	CG	25	ALA	2.3
22	CY	26	LYS	2.3
28	DG	161	THR	2.3
11	CK	40	ILE	2.3
15	AO	83	GLU	2.3
16	AP	55	ARG	2.3
33	DP	144	GLU	2.3
1	AA	78	G	2.3
23	DA	7	G	2.3
2	AB	133	LYS	2.3
4	AD	172	PRO	2.3
28	DG	148	MET	2.3
11	AK	25	TYR	2.3
19	AS	32	LYS	2.3
33	DP	121	LYS	2.3
8	AH	39	LEU	2.3
23	BA	1045	A	2.3
28	DG	134	GLY	2.3
46	D2	42	GLY	2.3
12	CL	70	ILE	2.3
2	CB	71	VAL	2.3
13	AM	53	VAL	2.3
28	DG	159	VAL	2.3
1	CA	1271	G	2.3
2	AB	126	GLU	2.3
4	AD	176	LEU	2.3
8	CH	62	TYR	2.3
45	D1	2	SER	2.3
46	D2	20	GLU	2.3
1	CA	1137	C	2.3
22	CY	54	ILE	2.3
10	CJ	63	PHE	2.3
23	BA	229	A	2.3
28	DG	117	PHE	2.3
30	BI	139	GLN	2.3
43	DZ	39	VAL	2.3
7	CG	5	ARG	2.3
10	CJ	41	PRO	2.3
7	AG	18	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
7	CG	154	TYR	2.3
28	DG	106	LEU	2.3
11	AK	69	ALA	2.3
13	CM	111	LYS	2.3
23	BA	652(P)	G	2.3
23	BA	2127	G	2.3
29	DH	9	ILE	2.3
1	CA	1097	C	2.3
4	CD	148	VAL	2.3
11	CK	80	VAL	2.3
23	BA	886	C	2.3
4	CD	156	GLU	2.3
16	AP	71	ARG	2.3
22	CY	17	ARG	2.3
4	AD	167	GLY	2.3
7	CG	99	LEU	2.3
12	CL	62	SER	2.3
11	AK	61	ALA	2.3
16	CP	56	ALA	2.3
20	AT	68	LYS	2.3
33	DP	101	VAL	2.3
17	CQ	92	ARG	2.3
23	BA	2112	G	2.3
14	CN	51	GLY	2.3
10	AJ	77	PRO	2.3
4	CD	202	LEU	2.3
10	AJ	40	LEU	2.3
19	AS	57	HIS	2.3
46	D2	9	GLN	2.3
13	CM	63	THR	2.3
23	DA	2473	U	2.3
24	DB	55	U	2.3
8	CH	55	GLY	2.3
14	CN	50	LYS	2.3
24	DB	114	C	2.3
41	DX	1	MET	2.3
46	D2	1	MET	2.3
28	DG	169	ALA	2.3
2	AB	117	GLU	2.3
23	BA	878	A	2.3
23	DA	2602	A	2.3
4	AD	126	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
10	AJ	85	LEU	2.2
29	DH	87	LEU	2.2
13	CM	73	GLU	2.2
7	CG	40	ALA	2.2
1	AA	1442(A)	G	2.2
1	CA	630	G	2.2
1	CA	1378	C	2.2
18	CR	61	LYS	2.2
23	BA	2106	G	2.2
28	DG	47	LYS	2.2
28	DG	91	ARG	2.2
2	AB	201	ILE	2.2
15	AO	15	PHE	2.2
3	CC	195	VAL	2.2
23	BA	2119	A	2.2
2	CB	76	GLN	2.2
15	CO	9	GLN	2.2
16	CP	54	GLU	2.2
36	DS	50	SER	2.2
39	DV	43	GLU	2.2
2	CB	51	LEU	2.2
5	CE	31	LEU	2.2
29	BH	171	LEU	2.2
2	AB	63	MET	2.2
7	CG	7	ALA	2.2
18	CR	20	ALA	2.2
27	DF	135	LYS	2.2
28	DG	33	ARG	2.2
44	D0	76	GLY	2.2
1	AA	79	G	2.2
2	AB	135	GLN	2.2
3	CC	207	VAL	2.2
43	DZ	100	VAL	2.2
24	DB	15	A	2.2
19	CS	37	ARG	2.2
23	DA	2895	U	2.2
44	D0	74	ARG	2.2
2	CB	220	ASP	2.2
19	CS	26	GLY	2.2
7	CG	74	GLU	2.2
29	BH	148	ILE	2.2
29	DH	47	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
29	DH	116	GLU	2.2
1	CA	1260	C	2.2
2	AB	61	LEU	2.2
8	CH	63	LEU	2.2
13	CM	108	ARG	2.2
16	AP	81	ARG	2.2
20	CT	8	ARG	2.2
23	DA	2304	G	2.2
48	D4	29	PRO	2.2
2	CB	38	GLY	2.2
8	CH	123	GLU	2.2
2	CB	147	LYS	2.2
6	CF	97	PHE	2.2
18	CR	29	PHE	2.2
43	DZ	99	TYR	2.2
3	AC	103	VAL	2.2
10	CJ	24	VAL	2.2
22	CY	78	ILE	2.2
28	DG	101	ILE	2.2
33	DP	83	VAL	2.2
10	CJ	28	ARG	2.2
27	BF	17	ARG	2.2
27	DF	15	SER	2.2
30	BI	72	LEU	2.2
1	CA	1162	C	2.2
23	BA	885	C	2.2
1	AA	1136	U	2.2
17	AQ	14	LYS	2.2
23	BA	2110	G	2.2
23	DA	100	G	2.2
1	CA	1004	A	2.2
3	CC	201	TYR	2.2
11	AK	20	TYR	2.2
36	DS	36	TYR	2.2
47	B3	59	VAL	2.2
1	AA	194	C	2.2
1	AA	470	C	2.2
1	CA	1344	C	2.2
2	AB	77	ALA	2.2
9	AI	106	ALA	2.2
1	CA	1240	U	2.2
30	DI	61	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
37	DT	112	ARG	2.2
44	D0	45	PHE	2.2
3	CC	184	TYR	2.2
23	BA	652(F)	G	2.2
23	DA	10	G	2.2
30	DI	4	ILE	2.2
30	DI	37	VAL	2.2
2	CB	49	GLU	2.2
2	CB	146	GLN	2.2
3	CC	188	LEU	2.2
7	CG	129	GLU	2.2
17	CQ	45	HIS	2.2
26	DE	73	GLU	2.2
29	DH	124	GLU	2.2
36	DS	24	LEU	2.2
41	DX	92	LEU	2.2
4	AD	31	CYS	2.2
13	CM	82	MET	2.2
30	DI	100	ALA	2.2
43	DZ	7	ALA	2.2
47	D3	29	ARG	2.2
1	CA	1249	C	2.2
23	BA	2111	C	2.2
2	CB	94	ASN	2.1
13	CM	60	VAL	2.1
13	CM	74	VAL	2.1
30	BI	117	GLU	2.1
1	CA	1224	G	2.1
15	CO	19	PRO	2.1
23	DA	2190	G	2.1
20	CT	102	GLY	2.1
2	CB	218	ALA	2.1
36	DS	20	ARG	2.1
10	AJ	11	PHE	2.1
28	DG	125	PHE	2.1
48	D4	42	PHE	2.1
1	AA	72	C	2.1
23	BA	2137	C	2.1
13	CM	4	ILE	2.1
3	CC	33	LEU	2.1
29	DH	105	LEU	2.1
16	AP	37	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
33	DP	97	PRO	2.1
2	AB	137	ARG	2.1
3	AC	127	ARG	2.1
13	CM	94	ARG	2.1
20	CT	97	ALA	2.1
16	AP	54	GLU	2.1
23	BA	2170	A	2.1
23	DA	2892	A	2.1
12	CL	32	PHE	2.1
5	CE	148	VAL	2.1
8	AH	13	ILE	2.1
21	AU	21	TYR	2.1
22	CY	60	VAL	2.1
1	CA	979	C	2.1
1	CA	1051	C	2.1
4	CD	19	LEU	2.1
1	CA	1219	U	2.1
9	AI	49	PRO	2.1
19	CS	81	ARG	2.1
23	BA	2178	C	2.1
23	DA	272(I)	U	2.1
23	DA	362	U	2.1
29	DH	51	ARG	2.1
3	CC	146	ALA	2.1
3	CC	163	ALA	2.1
20	AT	50	GLU	2.1
30	BI	65	ALA	2.1
3	CC	18	TRP	2.1
1	CA	1164	G	2.1
28	BG	76	SER	2.1
4	AD	70	ILE	2.1
7	CG	85	TYR	2.1
9	CI	53	VAL	2.1
22	AY	16	ILE	2.1
28	DG	98	ARG	2.1
28	DG	144	ILE	2.1
47	D3	15	TYR	2.1
48	B4	32	TYR	2.1
1	AA	217	C	2.1
10	CJ	64	GLU	2.1
23	BA	2296	U	2.1
4	AD	181	MET	2.1

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Mol	Chain	Res	Type	RSRZ
44	D0	9	SER	2.1
7	AG	4	ARG	2.1
10	AJ	70	ARG	2.1
2	AB	165	VAL	2.1
6	AF	90	VAL	2.1
17	CQ	60	ILE	2.1
27	DF	163	VAL	2.1
27	DF	196	LEU	2.1
48	D4	16	CYS	2.1
1	CA	1156	G	2.1
1	CA	1289	A	2.1
24	DB	69	G	2.1
3	AC	100	ALA	2.1
28	DG	57	ALA	2.1
1	CA	936	C	2.1
15	CO	25	THR	2.1
28	DG	36	LYS	2.1
29	DH	25	LYS	2.1
3	AC	128	PHE	2.1
39	BV	101	GLY	2.1
22	CY	93	GLU	2.1
46	D2	6	VAL	2.1
11	AK	75	TYR	2.1
16	AP	24	ALA	2.1
24	DB	24	G	2.1
24	DB	119	G	2.1
49	D5	53	ALA	2.1
20	CT	85	MET	2.1
2	AB	163	PHE	2.1
10	CJ	11	PHE	2.1
17	CQ	97	SER	2.1
23	DA	271(K)	U	2.1
39	DV	2	PHE	2.1
23	DA	264	C	2.1
42	DY	18	GLY	2.1
22	CY	88	LEU	2.1
33	DP	99	LEU	2.1
20	CT	98	PRO	2.1
46	B2	70	GLN	2.1
18	AR	24	ALA	2.1
7	CG	155	ARG	2.1
43	DZ	82	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
31	DN	22	THR	2.1
1	CA	687	A	2.1
16	CP	48	TRP	2.1
33	DP	136	GLU	2.1
1	CA	1012	U	2.0
1	CA	1142	G	2.0
1	CA	1348	U	2.0
1	CA	1370	G	2.0
2	AB	28	PHE	2.1
23	BA	2149	G	2.0
23	DA	353	G	2.0
1	CA	1321	C	2.0
2	CB	224	GLN	2.0
14	CN	39	LEU	2.0
28	DG	43	LEU	2.0
30	DI	92	VAL	2.0
2	CB	58	ILE	2.0
2	CB	33	TYR	2.0
9	CI	93	ARG	2.0
11	AK	19	ALA	2.0
13	CM	71	ARG	2.0
15	CO	88	ARG	2.0
29	DH	97	ARG	2.0
22	CY	58	ASN	2.0
14	AN	13	THR	2.0
39	DV	45	THR	2.0
5	CE	84	PHE	2.0
12	CL	60	LEU	2.0
16	AP	73	LEU	2.0
17	AQ	53	LEU	2.0
33	BP	148	LEU	2.0
33	DP	138	LEU	2.0
2	CB	16	HIS	2.0
19	CS	45	VAL	2.0
23	DA	890	A	2.0
24	DB	51	G	2.0
29	DH	19	VAL	2.0
32	DO	58	VAL	2.0
10	AJ	23	ILE	2.0
1	CA	1264	C	2.0
21	CU	6	ARG	2.0
10	CJ	25	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
45	B1	89	GLU	2.0
4	AD	12	CYS	2.0
12	CL	67	THR	2.0
22	CY	13	THR	2.0
9	CI	87	GLN	2.0
14	AN	16	PHE	2.0
3	CC	43	LEU	2.0
4	CD	21	LEU	2.0
8	AH	107	LEU	2.0
39	DV	94	LEU	2.0
1	CA	1025	U	2.0
7	CG	6	ARG	2.0
14	CN	3	ARG	2.0
14	CN	7	ILE	2.0
1	CA	1447	A	2.0
1	AA	64	G	2.0
1	AA	1003	G	2.0
3	CC	3	ASN	2.0
6	CF	4	TYR	2.0
1	CA	1008	C	2.0
8	CH	130	GLY	2.0
9	CI	91	ASP	2.0
23	BA	2166	G	2.0
8	CH	2	LEU	2.0
20	AT	51	GLU	2.0
28	DG	14	GLU	2.0
34	DQ	112	GLU	2.0
43	DZ	91	LEU	2.0
4	AD	30	LYS	2.0

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

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

6.3 Carbohydrates

There are no carbohydrates in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3605	1/1	-0.01	0.57	89,89,89,89	0
54	MG	CA	1664	1/1	0.12	0.15	62,62,62,62	0
54	MG	DB	206	1/1	0.23	1.97	115,115,115,115	0
54	MG	CA	1741	1/1	0.28	0.12	117,117,117,117	0
54	MG	AA	1675	1/1	0.42	0.16	106,106,106,106	0
54	MG	CA	1729	1/1	0.49	0.23	84,84,84,84	0
54	MG	BA	3264	1/1	0.50	0.10	86,86,86,86	0
54	MG	CA	1630	1/1	0.53	0.44	78,78,78,78	0
54	MG	DA	3547	1/1	0.53	0.44	89,89,89,89	0
54	MG	CA	1758	1/1	0.53	0.24	64,64,64,64	0
54	MG	DA	3014	1/1	0.54	0.49	73,73,73,73	0
54	MG	CA	1607	1/1	0.55	0.98	96,96,96,96	0
54	MG	CA	1657	1/1	0.55	0.15	85,85,85,85	0
54	MG	AA	1767	1/1	0.56	0.18	70,70,70,70	0
54	MG	DB	208	1/1	0.56	0.19	96,96,96,96	0
54	MG	BA	3517	1/1	0.57	0.17	91,91,91,91	0
54	MG	BR	204	1/1	0.57	0.20	49,49,49,49	0
54	MG	AA	1794	1/1	0.57	0.20	111,111,111,111	0
54	MG	AA	1674	1/1	0.58	0.12	75,75,75,75	0
54	MG	AA	1686	1/1	0.60	0.32	68,68,68,68	0
54	MG	DA	3554	1/1	0.60	0.21	70,70,70,70	0
54	MG	BA	3477	1/1	0.61	0.18	101,101,101,101	0
54	MG	BA	3726	1/1	0.61	0.16	73,73,73,73	0
54	MG	BA	3655	1/1	0.61	0.35	68,68,68,68	0
54	MG	DA	3141	1/1	0.61	0.37	70,70,70,70	0
54	MG	AA	1605	1/1	0.61	0.24	62,62,62,62	0
54	MG	DA	3159	1/1	0.62	0.15	66,66,66,66	0
54	MG	AA	1714	1/1	0.62	0.17	58,58,58,58	0
54	MG	DA	3614	1/1	0.62	0.86	92,92,92,92	0
54	MG	DA	3618	1/1	0.64	0.37	93,93,93,93	0
54	MG	AA	1635	1/1	0.64	0.10	77,77,77,77	0
54	MG	DA	3558	1/1	0.64	0.25	70,70,70,70	0
54	MG	CA	1746	1/1	0.65	0.23	113,113,113,113	0
54	MG	DA	3096	1/1	0.66	0.21	61,61,61,61	0
54	MG	CA	1604	1/1	0.67	0.49	70,70,70,70	0
54	MG	CA	1643	1/1	0.67	0.12	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3590	1/1	0.67	0.35	77,77,77,77	0
54	MG	DA	3632	1/1	0.67	0.14	72,72,72,72	0
54	MG	D0	101	1/1	0.68	0.16	78,78,78,78	0
54	MG	BA	3564	1/1	0.68	0.12	67,67,67,67	0
54	MG	CA	1671	1/1	0.68	0.07	78,78,78,78	0
54	MG	DA	3337	1/1	0.68	0.24	65,65,65,65	0
54	MG	CA	1681	1/1	0.68	0.21	83,83,83,83	0
54	MG	DA	3478	1/1	0.69	0.28	64,64,64,64	0
54	MG	DA	3410	1/1	0.69	0.20	80,80,80,80	0
54	MG	DA	3292	1/1	0.69	0.18	59,59,59,59	0
54	MG	DA	3347	1/1	0.69	0.23	87,87,87,87	0
54	MG	DB	210	1/1	0.69	0.18	82,82,82,82	0
54	MG	DA	3341	1/1	0.69	0.14	60,60,60,60	0
54	MG	BQ	201	1/1	0.69	0.37	61,61,61,61	0
54	MG	DA	3124	1/1	0.69	0.21	69,69,69,69	0
54	MG	DA	3606	1/1	0.70	0.32	82,82,82,82	0
54	MG	BA	3579	1/1	0.70	0.26	57,57,57,57	0
54	MG	CA	1660	1/1	0.70	0.23	65,65,65,65	0
54	MG	CA	1616	1/1	0.71	0.15	71,71,71,71	0
54	MG	CA	1761	1/1	0.71	0.13	92,92,92,92	0
54	MG	BA	3600	1/1	0.71	0.24	58,58,58,58	0
54	MG	CA	1791	1/1	0.71	0.15	72,72,72,72	0
54	MG	BA	3334	1/1	0.72	0.17	39,39,39,39	0
54	MG	DA	3592	1/1	0.72	0.12	72,72,72,72	0
54	MG	DO	201	1/1	0.72	0.13	67,67,67,67	0
54	MG	DA	3122	1/1	0.72	0.25	58,58,58,58	0
54	MG	BA	3545	1/1	0.72	0.10	63,63,63,63	0
54	MG	BA	3577	1/1	0.72	0.11	59,59,59,59	0
54	MG	DA	3318	1/1	0.72	0.25	75,75,75,75	0
54	MG	D5	103	1/1	0.72	0.17	61,61,61,61	0
54	MG	DA	3094	1/1	0.72	0.33	54,54,54,54	0
54	MG	DA	3435	1/1	0.72	0.09	77,77,77,77	0
54	MG	CA	1750	1/1	0.73	0.13	88,88,88,88	0
54	MG	DA	3476	1/1	0.73	0.09	95,95,95,95	0
54	MG	DA	3164	1/1	0.73	0.16	64,64,64,64	0
54	MG	BA	3723	1/1	0.73	0.12	70,70,70,70	0
54	MG	BA	3059	1/1	0.73	0.20	54,54,54,54	0
54	MG	AA	1813	1/1	0.73	0.17	86,86,86,86	0
55	ZN	D4	101	1/1	0.73	0.09	173,173,173,173	0
54	MG	DA	3108	1/1	0.73	0.38	70,70,70,70	0
54	MG	BA	3165	1/1	0.73	0.33	41,41,41,41	0
54	MG	CA	1646	1/1	0.74	0.11	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3466	1/1	0.74	0.17	65,65,65,65	0
54	MG	CA	1688	1/1	0.74	0.23	110,110,110,110	0
54	MG	AA	1788	1/1	0.74	0.11	76,76,76,76	0
54	MG	BA	3679	1/1	0.74	0.09	80,80,80,80	0
54	MG	CA	1793	1/1	0.74	0.20	89,89,89,89	0
54	MG	BA	3672	1/1	0.75	0.31	69,69,69,69	0
54	MG	CA	1677	1/1	0.75	0.20	86,86,86,86	0
54	MG	BA	3512	1/1	0.75	0.21	71,71,71,71	0
54	MG	BA	3322	1/1	0.75	0.28	54,54,54,54	0
54	MG	AA	1658	1/1	0.75	0.25	73,73,73,73	0
54	MG	DB	205	1/1	0.75	0.23	92,92,92,92	0
54	MG	BA	3074	1/1	0.75	0.32	32,32,32,32	0
54	MG	BA	3453	1/1	0.75	0.14	65,65,65,65	0
54	MG	AA	1633	1/1	0.75	0.21	69,69,69,69	0
54	MG	DA	3477	1/1	0.75	0.09	63,63,63,63	0
54	MG	DA	3316	1/1	0.75	0.12	87,87,87,87	0
54	MG	DA	3247	1/1	0.75	0.26	73,73,73,73	0
54	MG	DA	3130	1/1	0.76	0.65	49,49,49,49	0
54	MG	BA	3669	1/1	0.76	0.14	44,44,44,44	0
54	MG	DA	3494	1/1	0.76	0.26	64,64,64,64	0
54	MG	DA	3092	1/1	0.76	0.17	54,54,54,54	0
54	MG	AA	1764	1/1	0.76	0.27	70,70,70,70	0
54	MG	CA	1778	1/1	0.76	0.10	83,83,83,83	0
54	MG	BA	3511	1/1	0.76	0.09	72,72,72,72	0
55	ZN	CD	301	1/1	0.76	0.30	93,93,93,93	0
54	MG	CA	1785	1/1	0.76	0.17	84,84,84,84	0
54	MG	BB	201	1/1	0.76	0.21	67,67,67,67	0
54	MG	DA	3240	1/1	0.76	0.11	56,56,56,56	0
54	MG	CA	1713	1/1	0.76	0.32	95,95,95,95	0
