Full wwPDB X-ray Structure Validation Report (i)

Feb 1, 2016 – 10:12 PM GMT

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
http://wwpdb.org/validation/2016/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

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

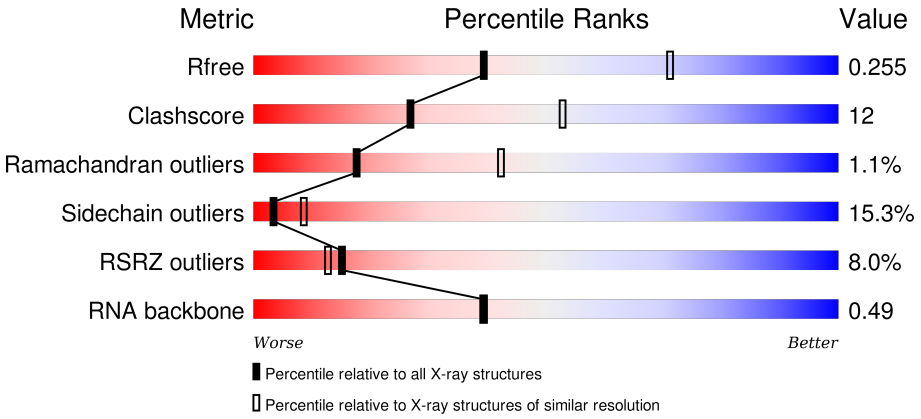
MolProbity	:	4.02b-467
Mogul	:	1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix)	:	1.9-1692
EDS	:	rb-20026688
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac	:	5.8.0135
CCP4	:	6.5.0
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk26865

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}	91344	2103 (2.70-2.70)
Clashscore	102246	2422 (2.70-2.70)
Ramachandran outliers	100387	2382 (2.70-2.70)
Sidechain outliers	100360	2382 (2.70-2.70)
RSRZ outliers	91569	2107 (2.70-2.70)
RNA backbone	2183	1069 (3.10-2.30)

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. 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	31% 50% 36% 6% 8%

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Mol	Chain	Length	Quality of chain
3	AC	239	5% 63% 19% 14%
3	CC	239	23% 41% 36% 8% 14%
4	AD	209	17% 70% 23% 7%
4	CD	209	14% 61% 31% 8%
5	AE	162	56% 31% 9%
5	CE	162	9% 54% 32% 6% 9%
6	AF	101	4% 70% 23% 6%
6	CF	101	3% 70% 21% 7%
7	AG	156	4% 71% 24%
7	CG	156	28% 56% 37% 6%
8	AH	138	6% 64% 30% 6%
8	CH	138	10% 64% 29% 7%
9	AI	128	11% 52% 40% 5%
9	CI	128	36% 48% 41% 9%
10	AJ	105	19% 42% 40% 9% 9%
10	CJ	105	43% 54% 27% 10% 9%
11	AK	129	7% 67% 19% 12%
11	CK	129	12% 62% 23% 12%
12	AL	132	4% 65% 23% 8%
12	CL	132	15% 64% 25% 8%
13	AM	126	6% 50% 26% 13% 10%
13	CM	126	32% 47% 32% 10% 11%
14	AN	61	7% 52% 39% 7%
14	CN	61	31% 41% 38% 16%
15	AO	89	3% 63% 30%

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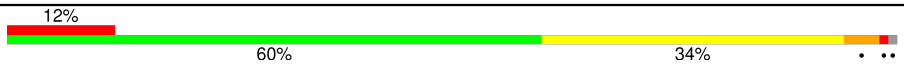
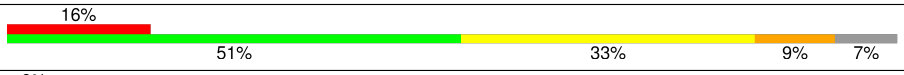
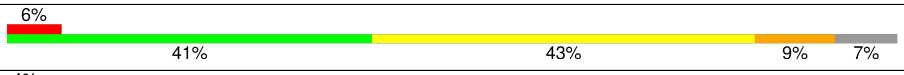
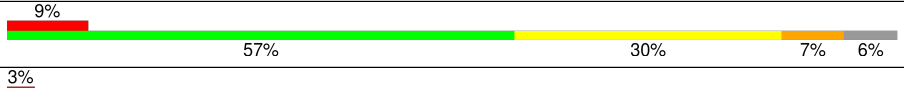
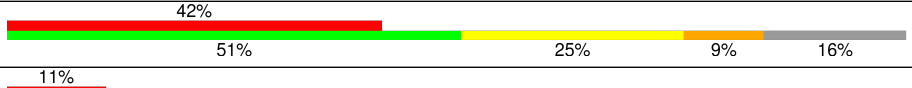
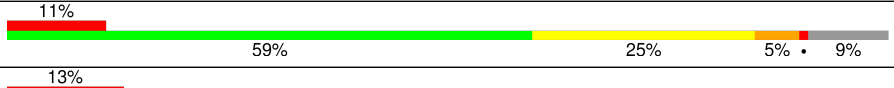
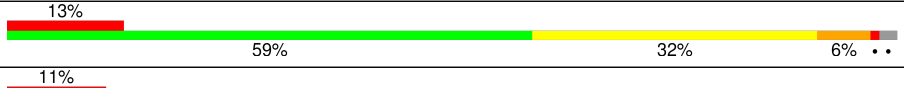
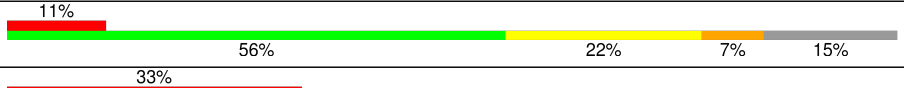
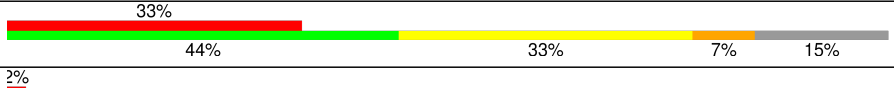
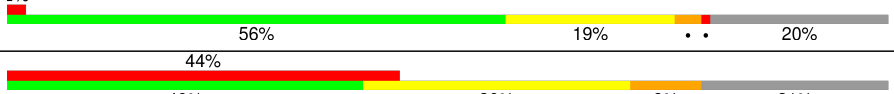
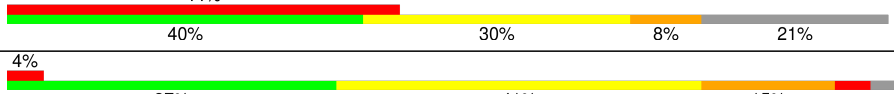
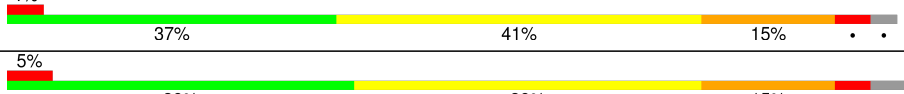
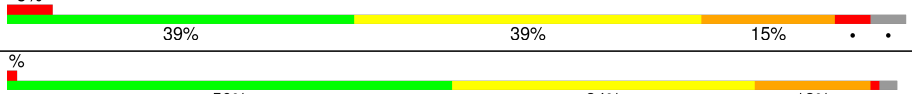
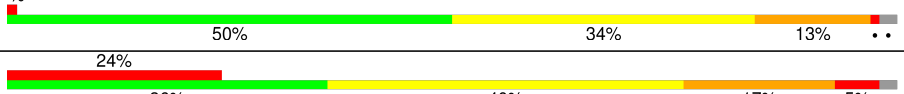
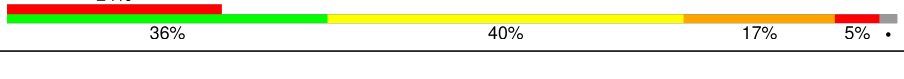
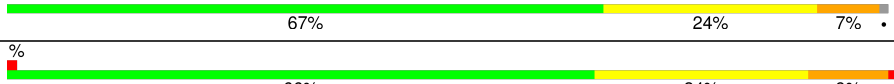
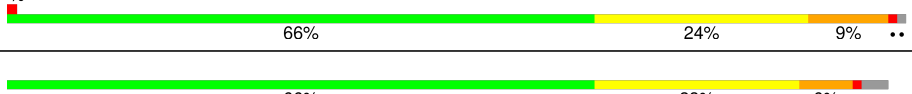
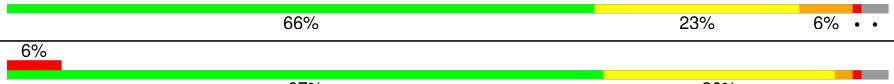
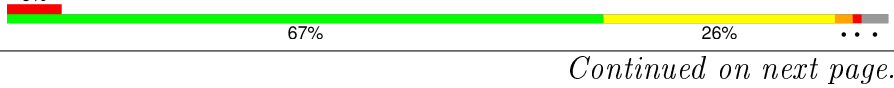
Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AY	119	
22	CY	119	
23	BA	2915	
23	DA	2915	
24	BB	122	
24	DB	122	
25	BD	276	
25	DD	276	
26	BE	206	
26	DE	206	
27	BF	210	
27	DF	210	

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Mol	Chain	Length	Quality of chain
28	BG	182	3% 65% 29% 6%
28	DG	182	48% 61% 32% 5%
29	BH	180	2% 69% 24%
29	DH	180	32% 70% 23%
30	BI	148	9% 53% 36% 9%
30	DI	148	9% 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	12% 63% 26% 8%
34	BQ	141	68% 27%
34	DQ	141	6% 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	3% 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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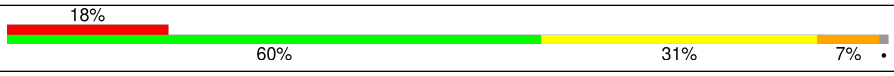
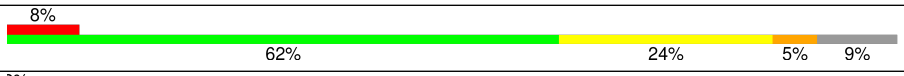
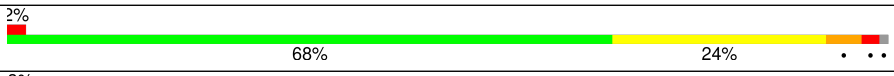
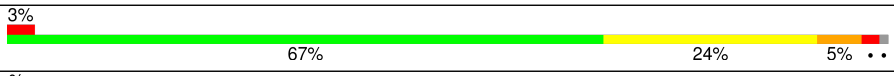
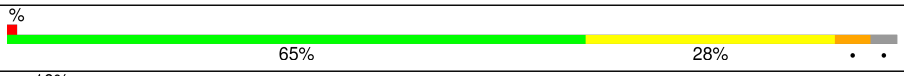
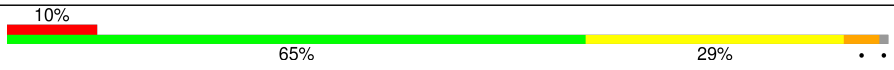
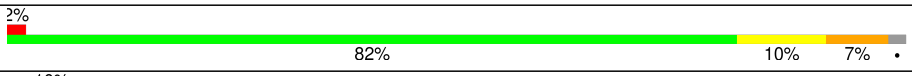
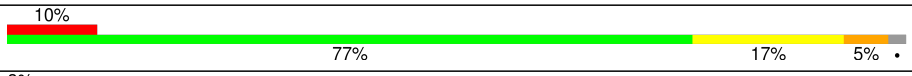
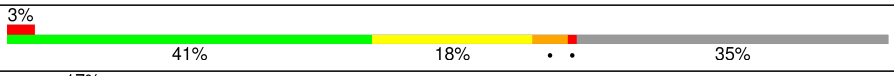
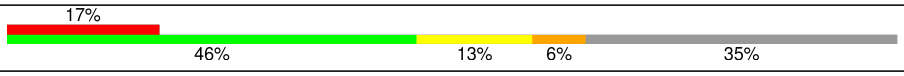
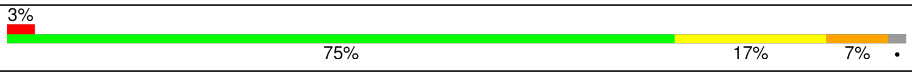
Mol	Chain	Length	Quality of chain
40	DW	113	
41	BX	96	
41	DX	96	
42	BY	110	
42	DY	110	
43	BZ	206	
43	DZ	206	
44	B0	85	
44	D0	85	
45	B1	98	
45	D1	98	
46	B2	72	
46	D2	72	
47	B3	60	
47	D3	60	
48	B4	71	
48	D4	71	
49	B5	60	
49	D5	60	
50	B6	54	
50	D6	54	
51	B7	49	
51	D7	49	
52	B8	65	
52	D8	65	

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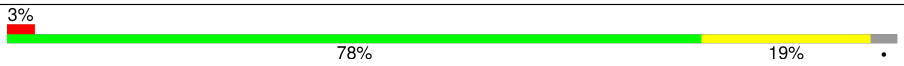
Mol	Chain	Length	Quality of chain
53	B9	37	
53	D9	37	

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	AA	1619	-	-	-	X
54	MG	AA	1620	-	-	-	X
54	MG	AA	1626	-	-	-	X
54	MG	AA	1630	-	-	-	X
54	MG	AA	1634	-	-	-	X
54	MG	AA	1644	-	-	-	X
54	MG	AA	1649	-	-	-	X
54	MG	AA	1650	-	-	-	X
54	MG	AA	1651	-	-	-	X
54	MG	AA	1666	-	-	-	X
54	MG	AA	1679	-	-	-	X
54	MG	AA	1682	-	-	-	X
54	MG	AA	1691	-	-	-	X
54	MG	AA	1751	-	-	-	X
54	MG	AA	1752	-	-	-	X
54	MG	AA	1763	-	-	-	X
54	MG	AA	1765	-	-	-	X
54	MG	AA	1776	-	-	-	X
54	MG	AA	1784	-	-	-	X
54	MG	AA	1787	-	-	-	X
54	MG	AI	201	-	-	-	X
54	MG	AM	201	-	-	-	X
54	MG	B0	101	-	-	-	X
54	MG	B3	103	-	-	-	X
54	MG	B9	102	-	-	-	X
54	MG	BA	3008	-	-	-	X
54	MG	BA	3015	-	-	-	X
54	MG	BA	3018	-	-	-	X
54	MG	BA	3032	-	-	-	X
54	MG	BA	3033	-	-	-	X
54	MG	BA	3035	-	-	-	X
54	MG	BA	3053	-	-	-	X
54	MG	BA	3057	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	BA	3058	-	-	-	X
54	MG	BA	3060	-	-	-	X
54	MG	BA	3074	-	-	-	X
54	MG	BA	3080	-	-	-	X
54	MG	BA	3085	-	-	-	X
54	MG	BA	3086	-	-	-	X
54	MG	BA	3102	-	-	-	X
54	MG	BA	3103	-	-	-	X
54	MG	BA	3104	-	-	-	X
54	MG	BA	3148	-	-	-	X
54	MG	BA	3159	-	-	-	X
54	MG	BA	3162	-	-	-	X
54	MG	BA	3178	-	-	-	X
54	MG	BA	3179	-	-	-	X
54	MG	BA	3190	-	-	-	X
54	MG	BA	3191	-	-	-	X
54	MG	BA	3209	-	-	-	X
54	MG	BA	3230	-	-	-	X
54	MG	BA	3243	-	-	-	X
54	MG	BA	3248	-	-	-	X
54	MG	BA	3249	-	-	-	X
54	MG	BA	3279	-	-	-	X
54	MG	BA	3296	-	-	-	X
54	MG	BA	3335	-	-	-	X
54	MG	BA	3345	-	-	-	X
54	MG	BA	3358	-	-	-	X
54	MG	BA	3359	-	-	-	X
54	MG	BA	3360	-	-	-	X
54	MG	BA	3365	-	-	-	X
54	MG	BA	3371	-	-	-	X
54	MG	BA	3372	-	-	-	X
54	MG	BA	3377	-	-	-	X
54	MG	BA	3382	-	-	-	X
54	MG	BA	3386	-	-	-	X
54	MG	BA	3387	-	-	-	X
54	MG	BA	3388	-	-	-	X
54	MG	BA	3393	-	-	-	X
54	MG	BA	3398	-	-	-	X
54	MG	BA	3403	-	-	-	X
54	MG	BA	3406	-	-	-	X
54	MG	BA	3415	-	-	-	X
54	MG	BA	3418	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	BA	3421	-	-	-	X
54	MG	BA	3428	-	-	-	X
54	MG	BA	3430	-	-	-	X
54	MG	BA	3431	-	-	-	X
54	MG	BA	3433	-	-	-	X
54	MG	BA	3462	-	-	-	X
54	MG	BA	3481	-	-	-	X
54	MG	BA	3518	-	-	-	X
54	MG	BA	3520	-	-	-	X
54	MG	BA	3528	-	-	-	X
54	MG	BA	3533	-	-	-	X
54	MG	BA	3537	-	-	-	X
54	MG	BA	3543	-	-	-	X
54	MG	BA	3553	-	-	-	X
54	MG	BA	3568	-	-	-	X
54	MG	BA	3619	-	-	-	X
54	MG	BA	3620	-	-	-	X
54	MG	BA	3621	-	-	-	X
54	MG	BA	3624	-	-	-	X
54	MG	BA	3633	-	-	-	X
54	MG	BA	3643	-	-	-	X
54	MG	BA	3649	-	-	-	X
54	MG	BA	3654	-	-	-	X
54	MG	BE	301	-	-	-	X
54	MG	BE	302	-	-	-	X
54	MG	BE	303	-	-	-	X
54	MG	BE	304	-	-	-	X
54	MG	BF	302	-	-	-	X
54	MG	BF	305	-	-	-	X
54	MG	BR	203	-	-	-	X
54	MG	BU	201	-	-	-	X
54	MG	BU	203	-	-	-	X
54	MG	BV	201	-	-	-	X
54	MG	CA	1603	-	-	-	X
54	MG	CA	1615	-	-	-	X
54	MG	CA	1619	-	-	-	X
54	MG	CA	1620	-	-	-	X
54	MG	CA	1639	-	-	-	X
54	MG	CA	1645	-	-	-	X
54	MG	CA	1710	-	-	-	X
54	MG	CA	1739	-	-	-	X
54	MG	CA	1753	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	CA	1760	-	-	-	X
54	MG	CA	1768	-	-	-	X
54	MG	D7	101	-	-	-	X
54	MG	DA	3003	-	-	-	X
54	MG	DA	3008	-	-	-	X
54	MG	DA	3010	-	-	-	X
54	MG	DA	3012	-	-	-	X
54	MG	DA	3013	-	-	-	X
54	MG	DA	3019	-	-	-	X
54	MG	DA	3021	-	-	-	X
54	MG	DA	3025	-	-	-	X
54	MG	DA	3026	-	-	-	X
54	MG	DA	3034	-	-	-	X
54	MG	DA	3035	-	-	-	X
54	MG	DA	3042	-	-	-	X
54	MG	DA	3053	-	-	-	X
54	MG	DA	3054	-	-	-	X
54	MG	DA	3055	-	-	-	X
54	MG	DA	3062	-	-	-	X
54	MG	DA	3064	-	-	-	X
54	MG	DA	3072	-	-	-	X
54	MG	DA	3073	-	-	-	X
54	MG	DA	3086	-	-	-	X
54	MG	DA	3098	-	-	-	X
54	MG	DA	3100	-	-	-	X
54	MG	DA	3107	-	-	-	X
54	MG	DA	3115	-	-	-	X
54	MG	DA	3116	-	-	-	X
54	MG	DA	3129	-	-	-	X
54	MG	DA	3130	-	-	-	X
54	MG	DA	3131	-	-	-	X
54	MG	DA	3137	-	-	-	X
54	MG	DA	3150	-	-	-	X
54	MG	DA	3156	-	-	-	X
54	MG	DA	3162	-	-	-	X
54	MG	DA	3170	-	-	-	X
54	MG	DA	3175	-	-	-	X
54	MG	DA	3176	-	-	-	X
54	MG	DA	3179	-	-	-	X
54	MG	DA	3195	-	-	-	X
54	MG	DA	3199	-	-	-	X
54	MG	DA	3200	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	DA	3207	-	-	-	X
54	MG	DA	3210	-	-	-	X
54	MG	DA	3219	-	-	-	X
54	MG	DA	3221	-	-	-	X
54	MG	DA	3222	-	-	-	X
54	MG	DA	3245	-	-	-	X
54	MG	DA	3250	-	-	-	X
54	MG	DA	3257	-	-	-	X
54	MG	DA	3258	-	-	-	X
54	MG	DA	3259	-	-	-	X
54	MG	DA	3291	-	-	-	X
54	MG	DA	3295	-	-	-	X
54	MG	DA	3300	-	-	-	X
54	MG	DA	3307	-	-	-	X
54	MG	DA	3318	-	-	-	X
54	MG	DA	3366	-	-	-	X
54	MG	DA	3395	-	-	-	X
54	MG	DA	3398	-	-	-	X
54	MG	DA	3427	-	-	-	X
54	MG	DA	3428	-	-	-	X
54	MG	DA	3429	-	-	-	X
54	MG	DA	3430	-	-	-	X
54	MG	DA	3441	-	-	-	X
54	MG	DA	3455	-	-	-	X
54	MG	DA	3472	-	-	-	X
54	MG	DA	3484	-	-	-	X
54	MG	DA	3493	-	-	-	X
54	MG	DA	3496	-	-	-	X
54	MG	DA	3500	-	-	-	X
54	MG	DA	3513	-	-	-	X
54	MG	DA	3528	-	-	-	X
54	MG	DA	3549	-	-	-	X
54	MG	DA	3554	-	-	-	X
54	MG	DA	3569	-	-	-	X
54	MG	DA	3576	-	-	-	X
54	MG	DA	3577	-	-	-	X
54	MG	DA	3583	-	-	-	X
54	MG	DA	3587	-	-	-	X
54	MG	DD	304	-	-	-	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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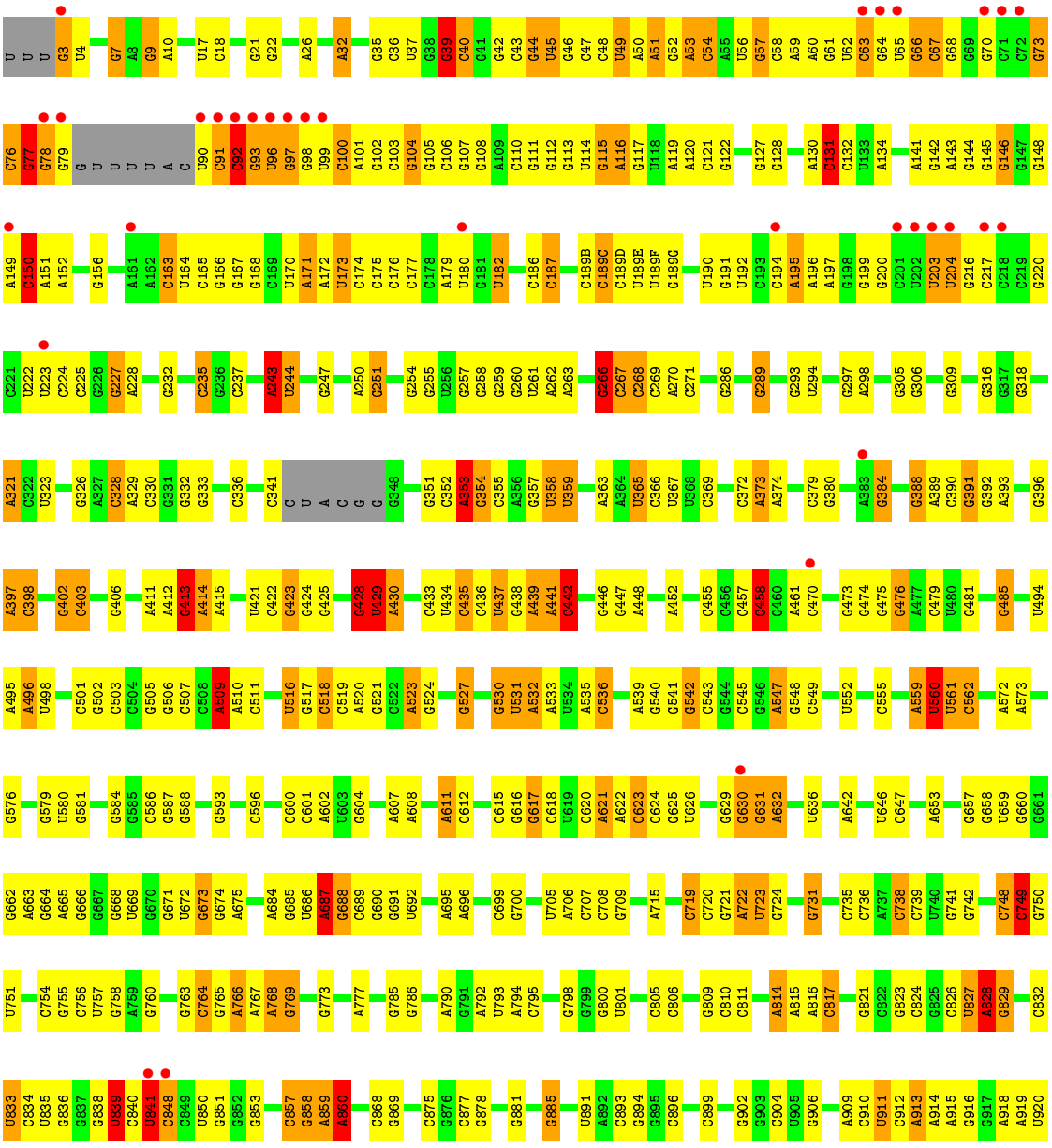
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DU	1	Total O 1 1	0	0
56	DV	1	Total O 1 1	0	0
56	DW	4	Total O 4 4	0	0
56	DX	2	Total O 2 2	0	0
56	DY	2	Total O 2 2	0	0
56	D0	2	Total O 2 2	0	0
56	D1	3	Total O 3 3	0	0
56	D2	1	Total O 1 1	0	0
56	D3	1	Total O 1 1	0	0
56	D5	3	Total O 3 3	0	0
56	D6	3	Total O 3 3	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

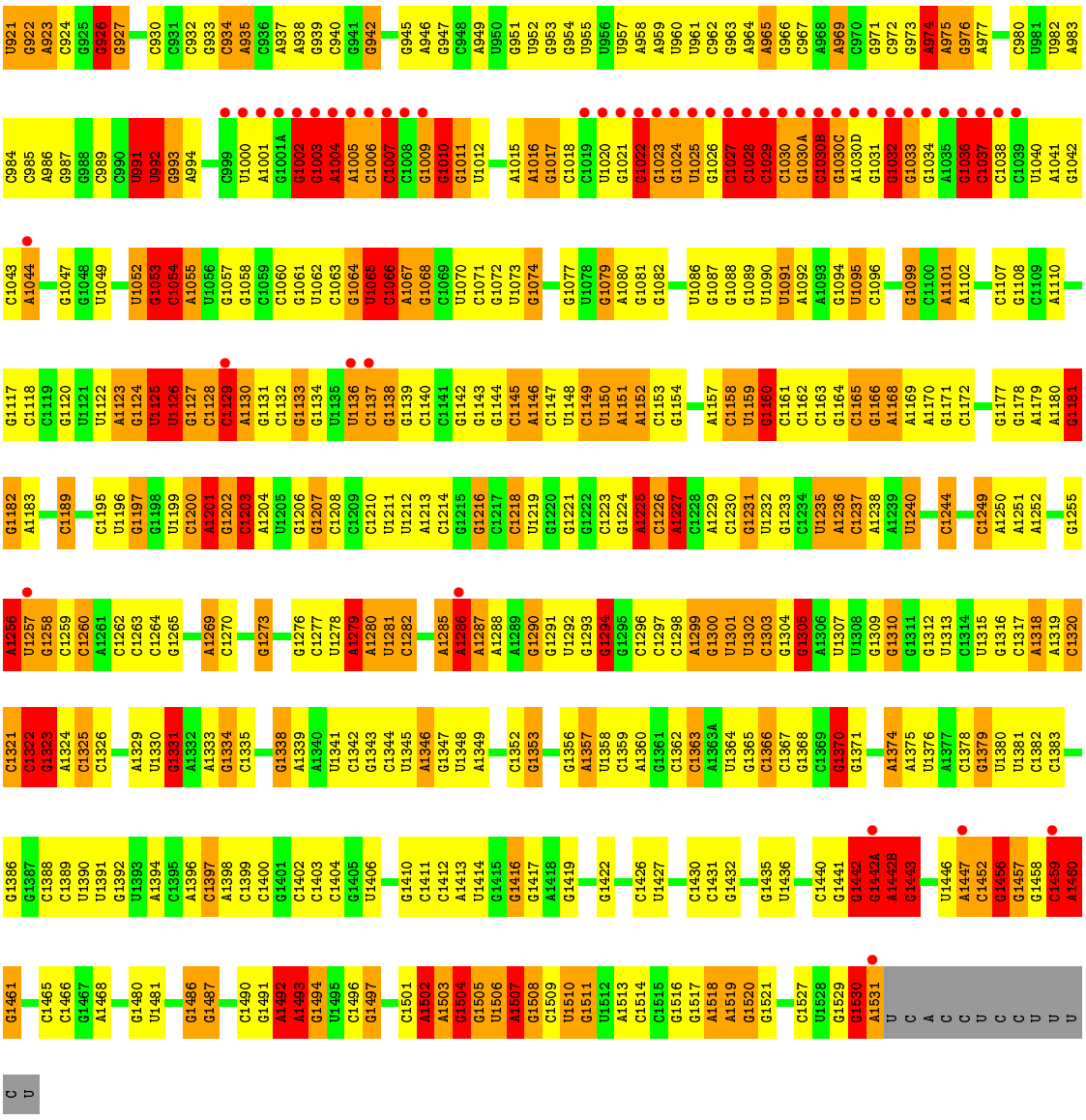
3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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

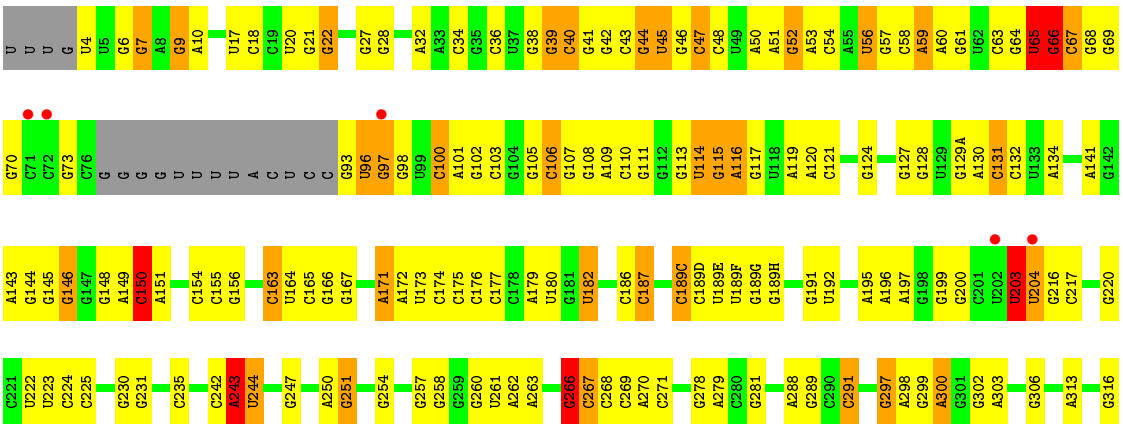
Chain AA:

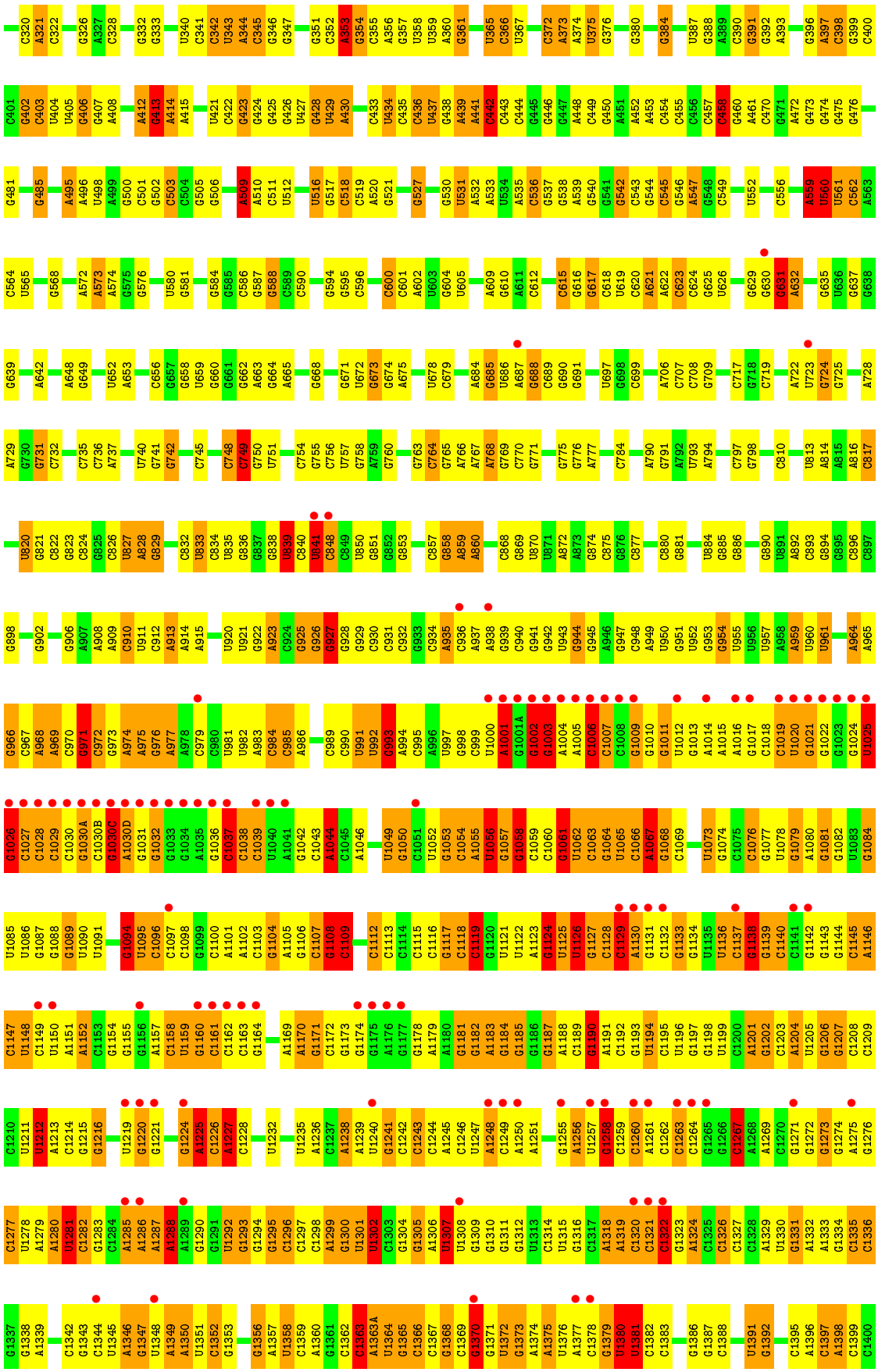


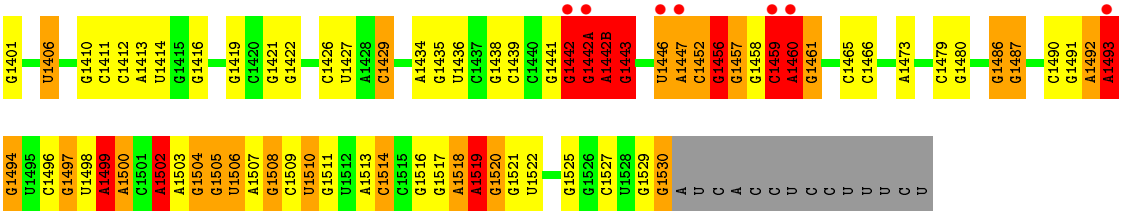


• Molecule 1: 16S Ribosomal RNA

Chain CA:

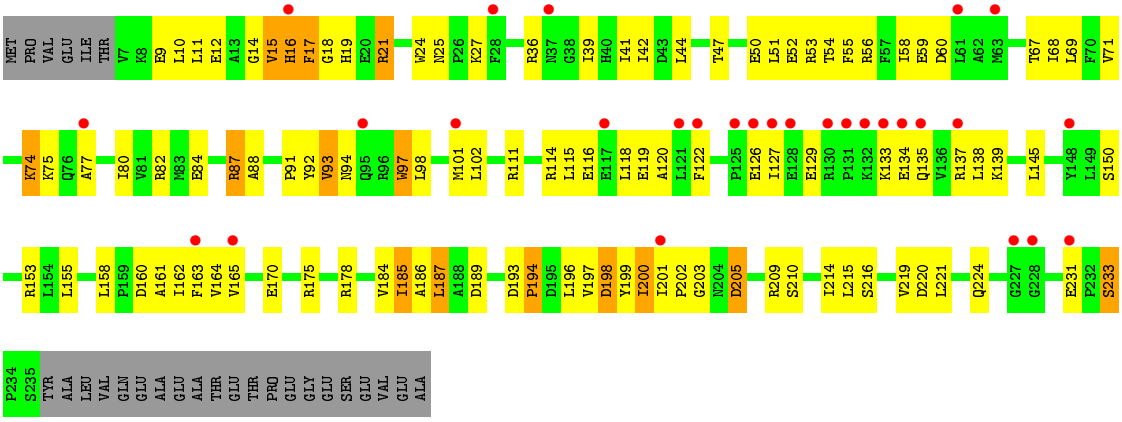






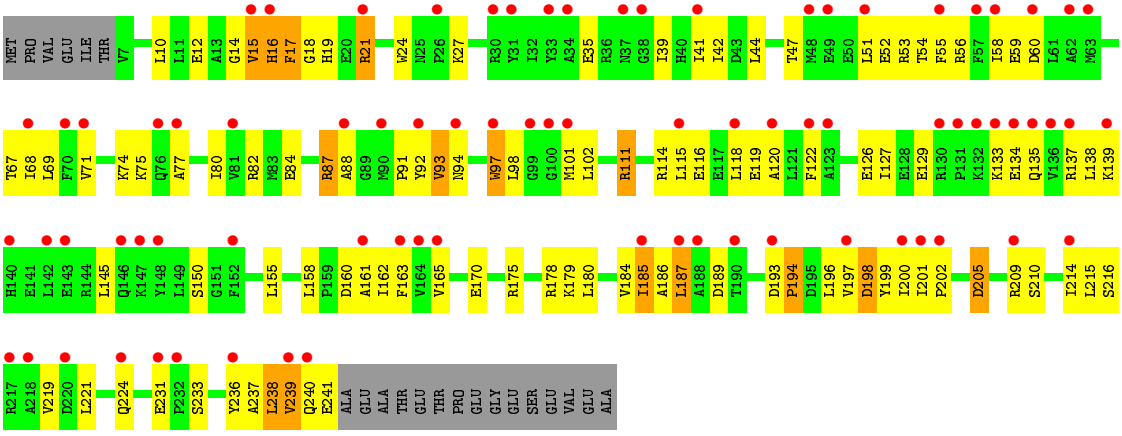
- Molecule 2: 30S Ribosomal Protein S2

Chain AB:



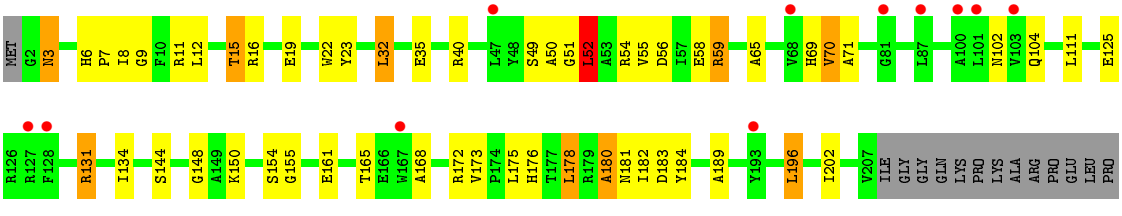
- Molecule 2: 30S Ribosomal Protein S2

Chain CB:

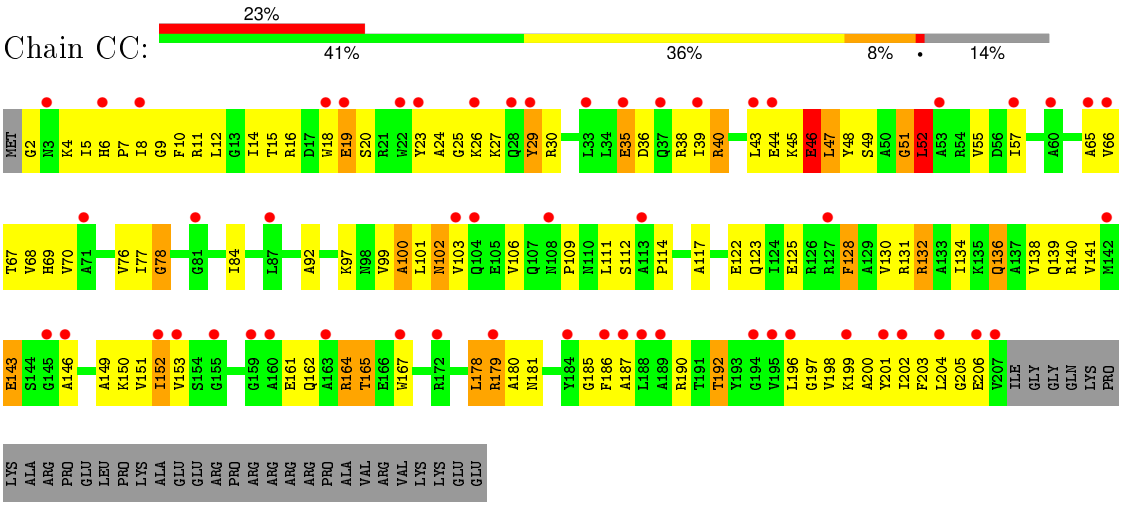


- Molecule 3: 30S Ribosomal Protein S3

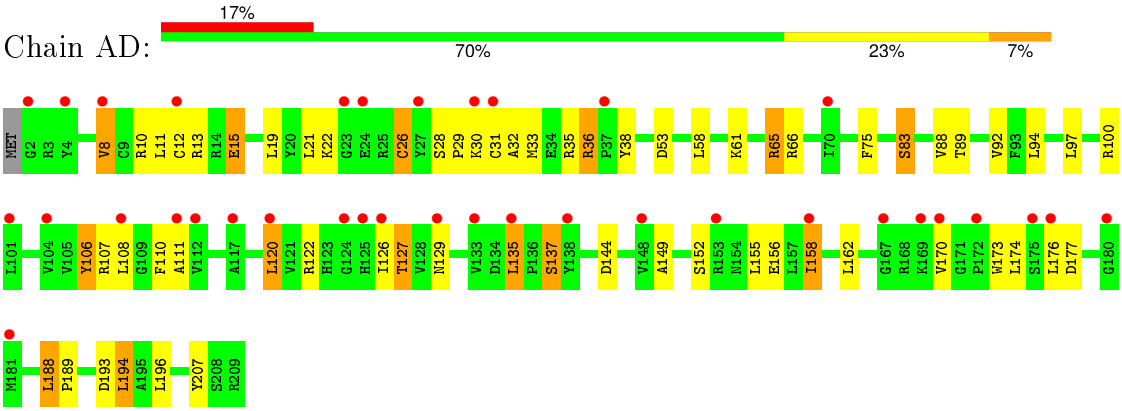
Chain AC:



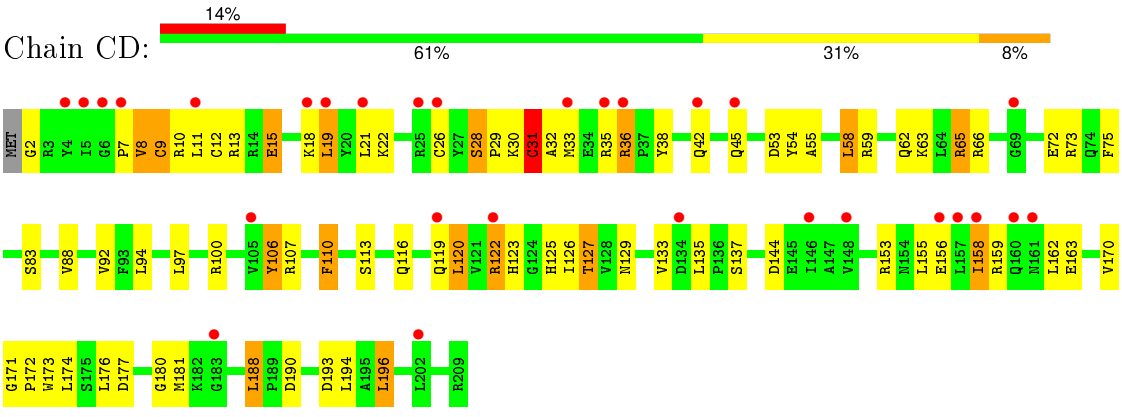
- Molecule 3: 30S Ribosomal Protein S3



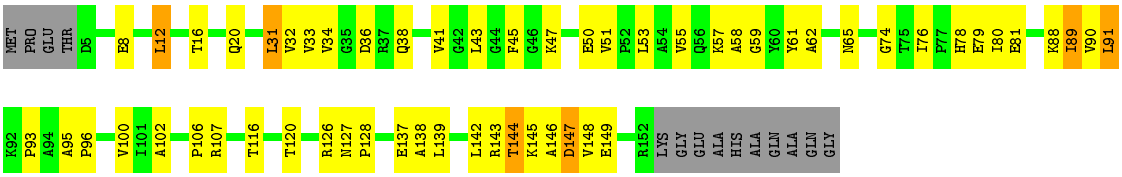
- Molecule 4: 30S Ribosomal Protein S4

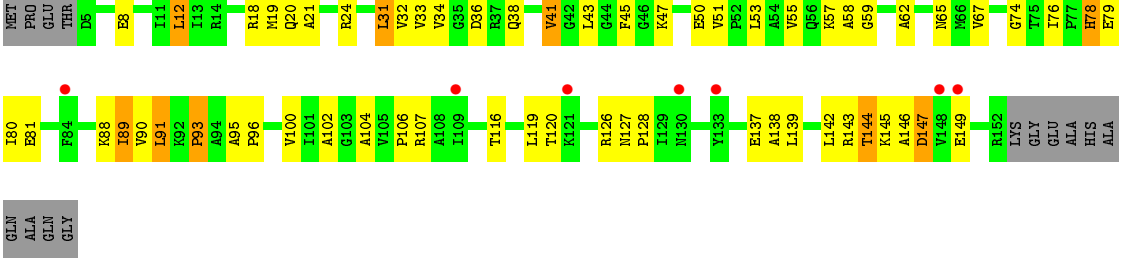


- Molecule 4: 30S Ribosomal Protein S4



- Molecule 5: 30S Ribosomal Protein S5



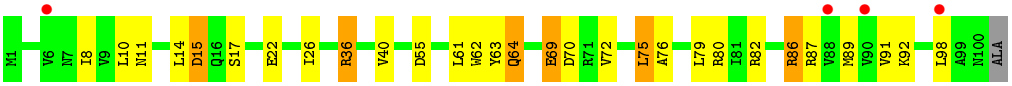


• Molecule 5: 30S Ribosomal Protein S5

Chain CE:

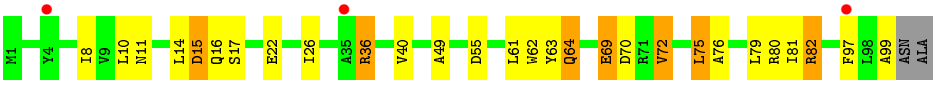
• Molecule 6: 30S Ribosomal Protein S6

Chain AF:



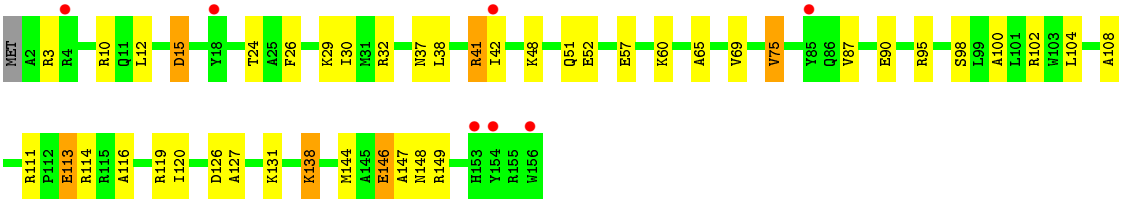
• Molecule 6: 30S Ribosomal Protein S6

Chain CF:



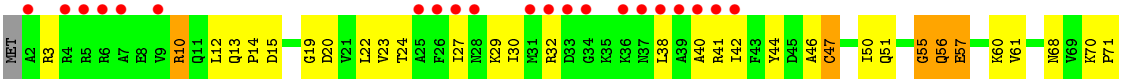
• Molecule 7: 30S Ribosomal Protein S7

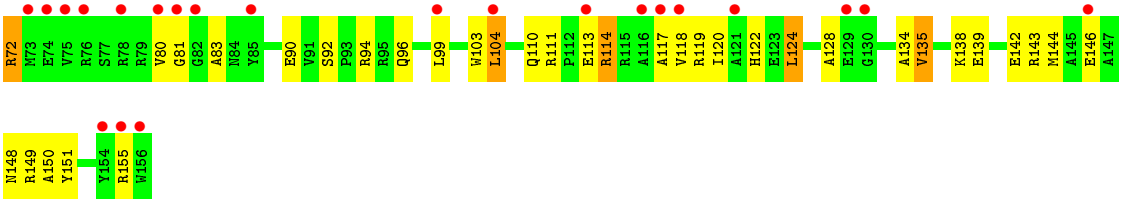
Chain AG:



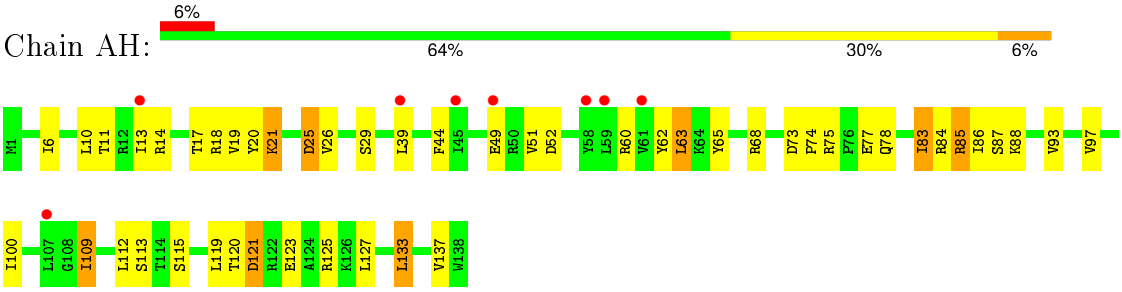
• Molecule 7: 30S Ribosomal Protein S7

Chain CG:

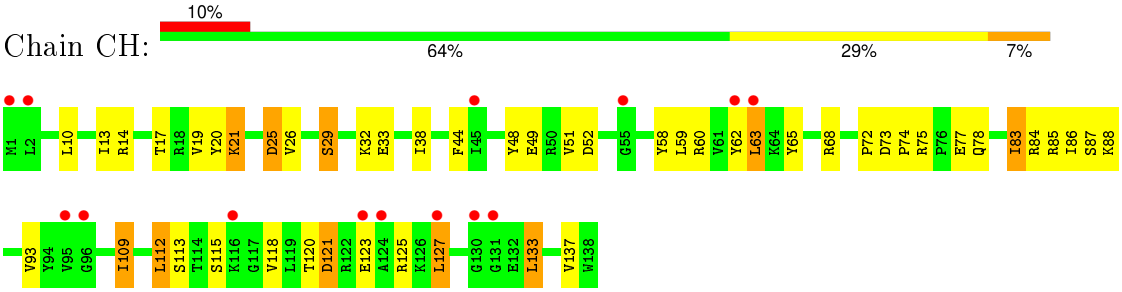




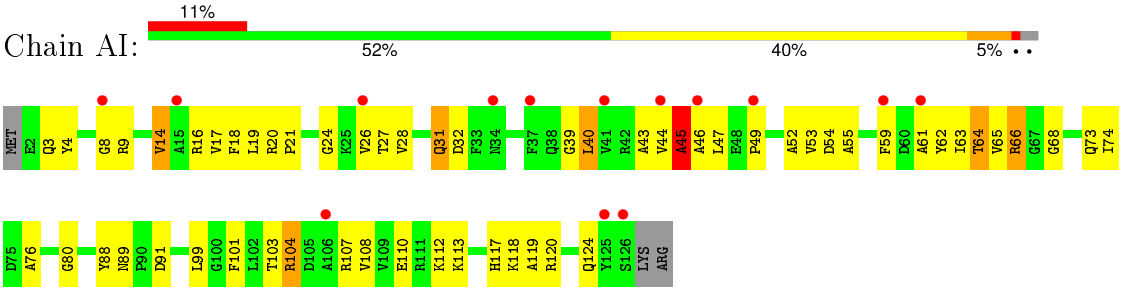
• Molecule 8: 30S Ribosomal Protein S8



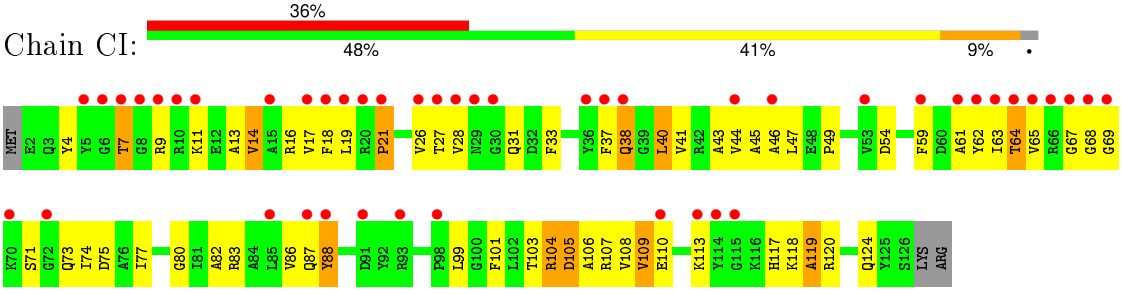
• Molecule 8: 30S Ribosomal Protein S8



• Molecule 9: 30S Ribosomal Protein S9

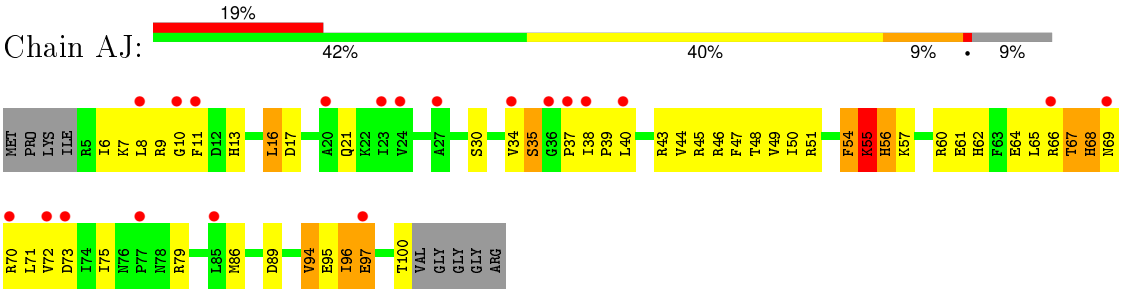


• Molecule 9: 30S Ribosomal Protein S9



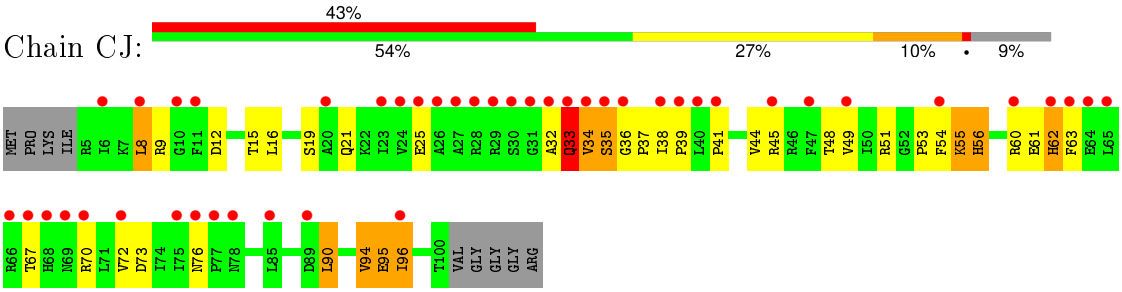
• Molecule 10: 30S Ribosomal Protein S10

Chain AJ:



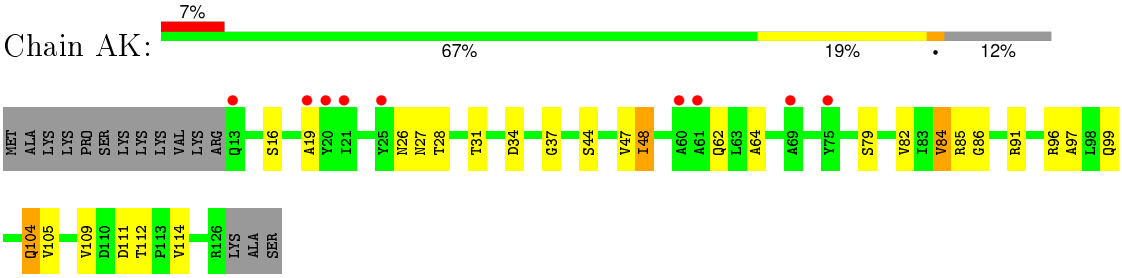
• Molecule 10: 30S Ribosomal Protein S10

Chain CJ:



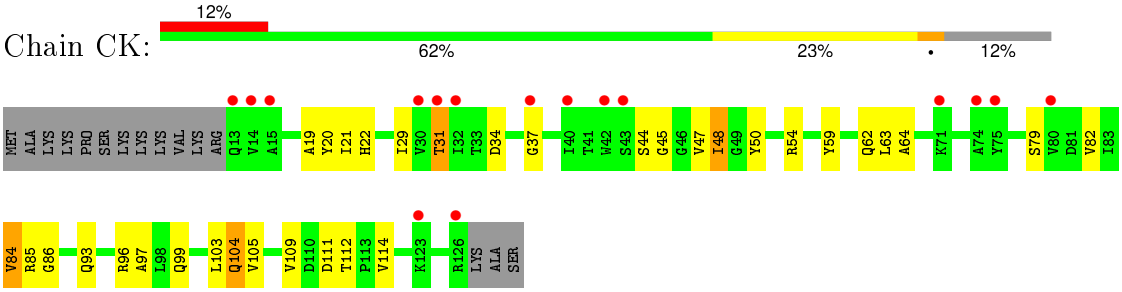
• Molecule 11: 30S Ribosomal Protein S11

Chain AK:



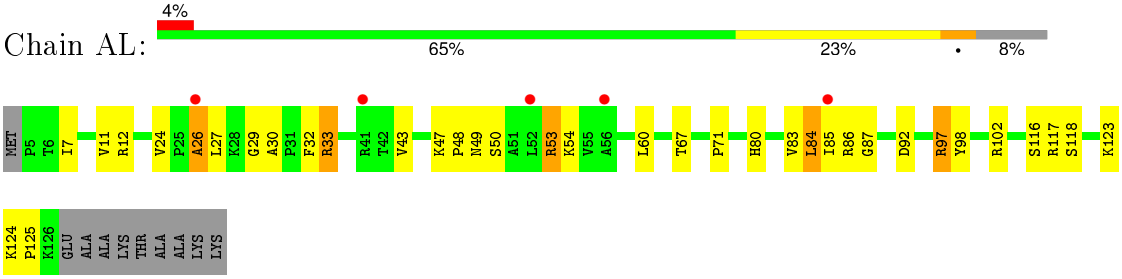
• Molecule 11: 30S Ribosomal Protein S11

Chain CK:



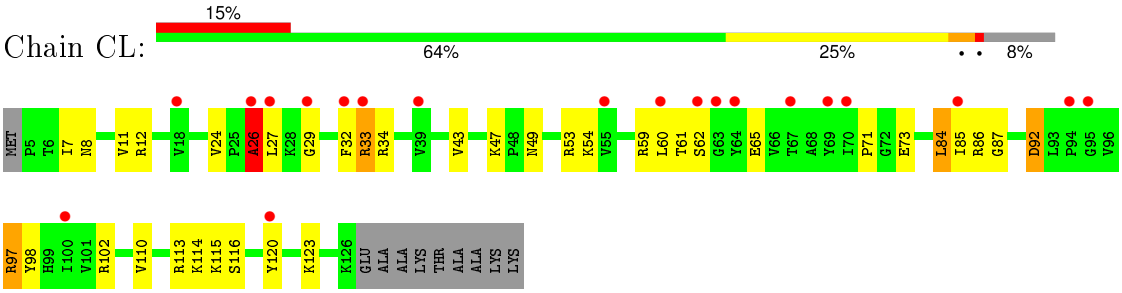
• Molecule 12: 30S Ribosomal Protein S12

Chain AL:



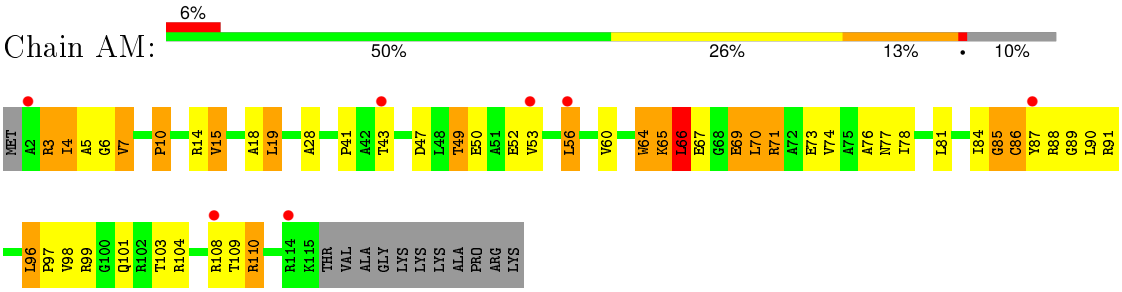
• Molecule 12: 30S Ribosomal Protein S12

Chain CL:



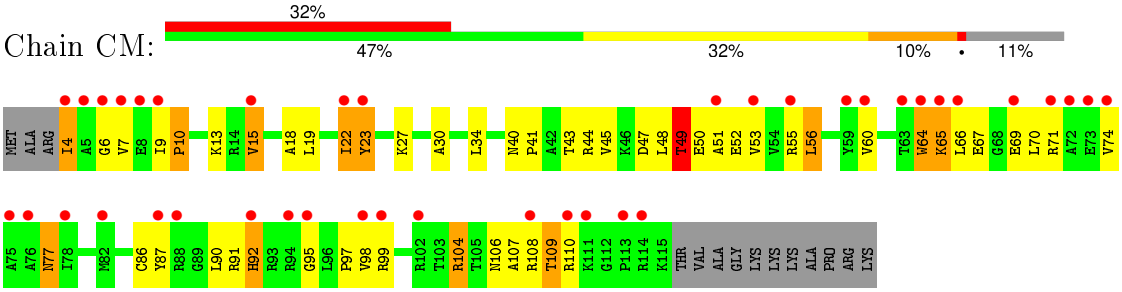
- Molecule 13: 30S Ribosomal Protein S13

Chain AM:



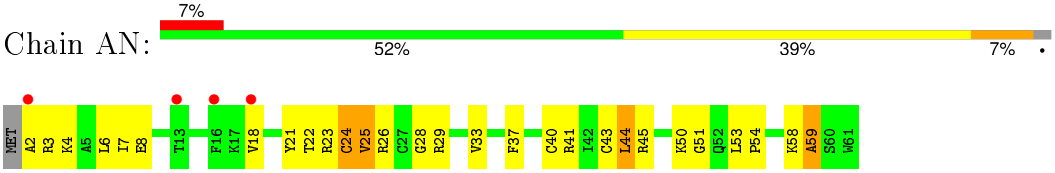
- Molecule 13: 30S Ribosomal Protein S13

Chain CM:



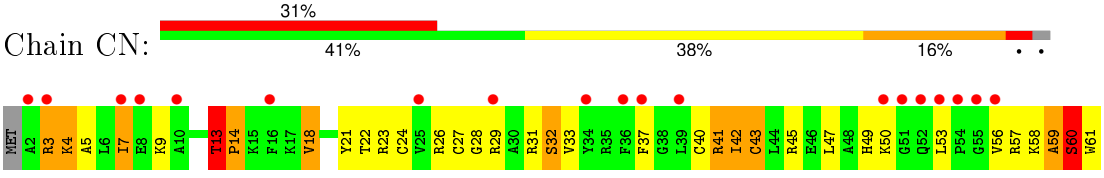
- Molecule 14: 30S Ribosomal Protein S14

Chain AN:



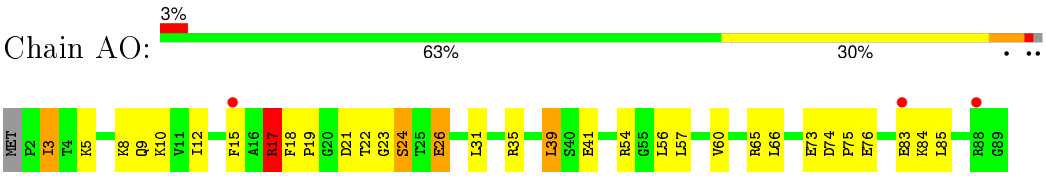
- Molecule 14: 30S Ribosomal Protein S14

Chain CN:



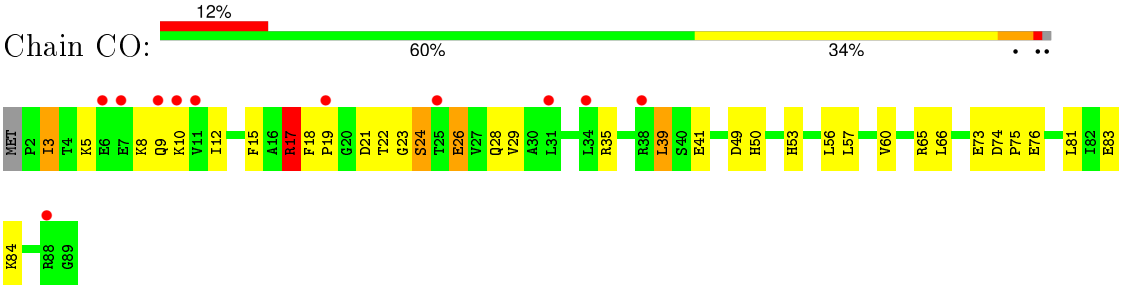
- Molecule 15: 30S Ribosomal Protein S15

Chain AO:



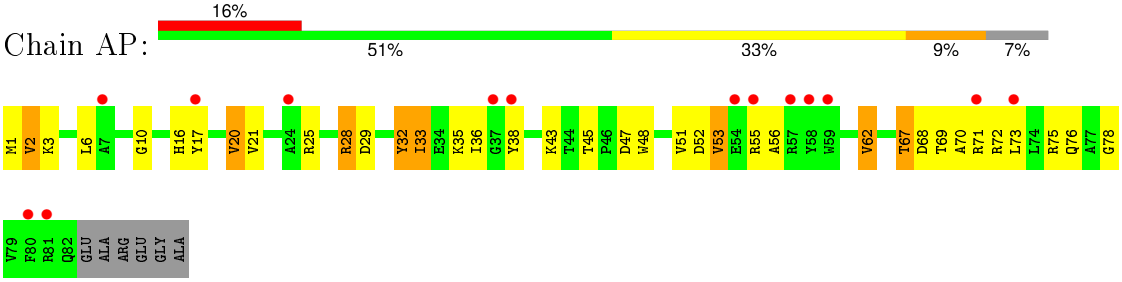
• Molecule 15: 30S Ribosomal Protein S15

Chain CO:



• Molecule 16: 30S Ribosomal Protein S16

Chain AP:



• Molecule 16: 30S Ribosomal Protein S16

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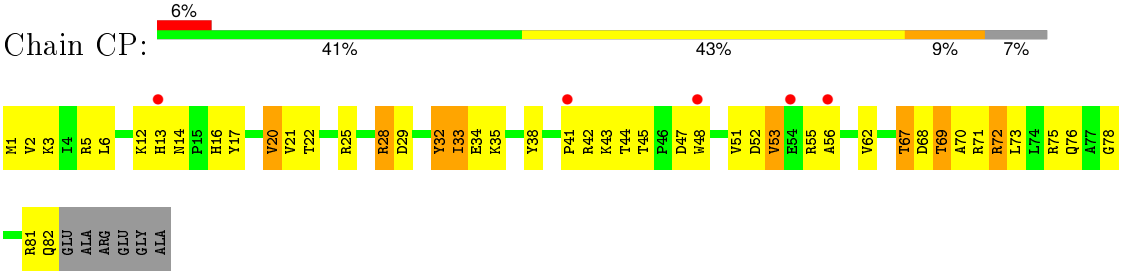
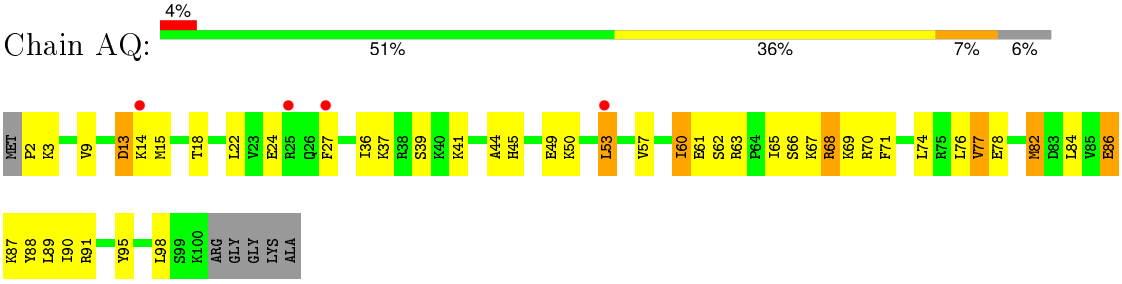


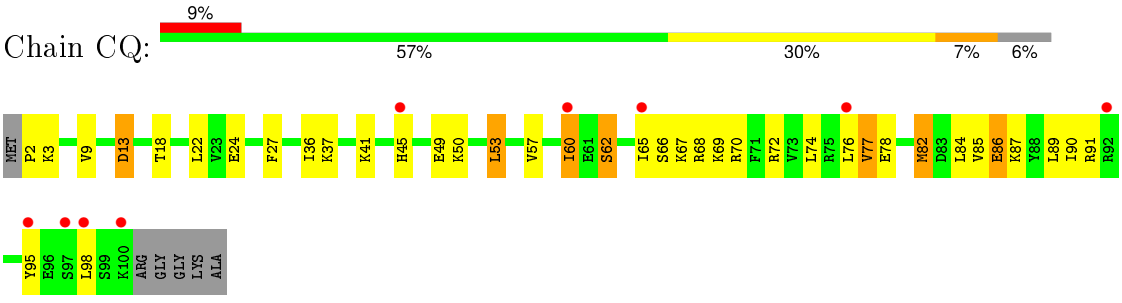
• Molecule 17: 30S Ribosomal Protein S17