54	MG	CA	1624	1/1	0.76	0.18	65,65,65,65	0
54	MG	DA	3393	1/1	0.76	0.19	52,52,52,52	0
54	MG	AA	1608	1/1	0.77	0.21	66,66,66,66	0
54	MG	BA	3560	1/1	0.77	0.28	93,93,93,93	0
54	MG	CA	1612	1/1	0.77	0.75	84,84,84,84	0
54	MG	CA	1715	1/1	0.77	0.20	85,85,85,85	0
54	MG	DA	3486	1/1	0.77	0.28	44,44,44,44	0
54	MG	CA	1645	1/1	0.77	0.38	69,69,69,69	0
54	MG	DA	3395	1/1	0.77	0.32	75,75,75,75	0
54	MG	CA	1606	1/1	0.77	0.36	83,83,83,83	0
54	MG	AA	1623	1/1	0.77	0.18	85,85,85,85	0
54	MG	DA	3040	1/1	0.77	0.14	58,58,58,58	0
54	MG	DA	3586	1/1	0.77	0.21	142,142,142,142	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3111	1/1	0.77	0.72	67,67,67,67	0
54	MG	DA	3479	1/1	0.77	0.16	66,66,66,66	0
54	MG	AA	1646	1/1	0.77	0.26	87,87,87,87	0
54	MG	BB	211	1/1	0.77	0.10	61,61,61,61	0
54	MG	BA	3072	1/1	0.77	0.21	48,48,48,48	0
54	MG	DA	3086	1/1	0.77	0.29	54,54,54,54	0
54	MG	DA	3402	1/1	0.77	0.17	53,53,53,53	0
54	MG	DA	3577	1/1	0.78	0.34	57,57,57,57	0
54	MG	DA	3622	1/1	0.78	0.10	80,80,80,80	0
54	MG	BA	3436	1/1	0.78	0.17	41,41,41,41	0
54	MG	DA	3084	1/1	0.78	0.24	45,45,45,45	0
54	MG	B3	101	1/1	0.78	0.19	54,54,54,54	0
54	MG	AA	1603	1/1	0.78	0.11	62,62,62,62	0
54	MG	BA	3537	1/1	0.78	0.25	66,66,66,66	0
54	MG	B6	102	1/1	0.78	0.17	69,69,69,69	0
54	MG	DA	3175	1/1	0.78	0.35	31,31,31,31	0
54	MG	AA	1787	1/1	0.79	0.20	54,54,54,54	0
54	MG	CA	1719	1/1	0.79	0.11	90,90,90,90	0
54	MG	CA	1629	1/1	0.79	0.32	81,81,81,81	0
54	MG	BA	3020	1/1	0.79	0.09	69,69,69,69	0
54	MG	BA	3128	1/1	0.79	0.23	63,63,63,63	0
54	MG	BA	3501	1/1	0.79	0.15	51,51,51,51	0
54	MG	CA	1763	1/1	0.79	0.08	66,66,66,66	0
54	MG	BA	3447	1/1	0.79	0.09	53,53,53,53	0
54	MG	DA	3205	1/1	0.79	0.12	44,44,44,44	0
54	MG	BA	3285	1/1	0.79	0.29	96,96,96,96	0
54	MG	AA	1611	1/1	0.79	0.15	75,75,75,75	0
54	MG	DA	3346	1/1	0.79	0.12	57,57,57,57	0
54	MG	DA	3145	1/1	0.79	0.13	60,60,60,60	0
54	MG	CA	1647	1/1	0.79	0.10	103,103,103,103	0
54	MG	CA	1781	1/1	0.79	0.15	100,100,100,100	0
54	MG	DA	3182	1/1	0.79	0.16	45,45,45,45	0
54	MG	DA	3038	1/1	0.80	0.21	85,85,85,85	0
54	MG	BA	3617	1/1	0.80	0.24	44,44,44,44	0
54	MG	CA	1674	1/1	0.80	0.12	80,80,80,80	0
54	MG	DA	3503	1/1	0.80	0.12	59,59,59,59	0
54	MG	BA	3535	1/1	0.80	0.10	58,58,58,58	0
54	MG	CA	1797	1/1	0.80	0.21	68,68,68,68	0
54	MG	DA	3432	1/1	0.80	0.12	67,67,67,67	0
54	MG	DA	3497	1/1	0.80	0.21	40,40,40,40	0
54	MG	BA	3557	1/1	0.80	0.14	25,25,25,25	0
54	MG	BA	3491	1/1	0.80	0.11	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3013	1/1	0.80	0.26	60,60,60,60	0
54	MG	BA	3117	1/1	0.80	0.21	67,67,67,67	0
54	MG	AA	1756	1/1	0.80	0.10	107,107,107,107	0
54	MG	CA	1796	1/1	0.80	0.14	85,85,85,85	0
54	MG	DA	3579	1/1	0.80	0.18	52,52,52,52	0
54	MG	BA	3716	1/1	0.80	0.17	54,54,54,54	0
54	MG	CA	1759	1/1	0.80	0.09	95,95,95,95	0
54	MG	DA	3551	1/1	0.80	0.16	69,69,69,69	0
54	MG	DA	3255	1/1	0.80	0.08	51,51,51,51	0
54	MG	BA	3375	1/1	0.80	0.14	61,61,61,61	0
54	MG	BA	3172	1/1	0.80	0.13	65,65,65,65	0
54	MG	DA	3295	1/1	0.80	0.19	58,58,58,58	0
54	MG	BA	3360	1/1	0.80	0.22	41,41,41,41	0
54	MG	DA	3414	1/1	0.80	0.10	66,66,66,66	0
54	MG	DA	3543	1/1	0.80	0.13	54,54,54,54	0
54	MG	CA	1639	1/1	0.81	0.84	57,57,57,57	0
54	MG	DA	3136	1/1	0.81	0.70	62,62,62,62	0
54	MG	DB	207	1/1	0.81	0.08	82,82,82,82	0
54	MG	BA	3377	1/1	0.81	0.19	44,44,44,44	0
54	MG	DA	3619	1/1	0.81	0.15	57,57,57,57	0
54	MG	CA	1777	1/1	0.81	0.12	130,130,130,130	0
54	MG	DP	201	1/1	0.81	0.20	78,78,78,78	0
54	MG	DD	303	1/1	0.81	0.14	53,53,53,53	0
54	MG	CA	1705	1/1	0.81	0.16	72,72,72,72	0
54	MG	CA	1650	1/1	0.81	0.32	65,65,65,65	0
54	MG	DA	3268	1/1	0.81	0.09	54,54,54,54	0
54	MG	AA	1772	1/1	0.81	0.13	71,71,71,71	0
54	MG	CA	1613	1/1	0.81	0.26	68,68,68,68	0
54	MG	DA	3348	1/1	0.81	0.14	87,87,87,87	0
54	MG	AA	1779	1/1	0.81	0.17	68,68,68,68	0
54	MG	BA	3152	1/1	0.81	0.17	48,48,48,48	0
54	MG	BA	3487	1/1	0.81	0.18	49,49,49,49	0
54	MG	DA	3571	1/1	0.81	0.16	53,53,53,53	0
54	MG	BA	3328	1/1	0.81	0.13	49,49,49,49	0
54	MG	BA	3583	1/1	0.81	0.10	63,63,63,63	0
54	MG	BA	3345	1/1	0.81	0.29	54,54,54,54	0
54	MG	AA	1793	1/1	0.81	0.22	78,78,78,78	0
54	MG	CA	1779	1/1	0.82	0.18	116,116,116,116	0
54	MG	AA	1769	1/1	0.82	0.12	69,69,69,69	0
54	MG	DA	3573	1/1	0.82	0.54	68,68,68,68	0
54	MG	BA	3640	1/1	0.82	0.17	55,55,55,55	0
54	MG	CA	1618	1/1	0.82	0.14	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3688	1/1	0.82	0.12	72,72,72,72	0
54	MG	DA	3272	1/1	0.82	0.10	69,69,69,69	0
54	MG	BA	3638	1/1	0.82	0.15	82,82,82,82	0
54	MG	AA	1757	1/1	0.82	0.22	91,91,91,91	0
54	MG	DA	3335	1/1	0.82	0.13	68,68,68,68	0
54	MG	BA	3653	1/1	0.82	0.12	58,58,58,58	0
54	MG	BA	3690	1/1	0.82	0.09	42,42,42,42	0
54	MG	BA	3205	1/1	0.82	0.12	67,67,67,67	0
54	MG	DA	3559	1/1	0.82	0.42	76,76,76,76	0
54	MG	CA	1776	1/1	0.82	0.23	76,76,76,76	0
54	MG	B3	102	1/1	0.82	0.21	52,52,52,52	0
54	MG	DA	3411	1/1	0.82	0.14	89,89,89,89	0
54	MG	DA	3416	1/1	0.82	0.17	64,64,64,64	0
54	MG	BA	3509	1/1	0.82	0.15	77,77,77,77	0
54	MG	CA	1654	1/1	0.82	0.22	63,63,63,63	0
54	MG	BA	3685	1/1	0.82	0.30	69,69,69,69	0
54	MG	BA	3130	1/1	0.82	0.13	79,79,79,79	0
54	MG	DA	3226	1/1	0.83	0.16	41,41,41,41	0
54	MG	BA	3169	1/1	0.83	0.16	60,60,60,60	0
54	MG	AA	1777	1/1	0.83	0.13	100,100,100,100	0
54	MG	CA	1697	1/1	0.83	0.06	95,95,95,95	0
54	MG	BA	3076	1/1	0.83	0.39	58,58,58,58	0
54	MG	DA	3467	1/1	0.83	0.10	85,85,85,85	0
54	MG	DA	3118	1/1	0.83	0.14	75,75,75,75	0
54	MG	AA	1765	1/1	0.83	0.21	57,57,57,57	0
54	MG	BA	3462	1/1	0.83	0.45	36,36,36,36	0
54	MG	DA	3635	1/1	0.83	0.20	54,54,54,54	0
54	MG	CA	1631	1/1	0.83	0.10	87,87,87,87	0
54	MG	DA	3140	1/1	0.83	0.41	60,60,60,60	0
54	MG	CA	1730	1/1	0.83	0.17	65,65,65,65	0
54	MG	BA	3248	1/1	0.83	0.26	30,30,30,30	0
54	MG	AA	1816	1/1	0.83	0.18	75,75,75,75	0
54	MG	DA	3065	1/1	0.83	0.25	74,74,74,74	0
54	MG	DA	3502	1/1	0.83	0.08	78,78,78,78	0
54	MG	BD	307	1/1	0.83	0.22	65,65,65,65	0
54	MG	DA	3617	1/1	0.83	0.08	74,74,74,74	0
54	MG	BA	3343	1/1	0.83	0.17	48,48,48,48	0
54	MG	BA	3309	1/1	0.83	0.15	69,69,69,69	0
54	MG	DA	3284	1/1	0.83	0.19	70,70,70,70	0
54	MG	BA	3382	1/1	0.83	0.22	39,39,39,39	0
54	MG	BA	3569	1/1	0.83	0.12	67,67,67,67	0
54	MG	BA	3704	1/1	0.83	0.18	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3149	1/1	0.83	0.42	46,46,46,46	0
54	MG	BA	3260	1/1	0.83	0.33	31,31,31,31	0
54	MG	CA	1635	1/1	0.83	0.43	63,63,63,63	0
54	MG	DA	3050	1/1	0.83	0.16	52,52,52,52	0
54	MG	DA	3032	1/1	0.84	0.33	59,59,59,59	0
54	MG	DA	3163	1/1	0.84	0.14	39,39,39,39	0
54	MG	D1	101	1/1	0.84	0.09	59,59,59,59	0
54	MG	CA	1690	1/1	0.84	0.14	75,75,75,75	0
54	MG	CA	1736	1/1	0.84	0.19	94,94,94,94	0
54	MG	DA	3321	1/1	0.84	0.20	74,74,74,74	0
54	MG	CA	1742	1/1	0.84	0.12	99,99,99,99	0
54	MG	DA	3283	1/1	0.84	0.14	51,51,51,51	0
54	MG	CA	1620	1/1	0.84	0.39	74,74,74,74	0
54	MG	DA	3636	1/1	0.84	0.19	66,66,66,66	0
54	MG	DA	3185	1/1	0.84	0.21	47,47,47,47	0
54	MG	BA	3120	1/1	0.84	0.09	54,54,54,54	0
54	MG	AA	1801	1/1	0.84	0.08	87,87,87,87	0
54	MG	DA	3179	1/1	0.84	0.24	43,43,43,43	0
54	MG	AA	1695	1/1	0.84	0.14	57,57,57,57	0
54	MG	AA	1652	1/1	0.84	0.19	63,63,63,63	0
54	MG	DA	3338	1/1	0.84	0.23	67,67,67,67	0
54	MG	BA	3031	1/1	0.84	0.14	66,66,66,66	0
54	MG	DA	3275	1/1	0.84	0.13	69,69,69,69	0
54	MG	BA	3656	1/1	0.84	0.21	50,50,50,50	0
54	MG	DA	3315	1/1	0.84	0.07	49,49,49,49	0
54	MG	CA	1718	1/1	0.84	0.14	76,76,76,76	0
54	MG	DA	3352	1/1	0.84	0.15	82,82,82,82	0
54	MG	DA	3328	1/1	0.84	0.13	52,52,52,52	0
54	MG	DA	3312	1/1	0.84	0.12	52,52,52,52	0
54	MG	CA	1764	1/1	0.84	0.13	90,90,90,90	0
54	MG	DA	3405	1/1	0.84	0.13	56,56,56,56	0
54	MG	DA	3004	1/1	0.84	0.24	64,64,64,64	0
54	MG	CA	1739	1/1	0.84	0.27	76,76,76,76	0
54	MG	DA	3236	1/1	0.84	0.09	40,40,40,40	0
54	MG	DA	3340	1/1	0.84	0.16	72,72,72,72	0
54	MG	DA	3326	1/1	0.84	0.17	69,69,69,69	0
54	MG	DA	3375	1/1	0.85	0.05	60,60,60,60	0
54	MG	DA	3451	1/1	0.85	0.10	60,60,60,60	0
54	MG	CA	1803	1/1	0.85	0.17	55,55,55,55	0
54	MG	DA	3101	1/1	0.85	0.14	60,60,60,60	0
54	MG	BA	3594	1/1	0.85	0.16	56,56,56,56	0
54	MG	DA	3143	1/1	0.85	0.25	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3536	1/1	0.85	0.20	54,54,54,54	0
54	MG	BA	3210	1/1	0.85	0.16	58,58,58,58	0
54	MG	DA	3569	1/1	0.85	0.34	60,60,60,60	0
54	MG	AA	1730	1/1	0.85	0.18	70,70,70,70	0
54	MG	DA	3093	1/1	0.85	0.24	55,55,55,55	0
54	MG	BA	3251	1/1	0.85	0.13	24,24,24,24	0
54	MG	CA	1669	1/1	0.85	0.20	71,71,71,71	0
54	MG	BA	3432	1/1	0.85	0.20	68,68,68,68	0
54	MG	BA	3034	1/1	0.85	0.20	40,40,40,40	0
54	MG	AA	1698	1/1	0.85	0.20	78,78,78,78	0
54	MG	DA	3196	1/1	0.85	0.31	37,37,37,37	0
54	MG	BA	3561	1/1	0.85	0.16	46,46,46,46	0
54	MG	AA	1613	1/1	0.85	0.34	77,77,77,77	0
54	MG	DA	3298	1/1	0.85	0.11	51,51,51,51	0
54	MG	CA	1632	1/1	0.85	0.32	57,57,57,57	0
54	MG	BA	3670	1/1	0.85	0.16	65,65,65,65	0
54	MG	CA	1653	1/1	0.85	0.15	85,85,85,85	0
54	MG	AA	1762	1/1	0.85	0.30	78,78,78,78	0
54	MG	BA	3151	1/1	0.85	0.20	34,34,34,34	0
54	MG	BA	3286	1/1	0.85	0.18	42,42,42,42	0
54	MG	DA	3330	1/1	0.85	0.11	56,56,56,56	0
54	MG	DO	202	1/1	0.85	0.08	60,60,60,60	0
54	MG	B0	103	1/1	0.85	0.15	71,71,71,71	0
54	MG	DA	3286	1/1	0.85	0.12	69,69,69,69	0
54	MG	DA	3036	1/1	0.85	0.24	62,62,62,62	0
54	MG	DA	3462	1/1	0.85	0.15	63,63,63,63	0
54	MG	BA	3287	1/1	0.85	0.27	44,44,44,44	0
54	MG	BA	3067	1/1	0.85	0.55	55,55,55,55	0
54	MG	BA	3314	1/1	0.85	0.16	39,39,39,39	0
54	MG	BA	3457	1/1	0.85	0.08	53,53,53,53	0
54	MG	DA	3277	1/1	0.85	0.10	60,60,60,60	0
54	MG	AA	1755	1/1	0.85	0.38	76,76,76,76	0
54	MG	DA	3508	1/1	0.85	0.24	73,73,73,73	0
54	MG	BA	3395	1/1	0.85	0.11	37,37,37,37	0
54	MG	AA	1630	1/1	0.85	0.29	76,76,76,76	0
54	MG	DA	3484	1/1	0.85	0.26	34,34,34,34	0
54	MG	BA	3717	1/1	0.85	0.14	45,45,45,45	0
54	MG	BA	3073	1/1	0.85	0.10	74,74,74,74	0
54	MG	BA	3386	1/1	0.85	0.38	32,32,32,32	0
54	MG	BA	3336	1/1	0.85	0.16	71,71,71,71	0
54	MG	CA	1640	1/1	0.85	0.20	63,63,63,63	0
54	MG	DA	3244	1/1	0.85	0.19	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3659	1/1	0.85	0.07	61,61,61,61	0
54	MG	DA	3134	1/1	0.85	0.22	71,71,71,71	0
54	MG	AA	1786	1/1	0.85	0.13	89,89,89,89	0
54	MG	CA	1766	1/1	0.86	0.16	65,65,65,65	0
54	MG	BA	3499	1/1	0.86	0.19	35,35,35,35	0
54	MG	CA	1707	1/1	0.86	0.40	73,73,73,73	0
54	MG	DA	3289	1/1	0.86	0.13	44,44,44,44	0
54	MG	BA	3281	1/1	0.86	0.12	43,43,43,43	0
54	MG	AA	1644	1/1	0.86	0.16	58,58,58,58	0
54	MG	DA	3369	1/1	0.86	0.11	85,85,85,85	0
54	MG	DA	3020	1/1	0.86	0.08	66,66,66,66	0
54	MG	BA	3701	1/1	0.86	0.15	34,34,34,34	0
54	MG	CA	1787	1/1	0.86	0.20	84,84,84,84	0
54	MG	DA	3211	1/1	0.86	0.08	38,38,38,38	0
54	MG	BA	3129	1/1	0.86	0.07	69,69,69,69	0
54	MG	BA	3467	1/1	0.86	0.13	63,63,63,63	0
54	MG	DA	3463	1/1	0.86	0.15	67,67,67,67	0
54	MG	BA	3006	1/1	0.86	0.12	67,67,67,67	0
54	MG	DA	3602	1/1	0.86	0.09	53,53,53,53	0
54	MG	CQ	201	1/1	0.86	0.11	76,76,76,76	0
54	MG	DA	3371	1/1	0.86	0.28	76,76,76,76	0
54	MG	DA	3530	1/1	0.86	0.10	66,66,66,66	0
54	MG	CA	1637	1/1	0.86	0.14	98,98,98,98	0
54	MG	DA	3453	1/1	0.86	0.09	49,49,49,49	0
54	MG	DA	3572	1/1	0.86	0.13	45,45,45,45	0
54	MG	BA	3661	1/1	0.86	0.16	40,40,40,40	0
54	MG	DA	3166	1/1	0.86	0.15	56,56,56,56	0
54	MG	BA	3449	1/1	0.86	0.14	40,40,40,40	0
55	ZN	B4	101	1/1	0.86	0.07	117,117,117,117	0
54	MG	BA	3267	1/1	0.86	0.18	56,56,56,56	0
54	MG	DA	3387	1/1	0.86	0.08	72,72,72,72	0
54	MG	BA	3621	1/1	0.86	0.21	35,35,35,35	0
54	MG	BA	3702	1/1	0.86	0.09	66,66,66,66	0
54	MG	DA	3089	1/1	0.86	0.29	50,50,50,50	0
54	MG	CA	1786	1/1	0.86	0.30	83,83,83,83	0
54	MG	BA	3619	1/1	0.86	0.35	75,75,75,75	0
54	MG	DA	3274	1/1	0.86	0.09	51,51,51,51	0
54	MG	BA	3144	1/1	0.86	0.23	51,51,51,51	0
54	MG	CA	1735	1/1	0.86	0.12	85,85,85,85	0
54	MG	DA	3249	1/1	0.86	0.14	47,47,47,47	0
54	MG	BA	3102	1/1	0.86	0.24	33,33,33,33	0
54	MG	BA	3003	1/1	0.86	0.39	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BB	213	1/1	0.86	0.11	46,46,46,46	0
54	MG	DA	3137	1/1	0.86	0.25	45,45,45,45	0
54	MG	AA	1667	1/1	0.86	0.17	84,84,84,84	0
54	MG	AA	1721	1/1	0.86	0.12	77,77,77,77	0
54	MG	DA	3384	1/1	0.86	0.34	49,49,49,49	0
54	MG	BA	3276	1/1	0.86	0.11	47,47,47,47	0
54	MG	AA	1791	1/1	0.87	0.16	68,68,68,68	0
54	MG	BA	3587	1/1	0.87	0.07	60,60,60,60	0
54	MG	B7	101	1/1	0.87	0.08	45,45,45,45	0
54	MG	AA	1669	1/1	0.87	0.12	80,80,80,80	0
54	MG	DA	3370	1/1	0.87	0.19	87,87,87,87	0
54	MG	DA	3374	1/1	0.87	0.09	73,73,73,73	0
54	MG	CA	1622	1/1	0.87	0.14	65,65,65,65	0
54	MG	BA	3510	1/1	0.87	0.07	77,77,77,77	0
54	MG	DA	3598	1/1	0.87	0.16	64,64,64,64	0
54	MG	DA	3324	1/1	0.87	0.24	86,86,86,86	0
54	MG	BA	3725	1/1	0.87	0.14	57,57,57,57	0
54	MG	DA	3509	1/1	0.87	0.16	70,70,70,70	0
54	MG	AA	1654	1/1	0.87	0.09	77,77,77,77	0
54	MG	DA	3088	1/1	0.87	0.20	39,39,39,39	0
54	MG	BA	3317	1/1	0.87	0.16	69,69,69,69	0
54	MG	BA	3071	1/1	0.87	0.22	46,46,46,46	0
54	MG	D7	102	1/1	0.87	0.18	65,65,65,65	0
54	MG	BA	3134	1/1	0.87	0.08	50,50,50,50	0
54	MG	BA	3007	1/1	0.87	0.15	41,41,41,41	0
54	MG	BF	304	1/1	0.87	0.09	47,47,47,47	0
54	MG	DD	304	1/1	0.87	0.23	39,39,39,39	0
54	MG	DA	3418	1/1	0.87	0.09	48,48,48,48	0
54	MG	CA	1675	1/1	0.87	0.18	75,75,75,75	0
54	MG	DA	3027	1/1	0.87	0.19	47,47,47,47	0
54	MG	DA	3404	1/1	0.87	0.29	62,62,62,62	0
54	MG	DA	3028	1/1	0.87	0.12	62,62,62,62	0
54	MG	DA	3063	1/1	0.87	0.24	47,47,47,47	0
54	MG	B2	102	1/1	0.87	0.19	60,60,60,60	0
54	MG	DA	3390	1/1	0.87	0.19	73,73,73,73	0
54	MG	BA	3606	1/1	0.87	0.10	63,63,63,63	0
54	MG	DA	3436	1/1	0.87	0.14	77,77,77,77	0
54	MG	BA	3226	1/1	0.87	0.14	49,49,49,49	0
54	MG	DA	3629	1/1	0.87	0.10	80,80,80,80	0
54	MG	BA	3244	1/1	0.87	0.14	49,49,49,49	0
54	MG	BA	3714	1/1	0.87	0.14	47,47,47,47	0
54	MG	DA	3583	1/1	0.87	0.47	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1659	1/1	0.87	0.13	89,89,89,89	0
54	MG	DA	3403	1/1	0.87	0.12	56,56,56,56	0
54	MG	DA	3605	1/1	0.87	0.17	49,49,49,49	0
54	MG	DA	3399	1/1	0.87	0.18	80,80,80,80	0
54	MG	DA	3446	1/1	0.87	0.10	68,68,68,68	0
54	MG	BA	3238	1/1	0.87	0.09	39,39,39,39	0
54	MG	AA	1780	1/1	0.87	0.17	72,72,72,72	0
54	MG	BA	3277	1/1	0.87	0.21	32,32,32,32	0
54	MG	DA	3168	1/1	0.87	0.17	41,41,41,41	0
54	MG	BB	205	1/1	0.87	0.13	48,48,48,48	0
54	MG	BA	3118	1/1	0.87	0.16	59,59,59,59	0
54	MG	DA	3596	1/1	0.87	0.38	60,60,60,60	0
54	MG	BA	3423	1/1	0.87	0.09	46,46,46,46	0
54	MG	CA	1782	1/1	0.87	0.21	63,63,63,63	0
54	MG	BA	3596	1/1	0.87	0.23	59,59,59,59	0
54	MG	DA	3100	1/1	0.87	0.26	56,56,56,56	0
54	MG	DA	3565	1/1	0.87	0.19	62,62,62,62	0
54	MG	DA	3359	1/1	0.87	0.38	69,69,69,69	0
54	MG	DA	3198	1/1	0.87	0.39	52,52,52,52	0
54	MG	AA	1676	1/1	0.87	0.18	86,86,86,86	0
54	MG	DA	3144	1/1	0.87	0.23	54,54,54,54	0
54	MG	DA	3628	1/1	0.87	0.10	59,59,59,59	0
54	MG	DA	3351	1/1	0.87	0.14	68,68,68,68	0
54	MG	BA	3646	1/1	0.87	0.17	38,38,38,38	0
54	MG	DA	3523	1/1	0.87	0.16	73,73,73,73	0
54	MG	BA	3689	1/1	0.88	0.17	55,55,55,55	0
54	MG	BA	3623	1/1	0.88	0.18	85,85,85,85	0
54	MG	DA	3126	1/1	0.88	0.17	56,56,56,56	0
54	MG	DA	3581	1/1	0.88	0.15	46,46,46,46	0
54	MG	BA	3252	1/1	0.88	0.13	52,52,52,52	0
54	MG	AA	1679	1/1	0.88	0.29	58,58,58,58	0
54	MG	BA	3673	1/1	0.88	0.27	69,69,69,69	0
54	MG	AA	1789	1/1	0.88	0.11	78,78,78,78	0
54	MG	BA	3496	1/1	0.88	0.30	56,56,56,56	0
54	MG	DA	3574	1/1	0.88	0.18	77,77,77,77	0
54	MG	CA	1768	1/1	0.88	0.33	95,95,95,95	0
54	MG	AA	1619	1/1	0.88	0.57	45,45,45,45	0
54	MG	BA	3168	1/1	0.88	0.14	68,68,68,68	0
54	MG	BA	3296	1/1	0.88	0.19	40,40,40,40	0
54	MG	DA	3237	1/1	0.88	0.10	51,51,51,51	0
54	MG	DA	3507	1/1	0.88	0.15	90,90,90,90	0
54	MG	CA	1694	1/1	0.88	0.09	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1807	1/1	0.88	0.11	73,73,73,73	0
54	MG	DA	3505	1/1	0.88	0.17	66,66,66,66	0
54	MG	BA	3626	1/1	0.88	0.15	68,68,68,68	0
54	MG	D7	101	1/1	0.88	0.66	41,41,41,41	0
54	MG	CA	1756	1/1	0.88	0.09	77,77,77,77	0
54	MG	AA	1797	1/1	0.88	0.10	106,106,106,106	0
54	MG	AA	1622	1/1	0.88	0.16	60,60,60,60	0
54	MG	DA	3533	1/1	0.88	0.07	79,79,79,79	0
54	MG	BA	3222	1/1	0.88	0.08	34,34,34,34	0
54	MG	BA	3709	1/1	0.88	0.12	47,47,47,47	0
54	MG	AA	1651	1/1	0.88	0.23	62,62,62,62	0
54	MG	BA	3192	1/1	0.88	0.21	62,62,62,62	0
54	MG	AA	1716	1/1	0.88	0.06	62,62,62,62	0
54	MG	CA	1666	1/1	0.88	0.12	71,71,71,71	0
54	MG	CA	1800	1/1	0.88	0.05	76,76,76,76	0
54	MG	BA	3113	1/1	0.88	0.24	48,48,48,48	0
54	MG	BA	3026	1/1	0.88	0.20	50,50,50,50	0
54	MG	BA	3242	1/1	0.88	0.08	45,45,45,45	0
54	MG	BA	3042	1/1	0.88	0.18	27,27,27,27	0
54	MG	BA	3559	1/1	0.88	0.27	56,56,56,56	0
54	MG	CA	1773	1/1	0.88	0.14	89,89,89,89	0
54	MG	BP	202	1/1	0.88	0.29	54,54,54,54	0
54	MG	DA	3024	1/1	0.88	0.23	64,64,64,64	0
54	MG	DA	3077	1/1	0.88	0.19	42,42,42,42	0
54	MG	DA	3626	1/1	0.88	0.10	75,75,75,75	0
54	MG	AA	1615	1/1	0.88	0.15	76,76,76,76	0
54	MG	DA	3500	1/1	0.88	0.21	56,56,56,56	0
54	MG	AA	1706	1/1	0.88	0.15	59,59,59,59	0
54	MG	DA	3556	1/1	0.88	0.05	87,87,87,87	0
54	MG	BA	3576	1/1	0.88	0.10	55,55,55,55	0
54	MG	CA	1703	1/1	0.88	0.17	46,46,46,46	0
54	MG	CA	1755	1/1	0.88	0.13	79,79,79,79	0
54	MG	DA	3039	1/1	0.88	0.21	57,57,57,57	0
54	MG	BA	3361	1/1	0.88	0.21	30,30,30,30	0
54	MG	BA	3529	1/1	0.88	0.26	52,52,52,52	0
54	MG	DA	3207	1/1	0.88	0.16	27,27,27,27	0
54	MG	CA	1680	1/1	0.89	0.04	92,92,92,92	0
54	MG	DA	3297	1/1	0.89	0.12	49,49,49,49	0
54	MG	BA	3184	1/1	0.89	0.22	37,37,37,37	0
54	MG	BA	3715	1/1	0.89	0.16	88,88,88,88	0
54	MG	DA	3222	1/1	0.89	0.28	37,37,37,37	0
54	MG	BE	301	1/1	0.89	0.46	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3409	1/1	0.89	0.10	53,53,53,53	0
54	MG	BA	3329	1/1	0.89	0.14	30,30,30,30	0
54	MG	DA	3495	1/1	0.89	0.17	34,34,34,34	0
54	MG	DA	3117	1/1	0.89	0.17	69,69,69,69	0
54	MG	DA	3302	1/1	0.89	0.14	51,51,51,51	0
54	MG	DA	3616	1/1	0.89	0.09	63,63,63,63	0
54	MG	CA	1767	1/1	0.89	0.10	86,86,86,86	0
54	MG	B9	103	1/1	0.89	0.18	52,52,52,52	0
54	MG	AA	1639	1/1	0.89	0.36	64,64,64,64	0
54	MG	BA	3053	1/1	0.89	0.20	33,33,33,33	0
54	MG	BA	3136	1/1	0.89	0.17	24,24,24,24	0
54	MG	CA	1689	1/1	0.89	0.05	90,90,90,90	0
54	MG	AA	1703	1/1	0.89	0.28	64,64,64,64	0
54	MG	BA	3185	1/1	0.89	0.10	44,44,44,44	0
54	MG	AA	1606	1/1	0.89	0.13	63,63,63,63	0
54	MG	DA	3365	1/1	0.89	0.20	51,51,51,51	0
54	MG	BA	3327	1/1	0.89	0.07	69,69,69,69	0
54	MG	BA	3664	1/1	0.89	0.08	56,56,56,56	0
54	MG	AA	1693	1/1	0.89	0.17	72,72,72,72	0
54	MG	BA	3077	1/1	0.89	0.21	43,43,43,43	0
54	MG	DA	3394	1/1	0.89	0.11	59,59,59,59	0
54	MG	DA	3155	1/1	0.89	0.10	53,53,53,53	0
54	MG	BA	3533	1/1	0.89	0.19	24,24,24,24	0
54	MG	CA	1801	1/1	0.89	0.09	88,88,88,88	0
54	MG	DA	3464	1/1	0.89	0.09	35,35,35,35	0
54	MG	BA	3562	1/1	0.89	0.08	34,34,34,34	0
54	MG	BA	3105	1/1	0.89	0.29	44,44,44,44	0
54	MG	BA	3692	1/1	0.89	0.13	38,38,38,38	0
54	MG	BA	3016	1/1	0.89	0.16	44,44,44,44	0
54	MG	DA	3110	1/1	0.89	0.19	56,56,56,56	0
54	MG	DA	3536	1/1	0.89	0.06	76,76,76,76	0
54	MG	DA	3090	1/1	0.89	0.13	45,45,45,45	0
54	MG	BA	3280	1/1	0.89	0.12	57,57,57,57	0
54	MG	BA	3043	1/1	0.89	0.17	30,30,30,30	0
54	MG	BA	3532	1/1	0.89	0.19	31,31,31,31	0
54	MG	BG	201	1/1	0.89	0.13	56,56,56,56	0
54	MG	DA	3059	1/1	0.89	0.15	43,43,43,43	0
54	MG	DA	3474	1/1	0.89	0.18	41,41,41,41	0
54	MG	BA	3711	1/1	0.89	0.13	52,52,52,52	0
54	MG	DA	3472	1/1	0.89	0.20	73,73,73,73	0
54	MG	BA	3272	1/1	0.89	0.08	40,40,40,40	0
54	MG	DA	3281	1/1	0.89	0.26	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3480	1/1	0.89	0.06	57,57,57,57	0
54	MG	CA	1644	1/1	0.89	0.11	63,63,63,63	0
54	MG	DA	3415	1/1	0.89	0.12	53,53,53,53	0
54	MG	DA	3520	1/1	0.89	0.13	74,74,74,74	0
54	MG	BA	3458	1/1	0.89	0.11	45,45,45,45	0
54	MG	DA	3072	1/1	0.89	0.30	60,60,60,60	0
54	MG	BA	3018	1/1	0.89	0.28	52,52,52,52	0
54	MG	CA	1757	1/1	0.89	0.16	75,75,75,75	0
54	MG	BB	210	1/1	0.89	0.15	62,62,62,62	0
54	MG	CA	1783	1/1	0.89	0.26	73,73,73,73	0
54	MG	DA	3309	1/1	0.89	0.21	45,45,45,45	0
54	MG	AA	1699	1/1	0.89	0.17	65,65,65,65	0
54	MG	DA	3083	1/1	0.89	0.11	50,50,50,50	0
54	MG	DA	3135	1/1	0.89	0.17	59,59,59,59	0
54	MG	DA	3450	1/1	0.89	0.12	70,70,70,70	0
54	MG	AA	1724	1/1	0.89	0.12	93,93,93,93	0
54	MG	DA	3594	1/1	0.89	0.09	62,62,62,62	0
54	MG	DA	3076	1/1	0.89	0.36	54,54,54,54	0
54	MG	BA	3029	1/1	0.89	0.18	38,38,38,38	0
54	MG	DA	3079	1/1	0.89	0.26	54,54,54,54	0
54	MG	AA	1691	1/1	0.89	0.22	57,57,57,57	0
54	MG	CA	1771	1/1	0.89	0.21	71,71,71,71	0
54	MG	D8	101	1/1	0.90	0.26	52,52,52,52	0
54	MG	DA	3075	1/1	0.90	0.13	48,48,48,48	0
54	MG	DA	3465	1/1	0.90	0.07	63,63,63,63	0
54	MG	BA	3064	1/1	0.90	0.30	54,54,54,54	0
54	MG	DA	3157	1/1	0.90	0.17	33,33,33,33	0
54	MG	BA	3326	1/1	0.90	0.07	46,46,46,46	0
54	MG	CA	1789	1/1	0.90	0.12	66,66,66,66	0
54	MG	BA	3612	1/1	0.90	0.26	58,58,58,58	0
54	MG	AA	1785	1/1	0.90	0.16	61,61,61,61	0
54	MG	AA	1784	1/1	0.90	0.30	63,63,63,63	0
54	MG	AA	1632	1/1	0.90	0.11	64,64,64,64	0
54	MG	DA	3060	1/1	0.90	0.09	57,57,57,57	0
54	MG	BA	3465	1/1	0.90	0.15	24,24,24,24	0
54	MG	DA	3015	1/1	0.90	0.12	56,56,56,56	0
54	MG	DA	3264	1/1	0.90	0.12	91,91,91,91	0
54	MG	BN	201	1/1	0.90	0.12	57,57,57,57	0
54	MG	BA	3061	1/1	0.90	0.16	44,44,44,44	0
54	MG	AA	1650	1/1	0.90	0.27	74,74,74,74	0
54	MG	AM	202	1/1	0.90	0.14	59,59,59,59	0
54	MG	BA	3263	1/1	0.90	0.11	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1709	1/1	0.90	0.18	76,76,76,76	0
54	MG	DF	301	1/1	0.90	0.20	51,51,51,51	0
54	MG	BA	3220	1/1	0.90	0.32	62,62,62,62	0
54	MG	AA	1616	1/1	0.90	0.17	55,55,55,55	0
54	MG	BA	3253	1/1	0.90	0.12	39,39,39,39	0
54	MG	BA	3141	1/1	0.90	0.12	67,67,67,67	0
54	MG	DA	3176	1/1	0.90	0.29	37,37,37,37	0
54	MG	AA	1734	1/1	0.90	0.10	50,50,50,50	0
54	MG	CA	1610	1/1	0.90	0.27	67,67,67,67	0
54	MG	BA	3582	1/1	0.90	0.27	66,66,66,66	0
54	MG	DA	3541	1/1	0.90	0.13	46,46,46,46	0
54	MG	DA	3152	1/1	0.90	0.20	52,52,52,52	0
54	MG	BA	3305	1/1	0.90	0.09	67,67,67,67	0
54	MG	BA	3526	1/1	0.90	0.22	55,55,55,55	0
54	MG	BQ	205	1/1	0.90	0.15	42,42,42,42	0
54	MG	DA	3566	1/1	0.90	0.19	70,70,70,70	0
54	MG	DA	3191	1/1	0.90	0.17	56,56,56,56	0
54	MG	DA	3519	1/1	0.90	0.17	61,61,61,61	0
54	MG	CA	1605	1/1	0.90	0.14	63,63,63,63	0
54	MG	BA	3163	1/1	0.90	0.32	30,30,30,30	0
54	MG	AA	1690	1/1	0.90	0.10	60,60,60,60	0
54	MG	BA	3637	1/1	0.90	0.15	81,81,81,81	0
54	MG	BA	3705	1/1	0.90	0.10	57,57,57,57	0
54	MG	DA	3535	1/1	0.90	0.37	67,67,67,67	0
54	MG	DA	3266	1/1	0.90	0.12	40,40,40,40	0
54	MG	BA	3265	1/1	0.90	0.05	69,69,69,69	0
54	MG	CA	1626	1/1	0.90	0.69	86,86,86,86	0
54	MG	BA	3639	1/1	0.90	0.13	56,56,56,56	0
54	MG	BH	201	1/1	0.90	0.19	60,60,60,60	0
54	MG	BA	3658	1/1	0.90	0.09	61,61,61,61	0
54	MG	AA	1754	1/1	0.90	0.09	49,49,49,49	0
54	MG	DA	3620	1/1	0.90	0.06	65,65,65,65	0
54	MG	CA	1753	1/1	0.90	0.36	74,74,74,74	0
54	MG	DA	3148	1/1	0.90	0.12	55,55,55,55	0
54	MG	BA	3014	1/1	0.90	0.18	61,61,61,61	0
54	MG	BA	3030	1/1	0.90	0.26	44,44,44,44	0
54	MG	BA	3301	1/1	0.90	0.11	61,61,61,61	0
54	MG	CA	1731	1/1	0.90	0.22	62,62,62,62	0
54	MG	CA	1663	1/1	0.90	0.14	75,75,75,75	0
54	MG	BA	3201	1/1	0.90	0.16	57,57,57,57	0
54	MG	DA	3364	1/1	0.90	0.10	54,54,54,54	0
54	MG	DA	3456	1/1	0.90	0.12	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3027	1/1	0.90	0.16	32,32,32,32	0
54	MG	DA	3582	1/1	0.90	0.05	83,83,83,83	0
54	MG	DA	3220	1/1	0.90	0.10	48,48,48,48	0
54	MG	DA	3216	1/1	0.90	0.10	43,43,43,43	0
54	MG	CA	1702	1/1	0.90	0.12	55,55,55,55	0
54	MG	AA	1749	1/1	0.90	0.15	58,58,58,58	0
54	MG	AD	302	1/1	0.90	0.42	73,73,73,73	0