Chain AQ:



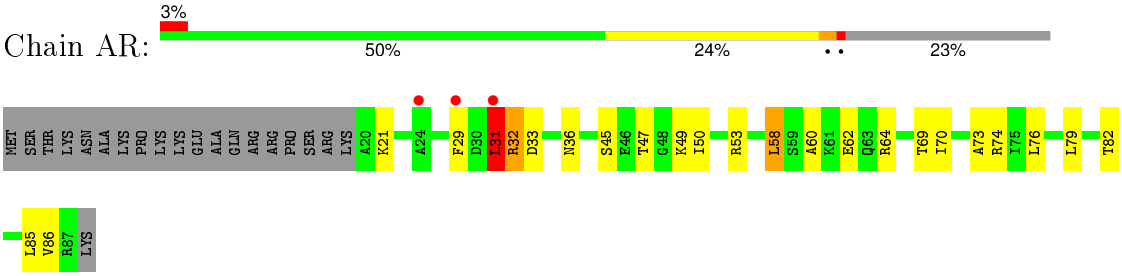
• Molecule 17: 30S Ribosomal Protein S17

Chain CQ:



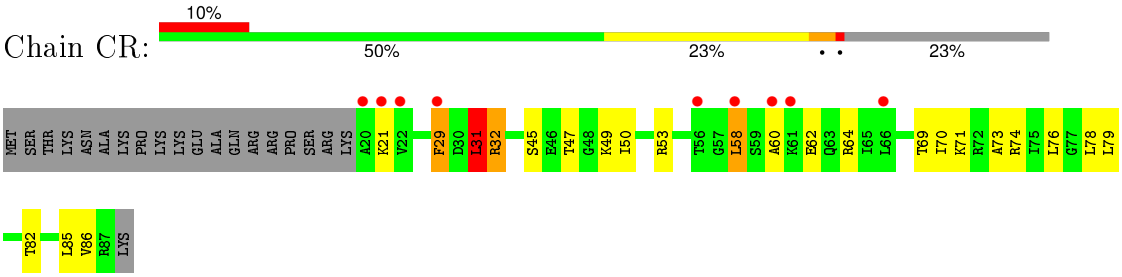
• Molecule 18: 30S Ribosomal Protein S18

Chain AR:



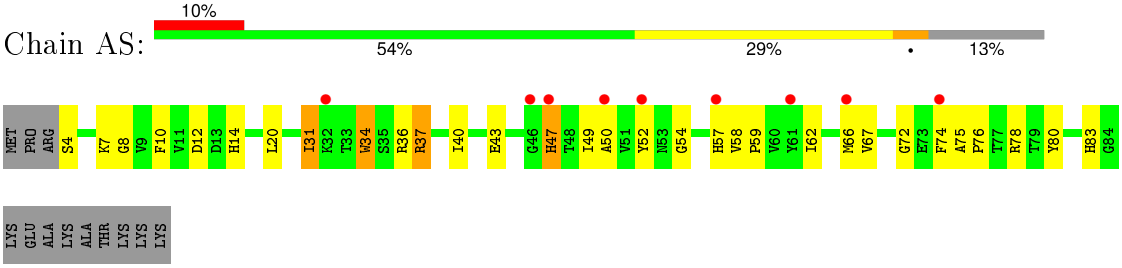
• Molecule 18: 30S Ribosomal Protein S18

Chain CR:



• Molecule 19: 30S Ribosomal Protein S19

Chain AS:



• Molecule 19: 30S Ribosomal Protein S19

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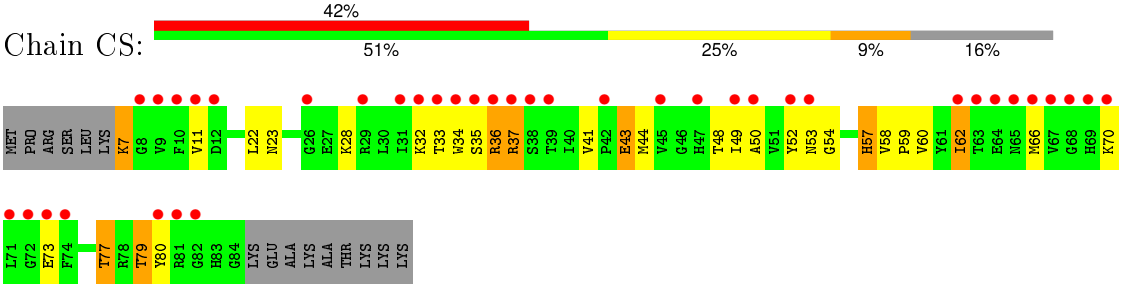
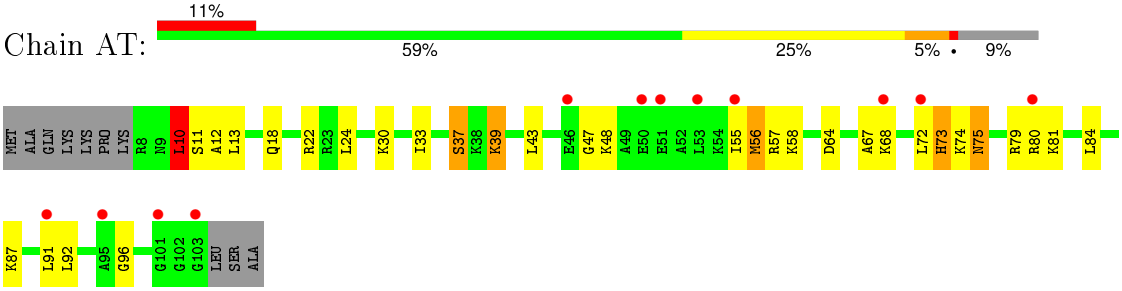


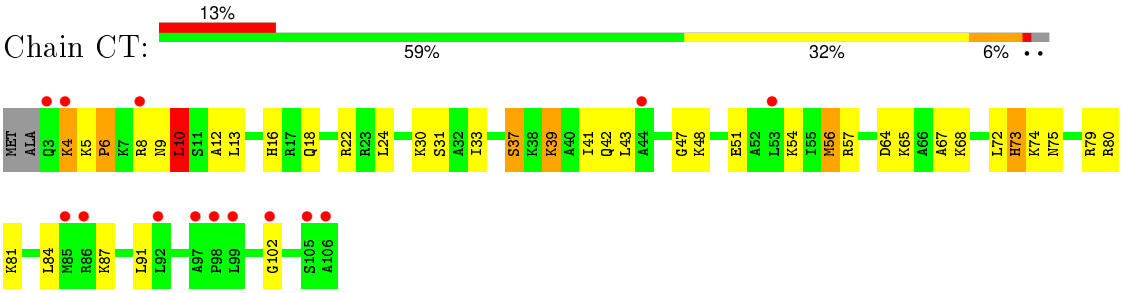
• Molecule 20: 30S Ribosomal Protein S20

Chain AT:



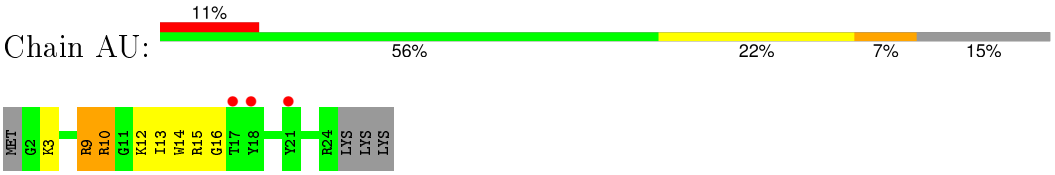
• Molecule 20: 30S Ribosomal Protein S20

Chain CT:



- Molecule 21: 30S Ribosomal Protein THX

Chain AU:

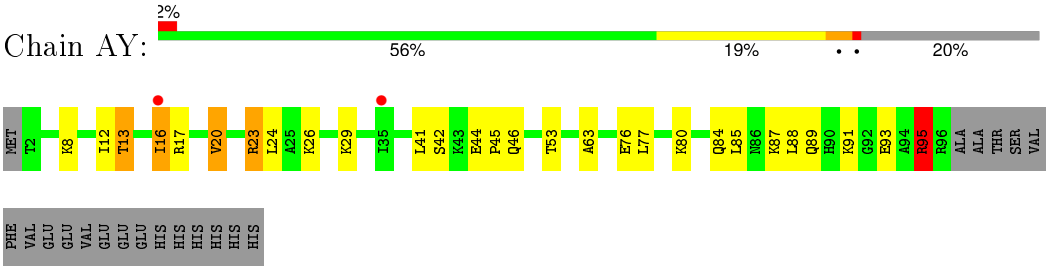


- Molecule 21: 30S Ribosomal Protein THX

Chain CU:

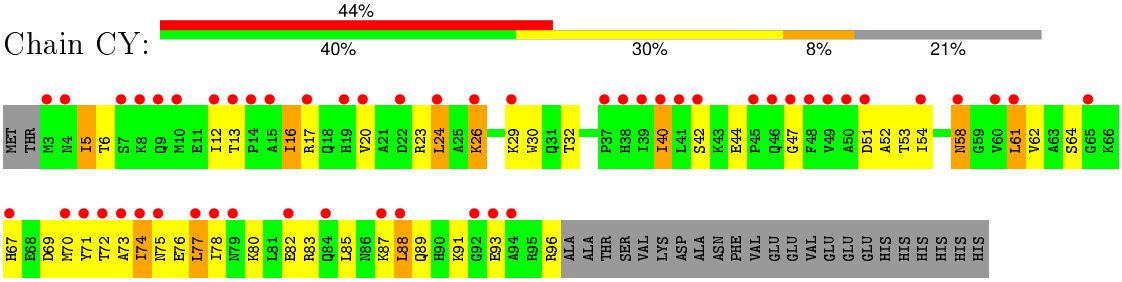
- Molecule 22: Ribosome-associated inhibitor A

Chain AY:



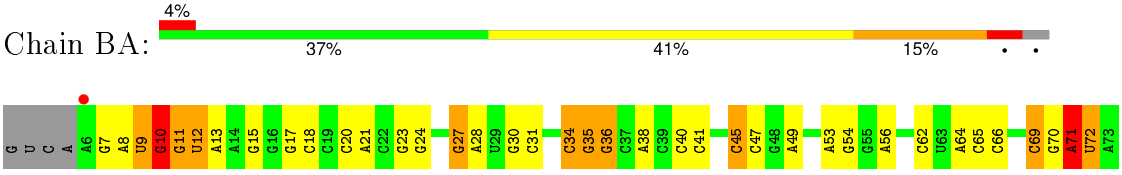
- Molecule 22: Ribosome-associated inhibitor A

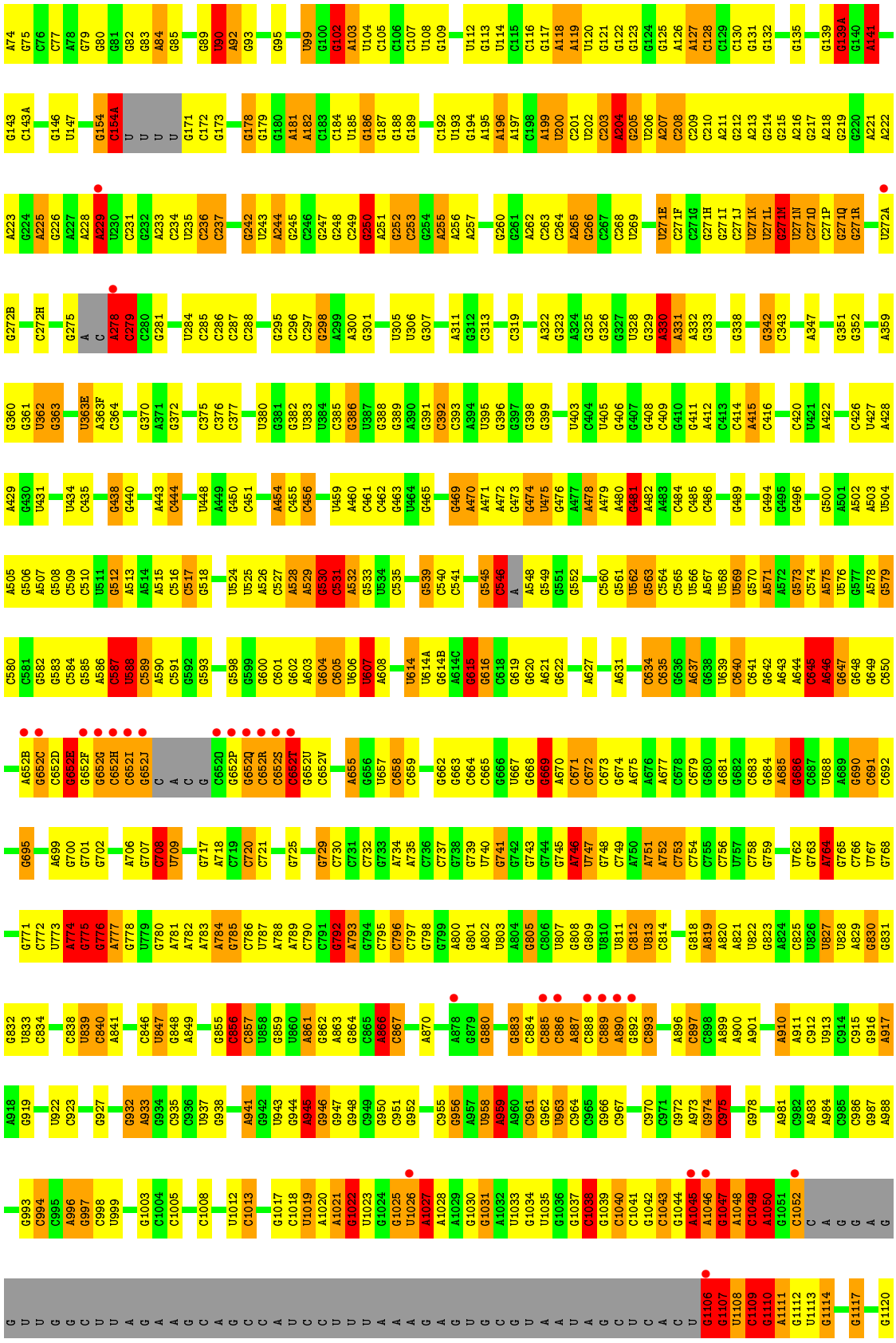
Chain CY:

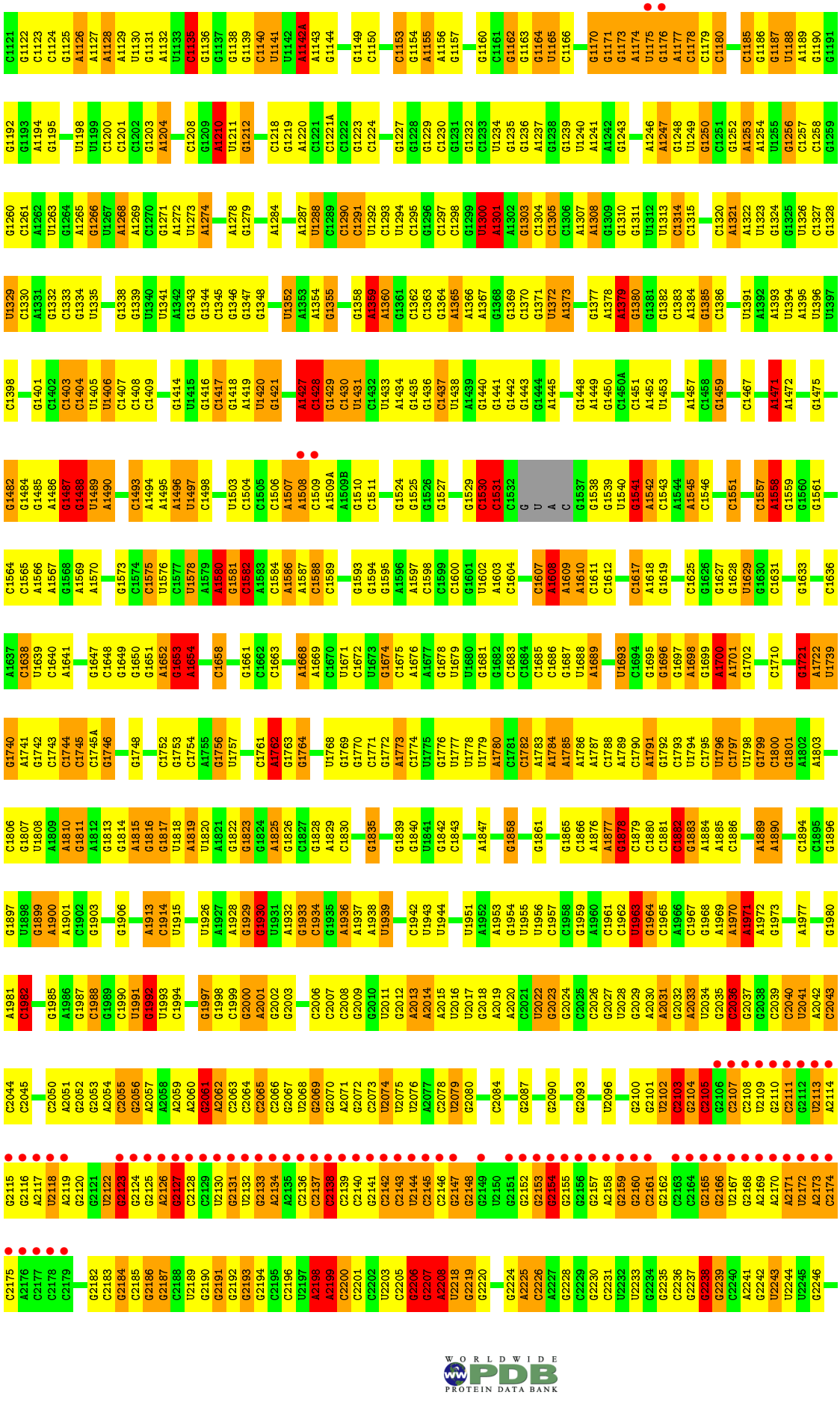


- Molecule 23: 23S Ribosomal RNA

Chain BA:



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G1192 G1193 A1194 G1195 U1198 U1199 C1200 C1201 C1202 G1203 A1204 C1208 G1209 A1210 U1211 G1212 C1218 G1219 A1220 C1221 C1221A C1222 G1223 C1224 G1227 G1228 G1229 C1230 G1231 G1232 C1233 U1234 G1235 G1236 A1237 G1238 G1239 U1240 A1241 A1242 G1243 A1246 A1247 G1248 U1249 G1250 C1251 G1252 A1253 A1254 U1255 G1256 C1257 C1258 G1259
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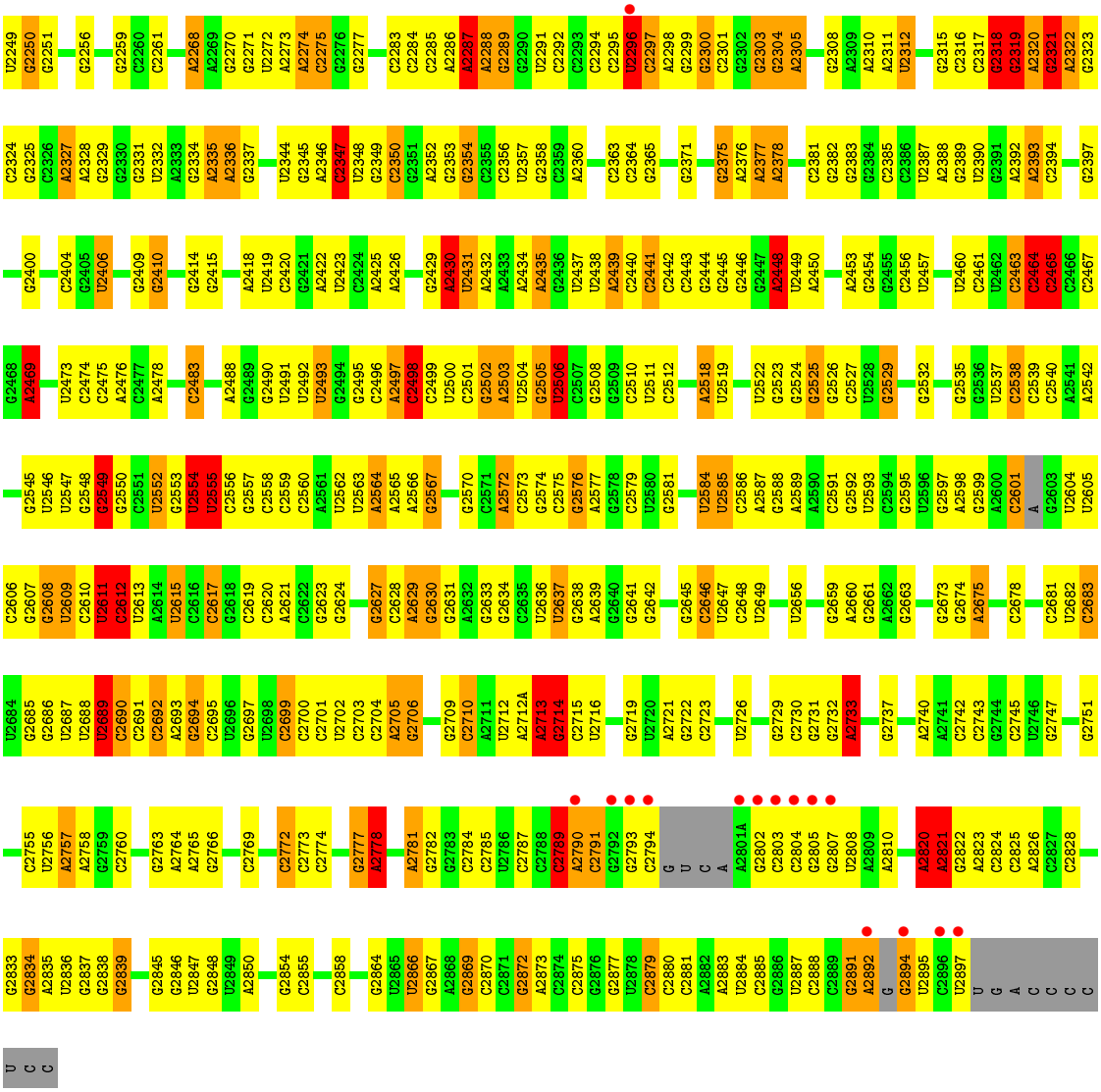
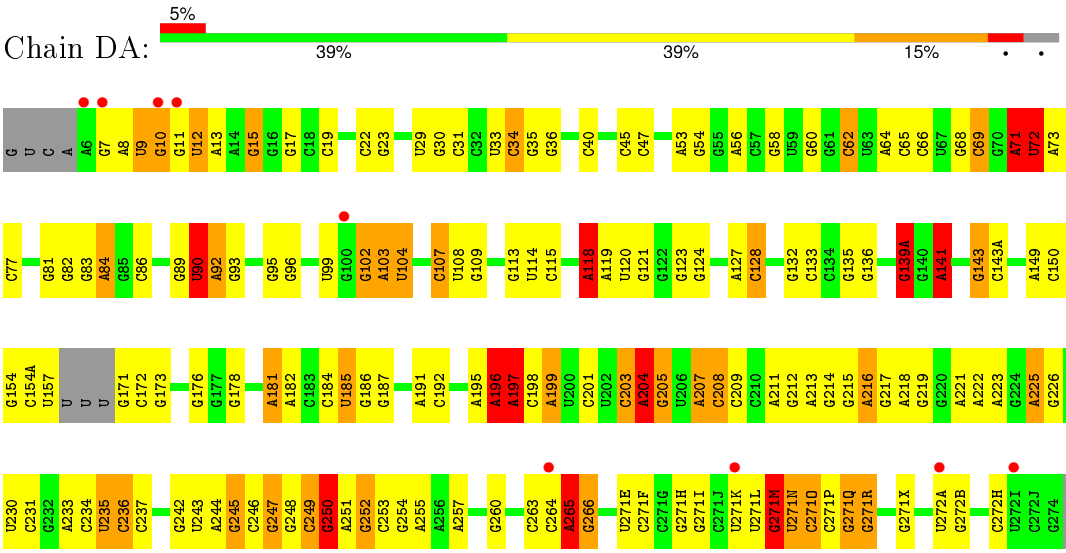
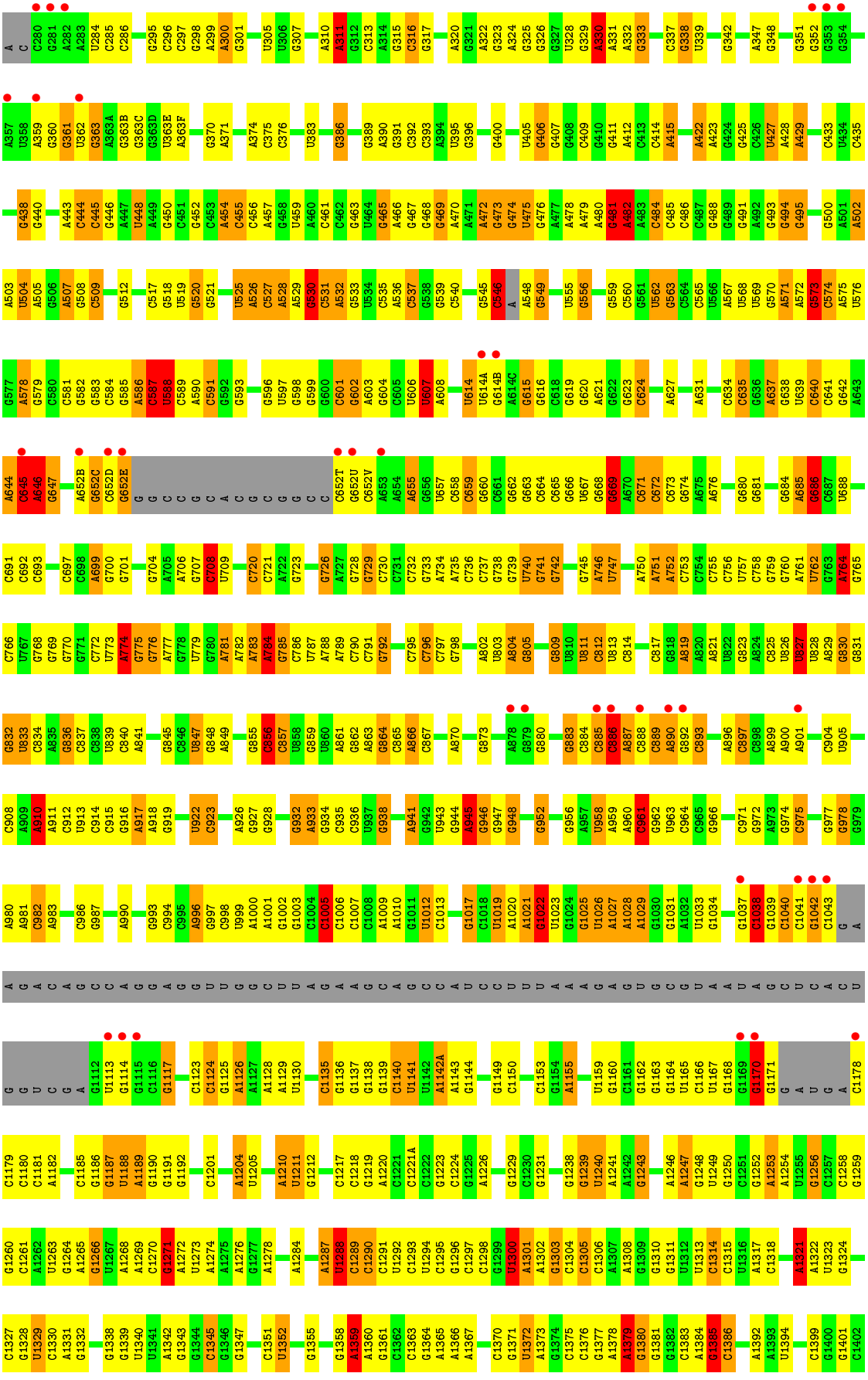
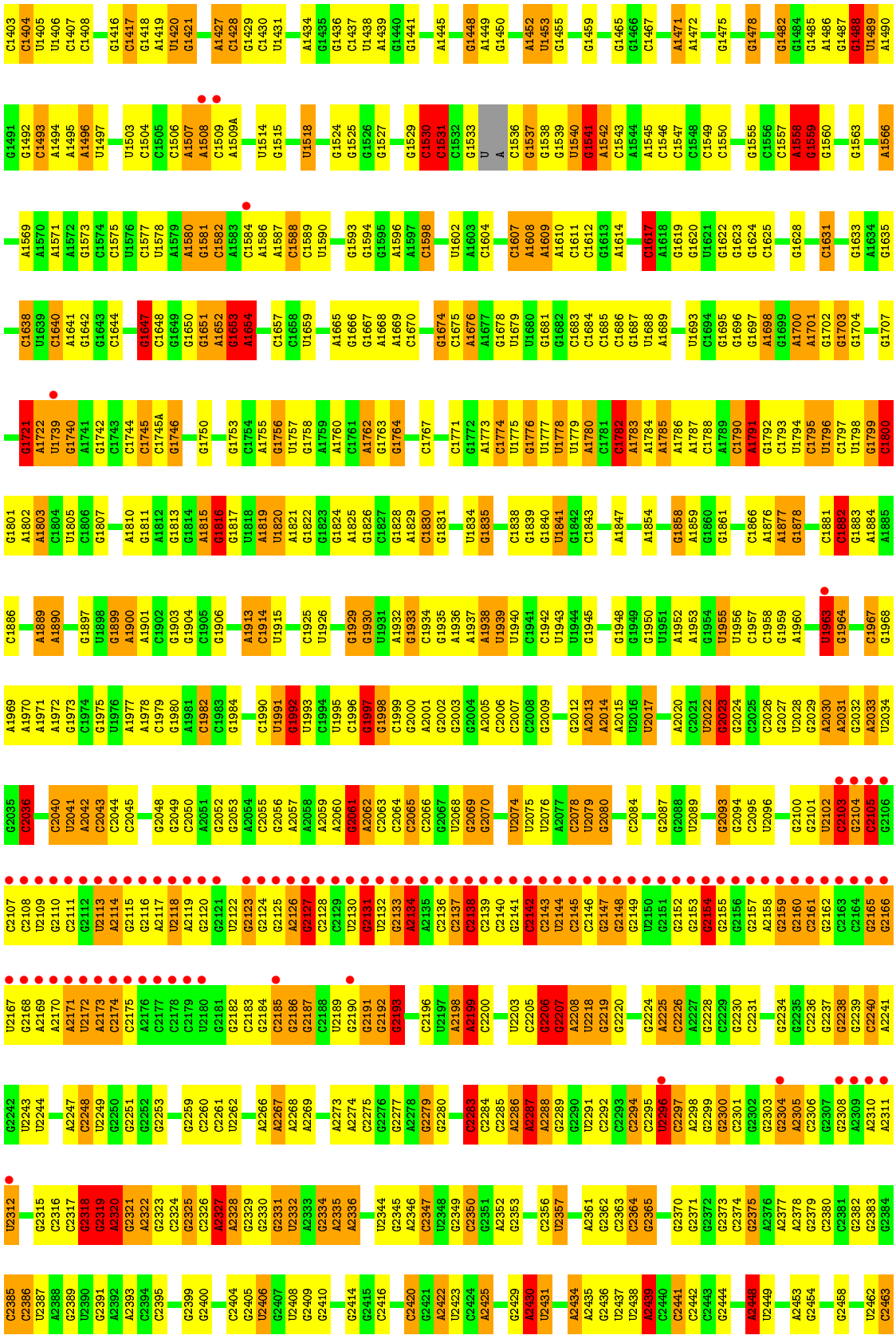


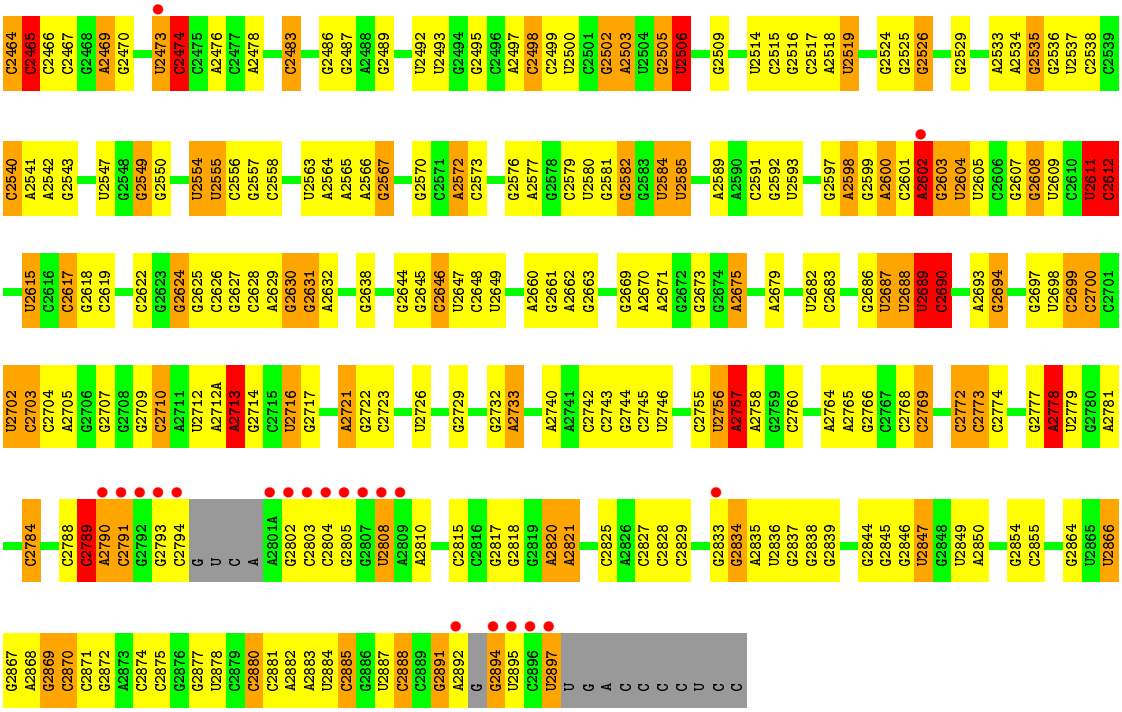
• Molecule 23: 23S Ribosomal RNA

Chain DA:



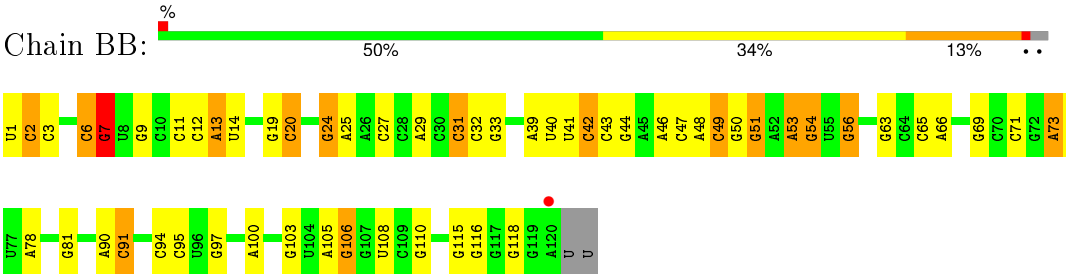






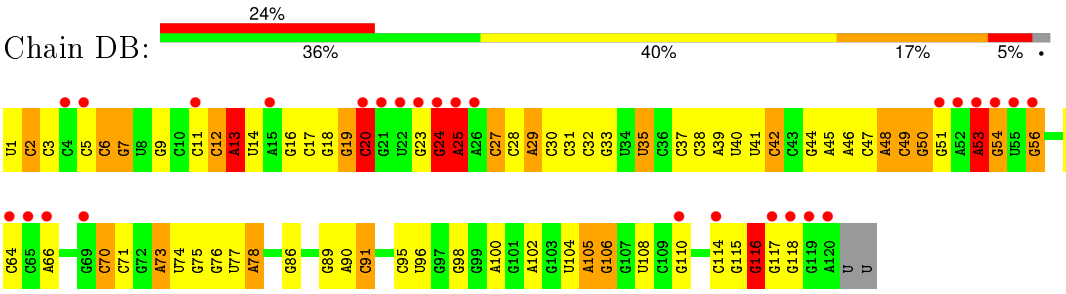
• Molecule 24: 5S Ribosomal RNA

Chain BB:



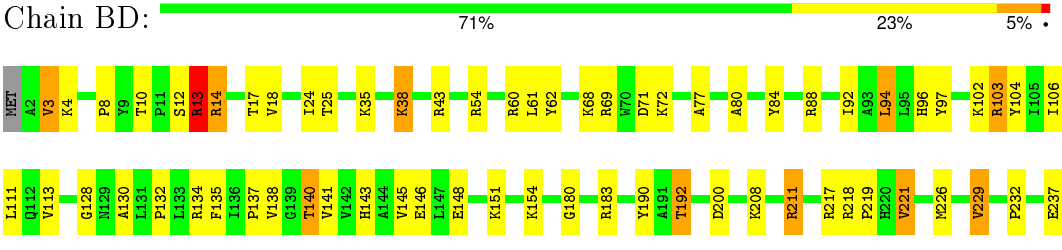
• Molecule 24: 5S Ribosomal RNA

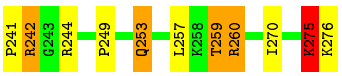
Chain DB:



• Molecule 25: 50S Ribosomal Protein L2

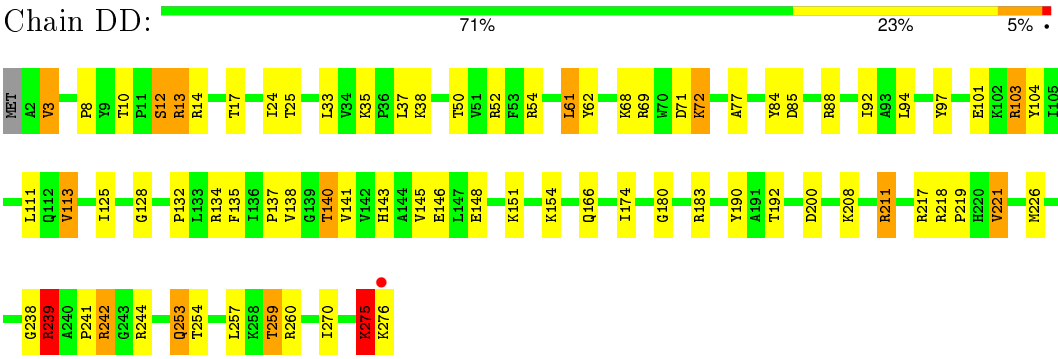
Chain BD:





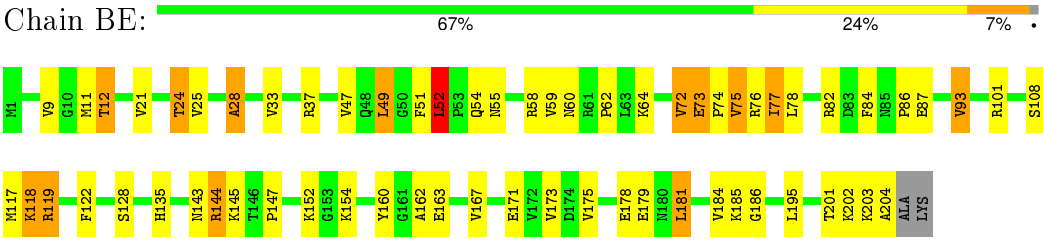
- Molecule 25: 50S Ribosomal Protein L2

Chain DD:



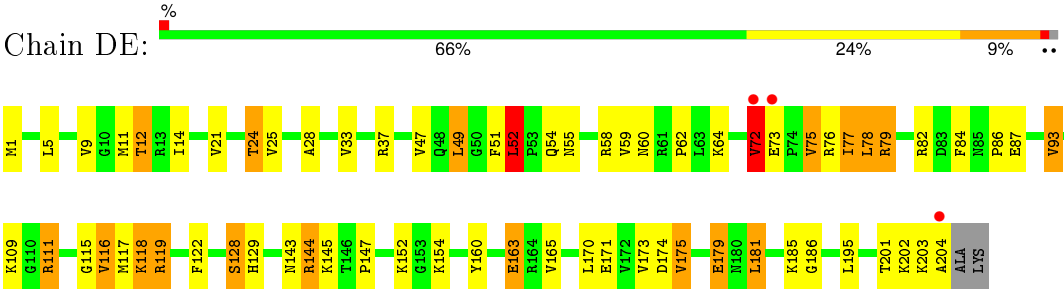
- Molecule 26: 50S Ribosomal Protein L3

Chain BE:



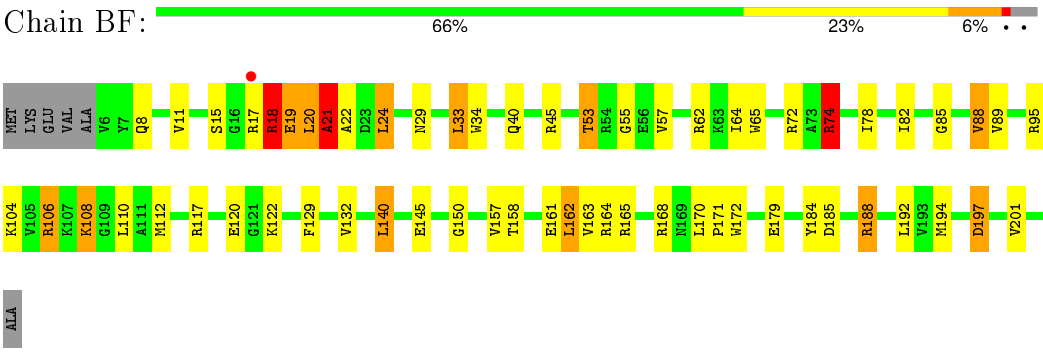
- Molecule 26: 50S Ribosomal Protein L3

Chain DE:



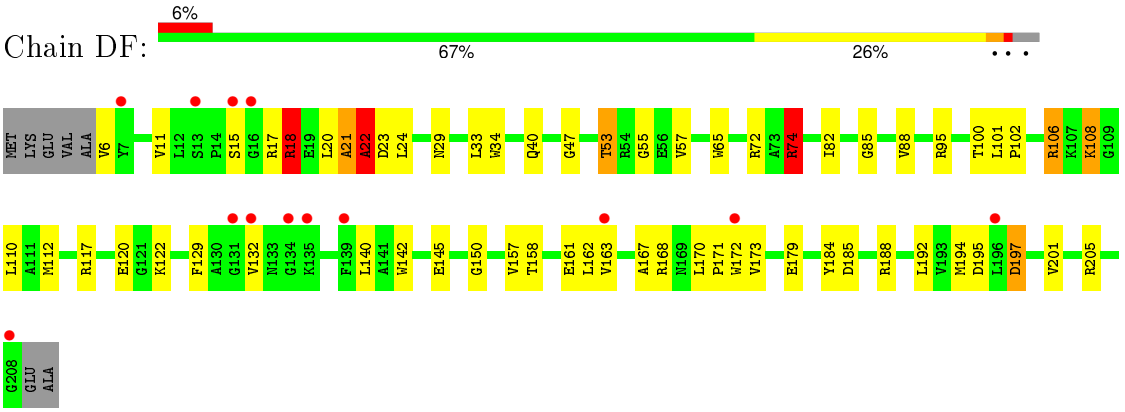
- Molecule 27: 50S Ribosomal Protein L4

Chain BF:



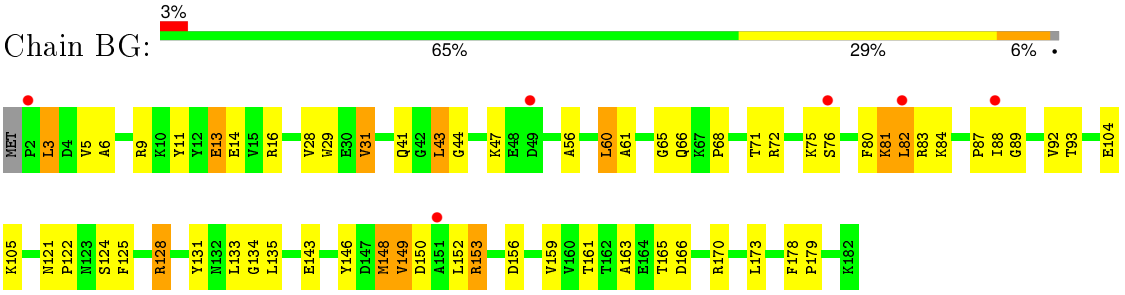
- Molecule 27: 50S Ribosomal Protein L4

Chain DF:



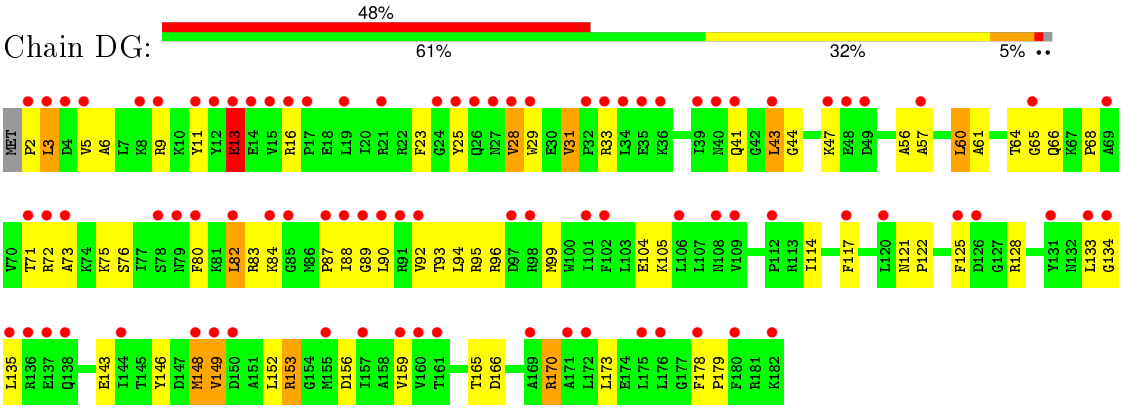
• Molecule 28: 50S Ribosomal Protein L5

Chain BG:



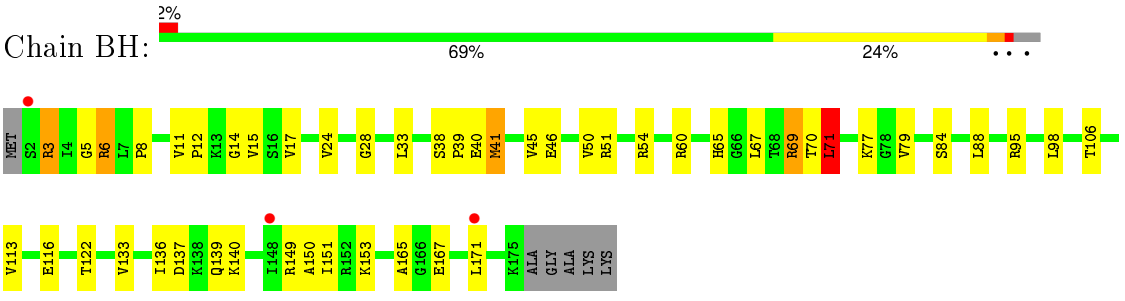
• Molecule 28: 50S Ribosomal Protein L5

Chain DG:



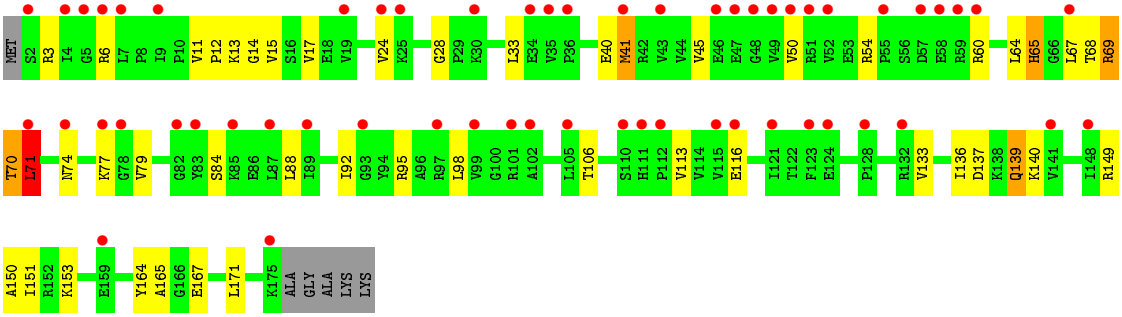
• Molecule 29: 50S Ribosomal Protein L6

Chain BH:



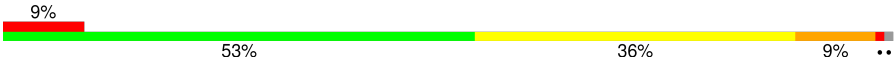
• Molecule 29: 50S Ribosomal Protein L6

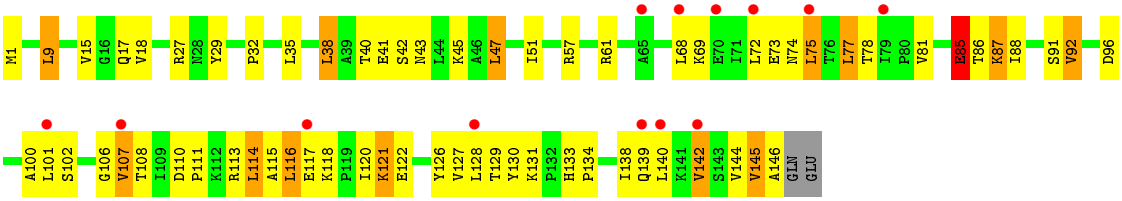
Chain DH:



- Molecule 30: 50S Ribosomal Protein L9

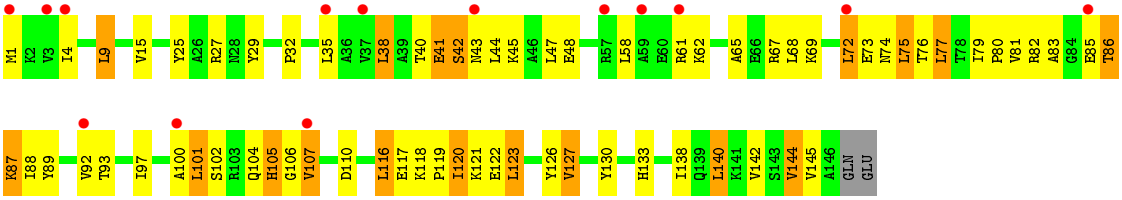
Chain BI:





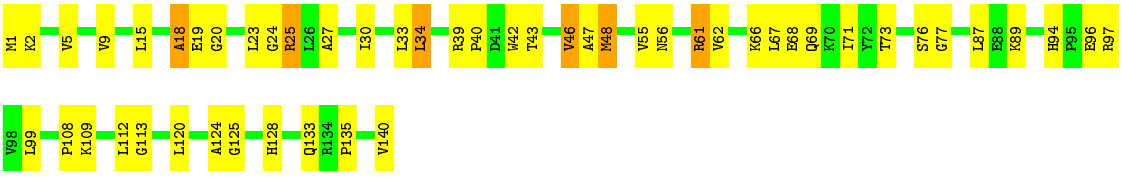
- Molecule 30: 50S Ribosomal Protein L9

Chain DI:



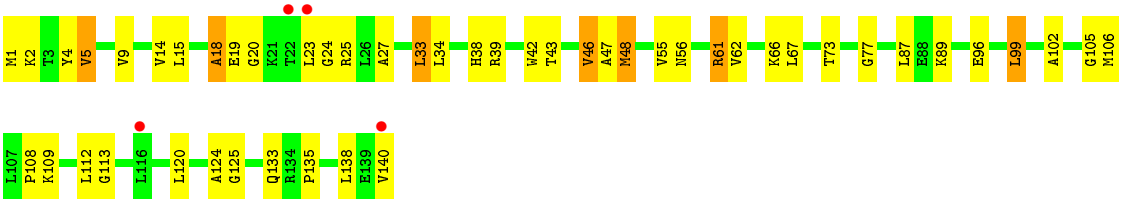
- Molecule 31: 50S Ribosomal Protein L13

Chain BN:



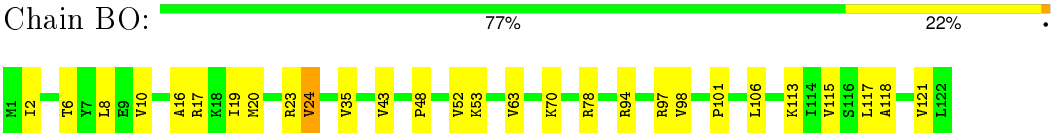
- Molecule 31: 50S Ribosomal Protein L13

Chain DN:



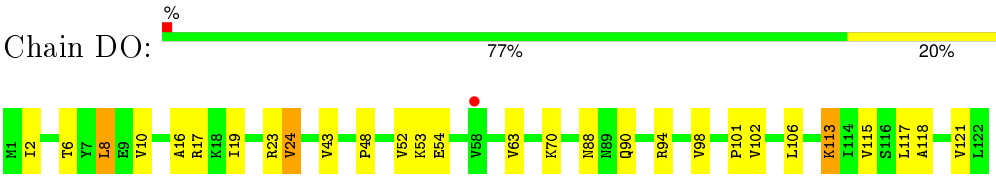
• Molecule 32: 50S Ribosomal Protein L14

Chain BO:



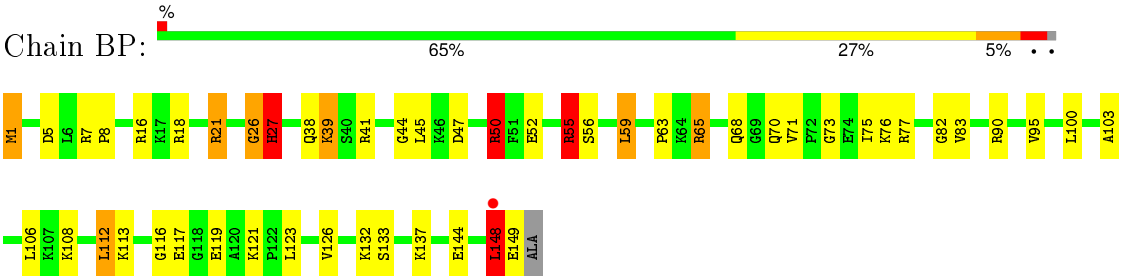
• Molecule 32: 50S Ribosomal Protein L14

Chain DO:



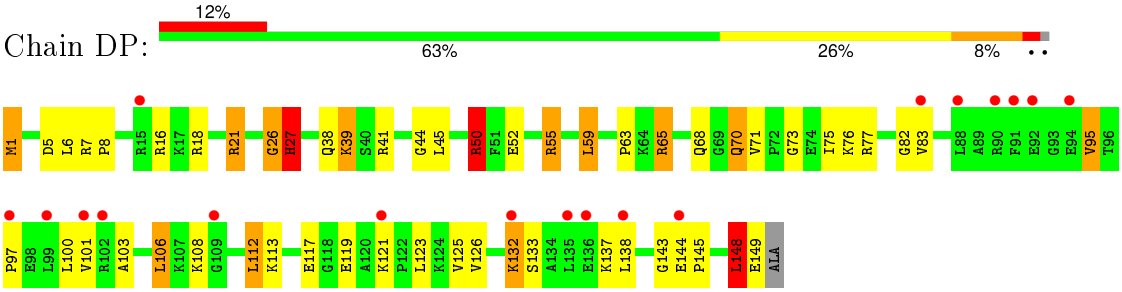
• Molecule 33: 50S Ribosomal Protein L15

Chain BP:



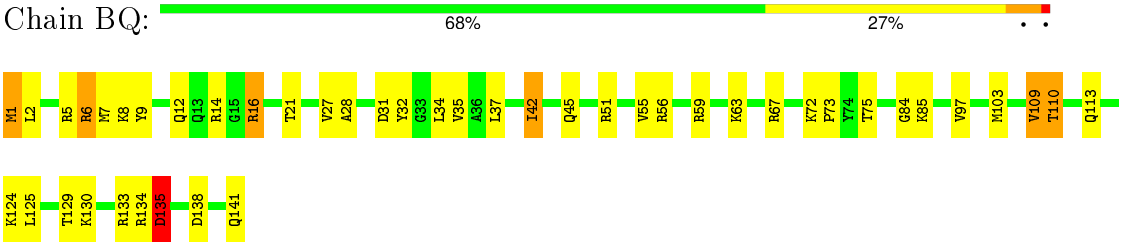
• Molecule 33: 50S Ribosomal Protein L15

Chain DP:



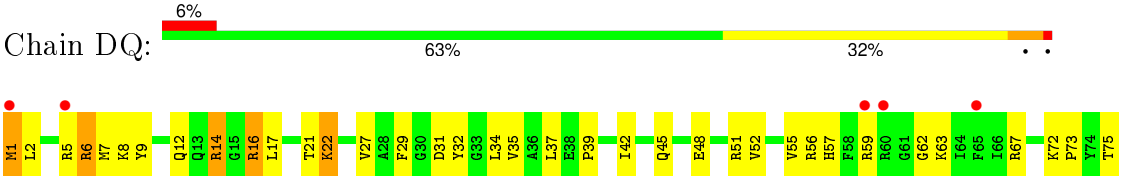
• Molecule 34: 50S Ribosomal Protein L16

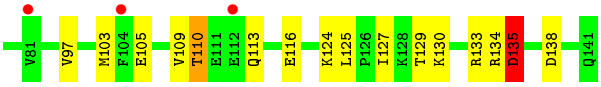
Chain BQ:



• Molecule 34: 50S Ribosomal Protein L16

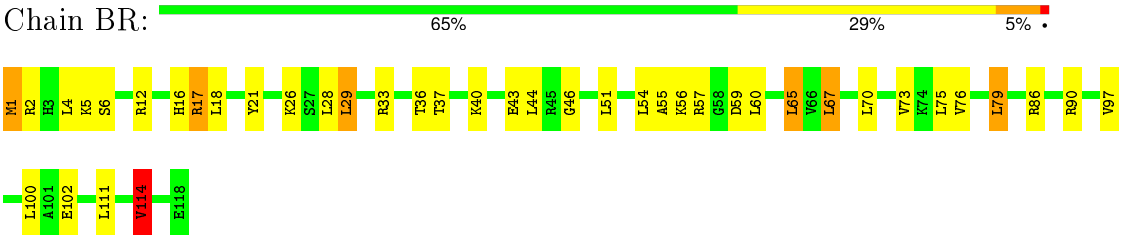
Chain DQ:





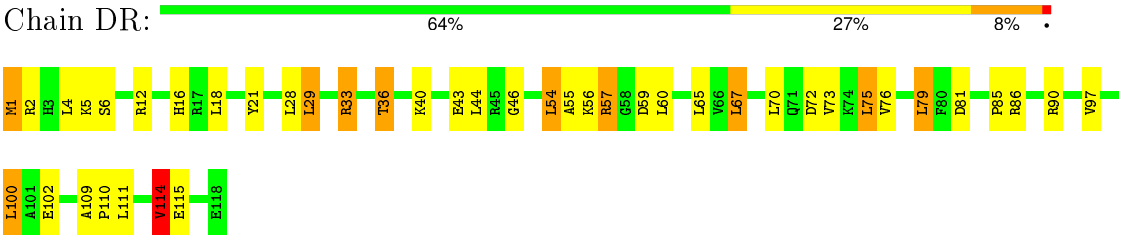
• Molecule 35: 50S Ribosomal Protein L17

Chain BR:



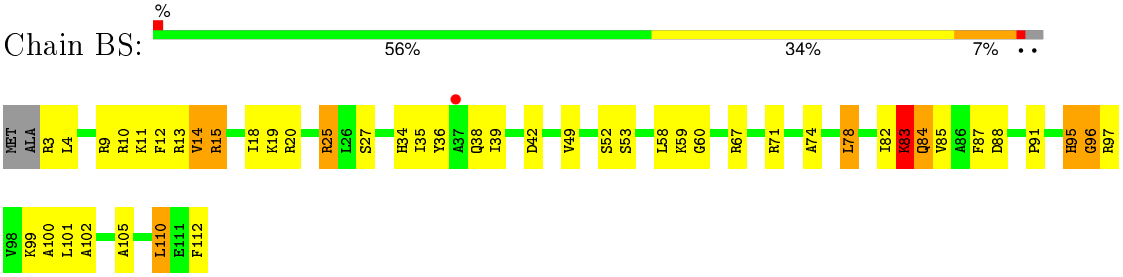
• Molecule 35: 50S Ribosomal Protein L17

Chain DR:



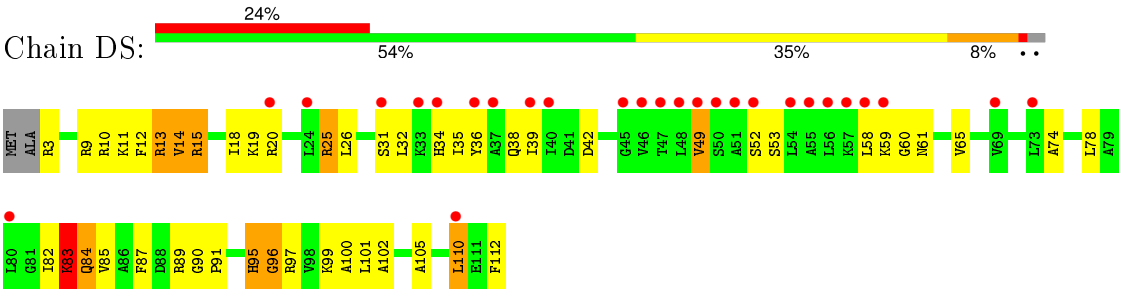
• Molecule 36: 50S Ribosomal Protein L18

Chain BS:



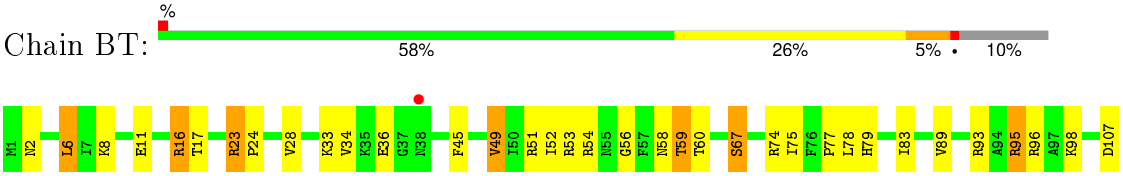
• Molecule 36: 50S Ribosomal Protein L18

Chain DS:



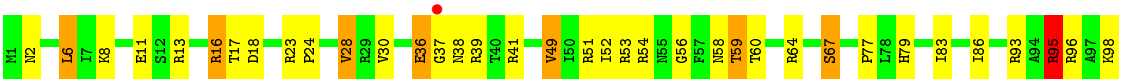
• Molecule 37: 50S Ribosomal Protein L19

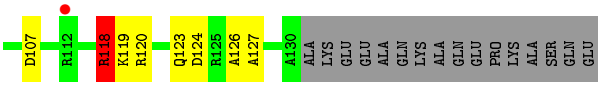
Chain BT:



• Molecule 37: 50S Ribosomal Protein L19

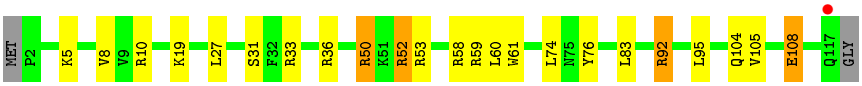
Chain DT:





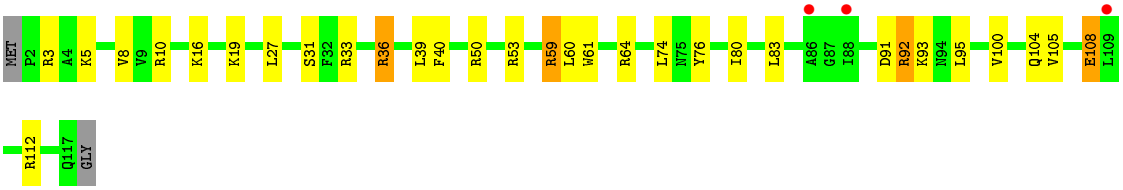
• Molecule 38: 50S Ribosomal Protein L20

Chain BU:



• Molecule 38: 50S Ribosomal Protein L20

Chain DU:

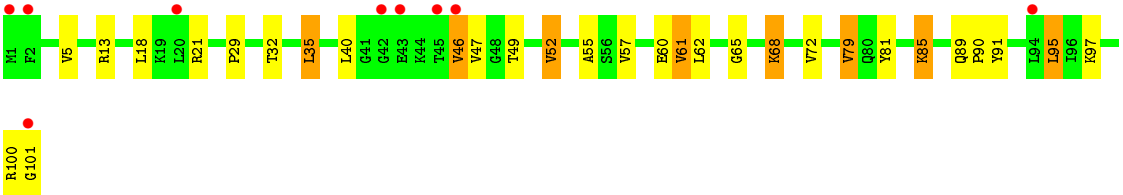


• Molecule 39: 50S Ribosomal Protein L21

Chain BV:

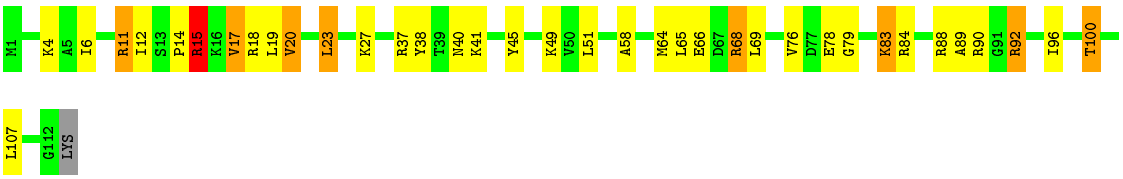
• Molecule 39: 50S Ribosomal Protein L21

Chain DV:



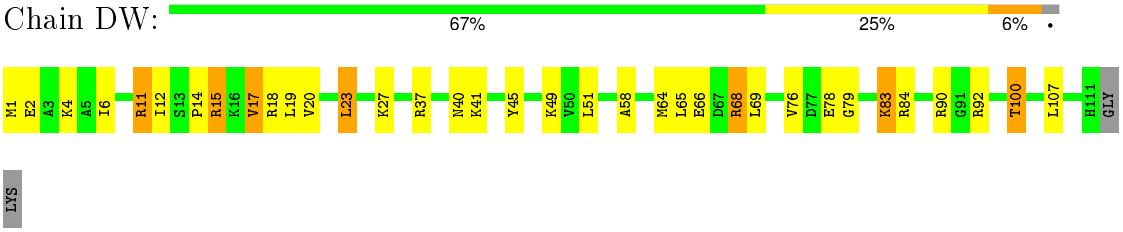
• Molecule 40: 50S Ribosomal Protein L22

Chain BW:



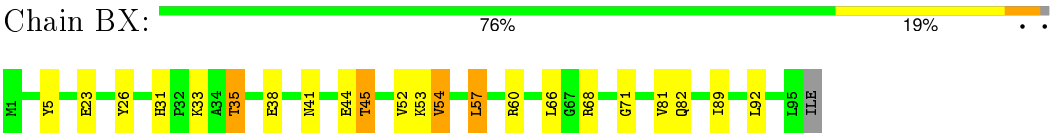
- Molecule 40: 50S Ribosomal Protein L22

Chain DW:



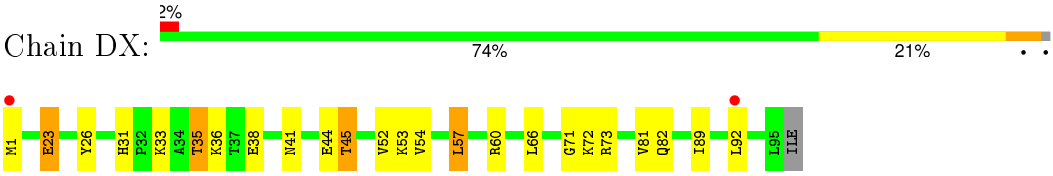
- Molecule 41: 50S Ribosomal Protein L23

Chain BX:



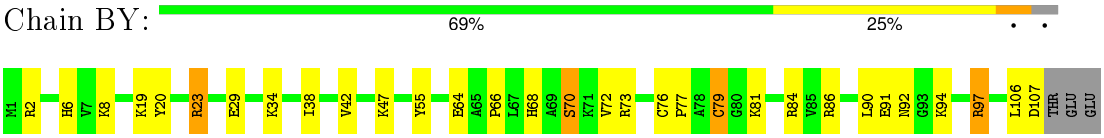
- Molecule 41: 50S Ribosomal Protein L23

Chain DX:



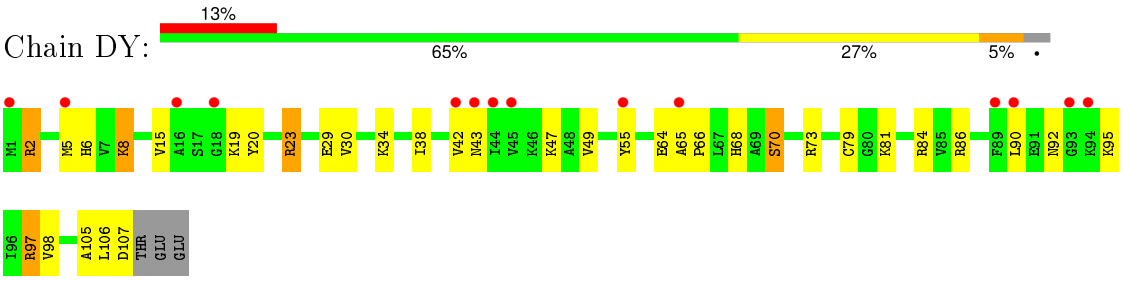
- Molecule 42: 50S Ribosomal Protein L24

Chain BY:



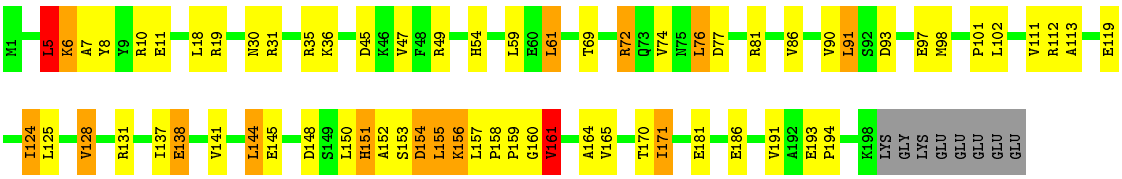
- Molecule 42: 50S Ribosomal Protein L24

Chain DY:



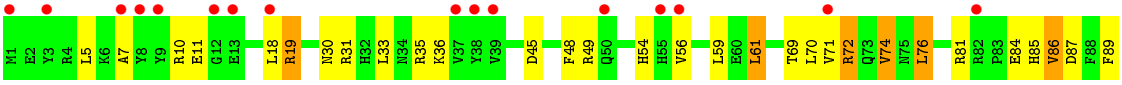
- Molecule 43: 50S Ribosomal Protein L25

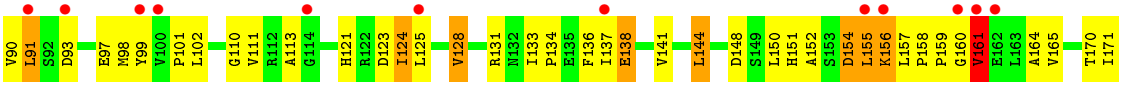
Chain BZ:

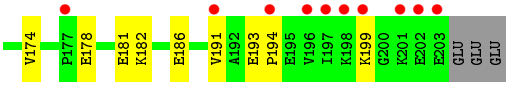


• Molecule 43: 50S Ribosomal Protein L25

Chain DZ:

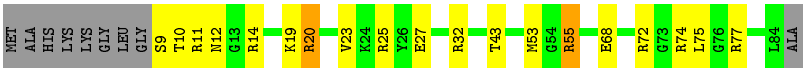






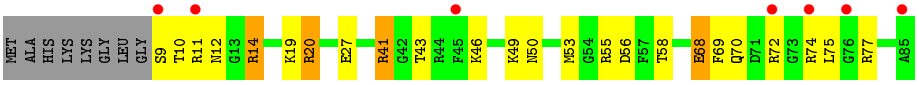
• Molecule 44: 50S Ribosomal Protein L27

Chain B0:



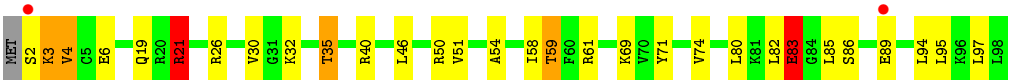
• Molecule 44: 50S Ribosomal Protein L27

Chain D0:



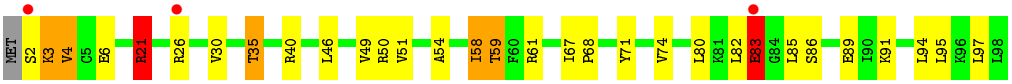
• Molecule 45: 50S Ribosomal Protein L28

Chain B1:



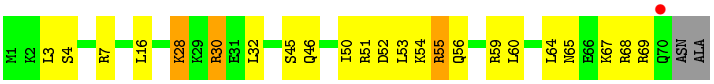
• Molecule 45: 50S Ribosomal Protein L28

Chain D1:



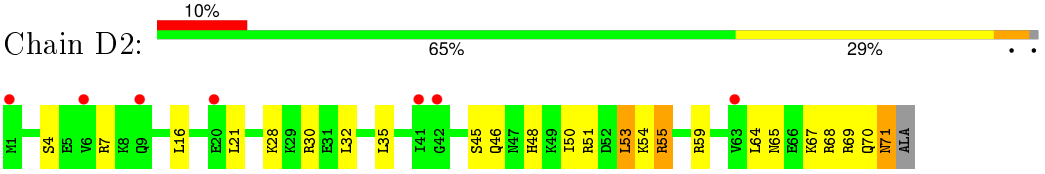
• Molecule 46: 50S Ribosomal Protein L29

Chain B2:



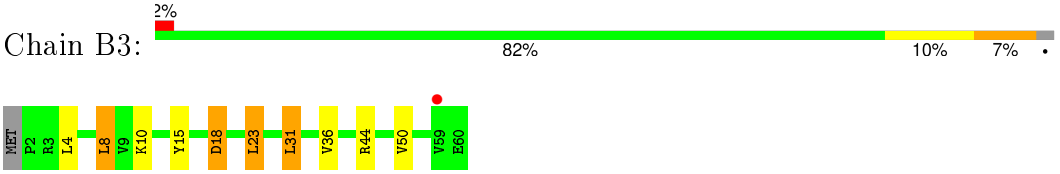
• Molecule 46: 50S Ribosomal Protein L29

Chain D2:



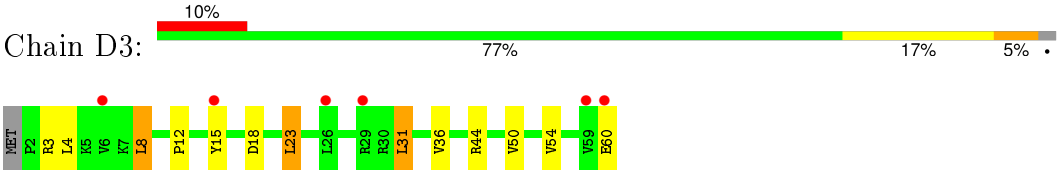
• Molecule 47: 50S Ribosomal Protein L30

Chain B3:



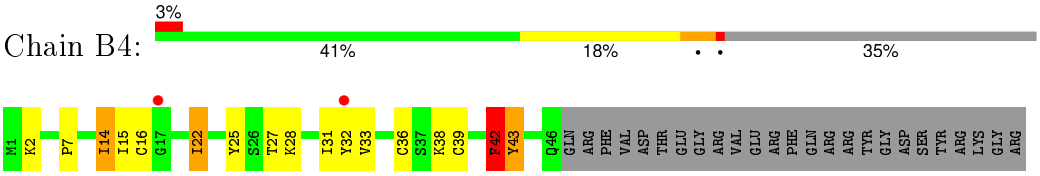
• Molecule 47: 50S Ribosomal Protein L30

Chain D3:



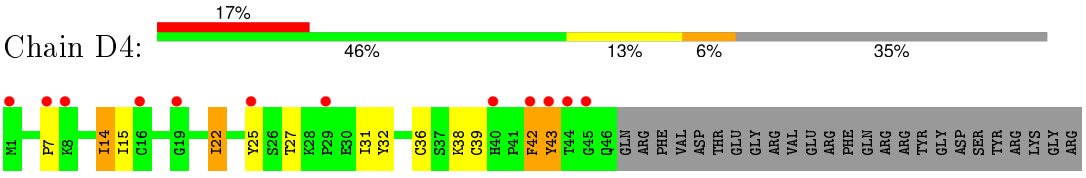
• Molecule 48: 50S Ribosomal Protein L31

Chain B4:



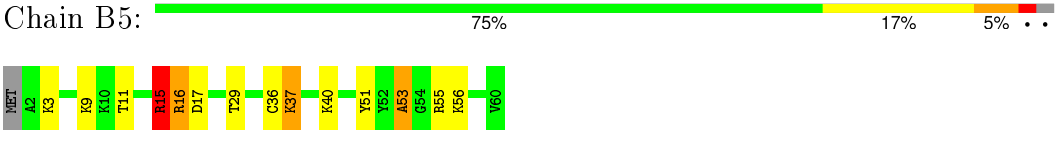
• Molecule 48: 50S Ribosomal Protein L31

Chain D4:



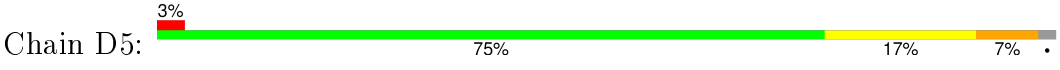
• Molecule 49: 50S Ribosomal Protein L32

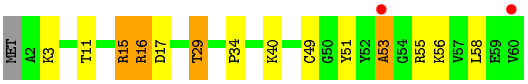
Chain B5:



• Molecule 49: 50S Ribosomal Protein L32

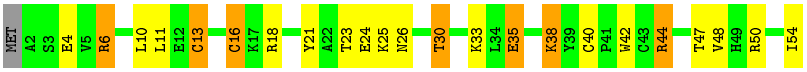
Chain D5:





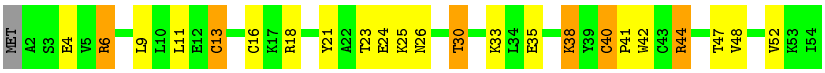
• Molecule 50: 50S Ribosomal Protein L33

Chain B6:



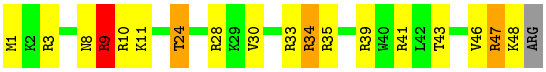
• Molecule 50: 50S Ribosomal Protein L33

Chain D6:



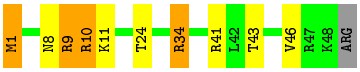
• Molecule 51: 50S Ribosomal Protein L34

Chain B7:



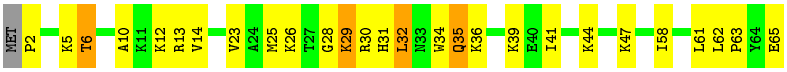
• Molecule 51: 50S Ribosomal Protein L34

Chain D7:



• Molecule 52: 50S Ribosomal Protein L35

Chain B8:

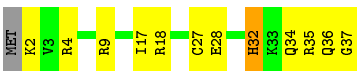


• Molecule 52: 50S Ribosomal Protein L35

Chain D8:

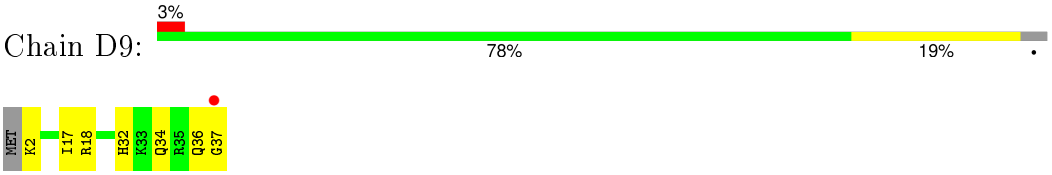
• Molecule 53: 50S ribosomal protein L36

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 (phenix.refine: 1.7.2_869)	Depositor
R, R_{free}	0.217 , 0.254 0.217 , 0.255	Depositor DCC
R_{free} test set	78243 reflections (5.29%)	DCC
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 , 45.9	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Outliers	0 of 1557851 reflections	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, 0.375 respectively for untwinned datasets, and 0.333, 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
23:DA:1204:A:H2	23:DA:1241:A:H62	1.08	0.99
45:B1:21:ARG:HH11	45:B1:21:ARG:HG2	1.28	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
44:D0:11:ARG:O	44:D0:14:ARG:NH2	2.00	0.95
23:BA:2136:C:N4	23:BA:2155:G:H1	1.64	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:2287:A:H62	23:DA:2344:U:H3	1.17	0.89
23:DA:2100:G:H1	23:DA:2189:U:H3	1.14	0.89
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.04	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.54	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
23:DA:1530:C:O2'	23:DA:1531:C:O5'	1.91	0.87
1:AA:1054:C:N4	22:AY:46:GLN:OE1	2.08	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
18:CR:32:ARG:HA	18:CR:69:THR:HG21	1.54	0.86
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.09	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
43:DZ:160:GLY:HA2	43:DZ:161:VAL:HB	1.57	0.86
1:CA:345:C:OP2	37:DT:39:ARG:NH2	2.09	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
30:BI:77:LEU:HB2	30:BI:142:VAL:HG12	1.58	0.85
23:BA:1689:A:H62	23:BA:1698:A:H2	1.19	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
23:BA:1359:A:N6	23:BA:1372:U:H3	1.75	0.85
1:AA:1128:C:O2'	1:AA:1130:A:N7	2.10	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
41:BX:31:HIS:CD2	41:BX:33:LYS:H	1.94	0.84
23:BA:2733:A:OP1	56:BA:5325:HOH:O	1.95	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
1:CA:1030:C:N4	1:CA:1032:G:O6	2.12	0.83
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.61	0.83
23:DA:2283:C:OP2	56:DA:4881:HOH:O	1.97	0.83
1:CA:426:G:OP1	4:CD:38:TYR:OH	1.96	0.82
23:BA:571:A:H5'	23:BA:2030:A:H62	1.44	0.82
1:AA:1179:A:H4'	9:AI:103:THR:HA	1.58	0.82
23:BA:2036:C:H5'	23:BA:2036:C:H6	1.43	0.82
23:DA:1784:A:OP2	56:DA:3853:HOH:O	1.96	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:990:A:OP2	56:DA:4578:HOH:O	1.96	0.82
1:AA:1459:C:H41	1:AA:1461:G:N2	1.78	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
23:DA:1381:G:N7	56:DA:3886:HOH:O	2.12	0.82
4:CD:106:TYR:HD2	4:CD:107:ARG:HG2	1.45	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
41:DX:31:HIS:CD2	41:DX:33:LYS:H	1.98	0.81
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.42	0.81
1:AA:1321:C:H3'	1:AA:1322:C:H5"	1.62	0.81
23:BA:1315:C:OP2	56:BA:4713:HOH:O	1.98	0.81
23:BA:2206:G:H3'	23:BA:2207:G:C8	2.15	0.81
1:AA:1353:G:OP1	21:AU:10:ARG:NH1	2.13	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
23:DA:2322:A:N6	23:DA:2335:A:N6	2.29	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:1427:A:H4'	23:DA:1428:C:O5'	1.79	0.81
23:BA:1506:C:H2'	23:BA:1507:A:H5'	1.63	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
37:BT:118:ARG:HH11	37:BT:118:ARG:HG3	1.46	0.80
23:BA:83:G:N2	23:BA:103:A:OP2	2.12	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
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
1:AA:39:G:O6	1:AA:403:C:N3	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
23:DA:2123:G:H1	23:DA:2175:C:H42	1.26	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
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:DA:885:C:N4	23:DA:890:A:H61	1.80	0.79
23:BA:1364:G:OP2	45:B1:3:LYS:HG2	1.82	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
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.63	0.79
1:CA:1164:G:N1	1:CA:1172:C:N4	2.29	0.79
23:DA:2206:G:H3'	23:DA:2207:G:C8	2.17	0.79
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.15	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:DA:326:G:N7	56:DA:4245:HOH:O	2.14	0.79
22:CY:23:ARG:NH1	22:CY:75:ASN:OD1	2.16	0.79
24:DB:20:C:N4	24:DB:63:G:O6	2.16	0.79
23:BA:956:G:OP2	34:BQ:14:ARG:NH2	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
22:CY:87:LYS:O	22:CY:91:LYS:HB2	1.84	0.78
3:AC:12:LEU:HD11	14:AN:51:GLY:HA2	1.65	0.78
28:DG:56:ALA:HB2	28:DG:153:ARG:HE	1.47	0.78
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.65	0.78
33:BP:39:LYS:HB2	33:BP:45:LEU:HG	1.66	0.78
23:DA:927:G:N7	56:DA:4500:HOH:O	2.15	0.78
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.65	0.78
1:CA:1505:G:OP2	56:CA:1942:HOH:O	2.02	0.78
1:CA:1442:G:N7	1:CA:1442(A):G:C6	2.51	0.78
1:AA:171:A:H2'	1:AA:172:A:C8	2.19	0.78
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.17	0.78
42:BY:23:ARG:HG2	42:BY:42:VAL:HG22	1.65	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
23:BA:1174:A:H5'	23:BA:1177:A:H61	1.48	0.78
1:AA:102:G:O2'	1:AA:151:A:N3	2.15	0.78
1:CA:1123:A:H4'	10:CJ:37:PRO:HG2	1.67	0.77
28:BG:56:ALA:HB2	28:BG:153:ARG:HE	1.49	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:CA:1499:A:OP2	56:CA:1942:HOH:O	2.02	0.77
1:AA:1442:G:N7	1:AA:1442(A):G:C6	2.51	0.77
1:CA:1459:C:H41	1:CA:1461:G:N2	1.81	0.77
23:BA:1604:C:OP2	56:BA:5259:HOH:O	2.01	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
22:CY:53:THR:HG22	22:CY:62:VAL:HG12	1.64	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
1:AA:49:U:O4	1:AA:365:U:H5	1.65	0.77
1:CA:1442:G:N7	1:CA:1442(A):G:C5	2.53	0.77
1:AA:991:U:O2'	1:AA:992:U:OP2	2.03	0.77
23:DA:1803:A:O2'	25:DD:259:THR:HG21	1.84	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:11:G:N7	56:DA:4491:HOH:O	2.18	0.77
23:BA:999:U:OP2	56:BA:4736:HOH:O	2.02	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
1:CA:986:A:H1'	19:CS:54:GLY:O	1.84	0.77
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.65	0.77
15:CO:17:ARG:HH11	15:CO:17:ARG:HG3	1.50	0.77
1:CA:1441:G:H21	1:CA:1459:C:H6	1.30	0.76
23:BA:2721:A:N7	56:BA:4334:HOH:O	2.17	0.76
23:BA:2464:C:H1'	56:BA:5224:HOH:O	1.85	0.76
1:CA:1065:U:H6	1:CA:1190:G:H21	1.32	0.76
25:DD:148:GLU:HB2	25:DD:151:LYS:HD2	1.67	0.76
23:DA:1375:C:H3'	56:DA:4028:HOH:O	1.86	0.76
45:B1:82:LEU:HA	45:B1:85:LEU:HD23	1.67	0.76
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.18	0.76
1:AA:1442:G:N7	1:AA:1442(A):G:C5	2.54	0.76
1:CA:1295:G:H21	1:CA:1302:U:H3	1.34	0.76
23:DA:827:U:OP1	56:DA:4829:HOH:O	2.03	0.76
23:BA:686:G:H5"	51:B7:11:LYS:HE2	1.66	0.76
6:CF:11:ASN:HB3	6:CF:14:LEU:HG	1.65	0.76
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.20	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
31:BN:56:ASN:H	31:BN:125:GLY:HA3	1.49	0.76
1:CA:353:A:H8	1:CA:353:A:H5'	1.49	0.76
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.50	0.76
1:CA:1441:G:H4'	1:CA:1442:G:N7	1.99	0.76
1:AA:642:A:N3	8:AH:113:SER:OG	2.19	0.76
23:DA:587:C:OP2	33:DP:21:ARG:NH2	2.19	0.76
1:AA:1442(B):A:C2	37:BT:118:ARG:CZ	2.69	0.76
28:BG:76:SER:HA	28:BG:83:ARG:HA	1.68	0.76
1:AA:1502:A:H2	1:AA:1505:G:N1	1.84	0.76
23:DA:1488:G:O6	56:DA:4595:HOH:O	2.01	0.76
1:AA:509:A:OP2	56:AA:2076:HOH:O	2.03	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
1:CA:1026:G:H3'	1:CA:1027:C:H5"	1.68	0.75
23:BA:1629:U:O4	56:BA:4614:HOH:O	2.05	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
1:CA:1502:A:H2	1:CA:1505:G:N1	1.81	0.75
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.67	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
1:CA:954:G:H21	1:CA:1227:A:N6	1.85	0.75
23:DA:2602:A:H4'	23:DA:2603:G:OP1	1.86	0.75
46:B2:51:ARG:HA	46:B2:54:LYS:HB2	1.69	0.75
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.52	0.75
31:DN:56:ASN:H	31:DN:125:GLY:HA3	1.51	0.75
1:CA:581:G:N7	56:CA:1958:HOH:O	2.20	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
8:CH:86:ILE:HG21	8:CH:133:LEU:HD13	1.68	0.74
5:AE:100:VAL:O	5:AE:107:ARG:NH2	2.20	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
23:BA:1355:G:OP1	25:BD:38:LYS:NZ	2.19	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
23:DA:1577:C:OP2	56:DA:4585:HOH:O	2.05	0.74
4:CD:15:GLU:HG3	4:CD:63:LYS:HG2	1.67	0.74
1:AA:1007:C:N3	1:AA:1022:G:O6	2.19	0.74
23:BA:570:G:O6	56:BA:4378:HOH:O	2.04	0.74
23:BA:2285:C:OP2	50:B6:6:ARG:NH1	2.21	0.74
23:DA:2319:G:H22	36:DS:3:ARG:HE	1.35	0.74
1:CA:984:C:H2'	1:CA:985:C:H6	1.53	0.74
24:BB:6:C:H2'	24:BB:7:G:H5"	1.67	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
1:AA:1298:C:H2'	7:AG:114:ARG:HH12	1.53	0.74
28:BG:11:TYR:CZ	28:BG:16:ARG:HD3	2.23	0.74
23:BA:1420:U:O2'	23:BA:1421:G:OP1	2.06	0.74
23:BA:278:A:O2'	23:BA:279:C:OP1	2.03	0.74
23:BA:213:A:OP2	56:BA:5443:HOH:O	2.05	0.74
33:BP:100:LEU:HD12	33:BP:112:LEU:HD11	1.69	0.74
45:D1:82:LEU:HA	45:D1:85:LEU:HD23	1.70	0.74
26:BE:179:GLU:HB3	26:BE:181:LEU:HD22	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:642:A:N3	8:CH:113:SER:OG	2.21	0.73
2:CB:21:ARG:HD2	2:CB:21:ARG:H	1.52	0.73
23:DA:2820:A:OP2	35:DR:2:ARG:NH2	2.20	0.73
23:BA:1427:A:H4'	23:BA:1428:C:O5'	1.88	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
26:DE:111:ARG:HG3	26:DE:160:TYR:CD1	2.23	0.73
1:CA:1456:G:O2'	20:CT:39:LYS:NZ	2.21	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
23:DA:1359:A:N1	23:DA:1372:U:O4	2.22	0.73
1:AA:1459:C:N3	1:AA:1460:A:N6	2.36	0.73
23:BA:652(I):C:H2'	23:BA:652(J):G:C8	2.23	0.73
23:BA:2226:C:OP2	56:BA:5322:HOH:O	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
23:BA:2318:G:O2'	23:BA:2319:G:OP1	2.04	0.73
1:CA:673:G:H2'	1:CA:674:G:C8	2.24	0.73
23:DA:773:U:OP1	56:DA:4785:HOH:O	2.04	0.73
1:CA:425:G:H4'	4:CD:45:GLN:HE22	1.53	0.73
23:BA:2789:C:O2'	23:BA:2790:A:O2'	2.06	0.73
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.89	0.73
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.71	0.73
23:DA:197:A:OP1	56:DA:3891:HOH:O	2.05	0.73
23:BA:690:G:OP1	56:BA:4114:HOH:O	2.07	0.73
37:DT:16:ARG:NH2	37:DT:83:ILE:O	2.22	0.73
24:BB:66:A:H61	24:BB:108:U:H2'	1.54	0.73
45:D1:21:ARG:HG2	45:D1:21:ARG:NH1	2.03	0.73
3:AC:6:HIS:HD2	3:AC:8:ILE:H	1.34	0.73
23:BA:1048:A:OP2	23:BA:1109:C:N4	2.22	0.72
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.71	0.72
2:CB:15:VAL:HG23	2:CB:209:ARG:HG2	1.68	0.72
1:AA:975:A:H4'	1:AA:976:G:H5"	1.71	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
1:AA:316:G:OP2	1:AA:351:G:O2'	2.06	0.72
23:DA:2126:A:H4'	23:DA:2127:G:O5'	1.89	0.72
52:D8:34:TRP:O	52:D8:36:LYS:N	2.22	0.72
10:CJ:54:PHE:HD2	10:CJ:55:LYS:HG3	1.54	0.72
23:DA:2207:G:O2'	23:DA:2208:A:OP1	2.07	0.72
11:AK:86:GLY:N	11:AK:112:THR:OG1	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:4:ILE:HG21	13:CM:9:ILE:HD12	1.70	0.72
24:DB:30:C:H5"	56:DB:327:HOH:O	1.87	0.72
1:CA:921:U:O2	5:CE:19:MET:HB2	1.88	0.72
27:BF:53:THR:HG22	27:BF:55:GLY:H	1.54	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
23:BA:2079:U:OP1	45:B1:21:ARG:NH2	2.23	0.72
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.55	0.72
1:AA:1226:C:H2'	13:AM:103:THR:HB	1.71	0.72
30:DI:69:LYS:HG2	30:DI:138:ILE:HG12	1.71	0.72
23:DA:2145:C:O2'	23:DA:2147:G:N2	2.23	0.72
23:DA:15:G:OP2	56:DA:4614:HOH:O	2.08	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
36:DS:14:VAL:O	36:DS:18:ILE:HG12	1.90	0.72
23:DA:1798:U:C5'	25:DD:259:THR:HG22	2.19	0.72
23:DA:1352:U:OP2	56:DA:4027:HOH:O	2.07	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
1:AA:1002:G:H2'	1:AA:1003:G:O4'	1.90	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
23:BA:2126:A:H4'	23:BA:2127:G:O5'	1.88	0.71
47:B3:8:LEU:HD13	47:B3:31:LEU:HD23	1.72	0.71
1:AA:1025:U:C2	1:AA:1036:G:O6	2.44	0.71
36:DS:34:HIS:ND1	36:DS:53:SER:OG	2.23	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:621:A:OP2	33:DP:108:LYS:NZ	2.22	0.71
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.24	0.71
1:AA:222:U:H2'	1:AA:223:U:C6	2.25	0.71
23:DA:2584:U:O4	56:DA:3867:HOH:O	2.05	0.71
20:AT:72:LEU:HD11	20:AT:80:ARG:HD2	1.71	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
44:D0:10:THR:HG22	44:D0:12:ASN:H	1.55	0.71
1:AA:1309:G:OP1	13:AM:88:ARG:NH1	2.23	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
10:AJ:39:PRO:HA	10:AJ:70:ARG:HD3	1.70	0.71
49:D5:16:ARG:HG2	49:D5:16:ARG:HH11	1.54	0.71
1:CA:829:G:N7	56:CA:1976:HOH:O	2.23	0.71
26:BE:111:ARG:HG3	26:BE:160:TYR:CD1	2.26	0.71
2:CB:194:PRO:O	2:CB:196:LEU:N	2.23	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
52:B8:62:LEU:HB3	52:B8:65:GLU:HG2	1.71	0.71
1:AA:1086:U:H3	1:AA:1099:G:H22	1.38	0.71
39:DV:40:LEU:HB2	39:DV:46:VAL:HG13	1.71	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
25:BD:238:GLY:O	25:BD:239:ARG:HB2	1.89	0.71
1:AA:1305:G:N1	1:AA:1331:G:O2'	2.23	0.71
1:CA:1401:G:O6	22:CY:83:ARG:NH2	2.23	0.71
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.55	0.71
23:BA:2354:G:N7	56:BA:5461:HOH:O	2.23	0.71
28:DG:72:ARG:HH12	28:DG:87:PRO:HG3	1.56	0.71
48:B4:7:PRO:HB2	48:B4:27:THR:HG21	1.73	0.71
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.26	0.71
23:BA:1359:A:N1	23:BA:1372:U:O4	2.24	0.71
1:CA:1442(A):G:C8	1:CA:1442(B):A:C2	2.78	0.71
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.26	0.71
28:BG:41:GLN:HB3	28:BG:43:LEU:HD13	1.73	0.71
23:DA:2136:C:H42	23:DA:2155:G:H1	1.39	0.71
28:DG:44:GLY:HA2	28:DG:88:ILE:HG22	1.73	0.71
1:AA:67:C:H2'	1:AA:68:G:C8	2.26	0.71
25:DD:8:PRO:HB3	25:DD:14:ARG:HB2	1.72	0.71
23:DA:2144:U:HO2'	23:DA:2147:G:H1	1.37	0.70
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.55	0.70
23:DA:62:C:OP1	56:DA:4187:HOH:O	2.09	0.70
24:DB:96:U:O4	56:DB:331:HOH:O	2.07	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
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
3:AC:35:GLU:OE2	3:AC:59:ARG:NH2	2.24	0.70
27:DF:65:TRP:HH2	27:DF:72:ARG:HH21	1.38	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2144:U:HO2'	23:BA:2147:G:H1	1.37	0.70
23:DA:1507:A:O2'	23:DA:1508:A:O5'	2.09	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
25:BD:137:PRO:O	25:BD:140:THR:HG23	1.91	0.70
1:CA:735:C:H2'	1:CA:736:C:H6	1.56	0.70
29:BH:33:LEU:HD21	29:BH:136:ILE:HG13	1.73	0.70
1:CA:538:G:OP1	12:CL:115:LYS:N	2.24	0.70
1:CA:1004:A:H62	1:CA:1037:C:H3'	1.56	0.70
23:BA:2012:G:OP1	40:BW:11:ARG:NH2	2.25	0.70
23:DA:2789:C:O2'	23:DA:2790:A:O2'	2.08	0.70
1:AA:673:G:H2'	1:AA:674:G:C8	2.26	0.70
23:DA:1376:C:OP2	56:DA:4028:HOH:O	2.09	0.70
18:AR:53:ARG:HH21	18:AR:60:ALA:N	1.89	0.70
8:AH:121:ASP:HB2	8:AH:125:ARG:NH2	2.07	0.70
23:BA:71:A:OP2	23:BA:71:A:H3'	1.91	0.70
36:DS:96:GLY:N	36:DS:99:LYS:H	1.90	0.70
23:BA:652(R):C:O2'	23:BA:652(S):C:OP2	2.09	0.70
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.06	0.70
1:CA:1442:G:O2'	1:CA:1442(A):G:OP1	2.09	0.70
23:BA:833:U:O2	33:BP:55:ARG:NH2	2.25	0.70
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.74	0.70
1:AA:1145:C:N4	56:AA:2285:HOH:O	2.24	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:266:G:H5'	1:AA:268:C:H41	1.56	0.70
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
1:AA:470:C:OP2	56:AA:2192:HOH:O	2.09	0.69
9:CI:40:LEU:HB3	9:CI:43:ALA:HB2	1.73	0.69
1:CA:437:U:H5"	4:CD:155:LEU:HD11	1.73	0.69
35:BR:55:ALA:HB2	35:BR:79:LEU:HD13	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:CA:446:G:N7	56:CA:2154:HOH:O	2.25	0.69
1:AA:1016:A:H2'	1:AA:1017:G:O4'	1.92	0.69
1:CA:595:G:O3'	56:CA:1979:HOH:O	2.09	0.69
1:CA:920:U:H2'	1:CA:921:U:C6	2.27	0.69
20:AT:73:HIS:HB3	20:AT:74:LYS:HG2	1.74	0.69
23:BA:2145:C:O2'	23:BA:2147:G:N2	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:15:VAL:HG22	13:AM:43:THR:O	1.91	0.69
23:DA:994:C:OP1	38:DU:53:ARG:NH2	2.25	0.69
23:BA:1495:A:H2'	23:BA:1496:A:C8	2.27	0.69
23:BA:2104:G:N2	23:BA:2105:C:O2	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
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.75	0.69
6:CF:82:ARG:HG3	6:CF:82:ARG:HH11	1.57	0.69
23:BA:1798:U:C5'	25:BD:259:THR:HG22	2.22	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
36:DS:102:ALA:HB1	36:DS:112:PHE:HZ	1.58	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
52:D8:23:VAL:HG11	52:D8:47:LYS:HD3	1.75	0.69
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.74	0.69
1:AA:785:G:N7	56:AA:1967:HOH:O	2.25	0.69
30:DI:77:LEU:HD13	30:DI:79:ILE:HD11	1.75	0.69
44:B0:10:THR:HG22	44:B0:12:ASN:H	1.57	0.69
28:BG:72:ARG:HH12	28:BG:87:PRO:HG3	1.56	0.69
1:AA:186:C:H2'	1:AA:187:C:H6	1.58	0.69
36:DS:58:LEU:HB2	36:DS:59:LYS:HB2	1.75	0.69
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.28	0.69
23:BA:641:C:O2'	23:BA:2350:C:OP1	2.08	0.69
24:DB:35:U:OP2	56:DB:317:HOH:O	2.08	0.69
1:CA:67:C:H2'	1:CA:68:G:C8	2.27	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
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
32:BO:98:VAL:HG13	32:BO:117:LEU:HB3	1.75	0.68
40:DW:18:ARG:NH1	40:DW:76:VAL:O	2.27	0.68
41:BX:35:THR:HG22	41:BX:38:GLU:H	1.58	0.68
40:DW:14:PRO:HG2	40:DW:78:GLU:HG2	1.74	0.68
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.73	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.28	0.68
1:CA:1329:A:OP2	21:CU:7:ARG:NH2	2.25	0.68
34:DQ:127:ILE:O	56:DQ:301:HOH:O	2.11	0.68
25:DD:238:GLY:O	25:DD:239:ARG:HB2	1.92	0.68
2:AB:194:PRO:O	2:AB:196:LEU:N	2.26	0.68
23:BA:927:G:N7	56:BA:5196:HOH:O	2.25	0.68
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.92	0.68
23:DA:1495:A:H2'	23:DA:1496:A:C8	2.28	0.68
23:BA:2659:G:O6	56:BA:5467:HOH:O	2.09	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
23:DA:1782:C:OP1	56:DA:3848:HOH:O	2.10	0.68
23:BA:1507:A:O2'	23:BA:1508:A:O5'	2.12	0.68
23:BA:2448:A:OP1	56:BA:4378:HOH:O	2.11	0.68
23:BA:2127:G:O6	23:BA:2161:C:N3	2.26	0.68
23:BA:1403:C:H5"	23:BA:1471:A:H1'	1.74	0.68
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.74	0.68
1:CA:1378:C:H5	1:CA:1379:G:C4	2.10	0.68
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.58	0.68
43:DZ:160:GLY:HA2	43:DZ:161:VAL:CB	2.23	0.68
1:CA:17:U:H2'	1:CA:18:C:C6	2.29	0.68
45:D1:54:ALA:HB1	45:D1:83:GLU:HG3	1.76	0.68
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.25	0.68
7:CG:135:VAL:HA	7:CG:138:LYS:HB3	1.74	0.68
23:DA:2448:A:OP2	56:DA:3847:HOH:O	2.11	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
1:AA:1108:G:O6	56:AA:2269:HOH:O	2.05	0.68
29:DH:3:ARG:HD3	29:DH:54:ARG:HH12	1.59	0.68
23:BA:2523:G:N7	56:BA:4579:HOH:O	2.26	0.68
43:BZ:158:PRO:O	43:BZ:161:VAL:HG11	1.94	0.68
23:BA:2114:A:O2'	23:BA:2167:U:O3'	2.11	0.68
33:DP:38:GLN:HA	33:DP:41:ARG:HG2	1.76	0.68
23:DA:1023:U:OP2	56:DA:4989:HOH:O	2.10	0.68
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.76	0.68
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.27	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
23:DA:2541:A:OP2	56:DA:4631:HOH:O	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.28	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
23:DA:1430:C:H2'	23:DA:1431:U:C6	2.29	0.68
1:CA:664:G:H22	1:CA:741:G:H1	1.40	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
1:CA:1178:G:N2	1:CA:1181:G:OP2	2.15	0.67
2:AB:163:PHE:CD2	2:AB:185:ILE:HG13	2.28	0.67
31:DN:47:ALA:HB2	31:DN:112:LEU:HD11	1.76	0.67
23:DA:2332:U:O2'	23:DA:2335:A:N3	2.22	0.67
23:BA:1332:G:OP1	56:BA:4713:HOH:O	2.11	0.67
10:AJ:16:LEU:HD21	10:AJ:70:ARG:HG3	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
23:BA:2763:G:OP2	56:BA:4998:HOH:O	2.10	0.67
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.08	0.67
1:AA:40:C:H42	1:AA:402:G:H1	0.73	0.67
2:CB:87:ARG:NE	2:CB:233:SER:HB2	2.10	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
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	1.75	0.67
23:BA:1803:A:O2'	25:BD:259:THR:HG21	1.94	0.67
1:CA:1226:C:N4	13:CM:104:ARG:HD3	2.09	0.67
1:CA:1508:G:OP1	56:CA:1944:HOH:O	2.11	0.67
29:BH:3:ARG:HD3	29:BH:54:ARG:HH12	1.59	0.67
1:AA:934:C:OP1	56:AA:1933:HOH:O	2.12	0.67
30:DI:27:ARG:HD2	45:D1:71:TYR:CE1	2.29	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
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.76	0.67
1:CA:610:G:O6	56:CA:1937:HOH:O	2.08	0.67
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.75	0.67
32:DO:2:ILE:HD12	32:DO:6:THR:HG21	1.77	0.67
23:BA:1793:C:OP1	56:BA:3801:HOH:O	2.11	0.67
23:DA:2140:C:H2'	23:DA:2141:G:H8	1.60	0.67
1:AA:165:C:H2'	1:AA:166:G:C8	2.28	0.67
1:AA:1457:G:OP1	20:AT:39:LYS:NZ	2.28	0.67
1:CA:1362:C:H2'	1:CA:1363:C:H5"	1.76	0.67
33:DP:39:LYS:HB2	33:DP:45:LEU:HG	1.77	0.67
36:BS:25:ARG:NH1	36:BS:42:ASP:OD2	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1452:A:OP2	56:DA:4906:HOH:O	2.13	0.67
36:BS:58:LEU:HB2	36:BS:59:LYS:HB2	1.76	0.67
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.76	0.67
33:BP:59:LEU:HD11	52:B8:10:ALA:HB2	1.74	0.67
13:CM:69:GLU:HG3	13:CM:70:LEU:H	1.60	0.67
1:AA:100:C:H2'	1:AA:101:A:C8	2.30	0.67
23:DA:2577:A:O4'	49:D5:3:LYS:HB2	1.94	0.67
11:CK:86:GLY:N	11:CK:112:THR:OG1	2.21	0.67
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	1.76	0.67
26:BE:54:GLN:HB2	26:BE:76:ARG:HB3	1.76	0.67
24:DB:66:A:N6	24:DB:108:U:H2'	2.10	0.67
1:CA:1004:A:N7	1:CA:1037:C:H2'	2.09	0.67
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.77	0.67
23:BA:1174:A:H4'	23:BA:1175:U:OP1	1.94	0.67
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.58	0.67
14:CN:21:TYR:OH	14:CN:23:ARG:NH2	2.28	0.67
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	1.94	0.67
7:AG:146:GLU:O	7:AG:149:ARG:N	2.28	0.67
9:CI:46:ALA:O	9:CI:49:PRO:HD2	1.94	0.67
1:CA:376:G:H5"	16:CP:5:ARG:HD2	1.77	0.67
23:DA:588:U:H2'	23:DA:589:C:C6	2.30	0.67
23:DA:139(A):G:N2	41:DX:44:GLU:OE1	2.28	0.67
1:AA:735:C:H2'	1:AA:736:C:H6	1.59	0.67
1:AA:1320:C:H5'	1:AA:1320:C:H6	1.60	0.66
23:DA:1980:G:O2'	23:DA:1982:C:OP2	2.10	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
1:CA:344:A:H4'	1:CA:345:C:OP2	1.93	0.66
37:BT:95:ARG:HG2	37:BT:95:ARG:NH1	2.10	0.66
23:BA:2166:G:N2	23:BA:2172:U:O4	2.28	0.66
1:CA:436:C:H4'	4:CD:156:GLU:HB2	1.77	0.66
47:D3:8:LEU:HD13	47:D3:31:LEU:HD23	1.77	0.66
1:CA:1251:A:O2'	1:CA:1369:C:O2'	2.09	0.66
23:DA:1355:G:OP1	25:DD:38:LYS:NZ	2.24	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
1:AA:1503:A:C8	1:AA:1531:A:C8	2.82	0.66
2:CB:163:PHE:CD2	2:CB:185:ILE:HG13	2.31	0.66
14:AN:21:TYR:OH	14:AN:23:ARG:NH2	2.27	0.66
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:43:LEU:O	20:AT:47:GLY:N	2.28	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
7:CG:150:ALA:HA	11:CK:59:TYR:HB3	1.77	0.66
23:BA:2822:G:OP2	56:BA:4891:HOH:O	2.12	0.66
23:BA:2136:C:H42	23:BA:2155:G:H1	1.41	0.66
1:CA:1459:C:H2'	1:CA:1460:A:C8	2.30	0.66
26:BE:24:THR:HG22	26:BE:186:GLY:O	1.96	0.66
41:DX:53:LYS:HB3	41:DX:82:GLN:HB3	1.78	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
45:B1:21:ARG:HG2	45:B1:21:ARG:NH1	2.00	0.66
6:AF:15:ASP:OD2	6:AF:17:SER:N	2.23	0.66
1:CA:976:G:H22	1:CA:1363(A):A:H2'	1.59	0.66
4:AD:106:TYR:CD2	4:AD:107:ARG:HG2	2.29	0.66
1:AA:1459:C:H2'	1:AA:1460:A:C8	2.30	0.66
13:AM:70:LEU:O	13:AM:73:GLU:N	2.29	0.66
9:AI:66:ARG:HH11	9:AI:66:ARG:HB2	1.60	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
23:DA:2127:G:O6	23:DA:2161:C:N3	2.28	0.66
1:AA:266:G:O2'	1:AA:267:C:OP2	2.10	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
13:AM:60:VAL:HG13	13:AM:64:TRP:HZ3	1.60	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
1:AA:1493:A:O2'	1:AA:1494:G:OP1	2.13	0.66
23:DA:631:A:OP1	33:DP:65:ARG:NH1	2.29	0.66
1:AA:625:G:H4'	16:AP:16:HIS:CG	2.31	0.66
23:DA:2123:G:H1	23:DA:2175:C:N4	1.94	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
1:CA:1162:C:H42	1:CA:1174:G:H1	1.44	0.65
1:AA:1456:G:O2'	20:AT:39:LYS:NZ	2.23	0.65
13:CM:65:LYS:HA	13:CM:66:LEU:HB2	1.78	0.65
23:BA:2839:G:H5'	35:BR:46:GLY:HA2	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
23:DA:2296:U:OP2	36:DS:9:ARG:NH2	2.28	0.65
1:CA:1442:G:O2'	1:CA:1442(A):G:H5'	1.95	0.65
40:DW:4:LYS:HE2	40:DW:6:ILE:HD11	1.78	0.65
5:AE:144:THR:OG1	5:AE:147:ASP:OD2	2.11	0.65
23:BA:2646:C:OP1	56:BA:5325:HOH:O	2.13	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
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.31	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:DA:2845:G:O2'	23:DA:2846:G:H5'	1.95	0.65
23:DA:2580:U:H5"	56:DA:3943:HOH:O	1.96	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
1:AA:171:A:H2'	1:AA:172:A:H8	1.60	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:BA:1484:G:O6	56:BA:4428:HOH:O	2.11	0.65
23:DA:2327:A:H2'	23:DA:2328:A:C8	2.32	0.65
1:AA:1164:G:H1	1:AA:1172:C:H42	1.44	0.65
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.31	0.65
41:DX:35:THR:HG22	41:DX:38:GLU:H	1.62	0.65
1:CA:1059:C:OP1	3:CC:199:LYS:NZ	2.27	0.65
36:DS:102:ALA:HA	36:DS:105:ALA:HB3	1.78	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
42:BY:92:ASN:OD1	42:BY:94:LYS:HG3	1.96	0.65
2:AB:15:VAL:HG23	2:AB:209:ARG:HG2	1.77	0.65
23:DA:1542:A:OP2	56:DA:3765:HOH:O	2.15	0.65
23:DA:1689:A:N6	23:DA:1698:A:H2	1.92	0.65
28:DG:41:GLN:HB3	28:DG:43:LEU:HD13	1.77	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:62:C:OP1	56:BA:3878:HOH:O	2.13	0.65
23:BA:2042:A:OP1	56:BA:4658:HOH:O	2.13	0.65
23:DA:2683:C:O2	32:DO:70:LYS:NZ	2.26	0.65
43:DZ:158:PRO:O	43:DZ:161:VAL:HG11	1.96	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:253:C:OP2	52:D8:5:LYS:NZ	2.28	0.65
1:CA:457:C:H2'	1:CA:458:C:H6	1.60	0.65
1:CA:186:C:H2'	1:CA:187:C:H6	1.61	0.65
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
23:BA:1991:U:H2'	23:BA:1992:G:H5"	1.78	0.65
1:CA:584:G:H5'	17:CQ:91:ARG:HH22	1.62	0.65
23:DA:1642:G:N7	56:DA:4438:HOH:O	2.30	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
35:DR:55:ALA:HB2	35:DR:79:LEU:HD13	1.78	0.65
20:CT:72:LEU:HD11	20:CT:80:ARG:HD2	1.79	0.65
7:CG:27:ILE:HA	7:CG:30:ILE:HD12	1.77	0.65
36:BS:15:ARG:O	36:BS:19:LYS:HG2	1.97	0.65
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG2	1.78	0.65
23:DA:1778:U:H2'	23:DA:1784:A:N6	2.12	0.65
5:AE:102:ALA:O	5:AE:107:ARG:NH1	2.29	0.65
1:CA:984:C:H2'	1:CA:985:C:C6	2.30	0.65
11:AK:86:GLY:H	11:AK:112:THR:HG1	1.44	0.65
23:BA:2127:G:N1	23:BA:2161:C:O2	2.30	0.65
23:DA:2365:G:O6	52:D8:39:LYS:HE3	1.97	0.65
23:DA:2104:G:N2	23:DA:2105:C:O2	2.30	0.65
23:BA:1040:C:H2'	23:BA:1041:C:O4'	1.97	0.65
36:BS:102:ALA:HA	36:BS:105:ALA:HB3	1.79	0.65
23:DA:2526:G:H21	53:D9:2:LYS:HD2	1.62	0.65
36:BS:14:VAL:O	36:BS:18:ILE:HG12	1.97	0.65
1:AA:243:A:H4'	1:AA:244:U:O5'	1.97	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
13:AM:70:LEU:O	13:AM:74:VAL:N	2.27	0.65
1:AA:608:A:OP2	56:AA:2171:HOH:O	2.15	0.65
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
31:BN:47:ALA:HB2	31:BN:112:LEU:HD11	1.79	0.64
1:AA:1442(B):A:H2	37:BT:118:ARG:CZ	2.06	0.64
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.33	0.64
27:BF:53:THR:CG2	27:BF:55:GLY:H	2.10	0.64
49:B5:16:ARG:NH1	49:B5:17:ASP:OD1	2.30	0.64
1:AA:982:U:H5"	14:AN:6:LEU:HD21	1.80	0.64
36:DS:15:ARG:O	36:DS:19:LYS:HG2	1.97	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
1:AA:814:A:OP2	56:AA:2194:HOH:O	2.14	0.64
23:BA:2206:G:O2'	23:BA:2207:G:OP1	2.16	0.64
1:AA:1320:C:C4	19:AS:36:ARG:HB2	2.31	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:BA:1434:A:H61	23:BA:1558:A:H62	1.43	0.64
26:DE:77:ILE:HD12	26:DE:195:LEU:HD13	1.79	0.64
23:DA:2810:A:N6	23:DA:2891:G:O2'	2.30	0.64
3:CC:180:ALA:HA	3:CC:206:GLU:HA	1.79	0.64
1:CA:1181:G:H2'	1:CA:1182:G:C5	2.33	0.64
2:AB:21:ARG:HD2	2:AB:21:ARG:N	2.10	0.64
23:BA:1153:C:OP2	56:BA:4736:HOH:O	2.15	0.64
8:AH:86:ILE:HG21	8:AH:133:LEU:HD13	1.78	0.64
23:DA:1250:G:N7	33:DP:18:ARG:NH2	2.45	0.64
1:CA:1188:A:H2'	1:CA:1189:C:O4'	1.98	0.64
1:AA:946:A:H2'	1:AA:947:G:C8	2.32	0.64
9:AI:45:ALA:HB3	9:AI:47:LEU:H	1.62	0.64
1:AA:1011:G:H1	1:AA:1018:C:N4	1.94	0.64
1:CA:1060:C:H5'	14:CN:45:ARG:HH12	1.62	0.64
23:BA:2114:A:H1'	23:BA:2168:G:H5'	1.78	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:2166:G:N2	23:DA:2172:U:O4	2.31	0.64
23:DA:2839:G:H5'	35:DR:46:GLY:HA2	1.79	0.64
23:DA:2128:C:H42	23:DA:2160:G:H1	1.43	0.64
26:DE:179:GLU:HB3	26:DE:181:LEU:HD22	1.79	0.64
2:AB:163:PHE:HA	2:AB:185:ILE:HG12	1.79	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
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
43:DZ:158:PRO:HD2	43:DZ:161:VAL:HG21	1.79	0.64
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1352:U:P	56:DA:4027:HOH:O	2.55	0.64
37:BT:24:PRO:HA	37:BT:49:VAL:HG22	1.80	0.64
23:BA:1896:G:N7	56:BA:5340:HOH:O	2.30	0.64
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.31	0.64
23:BA:2304:G:H21	28:BG:156:ASP:CG	2.01	0.64
23:BA:1689:A:N6	23:BA:1698:A:H2	1.95	0.64
1:AA:1441:G:H4'	1:AA:1442:G:C8	2.33	0.64
23:DA:2127:G:N1	23:DA:2161:C:O2	2.29	0.64
23:BA:2337:G:OP1	56:BA:4363:HOH:O	2.15	0.64
1:AA:792:A:OP2	56:AA:1974:HOH:O	2.15	0.64
23:DA:2434:A:N7	56:DA:4106:HOH:O	2.30	0.64
23:DA:2353:G:N7	56:DA:4865:HOH:O	2.30	0.64
1:AA:1442:G:O2'	1:AA:1442(A):G:H5'	1.98	0.63
2:CB:21:ARG:N	2:CB:21:ARG:HD2	2.11	0.63
1:CA:1084:G:H5'	1:CA:1102:A:OP2	1.97	0.63
23:BA:380:U:OP1	56:BA:4622:HOH:O	2.15	0.63
14:AN:26:ARG:HD3	14:AN:43:CYS:HB3	1.80	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:CA:1280:A:H5'	10:CJ:41:PRO:HD2	1.81	0.63
23:BA:1420:U:HO2'	23:BA:1421:G:P	2.21	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
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.97	0.63
33:BP:38:GLN:HA	33:BP:41:ARG:HG2	1.80	0.63
7:CG:149:ARG:HD2	11:CK:59:TYR:CE1	2.34	0.63
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.80	0.63
26:DE:55:ASN:HB3	26:DE:58:ARG:HG3	1.81	0.63
22:CY:30:TRP:HD1	22:CY:89:GLN:HG3	1.64	0.63
2:CB:134:GLU:HA	2:CB:137:ARG:HE	1.64	0.63
23:DA:527:C:OP1	56:DA:4811:HOH:O	2.15	0.63
23:DA:2114:A:O2'	23:DA:2167:U:O3'	2.15	0.63
1:CA:1170:A:N6	1:CA:1171:G:N3	2.45	0.63
31:DN:24:GLY:HA2	31:DN:27:ALA:HB3	1.80	0.63
3:CC:77:ILE:O	3:CC:84:ILE:N	2.31	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
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