54	MG	BA	3099	1/1	0.90	0.26	47,47,47,47	0
54	MG	DF	302	1/1	0.90	0.17	63,63,63,63	0
54	MG	BA	3642	1/1	0.90	0.14	46,46,46,46	0
54	MG	BA	3507	1/1	0.90	0.14	67,67,67,67	0
54	MG	DA	3550	1/1	0.90	0.19	51,51,51,51	0
54	MG	BA	3142	1/1	0.90	0.28	36,36,36,36	0
54	MG	BA	3591	1/1	0.90	0.24	104,104,104,104	0
54	MG	DA	3454	1/1	0.90	0.19	42,42,42,42	0
54	MG	BA	3408	1/1	0.90	0.16	24,24,24,24	0
54	MG	AA	1604	1/1	0.90	0.55	66,66,66,66	0
54	MG	BA	3505	1/1	0.90	0.17	38,38,38,38	0
54	MG	BA	3514	1/1	0.90	0.10	29,29,29,29	0
54	MG	DA	3575	1/1	0.90	0.21	98,98,98,98	0
54	MG	DA	3026	1/1	0.90	0.29	47,47,47,47	0
54	MG	DP	202	1/1	0.90	0.10	53,53,53,53	0
54	MG	B5	101	1/1	0.91	0.15	49,49,49,49	0
54	MG	CA	1609	1/1	0.91	0.55	77,77,77,77	0
54	MG	BA	3289	1/1	0.91	0.23	58,58,58,58	0
54	MG	DA	3363	1/1	0.91	0.13	51,51,51,51	0
54	MG	BA	3643	1/1	0.91	0.34	28,28,28,28	0
54	MG	AA	1798	1/1	0.91	0.11	67,67,67,67	0
54	MG	DA	3262	1/1	0.91	0.19	55,55,55,55	0
54	MG	AA	1804	1/1	0.91	0.19	64,64,64,64	0
54	MG	BA	3307	1/1	0.91	0.14	46,46,46,46	0
54	MG	DA	3300	1/1	0.91	0.19	29,29,29,29	0
54	MG	DA	3253	1/1	0.91	0.13	58,58,58,58	0
54	MG	BA	3567	1/1	0.91	0.16	66,66,66,66	0
54	MG	BA	3534	1/1	0.91	0.09	69,69,69,69	0
54	MG	BA	3206	1/1	0.91	0.14	67,67,67,67	0
54	MG	BA	3056	1/1	0.91	0.13	32,32,32,32	0
54	MG	BA	3603	1/1	0.91	0.27	39,39,39,39	0
54	MG	BA	3633	1/1	0.91	0.24	25,25,25,25	0
54	MG	BE	305	1/1	0.91	0.20	35,35,35,35	0
54	MG	DA	3190	1/1	0.91	0.14	43,43,43,43	0
54	MG	CA	1775	1/1	0.91	0.10	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3053	1/1	0.91	0.28	28,28,28,28	0
54	MG	DB	201	1/1	0.91	0.12	67,67,67,67	0
54	MG	BA	3627	1/1	0.91	0.12	40,40,40,40	0
54	MG	DA	3031	1/1	0.91	0.35	46,46,46,46	0
54	MG	DA	3051	1/1	0.91	0.14	73,73,73,73	0
54	MG	DA	3322	1/1	0.91	0.20	61,61,61,61	0
54	MG	AA	1680	1/1	0.91	0.33	54,54,54,54	0
54	MG	BA	3618	1/1	0.91	0.09	67,67,67,67	0
54	MG	BA	3592	1/1	0.91	0.14	62,62,62,62	0
54	MG	AA	1624	1/1	0.91	0.15	49,49,49,49	0
54	MG	BA	3068	1/1	0.91	0.08	40,40,40,40	0
54	MG	CA	1737	1/1	0.91	0.23	75,75,75,75	0
54	MG	DA	3188	1/1	0.91	0.15	51,51,51,51	0
54	MG	DA	3206	1/1	0.91	0.13	34,34,34,34	0
54	MG	BA	3160	1/1	0.91	0.12	32,32,32,32	0
54	MG	BA	3155	1/1	0.91	0.13	37,37,37,37	0
54	MG	BA	3240	1/1	0.91	0.14	66,66,66,66	0
54	MG	BA	3150	1/1	0.91	0.10	70,70,70,70	0
54	MG	BA	3213	1/1	0.91	0.18	28,28,28,28	0
54	MG	BA	3013	1/1	0.91	0.28	24,24,24,24	0
54	MG	DA	3443	1/1	0.91	0.07	51,51,51,51	0
54	MG	AI	201	1/1	0.91	0.28	67,67,67,67	0
54	MG	DA	3245	1/1	0.91	0.20	37,37,37,37	0
54	MG	DA	3314	1/1	0.91	0.16	31,31,31,31	0
54	MG	BA	3097	1/1	0.91	0.14	40,40,40,40	0
54	MG	CA	1724	1/1	0.91	0.15	60,60,60,60	0
54	MG	DA	3010	1/1	0.91	0.21	48,48,48,48	0
54	MG	DA	3106	1/1	0.91	0.26	55,55,55,55	0
54	MG	BA	3331	1/1	0.91	0.11	47,47,47,47	0
54	MG	AA	1685	1/1	0.91	0.37	57,57,57,57	0
54	MG	DA	3121	1/1	0.91	0.19	62,62,62,62	0
54	MG	AA	1610	1/1	0.91	0.09	64,64,64,64	0
54	MG	CA	1661	1/1	0.91	0.16	55,55,55,55	0
54	MG	BN	202	1/1	0.91	0.12	57,57,57,57	0
54	MG	DA	3362	1/1	0.91	0.22	53,53,53,53	0
54	MG	CA	1617	1/1	0.91	0.29	63,63,63,63	0
54	MG	DA	3424	1/1	0.91	0.19	49,49,49,49	0
54	MG	DA	3419	1/1	0.91	0.10	51,51,51,51	0
54	MG	DF	303	1/1	0.91	0.17	56,56,56,56	0
54	MG	AA	1729	1/1	0.91	0.10	55,55,55,55	0
54	MG	BA	3333	1/1	0.91	0.05	54,54,54,54	0
54	MG	DA	3042	1/1	0.91	0.26	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3478	1/1	0.91	0.14	50,50,50,50	0
54	MG	AA	1740	1/1	0.91	0.26	70,70,70,70	0
54	MG	CA	1668	1/1	0.91	0.26	65,65,65,65	0
54	MG	DQ	204	1/1	0.91	0.14	67,67,67,67	0
54	MG	DA	3447	1/1	0.91	0.19	58,58,58,58	0
54	MG	BV	202	1/1	0.91	0.33	83,83,83,83	0
54	MG	BA	3084	1/1	0.91	0.17	43,43,43,43	0
54	MG	DA	3319	1/1	0.91	0.13	53,53,53,53	0
54	MG	BT	202	1/1	0.91	0.27	52,52,52,52	0
54	MG	BA	3513	1/1	0.91	0.12	46,46,46,46	0
54	MG	BA	3145	1/1	0.91	0.17	33,33,33,33	0
54	MG	DA	3139	1/1	0.91	0.32	53,53,53,53	0
54	MG	BA	3167	1/1	0.91	0.12	45,45,45,45	0
54	MG	BA	3219	1/1	0.91	0.17	67,67,67,67	0
54	MG	DA	3317	1/1	0.91	0.20	55,55,55,55	0
54	MG	BA	3075	1/1	0.91	0.19	36,36,36,36	0
54	MG	DA	3263	1/1	0.91	0.10	54,54,54,54	0
54	MG	BA	3116	1/1	0.91	0.10	50,50,50,50	0
54	MG	BA	3710	1/1	0.91	0.08	63,63,63,63	0
54	MG	BA	3174	1/1	0.91	0.24	73,73,73,73	0
54	MG	BA	3379	1/1	0.91	0.12	30,30,30,30	0
54	MG	BZ	301	1/1	0.91	0.28	61,61,61,61	0
54	MG	DA	3209	1/1	0.91	0.13	45,45,45,45	0
54	MG	DA	3391	1/1	0.91	0.10	62,62,62,62	0
54	MG	BA	3040	1/1	0.91	0.14	52,52,52,52	0
54	MG	CA	1733	1/1	0.91	0.11	89,89,89,89	0
54	MG	DA	3412	1/1	0.91	0.13	75,75,75,75	0
54	MG	BV	204	1/1	0.91	0.09	67,67,67,67	0
54	MG	CA	1751	1/1	0.91	0.10	89,89,89,89	0
54	MG	DA	3496	1/1	0.91	0.24	38,38,38,38	0
54	MG	CA	1642	1/1	0.91	0.59	64,64,64,64	0
54	MG	BA	3239	1/1	0.91	0.08	63,63,63,63	0
54	MG	DA	3294	1/1	0.91	0.10	67,67,67,67	0
54	MG	DA	3449	1/1	0.91	0.09	57,57,57,57	0
54	MG	BA	3682	1/1	0.91	0.17	55,55,55,55	0
54	MG	BA	3297	1/1	0.92	0.12	52,52,52,52	0
54	MG	DA	3279	1/1	0.92	0.07	66,66,66,66	0
54	MG	AA	1618	1/1	0.92	0.56	57,57,57,57	0
54	MG	BA	3315	1/1	0.92	0.19	63,63,63,63	0
54	MG	BA	3530	1/1	0.92	0.06	95,95,95,95	0
54	MG	AA	1760	1/1	0.92	0.27	74,74,74,74	0
54	MG	CA	1760	1/1	0.92	0.32	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3540	1/1	0.92	0.07	64,64,64,64	0
54	MG	CA	1614	1/1	0.92	0.16	70,70,70,70	0
54	MG	DA	3408	1/1	0.92	0.08	54,54,54,54	0
54	MG	DA	3356	1/1	0.92	0.34	44,44,44,44	0
54	MG	BA	3625	1/1	0.92	0.21	52,52,52,52	0
54	MG	CA	1695	1/1	0.92	0.33	76,76,76,76	0
54	MG	DA	3608	1/1	0.92	0.10	74,74,74,74	0
54	MG	CA	1625	1/1	0.92	0.20	69,69,69,69	0
54	MG	BA	3469	1/1	0.92	0.15	65,65,65,65	0
54	MG	BA	3052	1/1	0.92	0.18	38,38,38,38	0
54	MG	DA	3353	1/1	0.92	0.06	79,79,79,79	0
54	MG	BA	3284	1/1	0.92	0.21	37,37,37,37	0
54	MG	DA	3623	1/1	0.92	0.16	42,42,42,42	0
54	MG	BA	3686	1/1	0.92	0.07	43,43,43,43	0
54	MG	BA	3615	1/1	0.92	0.38	60,60,60,60	0
54	MG	DA	3037	1/1	0.92	0.17	52,52,52,52	0
54	MG	DA	3019	1/1	0.92	0.19	46,46,46,46	0
54	MG	CA	1720	1/1	0.92	0.17	84,84,84,84	0
54	MG	CA	1603	1/1	0.92	0.77	83,83,83,83	0
54	MG	DA	3054	1/1	0.92	0.20	46,46,46,46	0
54	MG	BA	3291	1/1	0.92	0.07	68,68,68,68	0
54	MG	AA	1761	1/1	0.92	0.06	65,65,65,65	0
54	MG	BA	3270	1/1	0.92	0.11	51,51,51,51	0
54	MG	DA	3217	1/1	0.92	0.07	54,54,54,54	0
54	MG	AF	201	1/1	0.92	0.16	53,53,53,53	0
54	MG	CA	1641	1/1	0.92	0.20	62,62,62,62	0
54	MG	DA	3593	1/1	0.92	0.15	58,58,58,58	0
54	MG	CA	1784	1/1	0.92	0.12	53,53,53,53	0
54	MG	DA	3293	1/1	0.92	0.11	85,85,85,85	0
54	MG	BA	3546	1/1	0.92	0.12	46,46,46,46	0
54	MG	AD	303	1/1	0.92	0.13	84,84,84,84	0
54	MG	DA	3327	1/1	0.92	0.08	66,66,66,66	0
54	MG	BA	3719	1/1	0.92	0.10	83,83,83,83	0
54	MG	AA	1665	1/1	0.92	0.20	66,66,66,66	0
54	MG	BF	301	1/1	0.92	0.14	40,40,40,40	0
54	MG	BA	3444	1/1	0.92	0.14	50,50,50,50	0
54	MG	BA	3279	1/1	0.92	0.22	38,38,38,38	0
54	MG	BA	3290	1/1	0.92	0.13	27,27,27,27	0
54	MG	CA	1652	1/1	0.92	0.17	88,88,88,88	0
54	MG	BA	3554	1/1	0.92	0.13	41,41,41,41	0
54	MG	CA	1710	1/1	0.92	0.21	55,55,55,55	0
54	MG	AA	1700	1/1	0.92	0.29	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3217	1/1	0.92	0.08	60,60,60,60	0
54	MG	BA	3037	1/1	0.92	0.17	33,33,33,33	0
54	MG	BA	3568	1/1	0.92	0.19	35,35,35,35	0
54	MG	BA	3486	1/1	0.92	0.14	25,25,25,25	0
54	MG	BA	3088	1/1	0.92	0.15	42,42,42,42	0
54	MG	BA	3662	1/1	0.92	0.14	26,26,26,26	0
54	MG	DA	3307	1/1	0.92	0.49	79,79,79,79	0
54	MG	DA	3549	1/1	0.92	0.22	39,39,39,39	0
54	MG	BA	3674	1/1	0.92	0.10	62,62,62,62	0
54	MG	BA	3724	1/1	0.92	0.11	97,97,97,97	0
54	MG	DA	3428	1/1	0.92	0.19	36,36,36,36	0
54	MG	DA	3634	1/1	0.92	0.20	75,75,75,75	0
54	MG	BA	3104	1/1	0.92	0.26	27,27,27,27	0
54	MG	DA	3570	1/1	0.92	0.14	63,63,63,63	0
54	MG	AA	1692	1/1	0.92	0.41	66,66,66,66	0
54	MG	DB	203	1/1	0.92	0.11	61,61,61,61	0
54	MG	BA	3300	1/1	0.92	0.14	54,54,54,54	0
54	MG	CA	1752	1/1	0.92	0.11	91,91,91,91	0
54	MG	BA	3454	1/1	0.92	0.12	55,55,55,55	0
54	MG	DA	3233	1/1	0.92	0.14	42,42,42,42	0
54	MG	BA	3490	1/1	0.92	0.24	74,74,74,74	0
54	MG	DA	3280	1/1	0.92	0.18	52,52,52,52	0
54	MG	DA	3329	1/1	0.92	0.19	34,34,34,34	0
54	MG	BA	3044	1/1	0.92	0.25	53,53,53,53	0
54	MG	DA	3325	1/1	0.92	0.11	72,72,72,72	0
54	MG	BA	3721	1/1	0.92	0.41	53,53,53,53	0
54	MG	BA	3595	1/1	0.92	0.09	78,78,78,78	0
54	MG	DA	3624	1/1	0.92	0.24	56,56,56,56	0
54	MG	CA	1700	1/1	0.92	0.12	56,56,56,56	0
54	MG	BA	3641	1/1	0.92	0.15	47,47,47,47	0
54	MG	CA	1711	1/1	0.92	0.21	55,55,55,55	0
54	MG	CA	1601	1/1	0.92	0.18	55,55,55,55	0
54	MG	AA	1681	1/1	0.92	0.08	44,44,44,44	0
54	MG	BA	3091	1/1	0.92	0.24	34,34,34,34	0
54	MG	BA	3261	1/1	0.92	0.17	21,21,21,21	0
54	MG	BB	202	1/1	0.92	0.17	45,45,45,45	0
54	MG	BA	3570	1/1	0.92	0.12	50,50,50,50	0
54	MG	AA	1742	1/1	0.92	0.12	78,78,78,78	0
54	MG	DA	3178	1/1	0.92	0.15	42,42,42,42	0
54	MG	DA	3267	1/1	0.92	0.07	34,34,34,34	0
54	MG	DA	3067	1/1	0.92	0.26	58,58,58,58	0
54	MG	BA	3187	1/1	0.92	0.27	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3197	1/1	0.92	0.15	58,58,58,58	0
54	MG	DA	3524	1/1	0.92	0.09	61,61,61,61	0
54	MG	DA	3597	1/1	0.92	0.17	73,73,73,73	0
54	MG	BA	3227	1/1	0.92	0.24	55,55,55,55	0
54	MG	BA	3722	1/1	0.92	0.12	71,71,71,71	0
54	MG	AA	1731	1/1	0.92	0.16	72,72,72,72	0
54	MG	DA	3591	1/1	0.92	0.24	39,39,39,39	0
54	MG	DA	3389	1/1	0.92	0.08	82,82,82,82	0
54	MG	BA	3574	1/1	0.92	0.18	41,41,41,41	0
54	MG	BA	3196	1/1	0.92	0.19	52,52,52,52	0
54	MG	AA	1621	1/1	0.92	0.63	63,63,63,63	0
54	MG	AA	1783	1/1	0.92	0.20	71,71,71,71	0
54	MG	CA	1634	1/1	0.92	0.10	40,40,40,40	0
54	MG	BA	3202	1/1	0.92	0.13	67,67,67,67	0
54	MG	DA	3562	1/1	0.92	0.17	65,65,65,65	0
54	MG	DA	3367	1/1	0.92	0.06	67,67,67,67	0
54	MG	DA	3525	1/1	0.92	0.22	57,57,57,57	0
54	MG	AA	1688	1/1	0.92	0.20	62,62,62,62	0
54	MG	BA	3522	1/1	0.92	0.23	53,53,53,53	0
54	MG	DA	3219	1/1	0.92	0.22	32,32,32,32	0
54	MG	CA	1665	1/1	0.92	0.16	60,60,60,60	0
54	MG	DA	3501	1/1	0.92	0.13	85,85,85,85	0
54	MG	DA	3173	1/1	0.92	0.12	34,34,34,34	0
54	MG	CA	1765	1/1	0.92	0.09	87,87,87,87	0
54	MG	DA	3445	1/1	0.92	0.13	45,45,45,45	0
54	MG	DA	3184	1/1	0.92	0.14	33,33,33,33	0
54	MG	DA	3162	1/1	0.92	0.17	33,33,33,33	0
54	MG	DA	3482	1/1	0.92	0.13	69,69,69,69	0
54	MG	DA	3218	1/1	0.92	0.09	57,57,57,57	0
54	MG	AA	1770	1/1	0.92	0.08	80,80,80,80	0
54	MG	DA	3278	1/1	0.92	0.06	71,71,71,71	0
54	MG	DA	3545	1/1	0.92	0.06	53,53,53,53	0
54	MG	BA	3648	1/1	0.92	0.20	42,42,42,42	0
54	MG	BA	3485	1/1	0.92	0.26	31,31,31,31	0
54	MG	DA	3392	1/1	0.92	0.09	43,43,43,43	0
54	MG	DA	3109	1/1	0.92	0.45	57,57,57,57	0
54	MG	DA	3553	1/1	0.92	0.11	64,64,64,64	0
54	MG	DA	3513	1/1	0.92	0.19	52,52,52,52	0
54	MG	BA	3011	1/1	0.92	0.30	47,47,47,47	0
54	MG	BA	3683	1/1	0.92	0.23	95,95,95,95	0
54	MG	DA	3003	1/1	0.92	0.28	34,34,34,34	0
54	MG	CA	1706	1/1	0.92	0.21	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DD	301	1/1	0.92	0.07	61,61,61,61	0
54	MG	BA	3720	1/1	0.92	0.09	64,64,64,64	0
54	MG	DA	3119	1/1	0.92	0.17	38,38,38,38	0
54	MG	BA	3671	1/1	0.92	0.31	50,50,50,50	0
54	MG	DA	3471	1/1	0.92	0.14	41,41,41,41	0
54	MG	DA	3087	1/1	0.92	0.35	52,52,52,52	0
54	MG	BA	3547	1/1	0.92	0.20	33,33,33,33	0
54	MG	DD	302	1/1	0.92	0.14	32,32,32,32	0
54	MG	BA	3431	1/1	0.92	0.21	28,28,28,28	0
54	MG	AA	1759	1/1	0.92	0.21	74,74,74,74	0
54	MG	BA	3103	1/1	0.92	0.40	33,33,33,33	0
54	MG	BA	3066	1/1	0.92	0.11	41,41,41,41	0
54	MG	AA	1636	1/1	0.92	0.10	49,49,49,49	0
54	MG	AA	1745	1/1	0.92	0.10	63,63,63,63	0
54	MG	AA	1707	1/1	0.92	0.20	79,79,79,79	0
54	MG	BA	3256	1/1	0.92	0.14	38,38,38,38	0
54	MG	DA	3383	1/1	0.92	0.14	59,59,59,59	0
54	MG	BA	3234	1/1	0.92	0.09	61,61,61,61	0
54	MG	AA	1649	1/1	0.93	0.26	71,71,71,71	0
54	MG	BA	3376	1/1	0.93	0.18	37,37,37,37	0
54	MG	AA	1718	1/1	0.93	0.11	59,59,59,59	0
54	MG	DD	305	1/1	0.93	0.16	56,56,56,56	0
54	MG	DA	3521	1/1	0.93	0.13	43,43,43,43	0
54	MG	DA	3276	1/1	0.93	0.16	76,76,76,76	0
54	MG	BA	3055	1/1	0.93	0.26	44,44,44,44	0
54	MG	CA	1696	1/1	0.93	0.07	71,71,71,71	0
54	MG	DA	3305	1/1	0.93	0.15	66,66,66,66	0
54	MG	CA	1774	1/1	0.93	0.22	73,73,73,73	0
54	MG	DA	3493	1/1	0.93	0.20	33,33,33,33	0
54	MG	DA	3538	1/1	0.93	0.15	60,60,60,60	0
54	MG	BA	3390	1/1	0.93	0.24	33,33,33,33	0
54	MG	AA	1715	1/1	0.93	0.16	61,61,61,61	0
54	MG	BA	3308	1/1	0.93	0.06	51,51,51,51	0
54	MG	DA	3073	1/1	0.93	0.18	41,41,41,41	0
54	MG	DA	3382	1/1	0.93	0.07	57,57,57,57	0
54	MG	BA	3527	1/1	0.93	0.15	51,51,51,51	0
54	MG	DA	3420	1/1	0.93	0.12	52,52,52,52	0
54	MG	DA	3539	1/1	0.93	0.16	54,54,54,54	0
54	MG	DA	3221	1/1	0.93	0.21	27,27,27,27	0
54	MG	DA	3049	1/1	0.93	0.10	49,49,49,49	0
54	MG	DA	3011	1/1	0.93	0.16	45,45,45,45	0
54	MG	DA	3132	1/1	0.93	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BF	306	1/1	0.93	0.12	61,61,61,61	0
54	MG	BA	3092	1/1	0.93	0.17	40,40,40,40	0
54	MG	BA	3657	1/1	0.93	0.20	91,91,91,91	0
54	MG	AA	1678	1/1	0.93	0.43	75,75,75,75	0
54	MG	DA	3625	1/1	0.93	0.12	76,76,76,76	0
54	MG	DA	3056	1/1	0.93	0.11	31,31,31,31	0
54	MG	DA	3425	1/1	0.93	0.25	42,42,42,42	0
54	MG	BA	3608	1/1	0.93	0.13	21,21,21,21	0
54	MG	BA	3352	1/1	0.93	0.09	37,37,37,37	0
54	MG	BA	3002	1/1	0.93	0.10	60,60,60,60	0
54	MG	AA	1614	1/1	0.93	0.20	42,42,42,42	0
54	MG	BA	3107	1/1	0.93	0.22	47,47,47,47	0
54	MG	CA	1799	1/1	0.93	0.10	99,99,99,99	0
54	MG	BW	201	1/1	0.93	0.15	44,44,44,44	0
54	MG	BA	3143	1/1	0.93	0.17	23,23,23,23	0
54	MG	BA	3463	1/1	0.93	0.14	38,38,38,38	0
54	MG	BA	3324	1/1	0.93	0.13	48,48,48,48	0
54	MG	BA	3208	1/1	0.93	0.26	57,57,57,57	0
54	MG	BA	3479	1/1	0.93	0.10	77,77,77,77	0
54	MG	DA	3227	1/1	0.93	0.07	39,39,39,39	0
54	MG	AA	1684	1/1	0.93	0.10	43,43,43,43	0
54	MG	DA	3452	1/1	0.93	0.21	45,45,45,45	0
54	MG	DA	3595	1/1	0.93	0.18	90,90,90,90	0
54	MG	CA	1682	1/1	0.93	0.20	60,60,60,60	0
54	MG	AA	1641	1/1	0.93	0.18	62,62,62,62	0
54	MG	AA	1668	1/1	0.93	0.07	52,52,52,52	0
54	MG	AA	1796	1/1	0.93	0.31	100,100,100,100	0
54	MG	AA	1817	1/1	0.93	0.32	78,78,78,78	0
54	MG	BA	3137	1/1	0.93	0.18	45,45,45,45	0
54	MG	BA	3589	1/1	0.93	0.15	41,41,41,41	0
54	MG	AA	1696	1/1	0.93	0.22	66,66,66,66	0
54	MG	BA	3372	1/1	0.93	0.24	32,32,32,32	0
54	MG	BA	3629	1/1	0.93	0.24	34,34,34,34	0
54	MG	BA	3340	1/1	0.93	0.09	38,38,38,38	0
54	MG	DA	3627	1/1	0.93	0.12	58,58,58,58	0
54	MG	DA	3030	1/1	0.93	0.43	63,63,63,63	0
54	MG	BA	3433	1/1	0.93	0.29	31,31,31,31	0
54	MG	DA	3540	1/1	0.93	0.10	48,48,48,48	0
54	MG	BA	3171	1/1	0.93	0.13	49,49,49,49	0
54	MG	BA	3112	1/1	0.93	0.19	52,52,52,52	0
54	MG	DA	3380	1/1	0.93	0.09	47,47,47,47	0
54	MG	DA	3085	1/1	0.93	0.08	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3624	1/1	0.93	0.28	36,36,36,36	0
54	MG	CA	1627	1/1	0.93	0.19	72,72,72,72	0
54	MG	BA	3266	1/1	0.93	0.18	66,66,66,66	0
54	MG	AA	1664	1/1	0.93	0.12	74,74,74,74	0
54	MG	BA	3504	1/1	0.93	0.16	53,53,53,53	0
54	MG	BA	3636	1/1	0.93	0.19	25,25,25,25	0
54	MG	BA	3188	1/1	0.93	0.15	47,47,47,47	0
54	MG	CA	1670	1/1	0.93	0.22	80,80,80,80	0
54	MG	DA	3512	1/1	0.93	0.08	43,43,43,43	0
54	MG	DA	3235	1/1	0.93	0.15	58,58,58,58	0
54	MG	DA	3355	1/1	0.93	0.10	67,67,67,67	0
54	MG	CA	1628	1/1	0.93	0.23	71,71,71,71	0
54	MG	DA	3458	1/1	0.93	0.15	58,58,58,58	0
54	MG	BA	3500	1/1	0.93	0.18	68,68,68,68	0
54	MG	AA	1634	1/1	0.93	0.28	58,58,58,58	0
54	MG	CA	1602	1/1	0.93	0.23	70,70,70,70	0
54	MG	BA	3005	1/1	0.93	0.12	56,56,56,56	0
54	MG	DT	201	1/1	0.93	0.07	52,52,52,52	0
54	MG	DQ	203	1/1	0.93	0.12	62,62,62,62	0
54	MG	BD	306	1/1	0.93	0.20	30,30,30,30	0
54	MG	AA	1808	1/1	0.93	0.12	43,43,43,43	0
54	MG	BA	3588	1/1	0.93	0.10	55,55,55,55	0
54	MG	BA	3718	1/1	0.93	0.11	49,49,49,49	0
54	MG	DA	3442	1/1	0.93	0.19	59,59,59,59	0
54	MG	DA	3252	1/1	0.93	0.13	45,45,45,45	0
54	MG	BB	203	1/1	0.93	0.23	48,48,48,48	0
54	MG	CA	1790	1/1	0.93	0.14	48,48,48,48	0
54	MG	DA	3333	1/1	0.93	0.13	54,54,54,54	0
54	MG	DA	3388	1/1	0.93	0.35	73,73,73,73	0
54	MG	DA	3285	1/1	0.93	0.22	68,68,68,68	0
54	MG	DA	3224	1/1	0.93	0.11	60,60,60,60	0
54	MG	DA	3095	1/1	0.93	0.18	65,65,65,65	0
54	MG	BA	3302	1/1	0.93	0.22	47,47,47,47	0
54	MG	DA	3081	1/1	0.93	0.13	60,60,60,60	0
54	MG	BA	3237	1/1	0.93	0.06	41,41,41,41	0
54	MG	BA	3098	1/1	0.93	0.13	39,39,39,39	0
54	MG	DA	3001	1/1	0.93	0.12	38,38,38,38	0
54	MG	AA	1776	1/1	0.93	0.24	68,68,68,68	0
54	MG	DA	3033	1/1	0.93	0.19	48,48,48,48	0
54	MG	DA	3357	1/1	0.93	0.13	45,45,45,45	0
54	MG	BA	3015	1/1	0.93	0.20	32,32,32,32	0
54	MG	DA	3022	1/1	0.93	0.09	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3167	1/1	0.93	0.11	30,30,30,30	0
54	MG	DA	3066	1/1	0.93	0.21	51,51,51,51	0
54	MG	DA	3172	1/1	0.93	0.15	30,30,30,30	0
54	MG	DA	3320	1/1	0.93	0.06	54,54,54,54	0
54	MG	BB	219	1/1	0.93	0.17	54,54,54,54	0
54	MG	DA	3604	1/1	0.93	0.07	72,72,72,72	0
54	MG	DT	202	1/1	0.93	0.06	62,62,62,62	0
54	MG	AA	1628	1/1	0.93	0.35	81,81,81,81	0
54	MG	DA	3349	1/1	0.93	0.16	55,55,55,55	0
54	MG	BA	3495	1/1	0.93	0.12	57,57,57,57	0
54	MG	CA	1792	1/1	0.93	0.14	65,65,65,65	0
54	MG	BA	3235	1/1	0.93	0.15	45,45,45,45	0
54	MG	BA	3025	1/1	0.93	0.19	34,34,34,34	0
54	MG	CA	1795	1/1	0.93	0.06	66,66,66,66	0
54	MG	CA	1798	1/1	0.93	0.27	67,67,67,67	0
54	MG	DA	3342	1/1	0.93	0.14	40,40,40,40	0
54	MG	BA	3038	1/1	0.93	0.19	34,34,34,34	0
54	MG	CA	1794	1/1	0.93	0.12	57,57,57,57	0
54	MG	DA	3469	1/1	0.93	0.16	56,56,56,56	0
54	MG	DA	3398	1/1	0.93	0.23	53,53,53,53	0
54	MG	AA	1717	1/1	0.93	0.18	79,79,79,79	0
54	MG	BQ	204	1/1	0.93	0.12	46,46,46,46	0
54	MG	BA	3610	1/1	0.94	0.13	36,36,36,36	0
54	MG	DA	3567	1/1	0.94	0.14	57,57,57,57	0
54	MG	BA	3108	1/1	0.94	0.13	51,51,51,51	0
54	MG	AA	1631	1/1	0.94	0.17	64,64,64,64	0
54	MG	DA	3097	1/1	0.94	0.18	30,30,30,30	0
54	MG	AA	1806	1/1	0.94	0.15	60,60,60,60	0
54	MG	DA	3334	1/1	0.94	0.10	45,45,45,45	0
54	MG	DA	3068	1/1	0.94	0.16	38,38,38,38	0
54	MG	BF	305	1/1	0.94	0.45	29,29,29,29	0
54	MG	AA	1607	1/1	0.94	0.11	57,57,57,57	0
54	MG	CA	1673	1/1	0.94	0.20	73,73,73,73	0
54	MG	DA	3310	1/1	0.94	0.30	47,47,47,47	0
54	MG	BA	3578	1/1	0.94	0.10	49,49,49,49	0
54	MG	AA	1733	1/1	0.94	0.12	59,59,59,59	0
54	MG	BA	3448	1/1	0.94	0.20	46,46,46,46	0
54	MG	DA	3516	1/1	0.94	0.08	56,56,56,56	0
54	MG	AA	1809	1/1	0.94	0.36	79,79,79,79	0
54	MG	BA	3480	1/1	0.94	0.10	58,58,58,58	0
54	MG	BA	3550	1/1	0.94	0.12	50,50,50,50	0
54	MG	BA	3451	1/1	0.94	0.07	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3344	1/1	0.94	0.11	56,56,56,56	0
54	MG	DA	3498	1/1	0.94	0.23	39,39,39,39	0
54	MG	BA	3531	1/1	0.94	0.20	25,25,25,25	0
54	MG	DA	3046	1/1	0.94	0.27	58,58,58,58	0
54	MG	BA	3712	1/1	0.94	0.14	49,49,49,49	0
54	MG	DA	3526	1/1	0.94	0.13	42,42,42,42	0
54	MG	BA	3651	1/1	0.94	0.29	34,34,34,34	0
54	MG	BA	3492	1/1	0.94	0.11	57,57,57,57	0
54	MG	CA	1608	1/1	0.94	0.12	54,54,54,54	0
54	MG	CA	1651	1/1	0.94	0.10	55,55,55,55	0
54	MG	BA	3032	1/1	0.94	0.19	25,25,25,25	0
54	MG	BA	3271	1/1	0.94	0.09	66,66,66,66	0
54	MG	AA	1727	1/1	0.94	0.19	82,82,82,82	0
54	MG	DA	3331	1/1	0.94	0.12	48,48,48,48	0
54	MG	BA	3001	1/1	0.94	0.13	45,45,45,45	0
54	MG	DA	3546	1/1	0.94	0.07	64,64,64,64	0
54	MG	BA	3023	1/1	0.94	0.11	43,43,43,43	0
54	MG	CA	1699	1/1	0.94	0.29	73,73,73,73	0
54	MG	AA	1645	1/1	0.94	0.09	54,54,54,54	0
54	MG	DA	3311	1/1	0.94	0.13	31,31,31,31	0
54	MG	DA	3358	1/1	0.94	0.07	59,59,59,59	0
54	MG	BR	205	1/1	0.94	0.12	45,45,45,45	0
54	MG	CA	1672	1/1	0.94	0.09	74,74,74,74	0
54	MG	BA	3397	1/1	0.94	0.14	36,36,36,36	0
54	MG	BA	3318	1/1	0.94	0.08	64,64,64,64	0
54	MG	DA	3588	1/1	0.94	0.11	38,38,38,38	0
54	MG	AA	1812	1/1	0.94	0.25	82,82,82,82	0
54	MG	BA	3058	1/1	0.94	0.41	57,57,57,57	0
54	MG	DA	3470	1/1	0.94	0.12	50,50,50,50	0
54	MG	DA	3016	1/1	0.94	0.09	64,64,64,64	0
54	MG	B9	104	1/1	0.94	0.10	52,52,52,52	0
54	MG	DA	3288	1/1	0.94	0.12	51,51,51,51	0
54	MG	AA	1709	1/1	0.94	0.14	57,57,57,57	0
54	MG	BA	3207	1/1	0.94	0.08	57,57,57,57	0
54	MG	BA	3461	1/1	0.94	0.09	62,62,62,62	0
54	MG	BA	3549	1/1	0.94	0.15	22,22,22,22	0
54	MG	BE	304	1/1	0.94	0.27	53,53,53,53	0
54	MG	BA	3675	1/1	0.94	0.09	48,48,48,48	0
54	MG	BA	3347	1/1	0.94	0.23	44,44,44,44	0
54	MG	BA	3650	1/1	0.94	0.13	53,53,53,53	0
54	MG	BA	3214	1/1	0.94	0.07	39,39,39,39	0
54	MG	BA	3666	1/1	0.94	0.14	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1782	1/1	0.94	0.14	59,59,59,59	0
54	MG	BA	3033	1/1	0.94	0.24	31,31,31,31	0
54	MG	DA	3296	1/1	0.94	0.27	61,61,61,61	0
54	MG	DA	3147	1/1	0.94	0.11	52,52,52,52	0
54	MG	DA	3350	1/1	0.94	0.08	40,40,40,40	0
54	MG	DA	3257	1/1	0.94	0.28	40,40,40,40	0
54	MG	DA	3301	1/1	0.94	0.13	31,31,31,31	0
54	MG	AA	1687	1/1	0.94	0.21	79,79,79,79	0
54	MG	DA	3231	1/1	0.94	0.10	51,51,51,51	0
54	MG	CA	1712	1/1	0.94	0.08	55,55,55,55	0
54	MG	BE	303	1/1	0.94	0.27	47,47,47,47	0
54	MG	AA	1701	1/1	0.94	0.06	68,68,68,68	0
54	MG	BA	3369	1/1	0.94	0.11	27,27,27,27	0
54	MG	BA	3299	1/1	0.94	0.17	44,44,44,44	0
54	MG	DA	3212	1/1	0.94	0.09	32,32,32,32	0
54	MG	DA	3112	1/1	0.94	0.19	48,48,48,48	0
54	MG	BA	3363	1/1	0.94	0.22	48,48,48,48	0
54	MG	BA	3321	1/1	0.94	0.10	77,77,77,77	0
54	MG	DA	3489	1/1	0.94	0.16	48,48,48,48	0
54	MG	DA	3534	1/1	0.94	0.25	53,53,53,53	0
54	MG	BA	3229	1/1	0.94	0.14	61,61,61,61	0
54	MG	DP	203	1/1	0.94	0.12	61,61,61,61	0
54	MG	BA	3542	1/1	0.94	0.07	33,33,33,33	0
54	MG	BA	3652	1/1	0.94	0.13	51,51,51,51	0
54	MG	CA	1717	1/1	0.94	0.08	85,85,85,85	0
54	MG	BA	3047	1/1	0.94	0.13	30,30,30,30	0
54	MG	AA	1739	1/1	0.94	0.11	72,72,72,72	0
54	MG	DA	3113	1/1	0.94	0.18	56,56,56,56	0
54	MG	DA	3258	1/1	0.94	0.23	35,35,35,35	0
54	MG	AA	1725	1/1	0.94	0.13	62,62,62,62	0
54	MG	BA	3024	1/1	0.94	0.25	44,44,44,44	0
54	MG	DA	3006	1/1	0.94	0.18	42,42,42,42	0
54	MG	DA	3563	1/1	0.94	0.40	57,57,57,57	0
54	MG	DA	3376	1/1	0.94	0.13	73,73,73,73	0
54	MG	DA	3151	1/1	0.94	0.13	31,31,31,31	0
54	MG	BO	201	1/1	0.94	0.15	53,53,53,53	0
54	MG	BB	204	1/1	0.94	0.10	47,47,47,47	0
54	MG	AA	1620	1/1	0.94	0.37	61,61,61,61	0
54	MG	BA	3584	1/1	0.94	0.15	48,48,48,48	0
54	MG	BA	3140	1/1	0.94	0.17	44,44,44,44	0
54	MG	B0	101	1/1	0.94	0.30	40,40,40,40	0
54	MG	DA	3023	1/1	0.94	0.29	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1753	1/1	0.94	0.11	71,71,71,71	0
54	MG	AA	1774	1/1	0.94	0.14	78,78,78,78	0
54	MG	AA	1758	1/1	0.94	0.13	48,48,48,48	0
54	MG	BA	3070	1/1	0.94	0.33	39,39,39,39	0
54	MG	BA	3035	1/1	0.94	0.21	23,23,23,23	0
54	MG	BA	3481	1/1	0.94	0.21	22,22,22,22	0
54	MG	BA	3707	1/1	0.94	0.09	49,49,49,49	0
54	MG	DA	3542	1/1	0.94	0.22	65,65,65,65	0
54	MG	BA	3341	1/1	0.94	0.16	44,44,44,44	0
54	MG	BA	3580	1/1	0.94	0.17	49,49,49,49	0
54	MG	DA	3439	1/1	0.94	0.33	57,57,57,57	0
54	MG	DA	3197	1/1	0.94	0.09	28,28,28,28	0
54	MG	BA	3173	1/1	0.94	0.15	63,63,63,63	0
54	MG	D8	102	1/1	0.94	0.15	66,66,66,66	0
54	MG	CA	1744	1/1	0.94	0.08	69,69,69,69	0
54	MG	DA	3611	1/1	0.94	0.17	57,57,57,57	0
54	MG	CA	1734	1/1	0.94	0.15	79,79,79,79	0
54	MG	BA	3553	1/1	0.94	0.23	27,27,27,27	0
54	MG	BA	3135	1/1	0.94	0.10	50,50,50,50	0
54	MG	DA	3194	1/1	0.94	0.20	22,22,22,22	0
54	MG	BA	3427	1/1	0.94	0.13	28,28,28,28	0
54	MG	BB	216	1/1	0.94	0.31	59,59,59,59	0
54	MG	BA	3419	1/1	0.94	0.15	29,29,29,29	0
54	MG	BA	3699	1/1	0.94	0.12	43,43,43,43	0
54	MG	BA	3146	1/1	0.94	0.23	34,34,34,34	0
54	MG	DA	3514	1/1	0.94	0.29	92,92,92,92	0
54	MG	DA	3229	1/1	0.94	0.16	76,76,76,76	0
54	MG	BA	3218	1/1	0.94	0.12	56,56,56,56	0
54	MG	DA	3578	1/1	0.94	0.14	45,45,45,45	0
54	MG	AA	1741	1/1	0.94	0.18	58,58,58,58	0