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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:CA:544:G:OP1	4:CD:62:GLN:NE2	2.19	0.63
30:DI:104:GLN:C	30:DI:105:HIS:HD1	2.02	0.63
1:AA:1108:G:H5'	3:AC:176:HIS:CD2	2.33	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
25:DD:137:PRO:O	25:DD:140:THR:HG23	1.99	0.63
33:DP:100:LEU:HD12	33:DP:112:LEU:HD11	1.81	0.63
1:AA:1129:C:N4	1:AA:1134:G:N7	2.47	0.63
23:BA:1300:U:H4'	23:BA:1301:A:H5'	1.81	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
1:AA:1237:C:O2'	1:AA:1300:G:N2	2.24	0.63
28:BG:82:LEU:H	28:BG:82:LEU:HD12	1.63	0.63
44:B0:27:GLU:HG3	44:B0:68:GLU:HA	1.80	0.63
1:CA:402:G:O2'	1:CA:620:C:N3	2.31	0.63
23:BA:668:G:H5'	23:BA:669:G:OP2	1.99	0.63
23:DA:271(E):U:H2'	23:DA:271(F):C:C6	2.34	0.63
23:BA:607:U:OP1	27:BF:102:PRO:HA	1.99	0.63
23:DA:885:C:H5"	56:DA:5037:HOH:O	1.99	0.63
1:CA:1030(A):G:N2	1:CA:1030(D):A:OP2	2.22	0.63
23:DA:2577:A:H5'	49:D5:3:LYS:HD2	1.81	0.63
23:DA:911:A:H2'	34:DQ:9:TYR:OH	1.98	0.63
4:AD:65:ARG:HG2	4:AD:75:PHE:CD1	2.34	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
26:BE:47:VAL:HG12	26:BE:49:LEU:HD13	1.81	0.62
38:DU:92:ARG:HA	38:DU:95:LEU:HB2	1.81	0.62
26:DE:54:GLN:HB2	26:DE:76:ARG:HB3	1.80	0.62
22:CY:54:ILE:HB	22:CY:61:LEU:HD12	1.81	0.62
1:CA:73:G:H1	1:CA:96:U:H3	1.46	0.62
23:DA:2349:G:H5'	23:DA:2350:C:OP2	1.99	0.62
23:BA:1360:A:OP2	56:BA:5236:HOH:O	2.16	0.62
42:DY:90:LEU:HB3	42:DY:92:ASN:H	1.64	0.62
1:AA:1030(D):A:H2'	1:AA:1031:G:O4'	1.99	0.62
8:CH:121:ASP:HB2	8:CH:125:ARG:NH2	2.14	0.62
3:CC:100:ALA:O	3:CC:102:ASN:N	2.30	0.62
26:BE:77:ILE:HD12	26:BE:195:LEU:HD13	1.79	0.62
25:DD:71:ASP:HB3	25:DD:103:ARG:HH22	1.64	0.62
43:DZ:124:ILE:HG13	43:DZ:125:LEU:H	1.64	0.62
3:AC:6:HIS:NE2	3:AC:8:ILE:HB	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:446:G:O6	56:AA:2240:HOH:O	2.13	0.62
23:DA:2243:U:H2'	23:DA:2244:U:C6	2.34	0.62
52:B8:23:VAL:HG11	52:B8:47:LYS:HD3	1.81	0.62
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.34	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:271(M):G:O2'	23:DA:271(N):U:O5'	2.15	0.62
43:DZ:54:HIS:ND1	43:DZ:101:PRO:HG3	2.14	0.62
23:DA:370:G:OP2	56:DA:4254:HOH:O	2.16	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
23:DA:1300:U:H4'	23:DA:1301:A:H5'	1.82	0.62
23:BA:2136:C:N4	23:BA:2155:G:N1	2.45	0.62
20:CT:43:LEU:O	20:CT:47:GLY:N	2.31	0.62
1:AA:1492:A:H5'	1:AA:1493:A:C8	2.34	0.62
20:CT:30:LYS:HA	20:CT:33:ILE:HD12	1.82	0.62
23:DA:1379:A:H4'	23:DA:1380:G:OP2	2.00	0.62
23:BA:1109:C:C5	23:BA:1110:G:C6	2.87	0.62
2:CB:163:PHE:HA	2:CB:185:ILE:HG12	1.81	0.62
23:BA:2894:G:H8	23:BA:2894:G:O5'	1.83	0.62
23:BA:2113:U:H2'	23:BA:2114:A:O4'	1.99	0.62
1:AA:186:C:H2'	1:AA:187:C:C6	2.35	0.62
23:DA:509:C:O3'	56:DA:3892:HOH:O	2.16	0.62
1:CA:612:C:O2	1:CA:629:G:N2	2.32	0.62
3:CC:92:ALA:HB2	3:CC:99:VAL:H	1.63	0.62
1:AA:473:G:H2'	1:AA:474:G:H8	1.63	0.62
23:BA:1693:U:O2'	25:BD:14:ARG:NH2	2.32	0.62
23:BA:1877:A:H5'	23:BA:1878:G:OP2	1.98	0.62
23:DA:330:A:H2	23:DA:1210:A:H2'	1.63	0.62
32:BO:2:ILE:HD12	32:BO:6:THR:HG21	1.80	0.62
23:BA:251:A:C5	23:BA:252:G:H1'	2.34	0.62
1:CA:1226:C:H4'	19:CS:80:TYR:CZ	2.34	0.62
24:BB:66:A:N6	24:BB:108:U:H2'	2.13	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
2:AB:134:GLU:HA	2:AB:137:ARG:HE	1.65	0.62
23:DA:2887:U:H2'	23:DA:2888:C:C6	2.34	0.62
1:CA:1129:C:N4	1:CA:1134:G:N7	2.48	0.62
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1266:G:O5'	40:BW:15:ARG:NH2	2.32	0.62
23:DA:1531:C:H42	23:DA:1538:G:H1	1.46	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: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
1:AA:1318:A:H1'	19:AS:37:ARG:HH21	1.65	0.62
23:BA:2122:U:H2'	23:BA:2123:G:H8	1.65	0.62
23:DA:2113:U:H2'	23:DA:2114:A:O4'	2.00	0.62
23:BA:2349:G:H3'	23:BA:2350:C:H5"	1.82	0.62
23:DA:84:A:H5"	42:DY:8:LYS:HE3	1.82	0.62
23:DA:2777:G:H5"	23:DA:2778:A:H5'	1.82	0.62
5:AE:80:ILE:HD12	5:AE:138:ALA:HB1	1.81	0.62
46:D2:51:ARG:HA	46:D2:54:LYS:HB2	1.81	0.62
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.15	0.62
23:DA:1364:G:OP1	45:D1:2:SER:HA	2.00	0.62
23:DA:2646:C:OP2	23:DA:2732:G:O2'	2.17	0.62
49:D5:51:TYR:CE1	49:D5:56:LYS:HG2	2.33	0.62
21:CU:5:ASP:O	21:CU:11:GLY:HA3	1.99	0.62
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG12	1.82	0.62
1:CA:222:U:H2'	1:CA:223:U:H6	1.64	0.61
1:CA:1089:G:H1	1:CA:1096:C:H42	1.48	0.61
25:BD:8:PRO:HB3	25:BD:14:ARG:HB2	1.81	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
23:DA:300:A:P	42:DY:86:ARG:HH22	2.23	0.61
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.83	0.61
1:CA:1316:G:N2	1:CA:1319:A:O5'	2.32	0.61
2:AB:87:ARG:HE	2:AB:233:SER:CB	2.13	0.61
1:AA:1010:G:H2'	1:AA:1011:G:C8	2.34	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
23:DA:1633:G:OP2	56:DA:4052:HOH:O	2.16	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:2142:C:H2'	23:BA:2143:C:C6	2.35	0.61
23:DA:1429:G:H2'	23:DA:1430:C:C6	2.34	0.61
1:CA:430:A:OP1	4:CD:9:CYS:N	2.34	0.61
23:DA:300:A:OP2	42:DY:86:ARG:NH2	2.33	0.61
42:BY:68:HIS:ND1	42:BY:70:SER:HB3	2.16	0.61
26:DE:116:VAL:HG13	26:DE:122:PHE:HB2	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:76:ALA:O	6:CF:80:ARG:HG3	2.00	0.61
23:BA:2810:A:N6	23:BA:2891:G:O2'	2.32	0.61
23:BA:1778:U:H2'	23:BA:1784:A:N6	2.15	0.61
23:BA:2577:A:H5'	49:B5:3:LYS:HD2	1.82	0.61
2:CB:236:TYR:CG	2:CB:239:VAL:HB	2.35	0.61
1:CA:405:U:O4	4:CD:2:GLY:N	2.34	0.61
23:BA:1047:G:H2'	23:BA:1110:G:N2	2.15	0.61
1:AA:1009:G:H2'	1:AA:1010:G:O4'	2.00	0.61
23:BA:2821:A:OP2	56:BA:4891:HOH:O	2.16	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
30:BI:38:LEU:HB3	30:BI:40:THR:HG23	1.80	0.61
4:CD:13:ARG:NH1	4:CD:38:TYR:O	2.32	0.61
23:DA:2894:G:H8	23:DA:2894:G:O5'	1.83	0.61
48:D4:42:PHE:HB3	48:D4:43:TYR:HB2	1.82	0.61
23:DA:764:A:H2	25:DD:219:PRO:HG3	1.64	0.61
25:BD:71:ASP:OD2	25:BD:103:ARG:NH2	2.32	0.61
4:AD:188:LEU:H	4:AD:188:LEU:HD23	1.65	0.61
1:CA:656:C:O2'	15:CO:28:GLN:NE2	2.19	0.61
9:CI:71:SER:O	9:CI:75:ASP:HB2	2.00	0.61
23:DA:2686:G:H5'	56:DA:4444:HOH:O	2.00	0.61
7:AG:111:ARG:NH1	7:AG:113:GLU:OE2	2.33	0.61
23:DA:2208:A:H1'	23:DA:2219:G:C4	2.36	0.61
25:DD:71:ASP:OD2	25:DD:103:ARG:NH2	2.33	0.61
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.01	0.61
26:DE:152:LYS:HD2	31:DN:77:GLY:HA3	1.82	0.61
23:DA:2497:A:H5"	56:DA:3898:HOH:O	2.00	0.61
18:CR:71:LYS:NZ	56:CR:101:HOH:O	2.16	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
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.35	0.61
1:CA:1244:C:N3	1:CA:1293:G:N2	2.40	0.61
19:AS:36:ARG:NH2	19:AS:75:ALA:O	2.32	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
1:CA:1238:A:N3	1:CA:1241:G:O2'	2.31	0.61
23:BA:1045:A:H1'	23:BA:1047:G:C2	2.36	0.61
1:CA:664:G:P	18:CR:64:ARG:HH21	2.23	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1266:G:O5'	40:DW:15:ARG:NH2	2.33	0.61
43:BZ:69:THR:HG22	43:BZ:90:VAL:HA	1.83	0.61
23:DA:301:G:OP2	42:DY:84:ARG:NH2	2.34	0.61
23:BA:1429:G:H2'	23:BA:1430:C:C6	2.36	0.61
23:DA:1040:C:H2'	23:DA:1041:C:O4'	2.00	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
23:BA:1721:G:H5'	23:BA:1722:A:OP2	2.01	0.61
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.35	0.61
4:AD:31:CYS:HB3	4:AD:33:MET:HB2	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:227:G:O2'	16:AP:62:VAL:HG22	2.01	0.61
52:D8:62:LEU:HB3	52:D8:65:GLU:HG2	1.83	0.61
13:CM:49:THR:O	13:CM:51:ALA:N	2.34	0.61
23:DA:945:A:C2	56:DA:4012:HOH:O	2.50	0.60
1:CA:1227:A:OP1	19:CS:80:TYR:OH	2.13	0.60
23:DA:2114:A:H1'	23:DA:2168:G:H5'	1.83	0.60
23:DA:2142:C:H2'	23:DA:2143:C:C6	2.36	0.60
1:AA:1029:C:O2	1:AA:1032:G:N1	2.34	0.60
37:DT:24:PRO:HA	37:DT:49:VAL:HG22	1.82	0.60
13:CM:48:LEU:O	13:CM:52:GLU:HB2	2.00	0.60
23:BA:2327:A:H2'	23:BA:2328:A:C8	2.35	0.60
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.82	0.60
1:AA:1259:C:N4	1:AA:1260:C:O2	2.34	0.60
26:DE:24:THR:HG22	26:DE:186:GLY:O	2.01	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:CA:1090:U:H2'	1:CA:1091:U:C6	2.36	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
15:CO:24:SER:O	15:CO:24:SER:OG	2.19	0.60
3:CC:70:VAL:O	3:CC:106:VAL:N	2.34	0.60
1:AA:612:C:O2	1:AA:629:G:N2	2.33	0.60
28:BG:16:ARG:HH11	28:BG:16:ARG:HG3	1.66	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
1:CA:1278:U:H5"	1:CA:1279:A:O4'	2.01	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
34:DQ:37:LEU:HD21	34:DQ:130:LYS:HE2	1.83	0.60
6:AF:82:ARG:HG3	6:AF:82:ARG:HH11	1.66	0.60
1:CA:538:G:H5"	12:CL:114:LYS:CB	2.25	0.60
23:BA:2208:A:H1'	23:BA:2219:G:C4	2.36	0.60
1:CA:437:U:O3'	4:CD:125:HIS:CE1	2.55	0.60
21:CU:3:LYS:NZ	56:CU:101:HOH:O	2.34	0.60
27:DF:184:TYR:CD2	27:DF:188:ARG:HD2	2.36	0.60
23:BA:639:U:H2'	23:BA:640:C:C6	2.36	0.60
1:AA:600:C:H2'	1:AA:601:C:C6	2.36	0.60
33:DP:63:PRO:HG2	52:D8:25:MET:HB2	1.84	0.60
1:AA:262:A:H2'	1:AA:263:A:C8	2.36	0.60
1:AA:1342:C:O2'	9:AI:124:GLN:HG2	2.00	0.60
1:AA:436:C:O2'	1:AA:437:U:OP2	2.18	0.60
25:DD:275:LYS:HG3	25:DD:276:LYS:HB2	1.83	0.60
34:BQ:37:LEU:HD21	34:BQ:130:LYS:HE2	1.83	0.60
1:AA:828:A:H2'	1:AA:829:G:O4'	2.01	0.60
23:DA:2122:U:H2'	23:DA:2123:G:H8	1.66	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
23:BA:2162:G:O3'	23:BA:2172:U:O2'	2.14	0.60
1:CA:473:G:H2'	1:CA:474:G:H8	1.66	0.60
1:CA:791:G:N1	1:CA:1498:U:OP1	2.30	0.60
23:BA:662:G:H5"	33:BP:16:ARG:HG2	1.83	0.60
43:DZ:152:ALA:HA	43:DZ:155:LEU:HD13	1.83	0.60
23:BA:1250:G:N7	33:BP:18:ARG:NH2	2.49	0.60
16:AP:72:ARG:HH21	16:AP:73:LEU:HD21	1.67	0.60
43:DZ:161:VAL:O	43:DZ:161:VAL:HG13	2.01	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
36:DS:11:LYS:O	36:DS:15:ARG:HB2	2.01	0.60
13:CM:91:ARG:NH2	13:CM:97:PRO:O	2.35	0.60
43:DZ:33:LEU:HD23	43:DZ:90:VAL:HG21	1.84	0.60
31:DN:15:LEU:HB2	31:DN:135:PRO:HB2	1.83	0.60
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.37	0.60
33:DP:126:VAL:HG12	33:DP:148:LEU:HD22	1.83	0.60
24:DB:2:C:H2'	24:DB:3:C:C6	2.36	0.60
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.84	0.60
23:BA:1153:C:OP1	38:BU:92:ARG:NH1	2.31	0.60
23:DA:830:G:H5'	56:DA:4014:HOH:O	2.01	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
23:BA:2887:U:H2'	23:BA:2888:C:C6	2.36	0.60
23:BA:2023:G:H5'	23:BA:2617:C:H4'	1.82	0.60
1:CA:143:A:H2	1:CA:220:G:H1	1.50	0.60
23:DA:997:G:OP1	38:DU:92:ARG:HG2	2.01	0.60
23:DA:2130:U:H1'	23:DA:2158:A:N1	2.16	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
56:BA:4878:HOH:O	26:BE:135:HIS:NE2	2.31	0.60
23:DA:2833:G:H3'	23:DA:2834:G:H5"	1.84	0.60
23:BA:2134:A:H1'	23:BA:2159:G:H1'	1.83	0.60
23:DA:760:G:OP2	56:DA:4042:HOH:O	2.16	0.60
23:BA:1021:A:H3'	23:BA:1021:A:C8	2.37	0.60
23:BA:1174:A:H1'	23:BA:1175:U:H5"	1.83	0.60
1:CA:353:A:C8	1:CA:353:A:H5'	2.35	0.60
1:CA:542:G:OP1	4:CD:10:ARG:NH1	2.35	0.60
1:CA:564:C:OP1	56:CA:1906:HOH:O	2.17	0.60
23:BA:2777:G:H5"	23:BA:2778:A:H5'	1.84	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
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.67	0.59
1:CA:1157:A:H61	1:CA:1178:G:H21	1.47	0.59
42:BY:90:LEU:HB3	42:BY:92:ASN:H	1.66	0.59
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.83	0.59
25:BD:145:VAL:HG12	25:BD:146:GLU:O	2.02	0.59
22:AY:85:LEU:O	22:AY:89:GLN:HG2	2.02	0.59
42:DY:38:ILE:HD11	42:DY:66:PRO:HG3	1.84	0.59
11:CK:79:SER:HA	11:CK:104:GLN:HB2	1.84	0.59
4:CD:65:ARG:HG2	4:CD:75:PHE:CD1	2.37	0.59
23:DA:1778:U:OP2	56:DA:4370:HOH:O	2.17	0.59
37:BT:118:ARG:HG3	37:BT:118:ARG:NH1	2.14	0.59
1:CA:1089:G:C6	1:CA:1090:U:C4	2.90	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
37:BT:51:ARG:HG3	37:BT:98:LYS:HE3	1.83	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
1:CA:609:A:N7	56:CA:1938:HOH:O	2.32	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)
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
25:DD:71:ASP:HB3	25:DD:103:ARG:NH2	2.17	0.59
13:CM:92:HIS:CE1	13:CM:98:VAL:HG21	2.37	0.59
1:CA:957:U:H4'	19:CS:79:THR:HG23	1.83	0.59
27:BF:197:ASP:OD2	27:BF:197:ASP:N	2.33	0.59
43:DZ:69:THR:HG22	43:DZ:90:VAL:HA	1.85	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: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
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:BA:1619:G:N7	56:BA:5539:HOH:O	2.32	0.59
7:CG:111:ARG:HB2	7:CG:119:ARG:HD2	1.84	0.59
33:BP:38:GLN:O	33:BP:39:LYS:CB	2.51	0.59
23:DA:1019:U:O2'	23:DA:1021:A:H2	1.84	0.59
23:BA:2577:A:O4'	49:B5:3:LYS:HB2	2.03	0.59
9:AI:9:ARG:HG2	9:AI:14:VAL:HG13	1.85	0.59
30:BI:145:VAL:HG12	30:BI:146:ALA:H	1.67	0.59
3:CC:11:ARG:HB3	3:CC:15:THR:H	1.66	0.59
1:AA:869:G:N7	56:AA:2196:HOH:O	2.32	0.59
9:CI:99:LEU:HB3	9:CI:101:PHE:CD1	2.37	0.59
1:AA:131:C:H2'	1:AA:132:C:H6	1.67	0.59
23:BA:588:U:H2'	23:BA:589:C:C6	2.37	0.59
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.38	0.59
47:D3:23:LEU:HD13	47:D3:50:VAL:HG11	1.84	0.59
23:DA:1025:G:C4	23:DA:1135:C:H1'	2.37	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
1:CA:1401:G:OP1	22:CY:80:LYS:HE2	2.02	0.59
1:CA:47:C:H42	1:CA:361:G:H1	1.50	0.59
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.84	0.59
16:CP:75:ARG:O	16:CP:78:GLY:N	2.27	0.59
35:BR:67:LEU:HD13	35:BR:76:VAL:HG21	1.85	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
5:AE:79:GLU:HG3	5:AE:93:PRO:HD2	1.84	0.59
23:DA:662:G:H5"	33:DP:16:ARG:HG2	1.84	0.59
23:DA:2074:U:H2'	23:DA:2075:U:C6	2.38	0.59
22:CY:16:ILE:HB	22:CY:71:TYR:OH	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1456:G:N2	20:CT:51:GLU:OE1	2.33	0.59
24:BB:11:C:H3'	24:BB:12:C:C6	2.38	0.59
23:BA:1951:U:O4	56:BA:4257:HOH:O	2.14	0.59
36:DS:25:ARG:NH1	36:DS:42:ASP:OD2	2.36	0.59
6:CF:15:ASP:OD2	6:CF:17:SER:N	2.24	0.59
23:BA:11:G:H2'	23:BA:12:U:H5'	1.84	0.59
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.37	0.59
1:AA:987:G:H1	1:AA:1218:C:N4	2.01	0.59
1:CA:1348:U:H2'	1:CA:1349:A:C8	2.35	0.59
23:DA:2168:G:H22	23:DA:2171:A:H2'	1.67	0.59
1:CA:828:A:H2'	1:CA:829:G:O4'	2.03	0.59
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.38	0.59
1:AA:1117:G:H4'	9:AI:104:ARG:NH1	2.16	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
23:DA:1359:A:N3	23:DA:1359:A:H5'	2.17	0.59
1:CA:1259:C:N4	1:CA:1260:C:O2	2.35	0.59
50:D6:6:ARG:NH1	50:D6:26:ASN:HB2	2.17	0.59
10:AJ:9:ARG:HB2	10:AJ:95:GLU:HB3	1.85	0.59
6:CF:81:ILE:HD11	25:DD:125:ILE:HB	1.84	0.59
23:BA:1882:C:H5'	23:BA:1883:G:OP2	2.02	0.59
23:DA:203:C:H3'	23:DA:204:A:H5"	1.85	0.59
23:BA:886:C:H2'	23:BA:887:A:H5"	1.85	0.59
10:CJ:55:LYS:HE3	10:CJ:56:HIS:CE1	2.37	0.59
1:AA:78:G:H1	1:AA:91:C:N4	2.01	0.59
27:BF:101:LEU:O	27:BF:106:ARG:NH1	2.33	0.59
23:BA:271(E):U:H2'	23:BA:271(F):C:C6	2.38	0.59
23:DA:1991:U:H2'	23:DA:1992:G:H5"	1.83	0.59
2:CB:19:HIS:ND1	2:CB:189:ASP:OD2	2.25	0.59
1:CA:100:C:H2'	1:CA:101:A:C8	2.37	0.59
1:AA:143:A:H2	1:AA:220:G:H1	1.51	0.59
23:BA:139(A):G:N2	41:BX:44:GLU:OE1	2.36	0.59
16:CP:20:VAL:HG21	16:CP:32:TYR:CD1	2.38	0.59
34:BQ:51:ARG:NH2	43:BZ:186:GLU:OE1	2.35	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:DA:928:G:O6	56:DA:5042:HOH:O	2.16	0.58
23:DA:1019:U:H3	23:DA:1142(A):A:H62	1.50	0.58
1:AA:1300:G:O2'	1:AA:1301:U:O5'	2.21	0.58
23:DA:2506:U:OP1	26:DE:144:ARG:NH2	2.36	0.58
23:BA:392:C:OP1	56:BA:4220:HOH:O	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:59:A:H1'	1:CA:354:G:N2	2.18	0.58
23:DA:1774:C:OP1	56:DA:3839:HOH:O	2.17	0.58
1:CA:977:A:N3	1:CA:977:A:H2'	2.16	0.58
23:BA:2295:C:C2'	23:BA:2296:U:H5'	2.32	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:791:G:N2	1:CA:1497:G:O3'	2.34	0.58
23:BA:1448:G:H4'	23:BA:1542:A:OP1	2.03	0.58
23:BA:2572:A:N7	26:BE:144:ARG:HD2	2.18	0.58
1:CA:64:G:H4'	1:CA:65:U:H3'	1.85	0.58
45:D1:6:GLU:HG3	45:D1:61:ARG:O	2.03	0.58
1:CA:1321:C:H4'	13:CM:87:TYR:CE2	2.39	0.58
26:DE:47:VAL:HG12	26:DE:49:LEU:HD13	1.85	0.58
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.34	0.58
4:AD:13:ARG:NH1	4:AD:38:TYR:O	2.35	0.58
23:BA:7:G:H2'	23:BA:8:A:O4'	2.03	0.58
1:AA:1249:C:O2'	9:AI:73:GLN:NE2	2.37	0.58
4:AD:158:ILE:O	4:AD:162:LEU:N	2.36	0.58
41:BX:31:HIS:HD2	41:BX:33:LYS:N	1.93	0.58
1:CA:544:G:OP2	4:CD:66:ARG:NH2	2.37	0.58
23:DA:1022:G:H22	23:DA:1142(A):A:H2	1.47	0.58
23:DA:686:G:H5"	51:D7:11:LYS:HE2	1.84	0.58
18:CR:47:THR:HG23	18:CR:49:LYS:HG3	1.84	0.58
1:AA:1047:G:H5"	14:AN:4:LYS:HD3	1.85	0.58
1:CA:537:G:OP1	12:CL:113:ARG:NH2	2.37	0.58
10:AJ:48:THR:HG1	10:AJ:62:HIS:CE1	2.21	0.58
1:CA:1068:G:N2	1:CA:1191:A:H1'	2.19	0.58
1:CA:1067:A:O2'	1:CA:1068:G:OP2	2.15	0.58
1:CA:826:C:H2'	1:CA:827:U:C6	2.37	0.58
1:CA:1216:G:H5"	14:CN:5:ALA:HB2	1.85	0.58
23:BA:1430:C:H2'	23:BA:1431:U:C6	2.38	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:141:A:H1'	1:AA:182:U:O2	2.03	0.58
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.86	0.58
1:CA:1352:C:OP1	21:CU:3:LYS:NZ	2.24	0.58
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.38	0.58
23:DA:251:A:C5	23:DA:252:G:H1'	2.38	0.58
1:AA:1126:U:OP2	1:AA:1281:U:H1'	2.03	0.58
28:DG:75:LYS:HA	28:DG:84:LYS:HE2	1.86	0.58
3:CC:122:GLU:HA	3:CC:125:GLU:HG3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BS:96:GLY:N	36:BS:99:LYS:H	2.02	0.58
23:DA:1430:C:H2'	23:DA:1431:U:H6	1.69	0.58
11:CK:85:ARG:HE	11:CK:111:ASP:HB3	1.69	0.58
36:BS:11:LYS:O	36:BS:15:ARG:HB2	2.03	0.58
52:B8:23:VAL:CG1	52:B8:47:LYS:HD3	2.34	0.58
25:DD:275:LYS:HG3	25:DD:276:LYS:N	2.19	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
45:B1:50:ARG:HG2	45:B1:59:THR:HG22	1.86	0.58
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
23:DA:861:A:C2	23:DA:917:A:C4	2.91	0.58
23:BA:84:A:H5"	42:BY:8:LYS:HE3	1.85	0.58
23:DA:889:C:O2'	23:DA:890:A:H8	1.87	0.58
23:BA:2137:C:O2	23:BA:2137:C:H2'	2.02	0.58
17:CQ:66:SER:O	17:CQ:70:ARG:NH1	2.37	0.58
1:AA:664:G:P	18:AR:64:ARG:HH21	2.27	0.58
1:AA:1110:A:OP2	56:AA:2202:HOH:O	2.17	0.58
23:DA:2469:A:H4'	34:DQ:56:ARG:HG2	1.85	0.58
3:AC:51:GLY:HA3	3:AC:71:ALA:HB3	1.86	0.58
32:BO:16:ALA:HB2	32:BO:52:VAL:HG21	1.86	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
15:CO:5:LYS:O	15:CO:9:GLN:HG2	2.03	0.58
34:BQ:135:ASP:OD2	43:BZ:49:ARG:NH2	2.37	0.58
36:DS:34:HIS:O	36:DS:97:ARG:NH2	2.37	0.58
26:DE:203:LYS:CB	26:DE:204:ALA:HA	2.33	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
23:DA:1204:A:H61	23:DA:1240:U:H2'	1.69	0.58
2:CB:87:ARG:HD2	2:CB:219:VAL:HG11	1.86	0.58
2:AB:87:ARG:HH21	2:AB:233:SER:HB2	1.66	0.58
37:DT:118:ARG:NH1	37:DT:118:ARG:HG3	2.16	0.58
49:D5:16:ARG:NH1	49:D5:17:ASP:OD1	2.37	0.58
1:AA:1292:U:O2'	1:AA:1293:G:H5'	2.04	0.58
23:BA:1379:A:H4'	23:BA:1380:G:OP2	2.02	0.58
21:CU:14:TRP:CE3	21:CU:15:ARG:HG3	2.39	0.58
5:AE:50:GLU:HB2	5:AE:53:LEU:HD13	1.84	0.58
43:BZ:161:VAL:HG13	43:BZ:161:VAL:O	2.04	0.57
23:DA:1021:A:C8	23:DA:1021:A:H3'	2.39	0.57
23:DA:963:U:OP2	56:DA:3795:HOH:O	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1494:A:O2'	23:DA:1495:A:H5'	2.04	0.57
1:AA:91:C:O2'	1:AA:92:C:H5'	2.04	0.57
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
23:DA:1029:A:O2'	56:DA:4878:HOH:O	2.07	0.57
25:DD:3:VAL:HG13	25:DD:17:THR:HB	1.86	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: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
41:DX:31:HIS:HD2	41:DX:33:LYS:N	1.95	0.57
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.04	0.57
1:AA:974:A:OP1	1:AA:974:A:H8	1.87	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
27:DF:101:LEU:O	27:DF:106:ARG:NH1	2.29	0.57
23:DA:2023:G:H5'	23:DA:2617:C:H4'	1.87	0.57
1:AA:748:C:H4'	1:AA:749:C:O5'	2.03	0.57
23:BA:642:G:H21	23:BA:646:A:H2	1.52	0.57
3:AC:58:GLU:HB2	3:AC:65:ALA:HB3	1.85	0.57
23:DA:639:U:H2'	23:DA:640:C:C6	2.39	0.57
1:CA:1011:G:H1	1:CA:1018:C:H42	1.52	0.57
23:BA:1405:U:H2'	23:BA:1406:U:C6	2.39	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
23:DA:2463:C:O2'	23:DA:2464:C:H5'	2.04	0.57
19:CS:49:ILE:O	19:CS:60:VAL:N	2.31	0.57
1:CA:763:G:H2'	1:CA:764:C:H6	1.69	0.57
23:DA:2439:A:H5'	23:DA:2439:A:C8	2.39	0.57
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.03	0.57
29:DH:113:VAL:HG11	29:DH:151:ILE:HD13	1.86	0.57
1:CA:922:G:N3	1:CA:1398:A:H2	2.02	0.57
1:AA:353:A:C8	1:AA:353:A:H5'	2.36	0.57
23:DA:2115:G:O2'	23:DA:2166:G:N2	2.36	0.57
23:BA:911:A:H2'	34:BQ:9:TYR:OH	2.05	0.57
23:DA:1330:C:OP1	56:DA:4713:HOH:O	2.17	0.57
33:BP:126:VAL:HG12	33:BP:148:LEU:HD22	1.86	0.57
26:BE:143:ASN:HD22	26:BE:147:PRO:HD3	1.70	0.57
23:DA:1434:A:H61	23:DA:1558:A:H62	1.51	0.57
1:CA:1414:U:H3	1:CA:1486:G:H1	1.52	0.57
23:BA:621:A:OP2	33:BP:108:LYS:NZ	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:297:C:OP1	42:DY:95:LYS:NZ	2.37	0.57
50:D6:11:LEU:HB2	50:D6:21:TYR:HB2	1.85	0.57
23:DA:539:G:H2'	23:DA:540:C:H6	1.69	0.57
21:CU:18:TYR:CD2	21:CU:22:ARG:HD2	2.39	0.57
26:BE:201:THR:OG1	26:BE:202:LYS:N	2.38	0.57
43:DZ:138:GLU:H	43:DZ:156:LYS:NZ	2.03	0.57
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.05	0.57
23:BA:2114:A:H3'	23:BA:2115:G:C8	2.38	0.57
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.85	0.57
23:BA:1540:U:C2'	23:BA:1541:G:H5'	2.34	0.57
23:BA:1385:G:N7	56:BA:5341:HOH:O	2.32	0.57
43:BZ:124:ILE:HG13	43:BZ:125:LEU:H	1.69	0.57
50:B6:18:ARG:HG3	50:B6:42:TRP:CD1	2.40	0.57
23:DA:2519:U:OP2	56:DA:4630:HOH:O	2.17	0.57
1:AA:1400:C:N3	22:AY:63:ALA:HA	2.18	0.57
1:CA:342:C:H5'	20:CT:4:LYS:HE2	1.86	0.57
36:DS:96:GLY:HA2	36:DS:97:ARG:C	2.25	0.57
38:BU:92:ARG:HA	38:BU:95:LEU:HB2	1.85	0.57
23:BA:652(G):G:H2'	23:BA:652(H):C:C6	2.40	0.57
26:DE:9:VAL:HG13	26:DE:25:VAL:O	2.04	0.57
23:DA:1622:G:OP2	56:DA:4063:HOH:O	2.18	0.57
1:CA:964:A:N3	1:CA:969:A:O2'	2.36	0.57
47:B3:23:LEU:HD13	47:B3:50:VAL:HG11	1.87	0.57
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.87	0.57
18:CR:73:ALA:HB3	18:CR:79:LEU:HD12	1.87	0.57
23:DA:926:A:N7	56:DA:4496:HOH:O	2.33	0.57
23:DA:2611:U:OP2	23:DA:2611:U:H3'	2.05	0.57
5:CE:32:VAL:HB	5:CE:58:ALA:HB1	1.86	0.57
8:AH:49:GLU:HG2	8:AH:62:TYR:HE2	1.68	0.57
38:DU:105:VAL:O	38:DU:108:GLU:HB2	2.04	0.57
48:D4:15:ILE:O	48:D4:32:TYR:HA	2.04	0.57
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.69	0.57
23:DA:2137:C:O2	23:DA:2137:C:H2'	2.05	0.57
1:CA:1157:A:H61	1:CA:1178:G:N2	2.03	0.57
23:DA:83:G:N2	23:DA:102:G:H1'	2.20	0.57
24:BB:7:G:N7	56:BB:336:HOH:O	2.33	0.57
23:BA:2130:U:H1'	23:BA:2158:A:N1	2.19	0.57
1:CA:539:A:H2'	1:CA:540:G:C8	2.39	0.57
9:AI:89:ASN:O	9:AI:91:ASP:N	2.38	0.57
23:BA:1106:G:H4'	23:BA:1107:G:OP2	2.05	0.57
35:DR:72:ASP:O	35:DR:76:VAL:HG23	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:729:G:C6	25:BD:208:LYS:HB2	2.40	0.57
24:DB:39:A:O2'	24:DB:46:A:N1	2.34	0.57
18:AR:47:THR:HG23	18:AR:49:LYS:HG3	1.86	0.57
1:AA:1065:U:H1'	1:AA:1066:C:OP2	2.05	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
52:B8:34:TRP:CG	52:B8:35:GLN:N	2.73	0.57
9:AI:110:GLU:OE2	9:AI:113:LYS:NZ	2.38	0.57
2:CB:77:ALA:HB1	2:CB:165:VAL:HG11	1.87	0.57
12:AL:49:ASN:ND2	12:AL:92:ASP:OD2	2.37	0.57
24:DB:11:C:H3'	24:DB:12:C:C6	2.40	0.57
9:CI:110:GLU:HG2	9:CI:119:ALA:HB1	1.87	0.57
29:DH:137:ASP:HB3	29:DH:140:LYS:HB3	1.87	0.57
26:BE:116:VAL:HG13	26:BE:122:PHE:HB2	1.87	0.57
1:AA:1005:A:H1'	1:AA:1036:G:N2	2.16	0.57
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.70	0.57
2:CB:84:GLU:OE1	2:CB:216:SER:HA	2.04	0.57
23:DA:945:A:H2	56:DA:4012:HOH:O	1.86	0.57
13:AM:65:LYS:HA	13:AM:66:LEU:CB	2.35	0.57
1:CA:1095:U:H5'	1:CA:1109:C:O2	2.04	0.57
52:D8:32:LEU:O	52:D8:36:LYS:HE3	2.05	0.57
1:CA:859:A:H2'	1:CA:860:A:O4'	2.05	0.57
1:CA:404:U:C5'	4:CD:122:ARG:HD3	2.35	0.57
23:BA:2532:G:O6	56:BA:5019:HOH:O	2.15	0.57
1:CA:748:C:H4'	1:CA:749:C:O5'	2.05	0.57
15:AO:5:LYS:O	15:AO:9:GLN:HG2	2.04	0.57
30:DI:123:LEU:HB2	30:DI:144:VAL:O	2.05	0.57