54	MG	DA	3517	1/1	0.94	0.15	52,52,52,52	0
54	MG	CA	1655	1/1	0.94	0.16	66,66,66,66	0
54	MG	CA	1692	1/1	0.94	0.10	64,64,64,64	0
54	MG	BA	3519	1/1	0.94	0.12	26,26,26,26	0
54	MG	CA	1788	1/1	0.94	0.11	51,51,51,51	0
54	MG	BA	3539	1/1	0.94	0.05	58,58,58,58	0
54	MG	BA	3048	1/1	0.94	0.13	35,35,35,35	0
54	MG	BA	3101	1/1	0.94	0.21	37,37,37,37	0
54	MG	AA	1719	1/1	0.94	0.16	66,66,66,66	0
54	MG	B8	101	1/1	0.94	0.29	45,45,45,45	0
54	MG	CA	1623	1/1	0.94	0.12	60,60,60,60	0
54	MG	BA	3342	1/1	0.94	0.04	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3353	1/1	0.94	0.11	51,51,51,51	0
54	MG	DA	3044	1/1	0.94	0.39	55,55,55,55	0
54	MG	BA	3541	1/1	0.94	0.19	21,21,21,21	0
54	MG	BA	3677	1/1	0.94	0.11	72,72,72,72	0
54	MG	AA	1660	1/1	0.94	0.30	62,62,62,62	0
54	MG	AA	1704	1/1	0.94	0.07	75,75,75,75	0
54	MG	DA	3372	1/1	0.94	0.13	79,79,79,79	0
54	MG	CA	1728	1/1	0.94	0.05	79,79,79,79	0
54	MG	CA	1738	1/1	0.94	0.17	52,52,52,52	0
54	MG	DA	3461	1/1	0.94	0.08	76,76,76,76	0
54	MG	BA	3466	1/1	0.94	0.07	78,78,78,78	0
54	MG	DA	3105	1/1	0.94	0.20	54,54,54,54	0
54	MG	BA	3228	1/1	0.94	0.25	44,44,44,44	0
54	MG	AA	1627	1/1	0.94	0.19	58,58,58,58	0
54	MG	DA	3490	1/1	0.94	0.09	60,60,60,60	0
54	MG	CA	1770	1/1	0.94	0.09	71,71,71,71	0
54	MG	BA	3362	1/1	0.94	0.13	30,30,30,30	0
54	MG	BA	3599	1/1	0.94	0.17	63,63,63,63	0
54	MG	BA	3585	1/1	0.94	0.08	65,65,65,65	0
54	MG	BA	3183	1/1	0.94	0.12	37,37,37,37	0
54	MG	DA	3537	1/1	0.94	0.18	49,49,49,49	0
54	MG	BA	3046	1/1	0.94	0.15	35,35,35,35	0
54	MG	AA	1666	1/1	0.94	0.28	71,71,71,71	0
54	MG	DA	3481	1/1	0.94	0.16	51,51,51,51	0
54	MG	BA	3344	1/1	0.94	0.15	41,41,41,41	0
54	MG	BA	3647	1/1	0.94	0.13	59,59,59,59	0
54	MG	DA	3064	1/1	0.94	0.29	36,36,36,36	0
54	MG	BA	3483	1/1	0.94	0.22	31,31,31,31	0
54	MG	BA	3563	1/1	0.94	0.12	59,59,59,59	0
54	MG	DA	3306	1/1	0.94	0.11	68,68,68,68	0
54	MG	CE	201	1/1	0.94	0.09	78,78,78,78	0
54	MG	AA	1689	1/1	0.94	0.17	56,56,56,56	0
54	MG	CA	1701	1/1	0.94	0.05	74,74,74,74	0
54	MG	DA	3061	1/1	0.94	0.08	45,45,45,45	0
54	MG	DA	3213	1/1	0.94	0.10	33,33,33,33	0
54	MG	DA	3193	1/1	0.94	0.08	66,66,66,66	0
54	MG	BA	3398	1/1	0.94	0.27	30,30,30,30	0
54	MG	BA	3429	1/1	0.94	0.14	59,59,59,59	0
54	MG	BA	3694	1/1	0.94	0.19	21,21,21,21	0
54	MG	DA	3223	1/1	0.94	0.08	39,39,39,39	0
54	MG	DA	3045	1/1	0.94	0.18	48,48,48,48	0
54	MG	BA	3083	1/1	0.94	0.10	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3147	1/1	0.94	0.23	33,33,33,33	0
54	MG	BA	3538	1/1	0.94	0.10	55,55,55,55	0
54	MG	CA	1615	1/1	0.94	0.21	42,42,42,42	0
54	MG	CA	1747	1/1	0.94	0.15	63,63,63,63	0
54	MG	BA	3306	1/1	0.94	0.13	61,61,61,61	0
54	MG	CA	1611	1/1	0.94	0.18	56,56,56,56	0
54	MG	DA	3381	1/1	0.95	0.09	55,55,55,55	0
54	MG	DA	3555	1/1	0.95	0.44	63,63,63,63	0
54	MG	BA	3269	1/1	0.95	0.11	51,51,51,51	0
54	MG	DA	3291	1/1	0.95	0.18	64,64,64,64	0
54	MG	BA	3186	1/1	0.95	0.17	30,30,30,30	0
54	MG	DA	3156	1/1	0.95	0.22	34,34,34,34	0
54	MG	DA	3455	1/1	0.95	0.21	34,34,34,34	0
54	MG	DA	3114	1/1	0.95	0.13	36,36,36,36	0
54	MG	DA	3343	1/1	0.95	0.11	54,54,54,54	0
54	MG	DA	3181	1/1	0.95	0.09	50,50,50,50	0
54	MG	AA	1763	1/1	0.95	0.25	73,73,73,73	0
54	MG	AA	1803	1/1	0.95	0.08	81,81,81,81	0
54	MG	DA	3485	1/1	0.95	0.14	33,33,33,33	0
54	MG	BA	3156	1/1	0.95	0.15	28,28,28,28	0
54	MG	D9	102	1/1	0.95	0.17	51,51,51,51	0
54	MG	AA	1670	1/1	0.95	0.18	56,56,56,56	0
54	MG	BA	3154	1/1	0.95	0.12	47,47,47,47	0
54	MG	BU	201	1/1	0.95	0.24	30,30,30,30	0
54	MG	AA	1647	1/1	0.95	0.30	73,73,73,73	0
54	MG	DA	3055	1/1	0.95	0.37	25,25,25,25	0
54	MG	AA	1602	1/1	0.95	0.19	70,70,70,70	0
54	MG	CA	1725	1/1	0.95	0.20	91,91,91,91	0
54	MG	BA	3233	1/1	0.95	0.07	53,53,53,53	0
54	MG	BA	3473	1/1	0.95	0.14	54,54,54,54	0
54	MG	DA	3133	1/1	0.95	0.39	50,50,50,50	0
54	MG	BA	3236	1/1	0.95	0.15	27,27,27,27	0
54	MG	BA	3022	1/1	0.95	0.24	38,38,38,38	0
54	MG	BA	3106	1/1	0.95	0.12	48,48,48,48	0
54	MG	BA	3468	1/1	0.95	0.15	63,63,63,63	0
54	MG	BA	3371	1/1	0.95	0.25	26,26,26,26	0
54	MG	BA	3246	1/1	0.95	0.15	46,46,46,46	0
54	MG	BA	3348	1/1	0.95	0.09	44,44,44,44	0
54	MG	CA	1762	1/1	0.95	0.12	86,86,86,86	0
54	MG	BA	3080	1/1	0.95	0.22	42,42,42,42	0
54	MG	BA	3087	1/1	0.95	0.23	36,36,36,36	0
54	MG	AA	1743	1/1	0.95	0.15	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3572	1/1	0.95	0.08	44,44,44,44	0
54	MG	DA	3600	1/1	0.95	0.07	33,33,33,33	0
54	MG	BA	3298	1/1	0.95	0.23	43,43,43,43	0
54	MG	BA	3418	1/1	0.95	0.23	28,28,28,28	0
54	MG	AA	1617	1/1	0.95	0.35	58,58,58,58	0
54	MG	BA	3684	1/1	0.95	0.16	64,64,64,64	0
54	MG	AA	1795	1/1	0.95	0.08	87,87,87,87	0
54	MG	BA	3383	1/1	0.95	0.13	26,26,26,26	0
54	MG	DR	201	1/1	0.95	0.30	40,40,40,40	0
54	MG	DA	3459	1/1	0.95	0.09	90,90,90,90	0
54	MG	AE	201	1/1	0.95	0.23	62,62,62,62	0
54	MG	AA	1805	1/1	0.95	0.11	82,82,82,82	0
54	MG	DA	3241	1/1	0.95	0.19	47,47,47,47	0
54	MG	BA	3476	1/1	0.95	0.14	55,55,55,55	0
54	MG	BD	304	1/1	0.95	0.17	19,19,19,19	0
54	MG	DA	3251	1/1	0.95	0.20	41,41,41,41	0
54	MG	DA	3400	1/1	0.95	0.17	41,41,41,41	0
54	MG	BA	3109	1/1	0.95	0.12	37,37,37,37	0
54	MG	BA	3455	1/1	0.95	0.09	41,41,41,41	0
54	MG	DA	3201	1/1	0.95	0.16	29,29,29,29	0
54	MG	AA	1656	1/1	0.95	0.14	69,69,69,69	0
54	MG	DA	3304	1/1	0.95	0.10	39,39,39,39	0
54	MG	DA	3208	1/1	0.95	0.12	31,31,31,31	0
54	MG	BY	202	1/1	0.95	0.15	49,49,49,49	0
54	MG	BB	206	1/1	0.95	0.19	34,34,34,34	0
54	MG	DA	3170	1/1	0.95	0.27	31,31,31,31	0
54	MG	BA	3460	1/1	0.95	0.10	51,51,51,51	0
54	MG	AA	1766	1/1	0.95	0.12	57,57,57,57	0
54	MG	BA	3665	1/1	0.95	0.06	72,72,72,72	0
54	MG	DA	3531	1/1	0.95	0.04	51,51,51,51	0
54	MG	CA	1749	1/1	0.95	0.16	69,69,69,69	0
54	MG	DA	3192	1/1	0.95	0.09	37,37,37,37	0
54	MG	DA	3186	1/1	0.95	0.13	27,27,27,27	0
54	MG	CA	1636	1/1	0.95	0.19	58,58,58,58	0
54	MG	CA	1732	1/1	0.95	0.23	63,63,63,63	0
54	MG	DA	3232	1/1	0.95	0.09	45,45,45,45	0
54	MG	BA	3170	1/1	0.95	0.10	38,38,38,38	0
54	MG	BA	3230	1/1	0.95	0.24	29,29,29,29	0
54	MG	DA	3215	1/1	0.95	0.09	30,30,30,30	0
54	MG	BA	3691	1/1	0.95	0.11	57,57,57,57	0
54	MG	BA	3021	1/1	0.95	0.22	67,67,67,67	0
54	MG	DA	3103	1/1	0.95	0.32	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3269	1/1	0.95	0.10	36,36,36,36	0
54	MG	BA	3417	1/1	0.95	0.13	25,25,25,25	0
54	MG	BA	3424	1/1	0.95	0.14	25,25,25,25	0
54	MG	DA	3271	1/1	0.95	0.05	42,42,42,42	0
54	MG	BA	3440	1/1	0.95	0.07	50,50,50,50	0
54	MG	AA	1683	1/1	0.95	0.21	69,69,69,69	0
54	MG	BA	3573	1/1	0.95	0.10	54,54,54,54	0
54	MG	DA	3422	1/1	0.95	0.07	71,71,71,71	0
54	MG	CA	1684	1/1	0.95	0.27	82,82,82,82	0
54	MG	DA	3074	1/1	0.95	0.17	46,46,46,46	0
54	MG	BA	3153	1/1	0.95	0.14	36,36,36,36	0
54	MG	DA	3561	1/1	0.95	0.12	65,65,65,65	0
54	MG	AA	1643	1/1	0.95	0.15	56,56,56,56	0
54	MG	DA	3308	1/1	0.95	0.17	70,70,70,70	0
54	MG	BA	3565	1/1	0.95	0.20	57,57,57,57	0
54	MG	CA	1780	1/1	0.95	0.11	74,74,74,74	0
54	MG	DA	3111	1/1	0.95	0.18	44,44,44,44	0
54	MG	DA	3423	1/1	0.95	0.08	37,37,37,37	0
54	MG	CA	1691	1/1	0.95	0.17	74,74,74,74	0
54	MG	DA	3129	1/1	0.95	0.46	38,38,38,38	0
54	MG	BA	3687	1/1	0.95	0.09	53,53,53,53	0
54	MG	BA	3257	1/1	0.95	0.19	21,21,21,21	0
54	MG	BA	3351	1/1	0.95	0.11	49,49,49,49	0
54	MG	AA	1811	1/1	0.95	0.08	65,65,65,65	0
54	MG	AA	1713	1/1	0.95	0.18	61,61,61,61	0
54	MG	BR	203	1/1	0.95	0.25	33,33,33,33	0
54	MG	AA	1629	1/1	0.95	0.50	59,59,59,59	0
54	MG	BA	3110	1/1	0.95	0.14	60,60,60,60	0
54	MG	BR	201	1/1	0.95	0.42	39,39,39,39	0
54	MG	BA	3471	1/1	0.95	0.10	50,50,50,50	0
54	MG	BA	3474	1/1	0.95	0.17	63,63,63,63	0
54	MG	BA	3316	1/1	0.95	0.06	43,43,43,43	0
54	MG	DA	3071	1/1	0.95	0.13	39,39,39,39	0
54	MG	BA	3597	1/1	0.95	0.14	36,36,36,36	0
54	MG	BA	3445	1/1	0.95	0.06	60,60,60,60	0
54	MG	BV	201	1/1	0.95	0.33	30,30,30,30	0
54	MG	DA	3438	1/1	0.95	0.09	54,54,54,54	0
54	MG	AA	1723	1/1	0.95	0.11	82,82,82,82	0
54	MG	DA	3034	1/1	0.95	0.25	34,34,34,34	0
54	MG	BU	202	1/1	0.95	0.25	34,34,34,34	0
54	MG	B0	104	1/1	0.95	0.06	49,49,49,49	0
54	MG	BA	3452	1/1	0.95	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3510	1/1	0.95	0.15	46,46,46,46	0
54	MG	BA	3706	1/1	0.95	0.10	44,44,44,44	0
54	MG	AA	1781	1/1	0.95	0.10	71,71,71,71	0
54	MG	DA	3576	1/1	0.95	0.26	36,36,36,36	0
54	MG	BA	3158	1/1	0.95	0.23	22,22,22,22	0
54	MG	BA	3635	1/1	0.95	0.07	72,72,72,72	0
54	MG	AA	1799	1/1	0.95	0.15	44,44,44,44	0
54	MG	DA	3282	1/1	0.95	0.07	64,64,64,64	0
54	MG	CA	1621	1/1	0.95	0.23	87,87,87,87	0
54	MG	CA	1723	1/1	0.95	0.14	66,66,66,66	0
54	MG	BA	3475	1/1	0.95	0.07	45,45,45,45	0
54	MG	BA	3330	1/1	0.95	0.20	45,45,45,45	0
54	MG	DA	3444	1/1	0.95	0.12	73,73,73,73	0
54	MG	BA	3695	1/1	0.95	0.12	52,52,52,52	0
54	MG	DA	3099	1/1	0.95	0.26	54,54,54,54	0
54	MG	AM	201	1/1	0.95	0.27	78,78,78,78	0
54	MG	DA	3069	1/1	0.95	0.10	67,67,67,67	0
54	MG	DA	3529	1/1	0.95	0.14	65,65,65,65	0
54	MG	DA	3417	1/1	0.95	0.10	59,59,59,59	0
54	MG	DA	3589	1/1	0.95	0.07	42,42,42,42	0
54	MG	AA	1705	1/1	0.95	0.08	46,46,46,46	0
54	MG	AA	1626	1/1	0.95	0.23	32,32,32,32	0
54	MG	BA	3494	1/1	0.95	0.14	52,52,52,52	0
54	MG	BA	3693	1/1	0.95	0.09	36,36,36,36	0
54	MG	BA	3149	1/1	0.95	0.12	24,24,24,24	0
54	MG	DA	3070	1/1	0.95	0.25	51,51,51,51	0
54	MG	AA	1738	1/1	0.95	0.04	62,62,62,62	0
54	MG	B2	101	1/1	0.95	0.19	46,46,46,46	0
54	MG	BD	303	1/1	0.95	0.12	33,33,33,33	0
54	MG	DA	3585	1/1	0.95	0.29	36,36,36,36	0
54	MG	BA	3614	1/1	0.95	0.34	47,47,47,47	0
54	MG	DA	3091	1/1	0.95	0.98	38,38,38,38	0
54	MG	BA	3224	1/1	0.95	0.17	28,28,28,28	0
54	MG	DA	3171	1/1	0.95	0.10	28,28,28,28	0
54	MG	AA	1672	1/1	0.95	0.13	50,50,50,50	0
54	MG	DA	3568	1/1	0.95	0.16	62,62,62,62	0
54	MG	B1	101	1/1	0.95	0.21	40,40,40,40	0
54	MG	BA	3278	1/1	0.95	0.20	39,39,39,39	0
54	MG	DA	3098	1/1	0.95	0.47	52,52,52,52	0
54	MG	BA	3283	1/1	0.95	0.16	36,36,36,36	0
54	MG	BA	3090	1/1	0.95	0.32	30,30,30,30	0
54	MG	AA	1609	1/1	0.95	0.15	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3430	1/1	0.95	0.23	28,28,28,28	0
54	MG	DA	3434	1/1	0.95	0.08	60,60,60,60	0
54	MG	AL	201	1/1	0.95	0.08	65,65,65,65	0
54	MG	DA	3401	1/1	0.95	0.15	56,56,56,56	0
54	MG	BA	3470	1/1	0.95	0.11	33,33,33,33	0
54	MG	AA	1802	1/1	0.95	0.37	64,64,64,64	0
54	MG	BA	3566	1/1	0.95	0.20	48,48,48,48	0
54	MG	DA	3128	1/1	0.95	0.32	47,47,47,47	0
54	MG	BA	3215	1/1	0.95	0.12	41,41,41,41	0
54	MG	DA	3522	1/1	0.95	0.13	59,59,59,59	0
54	MG	DA	3160	1/1	0.95	0.04	42,42,42,42	0
54	MG	BA	3680	1/1	0.95	0.12	37,37,37,37	0
54	MG	BA	3132	1/1	0.95	0.11	45,45,45,45	0
54	MG	BU	203	1/1	0.95	0.33	31,31,31,31	0
54	MG	DA	3261	1/1	0.95	0.13	37,37,37,37	0
54	MG	DA	3323	1/1	0.95	0.13	69,69,69,69	0
54	MG	AA	1815	1/1	0.95	0.09	72,72,72,72	0
54	MG	BA	3581	1/1	0.95	0.12	42,42,42,42	0
54	MG	AA	1800	1/1	0.95	0.18	70,70,70,70	0
54	MG	BA	3425	1/1	0.95	0.16	38,38,38,38	0
54	MG	BD	301	1/1	0.95	0.17	51,51,51,51	0
54	MG	BA	3216	1/1	0.95	0.12	64,64,64,64	0
54	MG	BA	3634	1/1	0.95	0.05	63,63,63,63	0
54	MG	AA	1810	1/1	0.95	0.15	67,67,67,67	0
54	MG	BA	3370	1/1	0.95	0.21	23,23,23,23	0
54	MG	BA	3337	1/1	0.95	0.07	27,27,27,27	0
54	MG	DA	3373	1/1	0.95	0.15	58,58,58,58	0
54	MG	BA	3085	1/1	0.95	0.23	23,23,23,23	0
54	MG	AA	1659	1/1	0.95	0.21	75,75,75,75	0
54	MG	DA	3460	1/1	0.95	0.16	32,32,32,32	0
54	MG	BA	3133	1/1	0.95	0.19	30,30,30,30	0
54	MG	BA	3420	1/1	0.95	0.15	23,23,23,23	0
54	MG	DA	3062	1/1	0.95	0.25	43,43,43,43	0
54	MG	BA	3175	1/1	0.95	0.07	31,31,31,31	0
54	MG	BA	3332	1/1	0.95	0.13	37,37,37,37	0
54	MG	BA	3654	1/1	0.95	0.28	27,27,27,27	0
54	MG	DA	3603	1/1	0.95	0.14	44,44,44,44	0
54	MG	BA	3644	1/1	0.95	0.16	35,35,35,35	0
54	MG	DA	3246	1/1	0.95	0.17	41,41,41,41	0
54	MG	BA	3356	1/1	0.95	0.09	55,55,55,55	0
54	MG	AA	1768	1/1	0.95	0.32	79,79,79,79	0
54	MG	DW	201	1/1	0.95	0.06	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3025	1/1	0.95	0.33	35,35,35,35	0
54	MG	BA	3381	1/1	0.95	0.12	41,41,41,41	0
54	MG	BA	3422	1/1	0.96	0.10	33,33,33,33	0
54	MG	BA	3195	1/1	0.96	0.10	46,46,46,46	0
54	MG	DE	302	1/1	0.96	0.14	37,37,37,37	0
54	MG	CA	1743	1/1	0.96	0.15	65,65,65,65	0
54	MG	AA	1694	1/1	0.96	0.09	76,76,76,76	0
54	MG	CA	1698	1/1	0.96	0.10	62,62,62,62	0
54	MG	B9	102	1/1	0.96	0.28	29,29,29,29	0
54	MG	DA	3483	1/1	0.96	0.07	63,63,63,63	0
54	MG	DA	3457	1/1	0.96	0.14	59,59,59,59	0
54	MG	DA	3287	1/1	0.96	0.15	52,52,52,52	0
54	MG	BA	3435	1/1	0.96	0.05	40,40,40,40	0
54	MG	BA	3503	1/1	0.96	0.23	23,23,23,23	0
54	MG	DA	3273	1/1	0.96	0.05	93,93,93,93	0
54	MG	BB	207	1/1	0.96	0.17	49,49,49,49	0
54	MG	BA	3551	1/1	0.96	0.10	60,60,60,60	0
54	MG	BA	3389	1/1	0.96	0.22	30,30,30,30	0
54	MG	AA	1790	1/1	0.96	0.19	63,63,63,63	0
54	MG	CA	1769	1/1	0.96	0.10	58,58,58,58	0
54	MG	BA	3028	1/1	0.96	0.15	34,34,34,34	0
54	MG	BA	3177	1/1	0.96	0.13	41,41,41,41	0
54	MG	DA	3234	1/1	0.96	0.19	52,52,52,52	0
54	MG	BA	3493	1/1	0.96	0.11	65,65,65,65	0
54	MG	BA	3708	1/1	0.96	0.17	49,49,49,49	0
54	MG	BA	3676	1/1	0.96	0.20	46,46,46,46	0
54	MG	BA	3355	1/1	0.96	0.10	51,51,51,51	0
54	MG	DA	3339	1/1	0.96	0.08	53,53,53,53	0
54	MG	AA	1601	1/1	0.96	0.40	52,52,52,52	0
54	MG	BA	3520	1/1	0.96	0.22	29,29,29,29	0
54	MG	DA	3256	1/1	0.96	0.23	57,57,57,57	0
54	MG	DA	3515	1/1	0.96	0.12	54,54,54,54	0
54	MG	DE	301	1/1	0.96	0.10	29,29,29,29	0
54	MG	BA	3255	1/1	0.96	0.10	25,25,25,25	0
54	MG	BZ	302	1/1	0.96	0.13	45,45,45,45	0
54	MG	DA	3005	1/1	0.96	0.12	53,53,53,53	0
54	MG	BA	3335	1/1	0.96	0.24	43,43,43,43	0
54	MG	DA	3142	1/1	0.96	0.11	48,48,48,48	0
54	MG	BA	3521	1/1	0.96	0.17	35,35,35,35	0
54	MG	BB	218	1/1	0.96	0.09	69,69,69,69	0
54	MG	BA	3157	1/1	0.96	0.15	36,36,36,36	0
54	MG	BA	3122	1/1	0.96	0.13	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3523	1/1	0.96	0.14	43,43,43,43	0
54	MG	DA	3123	1/1	0.96	0.12	48,48,48,48	0
54	MG	BA	3254	1/1	0.96	0.12	36,36,36,36	0
54	MG	BA	3203	1/1	0.96	0.23	39,39,39,39	0
54	MG	CA	1683	1/1	0.96	0.06	71,71,71,71	0
54	MG	DA	3580	1/1	0.96	0.18	39,39,39,39	0
54	MG	BA	3502	1/1	0.96	0.17	34,34,34,34	0
54	MG	BA	3065	1/1	0.96	0.17	36,36,36,36	0
54	MG	DA	3180	1/1	0.96	0.11	29,29,29,29	0
54	MG	DA	3368	1/1	0.96	0.07	56,56,56,56	0
54	MG	BA	3668	1/1	0.96	0.08	60,60,60,60	0
54	MG	DA	3506	1/1	0.96	0.15	57,57,57,57	0
54	MG	BA	3161	1/1	0.96	0.18	20,20,20,20	0
54	MG	BA	3178	1/1	0.96	0.27	23,23,23,23	0
54	MG	DA	3047	1/1	0.96	0.20	52,52,52,52	0
54	MG	DA	3007	1/1	0.96	0.24	59,59,59,59	0
54	MG	BV	203	1/1	0.96	0.10	56,56,56,56	0
54	MG	DA	3102	1/1	0.96	0.22	48,48,48,48	0
54	MG	DA	3429	1/1	0.96	0.23	26,26,26,26	0
54	MG	B0	102	1/1	0.96	0.15	50,50,50,50	0
54	MG	BA	3293	1/1	0.96	0.11	36,36,36,36	0
54	MG	BA	3443	1/1	0.96	0.17	31,31,31,31	0
54	MG	BA	3364	1/1	0.96	0.18	24,24,24,24	0
54	MG	BA	3607	1/1	0.96	0.07	76,76,76,76	0
54	MG	BA	3645	1/1	0.96	0.18	59,59,59,59	0
54	MG	BA	3516	1/1	0.96	0.08	54,54,54,54	0
54	MG	BA	3078	1/1	0.96	0.22	45,45,45,45	0
54	MG	BA	3268	1/1	0.96	0.07	52,52,52,52	0
54	MG	DA	3448	1/1	0.96	0.28	53,53,53,53	0
54	MG	BA	3620	1/1	0.96	0.42	40,40,40,40	0
54	MG	BA	3100	1/1	0.96	0.20	41,41,41,41	0
54	MG	DA	3532	1/1	0.96	0.14	58,58,58,58	0
54	MG	DA	3041	1/1	0.96	0.14	34,34,34,34	0
54	MG	DA	3202	1/1	0.96	0.05	29,29,29,29	0
54	MG	AA	1744	1/1	0.96	0.14	74,74,74,74	0
54	MG	DA	3204	1/1	0.96	0.13	32,32,32,32	0
54	MG	CA	1648	1/1	0.96	0.09	72,72,72,72	0
54	MG	CA	1638	1/1	0.96	0.59	65,65,65,65	0
54	MG	DA	3214	1/1	0.96	0.16	32,32,32,32	0
54	MG	DA	3048	1/1	0.96	0.14	50,50,50,50	0
54	MG	BA	3727	1/1	0.96	0.17	94,94,94,94	0
54	MG	BA	3611	1/1	0.96	0.06	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3434	1/1	0.96	0.10	56,56,56,56	0
54	MG	AA	1637	1/1	0.96	0.34	64,64,64,64	0
54	MG	BA	3616	1/1	0.96	0.18	26,26,26,26	0
54	MG	BA	3039	1/1	0.96	0.14	58,58,58,58	0
54	MG	BA	3231	1/1	0.96	0.19	35,35,35,35	0
54	MG	BA	3426	1/1	0.96	0.08	28,28,28,28	0
54	MG	BA	3359	1/1	0.96	0.32	19,19,19,19	0
54	MG	BA	3696	1/1	0.96	0.06	38,38,38,38	0
54	MG	AA	1697	1/1	0.96	0.16	50,50,50,50	0
54	MG	DA	3610	1/1	0.96	0.10	79,79,79,79	0
54	MG	CA	1726	1/1	0.96	0.10	77,77,77,77	0
54	MG	BP	201	1/1	0.96	0.16	44,44,44,44	0
54	MG	BD	302	1/1	0.96	0.26	37,37,37,37	0
55	ZN	CN	101	1/1	0.96	0.08	108,108,108,108	0
54	MG	DA	3360	1/1	0.96	0.18	36,36,36,36	0
54	MG	AA	1673	1/1	0.96	0.05	76,76,76,76	0
54	MG	AA	1663	1/1	0.96	0.09	62,62,62,62	0
55	ZN	AD	301	1/1	0.96	0.27	76,76,76,76	0
54	MG	AA	1792	1/1	0.96	0.09	51,51,51,51	0
54	MG	BA	3094	1/1	0.96	0.29	33,33,33,33	0
54	MG	DA	3299	1/1	0.96	0.08	33,33,33,33	0
54	MG	BA	3292	1/1	0.96	0.09	36,36,36,36	0
54	MG	BA	3446	1/1	0.96	0.14	42,42,42,42	0
54	MG	BT	201	1/1	0.96	0.14	49,49,49,49	0
54	MG	DA	3018	1/1	0.96	0.16	54,54,54,54	0
54	MG	DA	3386	1/1	0.96	0.18	64,64,64,64	0
54	MG	BA	3259	1/1	0.96	0.12	20,20,20,20	0
54	MG	BA	3274	1/1	0.96	0.13	48,48,48,48	0
54	MG	BA	3544	1/1	0.96	0.13	60,60,60,60	0
54	MG	DA	3138	1/1	0.96	0.36	49,49,49,49	0
54	MG	BB	208	1/1	0.96	0.14	33,33,33,33	0
54	MG	DA	3303	1/1	0.96	0.14	46,46,46,46	0
54	MG	DQ	201	1/1	0.96	0.12	52,52,52,52	0
54	MG	DA	3057	1/1	0.96	0.14	53,53,53,53	0
54	MG	DA	3200	1/1	0.96	0.17	34,34,34,34	0
54	MG	DA	3492	1/1	0.96	0.17	59,59,59,59	0
54	MG	DA	3406	1/1	0.96	0.14	54,54,54,54	0
54	MG	DA	3250	1/1	0.96	0.35	38,38,38,38	0
54	MG	DA	3491	1/1	0.96	0.16	42,42,42,42	0
54	MG	BA	3609	1/1	0.96	0.04	37,37,37,37	0
54	MG	AA	1708	1/1	0.96	0.13	61,61,61,61	0
54	MG	BQ	203	1/1	0.96	0.14	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3295	1/1	0.96	0.20	52,52,52,52	0
54	MG	BA	3089	1/1	0.96	0.13	32,32,32,32	0
54	MG	BA	3294	1/1	0.96	0.08	32,32,32,32	0
54	MG	DA	3544	1/1	0.96	0.15	67,67,67,67	0
54	MG	BA	3310	1/1	0.96	0.13	19,19,19,19	0
54	MG	CA	1649	1/1	0.96	0.20	67,67,67,67	0
54	MG	BA	3525	1/1	0.96	0.13	47,47,47,47	0
54	MG	BA	3630	1/1	0.96	0.12	57,57,57,57	0
54	MG	BA	3703	1/1	0.96	0.06	26,26,26,26	0
54	MG	DA	3630	1/1	0.96	0.05	76,76,76,76	0
54	MG	BA	3713	1/1	0.96	0.10	35,35,35,35	0
54	MG	AA	1720	1/1	0.96	0.10	74,74,74,74	0
54	MG	AA	1750	1/1	0.96	0.17	55,55,55,55	0
54	MG	BA	3593	1/1	0.96	0.30	34,34,34,34	0
54	MG	AP	101	1/1	0.96	0.10	81,81,81,81	0
54	MG	DA	3174	1/1	0.96	0.11	24,24,24,24	0
54	MG	AA	1752	1/1	0.96	0.24	102,102,102,102	0
54	MG	CA	1754	1/1	0.96	0.12	77,77,77,77	0
54	MG	AA	1677	1/1	0.96	0.05	50,50,50,50	0
54	MG	DA	3161	1/1	0.96	0.15	47,47,47,47	0
54	MG	BA	3459	1/1	0.96	0.24	57,57,57,57	0
54	MG	DA	3379	1/1	0.96	0.11	69,69,69,69	0
54	MG	DA	3441	1/1	0.96	0.21	63,63,63,63	0
54	MG	DA	3345	1/1	0.96	0.15	56,56,56,56	0
54	MG	DA	3397	1/1	0.96	0.15	59,59,59,59	0
54	MG	DA	3613	1/1	0.96	0.15	45,45,45,45	0
54	MG	AA	1771	1/1	0.96	0.06	67,67,67,67	0
54	MG	DA	3052	1/1	0.96	0.13	35,35,35,35	0
54	MG	BE	306	1/1	0.96	0.23	24,24,24,24	0
54	MG	DA	3475	1/1	0.96	0.16	60,60,60,60	0
54	MG	CA	1662	1/1	0.96	0.09	54,54,54,54	0
54	MG	DA	3165	1/1	0.96	0.14	36,36,36,36	0
54	MG	BA	3400	1/1	0.96	0.07	39,39,39,39	0
54	MG	BA	3148	1/1	0.96	0.23	21,21,21,21	0
54	MG	AA	1638	1/1	0.96	0.20	64,64,64,64	0
54	MG	DA	3270	1/1	0.96	0.17	24,24,24,24	0
54	MG	BA	3631	1/1	0.96	0.26	35,35,35,35	0
54	MG	BA	3303	1/1	0.96	0.14	40,40,40,40	0
54	MG	DA	3043	1/1	0.96	0.06	64,64,64,64	0
54	MG	DB	209	1/1	0.96	0.13	67,67,67,67	0
54	MG	BA	3182	1/1	0.96	0.10	30,30,30,30	0
54	MG	BE	302	1/1	0.96	0.25	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	CA	1716	1/1	0.96	0.20	49,49,49,49	0
54	MG	BA	3380	1/1	0.96	0.11	37,37,37,37	0
54	MG	AA	1736	1/1	0.96	0.29	67,67,67,67	0
54	MG	BA	3339	1/1	0.96	0.16	34,34,34,34	0
54	MG	CA	1714	1/1	0.96	0.19	67,67,67,67	0
54	MG	BA	3223	1/1	0.96	0.15	24,24,24,24	0
54	MG	DA	3260	1/1	0.96	0.12	57,57,57,57	0
54	MG	BA	3273	1/1	0.96	0.15	60,60,60,60	0
54	MG	BF	303	1/1	0.96	0.11	43,43,43,43	0
54	MG	DA	3518	1/1	0.96	0.17	53,53,53,53	0
54	MG	DA	3104	1/1	0.96	0.45	51,51,51,51	0
54	MG	BA	3586	1/1	0.96	0.18	39,39,39,39	0
54	MG	BA	3404	1/1	0.96	0.20	27,27,27,27	0
54	MG	BA	3506	1/1	0.96	0.07	33,33,33,33	0
54	MG	CA	1721	1/1	0.96	0.10	53,53,53,53	0
54	MG	AA	1732	1/1	0.96	0.38	68,68,68,68	0
54	MG	BA	3126	1/1	0.97	0.17	30,30,30,30	0
54	MG	BA	3421	1/1	0.97	0.20	34,34,34,34	0
54	MG	AA	1726	1/1	0.97	0.22	75,75,75,75	0
54	MG	BA	3401	1/1	0.97	0.27	34,34,34,34	0
54	MG	AA	1661	1/1	0.97	0.18	62,62,62,62	0
54	MG	BA	3036	1/1	0.97	0.12	41,41,41,41	0
54	MG	BA	3358	1/1	0.97	0.33	22,22,22,22	0
54	MG	DA	3131	1/1	0.97	0.31	25,25,25,25	0
54	MG	AA	1702	1/1	0.97	0.05	67,67,67,67	0
54	MG	BA	3275	1/1	0.97	0.15	31,31,31,31	0
54	MG	BA	3441	1/1	0.97	0.14	58,58,58,58	0
54	MG	DA	3421	1/1	0.97	0.15	44,44,44,44	0
54	MG	BA	3119	1/1	0.97	0.08	57,57,57,57	0
54	MG	BA	3204	1/1	0.97	0.20	47,47,47,47	0
54	MG	DA	3127	1/1	0.97	0.25	24,24,24,24	0
54	MG	BA	3325	1/1	0.97	0.23	28,28,28,28	0
54	MG	BA	3399	1/1	0.97	0.13	42,42,42,42	0
54	MG	BA	3193	1/1	0.97	0.14	46,46,46,46	0
54	MG	BA	3162	1/1	0.97	0.24	22,22,22,22	0
54	MG	DA	3248	1/1	0.97	0.10	59,59,59,59	0
54	MG	DA	3154	1/1	0.97	0.15	47,47,47,47	0
54	MG	DA	3378	1/1	0.97	0.11	65,65,65,65	0
54	MG	AA	1746	1/1	0.97	0.15	63,63,63,63	0
54	MG	CA	1802	1/1	0.97	0.08	60,60,60,60	0
54	MG	AA	1662	1/1	0.97	0.08	64,64,64,64	0
54	MG	BQ	202	1/1	0.97	0.22	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3180	1/1	0.97	0.09	42,42,42,42	0
54	MG	DA	3199	1/1	0.97	0.26	29,29,29,29	0
54	MG	DA	3120	1/1	0.97	0.16	47,47,47,47	0
54	MG	DA	3035	1/1	0.97	0.18	43,43,43,43	0
54	MG	BA	3164	1/1	0.97	0.17	39,39,39,39	0
54	MG	BA	3365	1/1	0.97	0.20	33,33,33,33	0
54	MG	BA	3622	1/1	0.97	0.09	31,31,31,31	0
54	MG	BA	3456	1/1	0.97	0.12	37,37,37,37	0
54	MG	DA	3243	1/1	0.97	0.11	32,32,32,32	0
54	MG	AA	1722	1/1	0.97	0.05	48,48,48,48	0
54	MG	BA	3159	1/1	0.97	0.20	44,44,44,44	0
54	MG	AA	1737	1/1	0.97	0.12	41,41,41,41	0
54	MG	BA	3069	1/1	0.97	0.16	42,42,42,42	0
54	MG	DA	3058	1/1	0.97	0.11	38,38,38,38	0
55	ZN	D5	101	1/1	0.97	0.10	53,53,53,53	0
54	MG	DA	3183	1/1	0.97	0.14	36,36,36,36	0
54	MG	CA	1772	1/1	0.97	0.09	61,61,61,61	0
54	MG	DA	3153	1/1	0.97	0.10	32,32,32,32	0
54	MG	CA	1633	1/1	0.97	0.18	50,50,50,50	0
54	MG	BA	3095	1/1	0.97	0.18	39,39,39,39	0
54	MG	BA	3009	1/1	0.97	0.22	23,23,23,23	0
54	MG	DA	3385	1/1	0.97	0.15	59,59,59,59	0
54	MG	D5	102	1/1	0.97	0.11	44,44,44,44	0
54	MG	BB	212	1/1	0.97	0.08	49,49,49,49	0
54	MG	AA	1653	1/1	0.97	0.19	64,64,64,64	0
54	MG	DA	3002	1/1	0.97	0.11	45,45,45,45	0
54	MG	AA	1625	1/1	0.97	0.31	42,42,42,42	0
54	MG	DA	3377	1/1	0.97	0.07	74,74,74,74	0
54	MG	DA	3146	1/1	0.97	0.24	55,55,55,55	0
54	MG	BA	3367	1/1	0.97	0.22	34,34,34,34	0
54	MG	DA	3607	1/1	0.97	0.09	65,65,65,65	0
54	MG	BS	201	1/1	0.97	0.13	63,63,63,63	0
54	MG	CA	1658	1/1	0.97	0.10	64,64,64,64	0
54	MG	BA	3045	1/1	0.97	0.18	35,35,35,35	0
54	MG	DF	305	1/1	0.97	0.14	74,74,74,74	0
54	MG	BA	3114	1/1	0.97	0.08	39,39,39,39	0
54	MG	DA	3082	1/1	0.97	0.12	34,34,34,34	0
54	MG	BA	3628	1/1	0.97	0.17	46,46,46,46	0
54	MG	BA	3221	1/1	0.97	0.17	51,51,51,51	0
54	MG	CA	1678	1/1	0.97	0.09	55,55,55,55	0
54	MG	DF	304	1/1	0.97	0.07	41,41,41,41	0
54	MG	BA	3411	1/1	0.97	0.18	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3158	1/1	0.97	0.20	49,49,49,49	0
54	MG	BA	3125	1/1	0.97	0.16	39,39,39,39	0
54	MG	DA	3366	1/1	0.97	0.22	41,41,41,41	0
54	MG	AA	1778	1/1	0.97	0.11	74,74,74,74	0
54	MG	DA	3584	1/1	0.97	0.08	37,37,37,37	0
54	MG	BA	3366	1/1	0.97	0.20	36,36,36,36	0
54	MG	DB	204	1/1	0.97	0.17	65,65,65,65	0
54	MG	BA	3086	1/1	0.97	0.23	21,21,21,21	0
55	ZN	DY	201	1/1	0.97	0.05	77,77,77,77	0
54	MG	CA	1686	1/1	0.97	0.27	67,67,67,67	0