23:DA:2152:G:H2'	23:DA:2153:G:C8	2.40	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
3:CC:29:TYR:O	3:CC:29:TYR:HD2	1.87	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
9:AI:27:THR:HG23	9:AI:31:GLN:H	1.69	0.56
37:DT:60:THR:HG22	37:DT:77:PRO:HA	1.87	0.56
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.04	0.56
1:CA:826:C:H2'	1:CA:827:U:H6	1.71	0.56
23:DA:1494:A:H2'	23:DA:1495:A:C8	2.39	0.56
13:CM:69:GLU:C	13:CM:71:ARG:H	2.08	0.56
1:AA:93:G:HO2'	1:AA:96:U:H6	1.54	0.56
28:DG:179:PRO:HG3	48:D4:43:TYR:OH	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.70	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
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
23:DA:644:A:H4'	23:DA:645:C:C5	2.41	0.56
43:DZ:7:ALA:HB3	43:DZ:61:LEU:HD12	1.85	0.56
50:D6:16:CYS:HB2	50:D6:18:ARG:NH1	2.20	0.56
1:AA:933:G:OP2	7:AG:3:ARG:HB2	2.04	0.56
23:DA:2295:C:C2'	23:DA:2296:U:H5'	2.34	0.56
43:DZ:128:VAL:HG23	43:DZ:161:VAL:H	1.70	0.56
3:CC:150:LYS:HE3	3:CC:152:ILE:HD11	1.85	0.56
10:AJ:48:THR:OG1	10:AJ:62:HIS:ND1	2.24	0.56
23:BA:2319:G:H22	36:BS:3:ARG:NE	2.04	0.56
23:BA:2168:G:H22	23:BA:2171:A:H2'	1.70	0.56
23:BA:1486:A:H2'	23:BA:1487:G:C8	2.40	0.56
23:DA:330:A:H2	23:DA:1210:A:HO2'	1.52	0.56
1:AA:1189:C:P	10:AJ:51:ARG:HH22	2.28	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
29:BH:12:PRO:O	29:BH:14:GLY:HA2	2.05	0.56
6:AF:69:GLU:O	6:AF:72:VAL:HG13	2.05	0.56
1:AA:1269:A:H2	1:AA:1312:G:N3	2.02	0.56
23:BA:1218:C:H6	23:BA:1218:C:H5"	1.70	0.56
1:CA:342:C:N4	1:CA:343:U:O4	2.39	0.56
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.37	0.56
1:AA:228:A:H4'	16:AP:62:VAL:CG1	2.36	0.56
23:BA:2328:A:H2'	23:BA:2329:G:C8	2.40	0.56
52:B8:29:LYS:HG2	52:B8:44:LYS:HB3	1.85	0.56
5:CE:147:ASP:N	5:CE:147:ASP:OD2	2.38	0.56
27:DF:120:GLU:HB2	27:DF:122:LYS:HG2	1.87	0.56
4:CD:153:ARG:NH1	4:CD:180:GLY:O	2.28	0.56
23:DA:1486:A:H2'	23:DA:1487:G:H8	1.70	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
23:BA:2115:G:O2'	23:BA:2166:G:N2	2.38	0.56
23:DA:1406:U:H2'	23:DA:1407:C:C6	2.41	0.56
50:B6:16:CYS:SG	50:B6:18:ARG:HG2	2.46	0.56
23:DA:271(Q):G:OP1	30:DI:42:SER:HB2	2.05	0.56
24:BB:31:C:O2'	24:BB:53:A:N6	2.39	0.56
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BO:23:ARG:HG3	32:BO:24:VAL:N	2.21	0.56
23:BA:2526:G:H21	53:B9:2:LYS:HD2	1.70	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: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
23:BA:2131:G:OP1	23:BA:2132:U:H3'	2.05	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
34:DQ:110:THR:HG23	34:DQ:113:GLN:OE1	2.06	0.56
23:DA:69:C:N4	56:DA:4192:HOH:O	2.39	0.56
1:CA:976:G:C8	1:CA:1362:C:N4	2.74	0.56
1:AA:1009:G:O6	1:AA:1020:U:O2	2.24	0.56
23:BA:997:G:OP1	38:BU:92:ARG:HG2	2.05	0.56
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.19	0.56
13:AM:56:LEU:O	13:AM:60:VAL:HG23	2.05	0.56
1:CA:186:C:H2'	1:CA:187:C:C6	2.40	0.56
23:DA:2130:U:O2'	23:DA:2133:G:O2'	2.22	0.56
26:BE:28:ALA:HB3	26:BE:93:VAL:HG13	1.88	0.56
23:BA:141:A:H8	23:BA:1408:C:HO2'	1.50	0.56
4:CD:110:PHE:HD1	4:CD:110:PHE:H	1.51	0.56
23:DA:2111:C:H42	23:DA:2147:G:N2	2.04	0.56
9:CI:33:PHE:O	9:CI:37:PHE:HB2	2.06	0.56
43:DZ:45:ASP:OD2	43:DZ:49:ARG:NH1	2.39	0.56
1:CA:1112:C:C2	3:CC:178:LEU:HB2	2.41	0.56
23:BA:2130:U:O2'	23:BA:2133:G:O2'	2.24	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
1:CA:403:C:P	4:CD:137:SER:HG	2.27	0.56
1:CA:1145:C:H4'	1:CA:1146:A:H5'	1.88	0.56
23:DA:141:A:C8	23:DA:1408:C:O2'	2.59	0.56
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.87	0.56
1:CA:1061:G:O2'	1:CA:1062:U:OP1	2.23	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
23:DA:910:A:N1	23:DA:2277:G:H1'	2.21	0.56
23:BA:644:A:H4'	23:BA:645:C:C5	2.40	0.56
2:CB:12:GLU:O	2:CB:16:HIS:ND1	2.39	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
1:CA:833:U:H2'	1:CA:834:C:H6	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1442(B):A:C2	37:DT:118:ARG:CZ	2.89	0.56
24:DB:44:G:C2	24:DB:48:A:C2	2.94	0.56
19:CS:32:LYS:HB3	19:CS:57:HIS:HD2	1.71	0.56
1:CA:437:U:C5'	4:CD:155:LEU:HD21	2.35	0.56
23:DA:141:A:H8	23:DA:1408:C:HO2'	1.52	0.56
23:DA:2723:C:OP2	26:DE:109:LYS:NZ	2.39	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
43:DZ:154:ASP:N	43:DZ:154:ASP:OD1	2.38	0.56
23:BA:2473:U:H2'	23:BA:2473:U:O2	2.06	0.56
46:D2:4:SER:HA	46:D2:7:ARG:NH1	2.21	0.56
51:B7:33:ARG:NH2	56:B7:203:HOH:O	2.38	0.56
23:DA:886:C:H2'	23:DA:887:A:H5"	1.88	0.55
1:CA:1292:U:H2'	1:CA:1293:G:O4'	2.06	0.55
19:CS:32:LYS:HB3	19:CS:57:HIS:CD2	2.41	0.55
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.40	0.55
20:CT:47:GLY:HA2	20:CT:48:LYS:HB2	1.87	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
9:AI:112:LYS:HE2	9:AI:117:HIS:O	2.06	0.55
16:CP:5:ARG:CZ	16:CP:22:THR:HG21	2.35	0.55
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.41	0.55
3:CC:153:VAL:HA	3:CC:197:GLY:O	2.05	0.55
1:CA:46:G:O2'	1:CA:365:U:O2	2.24	0.55
23:DA:2012:G:OP1	40:DW:11:ARG:NH2	2.38	0.55
23:DA:652(C):G:N2	23:DA:652(V):C:O2	2.32	0.55
1:CA:131:C:H2'	1:CA:132:C:H6	1.71	0.55
23:BA:1178:C:H2'	23:BA:1179:C:C6	2.42	0.55
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.71	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
27:DF:53:THR:HG23	27:DF:55:GLY:H	1.69	0.55
36:BS:11:LYS:HG3	36:BS:91:PRO:HD3	1.88	0.55
18:AR:58:LEU:HD12	18:AR:62:GLU:OE1	2.06	0.55
1:AA:833:U:H2'	1:AA:834:C:H6	1.69	0.55
23:DA:1903:G:OP1	25:DD:241:PRO:HB2	2.06	0.55
23:DA:873:G:N2	23:DA:905:U:C2	2.74	0.55
24:BB:2:C:H2'	24:BB:3:C:C6	2.41	0.55
25:DD:242:ARG:N	25:DD:242:ARG:HD3	2.20	0.55
39:BV:49:THR:HG22	39:BV:49:THR:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:620:C:O4'	4:AD:135:LEU:HD23	2.07	0.55
49:B5:51:TYR:CE1	49:B5:56:LYS:HG2	2.42	0.55
23:BA:2152:G:H2'	23:BA:2153:G:C8	2.40	0.55
23:DA:2206:G:O2'	23:DA:2207:G:OP1	2.21	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:AA:663:A:O3'	18:AR:64:ARG:NH2	2.39	0.55
22:CY:30:TRP:CD1	22:CY:89:GLN:HG3	2.41	0.55
23:DA:2887:U:H2'	23:DA:2888:C:H6	1.69	0.55
50:B6:35:GLU:HG3	50:B6:50:ARG:HG3	1.88	0.55
23:DA:1540:U:C2'	23:DA:1541:G:H5'	2.36	0.55
23:DA:1540:U:O2'	23:DA:1541:G:H5'	2.06	0.55
23:DA:450:G:O6	56:DA:4160:HOH:O	2.18	0.55
48:B4:15:ILE:O	48:B4:32:TYR:HA	2.06	0.55
1:CA:935:A:H5"	56:CA:2195:HOH:O	2.06	0.55
23:BA:1488:G:H8	23:BA:1488:G:H5"	1.72	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:600:C:H2'	1:CA:601:C:C6	2.40	0.55
23:BA:889:C:O2'	23:BA:890:A:H8	1.90	0.55
4:CD:155:LEU:HD23	4:CD:156:GLU:N	2.21	0.55
23:DA:2572:A:N7	26:DE:144:ARG:HD2	2.20	0.55
29:BH:28:GLY:HA3	29:BH:79:VAL:HB	1.87	0.55
23:DA:2382:G:N7	56:DA:4415:HOH:O	2.32	0.55
29:BH:149:ARG:NH1	29:BH:167:GLU:OE1	2.40	0.55
1:AA:1136:U:H5"	1:AA:1137:C:C4	2.41	0.55
37:BT:60:THR:HG22	37:BT:77:PRO:HA	1.89	0.55
1:CA:1330:U:H4'	13:CM:23:TYR:CE2	2.41	0.55
1:AA:1068:G:OP2	1:AA:1068:G:H8	1.89	0.55
23:DA:2784:C:H1'	26:DE:37:ARG:HH12	1.71	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
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
1:AA:131:C:H2'	1:AA:132:C:C6	2.41	0.55
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.70	0.55
23:DA:244:A:C2	23:DA:255:A:C4	2.94	0.55
23:DA:2884:U:H1'	49:D5:53:ALA:HB2	1.87	0.55
2:AB:12:GLU:O	2:AB:16:HIS:ND1	2.37	0.55
23:DA:2357:U:OP1	44:D0:20:ARG:HD3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BN:56:ASN:HA	31:BN:125:GLY:H	1.72	0.55
28:BG:82:LEU:CD1	28:BG:82:LEU:H	2.18	0.55
1:CA:1492:A:C5	23:DA:1913:A:H2	2.24	0.55
23:DA:330:A:HO2'	23:DA:331:A:H8	1.55	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
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
23:BA:652(C):G:N2	23:BA:652(V):C:O2	2.35	0.55
34:BQ:138:ASP:OD2	43:BZ:81:ARG:NH1	2.39	0.55
23:DA:1178:C:H2'	23:DA:1179:C:H6	1.72	0.55
46:B2:45:SER:O	46:B2:46:GLN:HB2	2.06	0.55
23:DA:77:C:OP1	46:D2:59:ARG:HD3	2.06	0.55
23:DA:2537:U:H2'	23:DA:2538:C:C6	2.41	0.55
4:CD:106:TYR:CD2	4:CD:107:ARG:HG2	2.34	0.55
42:BY:23:ARG:HB2	42:BY:23:ARG:NH1	2.22	0.55
23:DA:330:A:H2	23:DA:1210:A:C2'	2.19	0.55
3:CC:122:GLU:O	3:CC:125:GLU:HB2	2.07	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
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
36:BS:96:GLY:HA2	36:BS:97:ARG:C	2.27	0.55
23:DA:2114:A:H3'	23:DA:2115:G:C8	2.42	0.55
49:D5:16:ARG:HG2	49:D5:16:ARG:NH1	2.22	0.55
1:CA:937:A:H1'	1:CA:1379:G:H22	1.70	0.55
36:BS:102:ALA:HB1	36:BS:112:PHE:HZ	1.72	0.55
8:CH:121:ASP:OD1	8:CH:121:ASP:N	2.40	0.55
9:AI:9:ARG:O	9:AI:104:ARG:HG3	2.07	0.55
27:BF:120:GLU:HB2	27:BF:122:LYS:HG2	1.89	0.55
5:CE:74:GLY:HA3	5:CE:116:THR:HG22	1.89	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
30:BI:111:PRO:C	30:BI:113:ARG:H	2.08	0.55
35:DR:102:GLU:OE2	40:DW:37:ARG:NH1	2.33	0.55
1:CA:509:A:H5"	4:CD:55:ALA:HB2	1.87	0.55
26:BE:203:LYS:CB	26:BE:204:ALA:HA	2.35	0.55
2:AB:87:ARG:HD2	2:AB:219:VAL:HG11	1.89	0.55
16:AP:28:ARG:CG	16:AP:28:ARG:HH11	2.17	0.55
23:DA:2584:U:H2'	23:DA:2585:U:H2'	1.87	0.55
1:CA:438:G:OP1	4:CD:125:HIS:NE2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1181:G:H2'	1:AA:1182:G:C5	2.42	0.55
33:BP:59:LEU:HD21	52:B8:10:ALA:HA	1.89	0.55
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.42	0.55
23:BA:1903:G:OP1	25:BD:241:PRO:HB2	2.07	0.55
23:DA:796:C:H2'	23:DA:797:C:C6	2.41	0.55
50:B6:13:CYS:SG	50:B6:47:THR:HG21	2.46	0.55
23:BA:2879:C:O2'	56:BA:4930:HOH:O	2.18	0.55
11:AK:19:ALA:HB3	11:AK:82:VAL:HG22	1.87	0.55
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.72	0.55
19:AS:34:TRP:HE3	19:AS:34:TRP:H	1.55	0.55
41:BX:41:ASN:O	41:BX:45:THR:HG23	2.06	0.55
27:DF:17:ARG:O	27:DF:18:ARG:HB2	2.07	0.55
23:DA:1963:U:H4'	23:DA:1964:G:OP1	2.07	0.55
23:BA:359:A:H2'	23:BA:360:G:O4'	2.07	0.55
23:BA:2322:A:H2'	23:BA:2323:G:O4'	2.06	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
23:DA:1693:U:O2'	25:DD:14:ARG:NH2	2.40	0.55
1:AA:674:G:H2'	1:AA:675:A:C8	2.42	0.55
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.40	0.55
7:CG:135:VAL:O	7:CG:139:GLU:N	2.25	0.55
9:AI:45:ALA:CB	9:AI:47:LEU:H	2.19	0.55
22:CY:54:ILE:HB	22:CY:61:LEU:CD1	2.37	0.55
43:BZ:81:ARG:HG2	43:BZ:81:ARG:HH21	1.71	0.55
23:DA:218:A:C2	23:DA:235:U:H4'	2.42	0.55
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.89	0.55
1:AA:763:G:H2'	1:AA:764:C:H6	1.72	0.55
1:AA:671:G:H2'	1:AA:672:U:H6	1.72	0.55
23:DA:2473:U:O2	23:DA:2473:U:H2'	2.07	0.55
8:CH:17:THR:HG22	8:CH:63:LEU:HG	1.89	0.55
23:DA:2304:G:H21	28:DG:156:ASP:CG	2.10	0.54
3:CC:152:ILE:HB	3:CC:199:LYS:HB2	1.87	0.54
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.07	0.54
42:DY:23:ARG:NH1	42:DY:23:ARG:HB2	2.22	0.54
31:DN:56:ASN:HA	31:DN:125:GLY:H	1.71	0.54
20:AT:73:HIS:HB3	20:AT:74:LYS:HE2	1.89	0.54
1:AA:1305:G:N2	1:AA:1331:G:O2'	2.40	0.54
1:AA:78:G:N2	1:AA:91:C:N3	2.54	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:520:A:O2'	12:CL:73:GLU:OE1	2.17	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:15:VAL:HG23	13:CM:41:PRO:HA	1.88	0.54
12:CL:49:ASN:ND2	12:CL:92:ASP:OD2	2.41	0.54
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.22	0.54
1:CA:1221:G:O3'	19:CS:77:THR:OG1	2.24	0.54
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.42	0.54
1:AA:176:C:H2'	1:AA:177:C:C6	2.42	0.54
23:BA:2469:A:H4'	34:BQ:56:ARG:HG2	1.88	0.54
43:DZ:128:VAL:HG23	43:DZ:161:VAL:N	2.23	0.54
1:CA:1220:G:H1'	19:CS:52:TYR:CD2	2.42	0.54
1:AA:222:U:H2'	1:AA:223:U:H6	1.67	0.54
23:BA:2506:U:OP1	26:BE:144:ARG:NH2	2.41	0.54
1:CA:1360:A:OP1	1:CA:1360:A:H8	1.89	0.54
1:AA:1024:G:O5'	1:AA:1024:G:H8	1.90	0.54
16:CP:72:ARG:HH11	16:CP:72:ARG:HG3	1.71	0.54
1:AA:1307:U:OP1	13:AM:101:GLN:NE2	2.33	0.54
1:CA:658:G:O4'	15:CO:22:THR:HB	2.07	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
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
31:DN:102:ALA:O	31:DN:106:MET:HG3	2.07	0.54
6:AF:76:ALA:O	6:AF:80:ARG:HG3	2.08	0.54
1:AA:1442(A):G:N7	1:AA:1442(B):A:C2	2.76	0.54
1:CA:1067:A:H8	1:CA:1067:A:O5'	1.90	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
24:DB:90:A:N7	24:DB:91:C:H1'	2.22	0.54
11:CK:19:ALA:HB3	11:CK:82:VAL:HG22	1.88	0.54
1:AA:1223:C:OP2	19:AS:78:ARG:NH2	2.40	0.54
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.06	0.54
23:DA:1290:C:H2'	23:DA:1291:C:H6	1.72	0.54
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.42	0.54
23:BA:77:C:OP1	46:B2:59:ARG:HD3	2.08	0.54
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.27	0.54
27:DF:21:ALA:O	27:DF:22:ALA:HB2	2.06	0.54
23:BA:1019:U:H3	23:BA:1142(A):A:H62	1.56	0.54
24:DB:49:C:OP1	36:DS:97:ARG:N	2.39	0.54
30:BI:106:GLY:HA2	30:BI:107:VAL:HB	1.89	0.54
23:DA:528:A:N1	23:DA:2042:A:H2'	2.22	0.54
1:AA:601:C:H2'	1:AA:602:A:H8	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2463:C:C2'	23:DA:2464:C:H5'	2.36	0.54
21:CU:18:TYR:HA	21:CU:22:ARG:HB3	1.90	0.54
27:BF:157:VAL:HB	27:BF:194:MET:HG2	1.90	0.54
43:BZ:152:ALA:HA	43:BZ:155:LEU:HD13	1.89	0.54
43:BZ:154:ASP:N	43:BZ:154:ASP:OD1	2.40	0.54
2:AB:17:PHE:HB3	2:AB:44:LEU:HD11	1.89	0.54
30:BI:29:TYR:O	30:BI:32:PRO:HD2	2.08	0.54
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.90	0.54
1:CA:1029:C:H42	1:CA:1030:C:N4	2.05	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
1:AA:662:G:H2'	1:AA:663:A:C8	2.42	0.54
9:AI:43:ALA:O	9:AI:45:ALA:HB2	2.07	0.54
25:BD:275:LYS:HG3	25:BD:276:LYS:N	2.22	0.54
1:CA:1342:C:H1'	9:CI:124:GLN:HE21	1.72	0.54
1:AA:373:A:H2'	1:AA:374:A:H8	1.73	0.54
23:DA:1669:A:H5"	23:DA:2550:G:OP1	2.07	0.54
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.08	0.54
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.90	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
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.06	0.54
36:DS:96:GLY:H	36:DS:99:LYS:H	1.54	0.54
15:CO:17:ARG:HH11	15:CO:17:ARG:CG	2.21	0.54
36:BS:95:HIS:C	36:BS:99:LYS:HB3	2.27	0.54
1:AA:1178:G:N2	1:AA:1181:G:OP2	2.40	0.54
26:BE:11:MET:HG2	26:BE:24:THR:HB	1.89	0.54
10:AJ:45:ARG:HG2	10:AJ:47:PHE:CZ	2.41	0.54
3:CC:181:ASN:HB3	3:CC:204:LEU:HB2	1.88	0.54
1:AA:826:C:H2'	1:AA:827:U:H6	1.73	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
15:AO:8:LYS:HG2	15:AO:12:ILE:HD11	1.89	0.54
43:BZ:138:GLU:H	43:BZ:156:LYS:HZ1	1.53	0.54
40:BW:40:ASN:O	40:BW:41:LYS:HG3	2.08	0.54
23:DA:2001:A:H2'	23:DA:2002:G:C8	2.43	0.54
23:BA:1932:A:H2'	23:BA:1933:G:O4'	2.07	0.54
23:DA:1914:C:H2'	23:DA:1915:U:C6	2.42	0.54
1:CA:671:G:H2'	1:CA:672:U:H6	1.72	0.54
23:BA:1187:G:H5"	39:BV:81:TYR:CE2	2.42	0.54
1:CA:950:U:H2'	1:CA:951:G:H8	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2319:G:H22	36:DS:3:ARG:NE	2.03	0.54
23:DA:2126:A:H1'	23:DA:2127:G:OP2	2.08	0.54
30:DI:69:LYS:HB3	30:DI:73:GLU:OE1	2.08	0.54
1:AA:228:A:O2'	16:AP:2:VAL:HG11	2.07	0.54
29:BH:67:LEU:O	29:BH:71:LEU:HB2	2.08	0.54
27:DF:129:PHE:CD2	27:DF:163:VAL:HG21	2.42	0.54
26:DE:28:ALA:HB3	26:DE:93:VAL:HG13	1.89	0.54
29:BH:137:ASP:HB3	29:BH:140:LYS:HB3	1.89	0.54
34:DQ:138:ASP:OD2	43:DZ:81:ARG:NH1	2.40	0.54
23:DA:2867:G:OP2	37:DT:119:LYS:NZ	2.41	0.54
10:CJ:63:PHE:CD1	14:CN:58:LYS:HA	2.43	0.54
1:CA:407:G:H4'	4:CD:116:GLN:HA	1.89	0.54
23:DA:1529:G:C6	23:DA:1530:C:N4	2.76	0.54
23:BA:2304:G:O6	23:BA:2312:U:O4	2.26	0.54
1:CA:1367:C:H5'	10:CJ:60:ARG:NH1	2.22	0.54
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.38	0.54
23:DA:323:G:O2'	23:DA:1205:U:N3	2.34	0.54
1:CA:192:U:H4'	20:CT:57:ARG:HD2	1.90	0.54
1:AA:1032:G:H2'	1:AA:1033:G:C8	2.43	0.54
1:CA:952:U:H4'	1:CA:964:A:N1	2.23	0.54
19:AS:34:TRP:CE3	19:AS:34:TRP:N	2.76	0.54
23:DA:2693:A:H2'	23:DA:2694:G:H8	1.73	0.54
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.08	0.54
1:CA:501:C:H2'	1:CA:502:G:C8	2.43	0.54
1:AA:1202:G:H2'	1:AA:1203:C:H5'	1.89	0.54
1:CA:1190:G:OP1	3:CC:5:ILE:HB	2.08	0.54
36:BS:34:HIS:ND1	36:BS:53:SER:OG	2.36	0.54
23:DA:2125:G:N2	23:DA:2172:U:H3'	2.23	0.54
23:DA:1020:A:N1	23:DA:1141:U:O2'	2.36	0.54
13:AM:15:VAL:O	13:AM:19:LEU:HD22	2.07	0.54
30:DI:126:TYR:HB2	30:DI:142:VAL:HG23	1.89	0.54
1:AA:1303:C:H2'	1:AA:1304:G:H5'	1.90	0.54
1:CA:1013:G:H2'	1:CA:1015:A:OP2	2.08	0.54
23:DA:1882:C:H5'	23:DA:1883:G:OP2	2.07	0.54
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.38	0.54
23:BA:300:A:OP2	42:BY:86:ARG:NH2	2.41	0.54
23:DA:1843:C:H5'	25:DD:253:GLN:NE2	2.23	0.54
23:BA:2867:G:OP2	37:BT:119:LYS:NZ	2.41	0.54
9:CI:59:PHE:HZ	9:CI:88:TYR:CD1	2.26	0.54
1:AA:975:A:N6	1:AA:1367:C:O4'	2.41	0.54
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
23:BA:2198:A:H4'	23:BA:2199:A:OP1	2.08	0.54
23:BA:1359:A:H5'	23:BA:1359:A:N3	2.23	0.53
23:DA:1688:U:H1'	23:DA:1701:A:C6	2.42	0.53
2:CB:87:ARG:HH21	2:CB:233:SER:HB2	1.73	0.53
1:CA:1123:A:C2	10:CJ:39:PRO:HD2	2.44	0.53
23:BA:1364:G:OP1	45:B1:2:SER:HA	2.08	0.53
23:DA:12:U:O2	23:DA:12:U:H2'	2.07	0.53
23:DA:1488:G:H8	23:DA:1488:G:H5"	1.73	0.53
23:DA:1288:U:C2	23:DA:1327:C:O2	2.61	0.53
9:CI:9:ARG:O	9:CI:104:ARG:HG2	2.08	0.53
19:AS:49:ILE:HG13	19:AS:62:ILE:HD11	1.89	0.53
23:DA:2329:G:H21	44:D0:41:ARG:HG3	1.72	0.53
23:DA:2186:G:H2'	23:DA:2186:G:N3	2.23	0.53
1:CA:73:G:C6	1:CA:97:G:C6	2.96	0.53
1:AA:1293:G:HO2'	1:AA:1294:G:H8	1.55	0.53
23:BA:1540:U:O2'	23:BA:1541:G:H5'	2.08	0.53
51:B7:34:ARG:NH1	51:B7:41:ARG:O	2.41	0.53
28:BG:75:LYS:HA	28:BG:84:LYS:HE2	1.90	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:CA:757:U:H2'	1:CA:758:G:O4'	2.08	0.53
1:CA:949:A:H61	1:CA:1232:U:H3	1.55	0.53
1:CA:427:U:OP2	4:CD:36:ARG:NH2	2.36	0.53
1:AA:991:U:O5'	1:AA:991:U:H6	1.91	0.53
23:BA:2464:C:O2'	23:BA:2465:C:H5"	2.09	0.53
1:CA:1118:C:OP1	9:CI:9:ARG:HD2	2.08	0.53
27:BF:101:LEU:HD12	27:BF:102:PRO:HD2	1.89	0.53
23:BA:1429:G:O2'	23:BA:1430:C:H5'	2.09	0.53
24:DB:2:C:H2'	24:DB:3:C:H6	1.73	0.53
23:BA:2627:G:O2'	23:BA:2781:A:N1	2.36	0.53
1:AA:56:U:H2'	1:AA:57:G:C8	2.44	0.53
3:AC:51:GLY:O	3:AC:52:LEU:HD22	2.08	0.53
1:AA:833:U:H2'	1:AA:834:C:C6	2.43	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
1:AA:859:A:H2'	1:AA:860:A:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1587:A:H2'	23:BA:1588:C:C6	2.42	0.53
3:AC:3:ASN:OD1	3:AC:3:ASN:N	2.41	0.53
26:BE:55:ASN:HB3	26:BE:58:ARG:HG3	1.90	0.53
24:BB:90:A:N7	24:BB:91:C:H1'	2.22	0.53
40:DW:40:ASN:O	40:DW:41:LYS:HG3	2.08	0.53
23:DA:139(A):G:H22	41:DX:44:GLU:CD	2.11	0.53
1:AA:601:C:H2'	1:AA:602:A:C8	2.43	0.53
30:BI:81:VAL:HG21	30:BI:88:ILE:HD13	1.89	0.53
23:DA:1503:U:H2'	23:DA:1504:C:C6	2.43	0.53
23:DA:729:G:C6	25:DD:208:LYS:HB2	2.43	0.53
25:BD:96:HIS:CD2	25:BD:102:LYS:HD3	2.44	0.53
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.09	0.53
23:DA:2850:A:OP2	23:DA:2866:U:H5	1.90	0.53
23:DA:127:A:H5"	23:DA:128:C:C6	2.44	0.53
23:DA:774:A:N3	23:DA:774:A:H2'	2.23	0.53
1:AA:983:A:H2	1:AA:984:C:C6	2.26	0.53
23:DA:96:G:H4'	46:D2:48:HIS:CD2	2.44	0.53
23:DA:1530:C:HO2'	23:DA:1531:C:P	2.30	0.53
1:CA:1030(A):G:N2	1:CA:1031:G:C6	2.77	0.53
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.91	0.53
1:AA:49:U:O4	1:AA:365:U:C5	2.54	0.53
31:BN:56:ASN:H	31:BN:125:GLY:CA	2.19	0.53
23:DA:1366:A:OP1	45:D1:3:LYS:NZ	2.39	0.53
3:AC:32:LEU:HD13	3:AC:59:ARG:HH11	1.72	0.53
1:CA:940:C:H2'	1:CA:941:G:H8	1.73	0.53
23:DA:1429:G:O2'	23:DA:1430:C:H5'	2.09	0.53
30:DI:27:ARG:HD2	45:D1:71:TYR:CZ	2.43	0.53
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.89	0.53
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.90	0.53
34:DQ:109:VAL:HG13	34:DQ:113:GLN:HB2	1.89	0.53
9:CI:14:VAL:O	9:CI:65:VAL:HG23	2.08	0.53
27:BF:17:ARG:O	27:BF:18:ARG:HB2	2.08	0.53
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.44	0.53
32:BO:63:VAL:HG12	32:BO:106:LEU:HD11	1.89	0.53
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.44	0.53
36:DS:96:GLY:HA2	36:DS:100:ALA:H	1.74	0.53
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.44	0.53
2:CB:194:PRO:C	2:CB:196:LEU:H	2.11	0.53
33:DP:38:GLN:O	33:DP:39:LYS:CB	2.57	0.53
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.91	0.53
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1166:G:N2	1:AA:1169:A:H3'	2.24	0.53
43:BZ:124:ILE:HG13	43:BZ:125:LEU:N	2.23	0.53
1:CA:56:U:H2'	1:CA:57:G:C8	2.44	0.53
1:CA:441:A:H3'	1:CA:442:C:C6	2.43	0.53
17:CQ:76:LEU:HD11	17:CQ:78:GLU:O	2.09	0.53
23:DA:642:G:H21	23:DA:646:A:H2	1.57	0.53
1:AA:1319:A:O2'	1:AA:1323:G:N7	2.32	0.53
23:DA:993:G:OP1	38:DU:50:ARG:NH2	2.40	0.53
1:CA:141:A:H1'	1:CA:182:U:O2	2.09	0.53
23:BA:1817:G:OP1	25:BD:88:ARG:NH2	2.41	0.53
23:DA:2131:G:OP1	23:DA:2132:U:H3'	2.08	0.53
23:BA:1021:A:H8	23:BA:1021:A:H3'	1.73	0.53
30:BI:77:LEU:CB	30:BI:142:VAL:HG12	2.34	0.53
23:BA:271(Q):G:O2'	23:BA:271(R):G:H8	1.90	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
23:BA:2171:A:H4'	23:BA:2172:U:OP1	2.09	0.53
1:CA:939:G:H2'	1:CA:940:C:C6	2.43	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
27:BF:184:TYR:CD2	27:BF:188:ARG:HD2	2.44	0.53
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.43	0.53
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.74	0.53
23:DA:1138:G:O2'	31:DN:105:GLY:HA3	2.09	0.53
51:B7:48:LYS:NZ	56:B7:205:HOH:O	2.21	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
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.44	0.53
1:AA:127:G:HO2'	17:AQ:2:PRO:N	2.07	0.53
23:DA:1800:C:OP2	25:DD:183:ARG:NH2	2.32	0.53
23:BA:1047:G:C2'	23:BA:1110:G:H22	2.15	0.53
23:DA:1530:C:H1'	23:DA:1531:C:OP1	2.09	0.53
23:BA:1173:G:N2	23:BA:1176:G:OP2	2.42	0.53
42:DY:20:TYR:CD2	42:DY:42:VAL:HG13	2.43	0.53
2:CB:178:ARG:HH21	8:CH:74:PRO:HG3	1.73	0.53
25:BD:71:ASP:HB3	25:BD:103:ARG:HH22	1.74	0.53
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.09	0.53
23:DA:1178:C:H2'	23:DA:1179:C:C6	2.43	0.53
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.09	0.53
3:CC:48:TYR:O	3:CC:51:GLY:N	2.41	0.53
2:CB:17:PHE:HB3	2:CB:44:LEU:HD11	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:23:ARG:NH1	22:AY:26:LYS:HD2	2.23	0.53
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
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
23:BA:652(Q):G:H2'	23:BA:652(R):C:H5'	1.90	0.53
11:CK:85:ARG:HG2	11:CK:112:THR:HA	1.91	0.53
27:DF:184:TYR:CE2	27:DF:188:ARG:HD2	2.44	0.53
23:BA:1106:G:H8	23:BA:1106:G:OP2	1.91	0.53
19:CS:22:LEU:HD13	19:CS:28:LYS:H	1.74	0.53
1:CA:768:A:OP2	56:CA:2054:HOH:O	2.19	0.53
1:AA:270:A:H2'	1:AA:271:C:C6	2.43	0.53
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.09	0.53
1:AA:1145:C:H4'	1:AA:1146:A:H5'	1.90	0.53
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.44	0.53
23:BA:2126:A:H1'	23:BA:2127:G:OP2	2.09	0.53
43:DZ:124:ILE:HG13	43:DZ:125:LEU:N	2.22	0.53
1:CA:1015:A:H1'	1:CA:1219:U:H5'	1.90	0.53
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.43	0.53
23:DA:1138:G:H2'	31:DN:106:MET:HE2	1.90	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:DA:1794:U:H2'	23:DA:1795:C:C6	2.44	0.53
5:CE:79:GLU:HG3	5:CE:93:PRO:HD2	1.90	0.53
29:BH:150:ALA:HA	29:BH:153:LYS:HD2	1.89	0.53
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.24	0.53
23:BA:1507:A:O2'	23:BA:1508:A:H8	1.92	0.53
23:BA:1178:C:H2'	23:BA:1179:C:H6	1.73	0.53
8:AH:121:ASP:OD1	8:AH:121:ASP:N	2.39	0.53
23:BA:652(D):C:H2'	23:BA:652(E):G:O4'	2.09	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
1:AA:1126:U:H6	1:AA:1280:A:N7	2.05	0.53
1:AA:66:G:O4'	1:AA:173:U:C4	2.62	0.53
23:BA:2483:C:N3	34:BQ:124:LYS:NZ	2.55	0.53
4:AD:129:ASN:HD21	4:AD:144:ASP:HA	1.74	0.53
23:BA:2183:C:H2'	23:BA:2184:G:C8	2.44	0.53
1:AA:518:C:O2'	1:AA:530:G:N2	2.42	0.53
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.44	0.53
25:DD:108:PRO:HB3	25:DD:143:HIS:CE1	2.44	0.53
14:CN:59:ALA:HB1	14:CN:61:TRP:HZ3	1.74	0.53