54	MG	DA	3336	1/1	0.97	0.13	53,53,53,53	0
54	MG	DA	3413	1/1	0.97	0.06	78,78,78,78	0
54	MG	DA	3599	1/1	0.97	0.07	45,45,45,45	0
54	MG	BA	3320	1/1	0.97	0.15	42,42,42,42	0
54	MG	BA	3660	1/1	0.97	0.05	39,39,39,39	0
54	MG	BA	3121	1/1	0.97	0.33	26,26,26,26	0
54	MG	AA	1710	1/1	0.97	0.22	52,52,52,52	0
54	MG	BA	3415	1/1	0.97	0.23	26,26,26,26	0
54	MG	BA	3729	1/1	0.97	0.24	42,42,42,42	0
54	MG	BA	3200	1/1	0.97	0.16	24,24,24,24	0
54	MG	DA	3313	1/1	0.97	0.12	34,34,34,34	0
54	MG	BA	3464	1/1	0.97	0.14	28,28,28,28	0
54	MG	DA	3115	1/1	0.97	0.28	33,33,33,33	0
54	MG	BA	3392	1/1	0.97	0.29	29,29,29,29	0
54	MG	BA	3414	1/1	0.97	0.19	23,23,23,23	0
54	MG	BA	3194	1/1	0.97	0.19	52,52,52,52	0
54	MG	DA	3590	1/1	0.97	0.07	59,59,59,59	0
54	MG	BA	3062	1/1	0.97	0.10	32,32,32,32	0
54	MG	BA	3598	1/1	0.97	0.17	34,34,34,34	0
54	MG	BA	3054	1/1	0.97	0.13	31,31,31,31	0
54	MG	DA	3488	1/1	0.97	0.16	46,46,46,46	0
54	MG	DA	3116	1/1	0.97	0.32	26,26,26,26	0
54	MG	BA	3416	1/1	0.97	0.16	22,22,22,22	0
54	MG	DA	3504	1/1	0.97	0.12	52,52,52,52	0
54	MG	BA	3245	1/1	0.97	0.10	29,29,29,29	0
54	MG	BA	3247	1/1	0.97	0.12	45,45,45,45	0
54	MG	DA	3557	1/1	0.97	0.38	55,55,55,55	0
54	MG	AA	1612	1/1	0.97	0.15	61,61,61,61	0
54	MG	BA	3262	1/1	0.97	0.04	51,51,51,51	0
54	MG	DA	3290	1/1	0.97	0.12	47,47,47,47	0
54	MG	BA	3096	1/1	0.97	0.21	36,36,36,36	0
54	MG	BA	3063	1/1	0.97	0.17	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	AA	1642	1/1	0.97	0.14	53,53,53,53	0
54	MG	BA	3374	1/1	0.97	0.20	27,27,27,27	0
54	MG	BA	3123	1/1	0.97	0.21	48,48,48,48	0
54	MG	CA	1704	1/1	0.97	0.13	71,71,71,71	0
54	MG	CA	1748	1/1	0.97	0.18	57,57,57,57	0
54	MG	DA	3609	1/1	0.97	0.10	42,42,42,42	0
54	MG	BR	202	1/1	0.97	0.21	35,35,35,35	0
54	MG	DA	3125	1/1	0.97	0.23	59,59,59,59	0
54	MG	BA	3127	1/1	0.97	0.11	30,30,30,30	0
54	MG	BB	215	1/1	0.97	0.11	57,57,57,57	0
54	MG	BA	3211	1/1	0.97	0.15	49,49,49,49	0
54	MG	BA	3124	1/1	0.97	0.17	24,24,24,24	0
54	MG	BA	3012	1/1	0.97	0.17	37,37,37,37	0
54	MG	BA	3663	1/1	0.97	0.06	53,53,53,53	0
54	MG	DA	3195	1/1	0.97	0.17	33,33,33,33	0
54	MG	BA	3409	1/1	0.97	0.14	26,26,26,26	0
54	MG	BA	3391	1/1	0.97	0.21	24,24,24,24	0
54	MG	BA	3403	1/1	0.97	0.19	35,35,35,35	0
54	MG	DA	3017	1/1	0.97	0.11	48,48,48,48	0
54	MG	DA	3548	1/1	0.97	0.11	54,54,54,54	0
54	MG	CA	1667	1/1	0.97	0.34	66,66,66,66	0
54	MG	CA	1687	1/1	0.97	0.18	68,68,68,68	0
54	MG	BA	3057	1/1	0.97	0.31	29,29,29,29	0
54	MG	BA	3350	1/1	0.97	0.14	28,28,28,28	0
54	MG	AA	1773	1/1	0.97	0.19	52,52,52,52	0
54	MG	BA	3393	1/1	0.97	0.20	29,29,29,29	0
54	MG	BA	3311	1/1	0.97	0.18	34,34,34,34	0
54	MG	BA	3258	1/1	0.97	0.21	18,18,18,18	0
54	MG	BA	3209	1/1	0.97	0.24	19,19,19,19	0
54	MG	BA	3181	1/1	0.97	0.07	41,41,41,41	0
54	MG	DA	3080	1/1	0.97	0.09	48,48,48,48	0
54	MG	BA	3323	1/1	0.97	0.11	57,57,57,57	0
54	MG	DA	3637	1/1	0.97	0.12	63,63,63,63	0
54	MG	DO	203	1/1	0.97	0.12	75,75,75,75	0
54	MG	BA	3225	1/1	0.97	0.19	19,19,19,19	0
54	MG	DE	303	1/1	0.97	0.30	31,31,31,31	0
54	MG	DA	3238	1/1	0.97	0.08	44,44,44,44	0
54	MG	BA	3430	1/1	0.97	0.22	27,27,27,27	0
54	MG	AA	1640	1/1	0.97	0.13	70,70,70,70	0
54	MG	DA	3254	1/1	0.97	0.24	39,39,39,39	0
54	MG	BB	209	1/1	0.97	0.15	45,45,45,45	0
54	MG	DA	3361	1/1	0.97	0.24	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3021	1/1	0.97	0.20	32,32,32,32	0
54	MG	DA	3008	1/1	0.97	0.22	44,44,44,44	0
54	MG	CA	1619	1/1	0.97	0.43	56,56,56,56	0
54	MG	AA	1657	1/1	0.97	0.24	51,51,51,51	0
54	MG	BA	3602	1/1	0.97	0.06	43,43,43,43	0
54	MG	BA	3681	1/1	0.97	0.22	31,31,31,31	0
54	MG	BA	3288	1/1	0.97	0.16	44,44,44,44	0
54	MG	B3	103	1/1	0.97	0.27	38,38,38,38	0
54	MG	BA	3428	1/1	0.97	0.26	23,23,23,23	0
54	MG	DA	3433	1/1	0.97	0.11	34,34,34,34	0
54	MG	BA	3212	1/1	0.97	0.07	52,52,52,52	0
54	MG	BA	3191	1/1	0.97	0.28	43,43,43,43	0
54	MG	DA	3564	1/1	0.97	0.11	61,61,61,61	0
54	MG	BA	3524	1/1	0.97	0.08	35,35,35,35	0
54	MG	DA	3210	1/1	0.97	0.18	47,47,47,47	0
54	MG	BA	3079	1/1	0.97	0.18	45,45,45,45	0
54	MG	BA	3571	1/1	0.97	0.15	74,74,74,74	0
54	MG	BA	3189	1/1	0.97	0.06	71,71,71,71	0
54	MG	BA	3632	1/1	0.97	0.18	29,29,29,29	0
54	MG	BA	3667	1/1	0.97	0.12	22,22,22,22	0
54	MG	DA	3437	1/1	0.97	0.18	54,54,54,54	0
54	MG	DA	3407	1/1	0.97	0.15	51,51,51,51	0
54	MG	BA	3138	1/1	0.97	0.06	64,64,64,64	0
54	MG	DA	3169	1/1	0.98	0.14	32,32,32,32	0
54	MG	BA	3357	1/1	0.98	0.18	40,40,40,40	0
54	MG	BA	3082	1/1	0.98	0.15	26,26,26,26	0
54	MG	DA	3228	1/1	0.98	0.13	60,60,60,60	0
54	MG	AA	1814	1/1	0.98	0.13	66,66,66,66	0
54	MG	BA	3338	1/1	0.98	0.07	49,49,49,49	0
54	MG	BA	3472	1/1	0.98	0.07	34,34,34,34	0
54	MG	AA	1711	1/1	0.98	0.11	35,35,35,35	0
54	MG	BT	203	1/1	0.98	0.06	51,51,51,51	0
54	MG	DQ	202	1/1	0.98	0.30	39,39,39,39	0
54	MG	BA	3384	1/1	0.98	0.18	29,29,29,29	0
54	MG	BA	3575	1/1	0.98	0.17	59,59,59,59	0
54	MG	DA	3487	1/1	0.98	0.27	65,65,65,65	0
54	MG	DA	3078	1/1	0.98	0.31	41,41,41,41	0
54	MG	DA	3187	1/1	0.98	0.14	44,44,44,44	0
54	MG	BA	3558	1/1	0.98	0.13	60,60,60,60	0
54	MG	BA	3556	1/1	0.98	0.20	52,52,52,52	0
54	MG	BA	3249	1/1	0.98	0.23	20,20,20,20	0
54	MG	DA	3225	1/1	0.98	0.11	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	BA	3282	1/1	0.98	0.18	29,29,29,29	0
54	MG	BA	3050	1/1	0.98	0.26	54,54,54,54	0
54	MG	CA	1656	1/1	0.98	0.08	66,66,66,66	0
54	MG	BA	3190	1/1	0.98	0.22	36,36,36,36	0
54	MG	BA	3346	1/1	0.98	0.09	43,43,43,43	0
54	MG	CA	1693	1/1	0.98	0.07	73,73,73,73	0
54	MG	AA	1748	1/1	0.98	0.14	57,57,57,57	0
54	MG	CA	1685	1/1	0.98	0.26	62,62,62,62	0
54	MG	DA	3601	1/1	0.98	0.15	32,32,32,32	0
54	MG	BD	305	1/1	0.98	0.06	46,46,46,46	0
54	MG	BA	3139	1/1	0.98	0.17	55,55,55,55	0
54	MG	BA	3199	1/1	0.98	0.05	46,46,46,46	0
54	MG	AA	1648	1/1	0.98	0.19	73,73,73,73	0
54	MG	BF	302	1/1	0.98	0.46	31,31,31,31	0
54	MG	BB	214	1/1	0.98	0.14	38,38,38,38	0
54	MG	BA	3438	1/1	0.98	0.14	31,31,31,31	0
54	MG	BA	3166	1/1	0.98	0.09	53,53,53,53	0
54	MG	DA	3633	1/1	0.98	0.19	49,49,49,49	0
54	MG	BA	3437	1/1	0.98	0.16	28,28,28,28	0
54	MG	BA	3405	1/1	0.98	0.16	22,22,22,22	0
54	MG	BA	3008	1/1	0.98	0.24	20,20,20,20	0
54	MG	BA	3700	1/1	0.98	0.08	41,41,41,41	0
54	MG	CA	1745	1/1	0.98	0.27	52,52,52,52	0
54	MG	DA	3511	1/1	0.98	0.07	44,44,44,44	0
54	MG	BA	3093	1/1	0.98	0.13	28,28,28,28	0
54	MG	BA	3313	1/1	0.98	0.15	23,23,23,23	0
54	MG	BA	3349	1/1	0.98	0.15	30,30,30,30	0
54	MG	DA	3427	1/1	0.98	0.21	24,24,24,24	0
54	MG	BA	3555	1/1	0.98	0.13	23,23,23,23	0
54	MG	AA	1712	1/1	0.98	0.15	43,43,43,43	0
54	MG	BA	3051	1/1	0.98	0.12	33,33,33,33	0
54	MG	BA	3060	1/1	0.98	0.24	49,49,49,49	0
54	MG	DA	3259	1/1	0.98	0.16	39,39,39,39	0
54	MG	BA	3518	1/1	0.98	0.28	28,28,28,28	0
54	MG	DA	3107	1/1	0.98	0.23	38,38,38,38	0
54	MG	BA	3019	1/1	0.98	0.13	23,23,23,23	0
54	MG	BA	3017	1/1	0.98	0.17	27,27,27,27	0
54	MG	CA	1676	1/1	0.98	0.06	64,64,64,64	0
54	MG	DA	3354	1/1	0.98	0.15	39,39,39,39	0
54	MG	BA	3543	1/1	0.98	0.21	29,29,29,29	0
54	MG	BA	3548	1/1	0.98	0.13	32,32,32,32	0
54	MG	BA	3697	1/1	0.98	0.18	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	ZN	D6	101	1/1	0.98	0.13	66,66,66,66	0
54	MG	DA	3440	1/1	0.98	0.12	65,65,65,65	0
54	MG	BA	3115	1/1	0.98	0.08	35,35,35,35	0
54	MG	BA	3049	1/1	0.98	0.21	26,26,26,26	0
54	MG	BA	3442	1/1	0.98	0.25	24,24,24,24	0
54	MG	AA	1747	1/1	0.98	0.07	60,60,60,60	0
54	MG	DA	3621	1/1	0.98	0.12	41,41,41,41	0
54	MG	BA	3385	1/1	0.98	0.18	31,31,31,31	0
54	MG	AA	1775	1/1	0.98	0.11	63,63,63,63	0
54	MG	DA	3396	1/1	0.98	0.14	48,48,48,48	0
54	MG	BA	3406	1/1	0.98	0.21	25,25,25,25	0
54	MG	BA	3552	1/1	0.98	0.13	26,26,26,26	0
54	MG	DA	3528	1/1	0.98	0.22	36,36,36,36	0
54	MG	DA	3203	1/1	0.98	0.06	36,36,36,36	0
54	MG	CA	1722	1/1	0.98	0.13	58,58,58,58	0
54	MG	BA	3387	1/1	0.98	0.25	27,27,27,27	0
54	MG	BA	3250	1/1	0.98	0.12	39,39,39,39	0
54	MG	AA	1735	1/1	0.98	0.44	62,62,62,62	0
54	MG	BA	3354	1/1	0.98	0.13	24,24,24,24	0
54	MG	BA	3179	1/1	0.98	0.34	31,31,31,31	0
54	MG	DA	3468	1/1	0.98	0.06	66,66,66,66	0
54	MG	DA	3242	1/1	0.98	0.12	36,36,36,36	0
54	MG	BB	217	1/1	0.98	0.09	66,66,66,66	0
54	MG	BA	3489	1/1	0.98	0.04	57,57,57,57	0
54	MG	BA	3081	1/1	0.98	0.13	38,38,38,38	0
54	MG	DA	3552	1/1	0.98	0.08	56,56,56,56	0
54	MG	BA	3243	1/1	0.98	0.24	31,31,31,31	0
54	MG	BA	3412	1/1	0.98	0.18	19,19,19,19	0
54	MG	AA	1671	1/1	0.98	0.09	64,64,64,64	0
54	MG	BA	3396	1/1	0.98	0.15	39,39,39,39	0
54	MG	DA	3265	1/1	0.98	0.16	34,34,34,34	0
55	ZN	D9	101	1/1	0.98	0.09	68,68,68,68	0
54	MG	CA	1727	1/1	0.98	0.25	63,63,63,63	0
54	MG	BA	3678	1/1	0.98	0.29	47,47,47,47	0
54	MG	DA	3499	1/1	0.98	0.07	55,55,55,55	0
54	MG	BA	3482	1/1	0.98	0.19	21,21,21,21	0
54	MG	DA	3009	1/1	0.98	0.17	27,27,27,27	0
54	MG	BA	3601	1/1	0.98	0.17	43,43,43,43	0
54	MG	BA	3241	1/1	0.98	0.17	56,56,56,56	0
54	MG	CA	1740	1/1	0.98	0.34	72,72,72,72	0
54	MG	DA	3527	1/1	0.98	0.15	38,38,38,38	0
54	MG	BA	3649	1/1	0.98	0.21	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3587	1/1	0.98	0.19	49,49,49,49	0
54	MG	BA	3484	1/1	0.98	0.08	41,41,41,41	0
54	MG	BA	3373	1/1	0.98	0.19	46,46,46,46	0
54	MG	BA	3450	1/1	0.98	0.13	24,24,24,24	0
54	MG	AA	1728	1/1	0.98	0.07	68,68,68,68	0
54	MG	BA	3439	1/1	0.98	0.08	30,30,30,30	0
54	MG	BA	3004	1/1	0.98	0.21	53,53,53,53	0
54	MG	BA	3312	1/1	0.98	0.12	32,32,32,32	0
54	MG	BA	3319	1/1	0.98	0.17	26,26,26,26	0
54	MG	BA	3394	1/1	0.98	0.10	27,27,27,27	0
54	MG	DA	3239	1/1	0.98	0.12	46,46,46,46	0
54	MG	DA	3426	1/1	0.98	0.13	55,55,55,55	0
54	MG	BA	3388	1/1	0.98	0.25	20,20,20,20	0
54	MG	BA	3410	1/1	0.98	0.27	56,56,56,56	0
54	MG	DA	3612	1/1	0.98	0.36	49,49,49,49	0
54	MG	AA	1682	1/1	0.98	0.23	48,48,48,48	0
54	MG	BA	3488	1/1	0.98	0.11	20,20,20,20	0
54	MG	BA	3131	1/1	0.98	0.14	28,28,28,28	0
54	MG	BA	3728	1/1	0.98	0.07	47,47,47,47	0
54	MG	AA	1655	1/1	0.98	0.07	64,64,64,64	0
54	MG	BA	3515	1/1	0.98	0.10	35,35,35,35	0
54	MG	DB	202	1/1	0.98	0.20	67,67,67,67	0
54	MG	DR	202	1/1	0.98	0.16	45,45,45,45	0
54	MG	DA	3332	1/1	0.98	0.15	28,28,28,28	0
54	MG	CA	1679	1/1	0.99	0.15	53,53,53,53	0
54	MG	DA	3012	1/1	0.99	0.18	34,34,34,34	0
54	MG	BA	3402	1/1	0.99	0.14	31,31,31,31	0
54	MG	DA	3560	1/1	0.99	0.12	57,57,57,57	0
54	MG	BA	3368	1/1	0.99	0.08	27,27,27,27	0
54	MG	DA	3150	1/1	0.99	0.32	29,29,29,29	0
54	MG	BA	3528	1/1	0.99	0.25	27,27,27,27	0
55	ZN	AN	101	1/1	0.99	0.11	118,118,118,118	0
55	ZN	B6	101	1/1	0.99	0.13	42,42,42,42	0
54	MG	BA	3198	1/1	0.99	0.20	35,35,35,35	0
54	MG	CA	1708	1/1	0.99	0.06	73,73,73,73	0
54	MG	BA	3041	1/1	0.99	0.13	29,29,29,29	0
54	MG	AA	1751	1/1	0.99	0.26	54,54,54,54	0
55	ZN	BY	201	1/1	0.99	0.12	54,54,54,54	0
54	MG	BA	3497	1/1	0.99	0.16	29,29,29,29	0
54	MG	BA	3508	1/1	0.99	0.10	33,33,33,33	0
54	MG	BA	3176	1/1	0.99	0.10	27,27,27,27	0
54	MG	BA	3613	1/1	0.99	0.10	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	DA	3473	1/1	0.99	0.22	34,34,34,34	0
54	MG	BA	3232	1/1	0.99	0.16	24,24,24,24	0
55	ZN	B9	101	1/1	0.99	0.09	49,49,49,49	0
54	MG	DA	3431	1/1	0.99	0.15	27,27,27,27	0
54	MG	DA	3189	1/1	0.99	0.13	36,36,36,36	0
54	MG	DA	3177	1/1	0.99	0.19	32,32,32,32	0
54	MG	DA	3230	1/1	0.99	0.09	31,31,31,31	0
54	MG	BA	3413	1/1	0.99	0.14	24,24,24,24	0
54	MG	DA	3631	1/1	0.99	0.06	54,54,54,54	0
54	MG	BA	3498	1/1	0.99	0.13	45,45,45,45	0
55	ZN	B5	102	1/1	0.99	0.14	42,42,42,42	0
54	MG	BA	3604	1/1	0.99	0.19	43,43,43,43	0
54	MG	BA	3407	1/1	0.99	0.13	24,24,24,24	0
54	MG	BA	3010	1/1	0.99	0.14	27,27,27,27	0
54	MG	BA	3304	1/1	0.99	0.15	33,33,33,33	0
54	MG	BA	3378	1/1	0.99	0.12	24,24,24,24	0
54	MG	BA	3698	1/1	0.99	0.22	24,24,24,24	0
54	MG	DA	3615	1/1	0.99	0.07	67,67,67,67	0
54	MG	DA	3029	1/1	0.99	0.14	37,37,37,37	0

6.5 Other polymers

There are no such residues in this entry.