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:82:ARG:HG3	2:CB:92:TYR:OH	2.09	0.52
50:D6:13:CYS:SG	50:D6:47:THR:HG21	2.49	0.52
1:AA:68:G:O4'	1:AA:171:A:H1'	2.10	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
22:CY:40:ILE:HG13	22:CY:51:ASP:HB2	1.91	0.52
23:DA:2166:G:H2'	23:DA:2167:U:O4'	2.10	0.52
1:CA:67:C:H2'	1:CA:68:G:H8	1.74	0.52
5:AE:147:ASP:N	5:AE:147:ASP:OD2	2.41	0.52
4:CD:129:ASN:HD21	4:CD:144:ASP:HA	1.75	0.52
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.91	0.52
23:DA:2361:A:N6	56:DA:4408:HOH:O	2.14	0.52
1:AA:1414:U:H3	1:AA:1486:G:H1	1.55	0.52
35:DR:21:TYR:OH	35:DR:43:GLU:HG2	2.10	0.52
7:CG:120:ILE:O	7:CG:124:LEU:HB2	2.10	0.52
23:BA:952:G:OP1	34:BQ:16:ARG:NH2	2.42	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
47:D3:4:LEU:O	47:D3:36:VAL:HA	2.09	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
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.91	0.52
1:AA:501:C:H2'	1:AA:502:G:C8	2.44	0.52
23:BA:2317:C:C4	23:BA:2318:G:N7	2.77	0.52
1:AA:436:C:O2'	1:AA:437:U:P	2.68	0.52
23:DA:952:G:OP1	34:DQ:16:ARG:NH2	2.42	0.52
23:DA:839:U:H2'	23:DA:840:C:C6	2.44	0.52
43:BZ:54:HIS:ND1	43:BZ:101:PRO:HG3	2.25	0.52
23:BA:372:G:OP2	45:B1:69:LYS:NZ	2.29	0.52
28:DG:61:ALA:O	28:DG:65:GLY:N	2.39	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
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:DA:784:A:C8	23:DA:792:G:C5	2.97	0.52
1:CA:1151:A:N3	10:CJ:39:PRO:HG3	2.24	0.52
1:CA:393:A:OP2	16:CP:12:LYS:HD2	2.10	0.52
33:BP:38:GLN:O	33:BP:39:LYS:HB3	2.10	0.52
23:DA:527:C:H4'	23:DA:528:A:O5'	2.10	0.52
4:AD:108:LEU:CD1	4:AD:174:LEU:HD13	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B6:6:ARG:NH1	50:B6:26:ASN:HB2	2.24	0.52
23:BA:2319:G:N1	36:BS:3:ARG:HA	2.25	0.52
1:AA:664:G:N2	1:AA:741:G:H1	2.07	0.52
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.45	0.52
14:CN:37:PHE:CZ	14:CN:56:VAL:HG21	2.44	0.52
1:CA:45:U:H2'	1:CA:46:G:C8	2.45	0.52
43:BZ:137:ILE:HG23	43:BZ:156:LYS:HD2	1.91	0.52
43:DZ:81:ARG:HG2	43:DZ:81:ARG:HH21	1.75	0.52
23:BA:1810:A:H2'	23:BA:1811:G:O4'	2.09	0.52
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.44	0.52
23:DA:1162:G:O2'	39:DV:90:PRO:HG2	2.09	0.52
1:AA:62:U:HO2'	1:AA:379:C:C2'	2.19	0.52
16:CP:68:ASP:O	16:CP:71:ARG:HG2	2.10	0.52
25:BD:3:VAL:HG13	25:BD:17:THR:HB	1.92	0.52
21:CU:10:ARG:HE	21:CU:13:ILE:HD12	1.75	0.52
23:DA:578:A:OP2	56:DA:3920:HOH:O	2.19	0.52
23:BA:1038:C:H42	23:BA:1117:G:H1	1.56	0.52
23:DA:2406:U:OP2	23:DA:2406:U:H2'	2.10	0.52
34:BQ:6:ARG:HB3	43:BZ:194:PRO:HG2	1.90	0.52
23:DA:2036:C:C6	23:DA:2036:C:H5'	2.35	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
43:DZ:137:ILE:HG23	43:DZ:156:LYS:HD2	1.91	0.52
50:D6:16:CYS:SG	50:D6:18:ARG:HG2	2.49	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
26:DE:201:THR:OG1	26:DE:202:LYS:N	2.41	0.52
1:CA:1250:A:OP1	9:CI:67:GLY:N	2.42	0.52
30:DI:62:LYS:HA	30:DI:65:ALA:HB3	1.91	0.52
17:CQ:18:THR:OG1	17:CQ:69:LYS:NZ	2.30	0.52
1:CA:1242:C:H2'	1:CA:1243:C:O4'	2.10	0.52
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.56	0.52
1:CA:1442:G:C8	1:CA:1442(A):G:C5	2.98	0.52
52:D8:34:TRP:CG	52:D8:35:GLN:N	2.77	0.52
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.91	0.52
1:AA:78:G:N1	1:AA:91:C:N4	2.58	0.52
23:DA:2839:G:C5'	35:DR:46:GLY:HA2	2.39	0.52
1:CA:40:C:H42	1:CA:402:G:H1	1.57	0.52
23:BA:141:A:H8	23:BA:1408:C:O2'	1.93	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)
42:DY:43:ASN:OD1	42:DY:65:ALA:HB3	2.10	0.52
39:BV:23:GLU:OE1	56:BV:305:HOH:O	2.19	0.52
23:BA:1243:G:O2'	33:BP:7:ARG:NH2	2.43	0.52
1:AA:509:A:H3'	1:AA:509:A:C8	2.45	0.52
46:D2:71:ASN:N	46:D2:71:ASN:OD1	2.42	0.52
1:CA:939:G:H1	1:CA:1344:C:H42	1.57	0.52
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.27	0.52
7:CG:134:ALA:O	7:CG:138:LYS:N	2.34	0.52
23:DA:330:A:H2	23:DA:1210:A:O2'	1.93	0.52
16:AP:72:ARG:HE	16:AP:73:LEU:HD23	1.74	0.52
23:BA:813:U:H2'	23:BA:814:C:C6	2.45	0.52
15:AO:24:SER:O	15:AO:24:SER:OG	2.20	0.52
23:BA:207:A:H2'	23:BA:208:C:O4'	2.08	0.52
23:DA:821:A:H2'	23:DA:946:G:H5"	1.92	0.52
1:AA:1125:U:O5'	1:AA:1125:U:H6	1.93	0.52
7:CG:151:TYR:OH	11:CK:54:ARG:HG2	2.10	0.52
1:AA:1459:C:C5	1:AA:1460:A:N7	2.77	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
1:CA:413:G:H22	1:CA:428:G:H1'	1.74	0.52
43:BZ:72:ARG:NH2	43:BZ:97:GLU:O	2.43	0.52
23:DA:2158:A:H4'	23:DA:2159:G:H5'	1.91	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
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.58	0.52
23:DA:2563:U:O2	23:DA:2565:A:H8	1.92	0.52
4:CD:31:CYS:C	4:CD:33:MET:H	2.13	0.52
30:BI:96:ASP:O	30:BI:100:ALA:N	2.39	0.52
48:D4:14:ILE:HD12	48:D4:22:ILE:HD12	1.92	0.52
1:CA:875:C:O2'	8:CH:14:ARG:NH1	2.42	0.52
23:BA:1021:A:H8	23:BA:1022:G:H5"	1.75	0.51
23:BA:271(Q):G:O2'	23:BA:271(R):G:C8	2.62	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
23:BA:528:A:C2	23:BA:2043:C:H4'	2.45	0.51
43:DZ:125:LEU:HG	43:DZ:164:ALA:HB3	1.90	0.51
23:BA:2134:A:N3	23:BA:2159:G:O2'	2.40	0.51
1:AA:1123:A:O2'	10:AJ:38:ILE:HG22	2.10	0.51
46:D2:45:SER:O	46:D2:46:GLN:HB2	2.10	0.51
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.09	0.51
48:D4:14:ILE:O	48:D4:22:ILE:HG13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.26	0.51
2:AB:114:ARG:HD3	2:AB:118:LEU:HG	1.92	0.51
23:DA:1371:G:HO2'	23:DA:1372:U:H5	1.58	0.51
1:AA:1443:G:O6	1:AA:1459:C:O2	2.29	0.51
30:BI:107:VAL:HG12	30:BI:108:THR:N	2.22	0.51
23:BA:2463:C:O2'	23:BA:2464:C:H5'	2.11	0.51
49:B5:16:ARG:HG2	49:B5:16:ARG:NH1	2.25	0.51
23:BA:2125:G:N2	23:BA:2172:U:H3'	2.25	0.51
20:AT:67:ALA:HA	20:AT:72:LEU:O	2.10	0.51
23:DA:1021:A:H3'	23:DA:1021:A:H8	1.75	0.51
52:D8:23:VAL:CG1	52:D8:47:LYS:HD3	2.38	0.51
1:CA:1126:U:O2'	1:CA:1127:G:O5'	2.23	0.51
1:CA:376:G:H5"	16:CP:5:ARG:HB2	1.90	0.51
1:CA:413:G:N2	1:CA:428:G:H1'	2.25	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:1335:C:H5'	1:CA:1336:C:H5'	1.91	0.51
23:DA:1485:G:O2'	23:DA:1486:A:H5'	2.10	0.51
23:BA:141:A:C8	23:BA:1408:C:O2'	2.61	0.51
1:CA:833:U:H2'	1:CA:834:C:C6	2.45	0.51
27:BF:11:VAL:HB	27:BF:18:ARG:HB3	1.92	0.51
20:AT:30:LYS:HA	20:AT:33:ILE:HD12	1.91	0.51
23:DA:1805:U:O2	25:DD:50:THR:HB	2.10	0.51
1:AA:688:G:H2'	1:AA:689:C:H6	1.76	0.51
17:AQ:18:THR:OG1	17:AQ:69:LYS:NZ	2.30	0.51
26:DE:12:THR:HG22	37:DT:58:ASN:OD1	2.10	0.51
14:CN:60:SER:OG	14:CN:60:SER:O	2.29	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
52:B8:32:LEU:O	52:B8:36:LYS:HE3	2.10	0.51
1:AA:1441:G:N3	1:AA:1459:C:C5	2.78	0.51
1:CA:1349:A:C4	1:CA:1350:A:C8	2.98	0.51
1:CA:674:G:H2'	1:CA:675:A:H8	1.75	0.51
3:AC:11:ARG:HD3	3:AC:15:THR:HB	1.92	0.51
10:CJ:55:LYS:HD2	10:CJ:56:HIS:H	1.76	0.51
23:BA:2147:G:H2'	23:BA:2148:G:O4'	2.10	0.51
6:CF:82:ARG:HG3	6:CF:82:ARG:NH1	2.20	0.51
1:CA:412:A:N6	4:CD:35:ARG:HA	2.25	0.51
4:CD:188:LEU:CD2	4:CD:188:LEU:H	2.23	0.51
4:CD:10:ARG:HG3	4:CD:11:LEU:HD12	1.91	0.51
30:DI:38:LEU:HB3	30:DI:40:THR:HG23	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1149:C:H2'	1:AA:1150:U:O4'	2.09	0.51
15:CO:8:LYS:HG2	15:CO:12:ILE:HD11	1.91	0.51
7:CG:51:GLN:O	7:CG:55:GLY:HA2	2.10	0.51
40:BW:45:TYR:CZ	40:BW:49:LYS:HE3	2.46	0.51
23:DA:30:G:H2'	23:DA:31:C:C6	2.45	0.51
30:BI:110:ASP:N	30:BI:130:TYR:OH	2.40	0.51
23:BA:1329:U:H5"	23:BA:1330:C:H5	1.76	0.51
13:CM:43:THR:HB	13:CM:47:ASP:HB2	1.92	0.51
17:AQ:22:LEU:HD13	17:AQ:41:LYS:HG2	1.92	0.51
41:DX:26:TYR:CE1	41:DX:89:ILE:HG13	2.44	0.51
29:DH:12:PRO:O	29:DH:14:GLY:HA2	2.10	0.51
1:CA:1293:G:H2'	1:CA:1294:G:C8	2.45	0.51
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.26	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
24:BB:105:A:OP1	43:BZ:72:ARG:NH1	2.42	0.51
22:CY:85:LEU:O	22:CY:89:GLN:HG2	2.10	0.51
43:DZ:30:ASN:ND2	43:DZ:90:VAL:HB	2.26	0.51
1:AA:1400:C:C2	22:AY:63:ALA:HA	2.46	0.51
16:CP:72:ARG:HH21	16:CP:73:LEU:HD21	1.75	0.51
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.44	0.51
39:DV:60:GLU:HB2	39:DV:97:LYS:HE2	1.92	0.51
2:AB:77:ALA:HB1	2:AB:165:VAL:HG11	1.91	0.51
23:BA:2357:U:OP1	44:B0:20:ARG:HD3	2.10	0.51
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.90	0.51
23:DA:999:U:O2'	23:DA:1000:A:H5'	2.11	0.51
5:AE:32:VAL:HB	5:AE:58:ALA:HB1	1.92	0.51
45:B1:6:GLU:HG3	45:B1:61:ARG:O	2.11	0.51
40:BW:66:GLU:HA	40:BW:69:LEU:HD12	1.91	0.51
18:CR:31:LEU:O	18:CR:32:ARG:HB2	2.11	0.51
4:CD:59:ARG:O	4:CD:63:LYS:HG3	2.10	0.51
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.40	0.51
24:BB:6:C:C2'	24:BB:7:G:H5"	2.39	0.51
24:DB:29:A:H2'	24:DB:30:C:C6	2.46	0.51
1:CA:438:G:P	4:CD:125:HIS:HE2	2.34	0.51
30:DI:92:VAL:HG22	30:DI:120:ILE:HB	1.91	0.51
32:BO:98:VAL:HG22	32:BO:118:ALA:HA	1.92	0.51
11:CK:86:GLY:H	11:CK:112:THR:HG1	1.51	0.51
23:BA:330:A:H2	23:BA:1210:A:H2'	1.75	0.51
23:BA:330:A:H2	23:BA:1210:A:O2'	1.92	0.51
24:DB:11:C:OP2	24:DB:12:C:N4	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1914:C:H2'	23:BA:1915:U:C6	2.45	0.51
23:DA:848:G:C4	23:DA:933:A:H8	2.29	0.51
1:AA:731:G:H5'	1:AA:766:A:H4'	1.93	0.51
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.44	0.51
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.56	0.51
23:DA:886:C:OP1	23:DA:886:C:H4'	2.10	0.51
1:AA:1003:G:C2	1:AA:1004:A:H1'	2.46	0.51
23:BA:2136:C:N3	23:BA:2155:G:N2	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
2:CB:184:VAL:HG12	2:CB:197:VAL:HG13	1.93	0.51
23:DA:2125:G:H21	23:DA:2126:A:N6	2.08	0.51
16:CP:51:VAL:HG12	16:CP:53:VAL:N	2.26	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
26:DE:12:THR:HG21	37:DT:11:GLU:OE2	2.11	0.51
2:CB:238:LEU:HB2	2:CB:241:GLU:N	2.25	0.51
23:DA:2203:U:O2'	23:DA:2205:C:H5'	2.11	0.51
18:AR:31:LEU:O	18:AR:32:ARG:HB2	2.11	0.51
1:AA:36:C:O2'	1:AA:501:C:OP1	2.29	0.51
4:AD:106:TYR:HA	4:AD:111:ALA:HB3	1.92	0.51
1:AA:1443:G:O6	1:AA:1459:C:C2	2.63	0.51
1:CA:1004:A:H5"	1:CA:1025:U:C4	2.46	0.51
31:DN:56:ASN:H	31:DN:125:GLY:CA	2.21	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
23:BA:652(Q):G:C2'	23:BA:652(R):C:H5'	2.41	0.51
1:CA:434:U:H2'	1:CA:435:C:C6	2.46	0.51
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.74	0.51
1:AA:1164:G:H1	1:AA:1172:C:N4	2.08	0.51
1:AA:877:C:H5"	8:AH:88:LYS:HD3	1.93	0.51
23:BA:2784:C:H1'	26:BE:37:ARG:HH12	1.75	0.51
36:BS:82:ILE:HA	36:BS:83:LYS:CB	2.40	0.51
9:CI:82:ALA:O	9:CI:86:VAL:HG13	2.10	0.51
21:AU:3:LYS:HD3	21:AU:14:TRP:HD1	1.75	0.51
1:CA:970:C:OP2	56:CA:2043:HOH:O	2.20	0.51
38:DU:76:TYR:CZ	38:DU:80:ILE:HG13	2.46	0.51
3:AC:32:LEU:HD22	3:AC:59:ARG:HH12	1.75	0.51
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.50	0.51
1:CA:940:C:H2'	1:CA:941:G:C8	2.46	0.51
1:CA:376:G:OP2	16:CP:67:THR:HG21	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BT:24:PRO:HD3	37:BT:52:ILE:HD12	1.93	0.51
4:AD:31:CYS:C	4:AD:33:MET:H	2.14	0.51
50:D6:18:ARG:HG3	50:D6:42:TRP:CD1	2.46	0.51
1:AA:1240:U:OP2	7:AG:116:ALA:N	2.32	0.51
41:BX:54:VAL:HG13	41:BX:81:VAL:HG12	1.93	0.51
1:AA:757:U:H2'	1:AA:758:G:O4'	2.11	0.51
20:CT:10:LEU:HD23	20:CT:12:ALA:H	1.76	0.51
18:AR:70:ILE:O	18:AR:74:ARG:HG3	2.11	0.51
23:DA:1721:G:N1	23:DA:1739:U:OP2	2.44	0.51
46:D2:16:LEU:O	46:D2:67:LYS:NZ	2.44	0.51
43:BZ:128:VAL:HG23	43:BZ:161:VAL:H	1.76	0.51
9:CI:27:THR:HG1	9:CI:28:VAL:N	2.09	0.51
1:CA:392:G:H2'	1:CA:393:A:C8	2.46	0.51
23:DA:1654:A:OP1	35:DR:1:MET:HA	2.10	0.51
23:BA:2166:G:H2'	23:BA:2167:U:O4'	2.10	0.51
1:CA:1376:U:P	7:CG:94:ARG:HH22	2.34	0.51
18:AR:53:ARG:HH21	18:AR:60:ALA:H	1.57	0.51
1:CA:1343:G:C6	1:CA:1344:C:C4	2.98	0.51
1:AA:166:G:H2'	1:AA:167:G:H8	1.76	0.51
27:DF:53:THR:HG22	27:DF:55:GLY:H	1.75	0.51
1:CA:1326:C:H2'	1:CA:1327:C:O4'	2.11	0.51
43:DZ:101:PRO:O	43:DZ:102:LEU:HD12	2.11	0.51
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.75	0.51
1:CA:560:U:H4'	1:CA:561:U:O5'	2.11	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
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.11	0.51
41:BX:53:LYS:HB3	41:BX:82:GLN:HB3	1.93	0.51
10:CJ:21:GLN:O	10:CJ:25:GLU:N	2.39	0.51
43:BZ:111:VAL:C	43:BZ:113:ALA:H	2.14	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
34:DQ:12:GLN:HG2	34:DQ:73:PRO:HD2	1.93	0.51
23:BA:2611:U:OP2	23:BA:2611:U:H3'	2.10	0.51
1:AA:260:G:H2'	1:AA:261:U:C6	2.46	0.51
1:AA:104:G:H4'	1:AA:174:C:O4'	2.10	0.51
24:DB:42:C:O2	28:DG:93:THR:N	2.40	0.51
23:BA:616:G:H5'	27:BF:205:ARG:HD2	1.92	0.51
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.11	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1386:G:C2	1:CA:1387:G:C8	2.99	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
23:BA:1658:C:OP1	56:BA:4878:HOH:O	2.19	0.51
23:DA:455:C:N3	23:DA:472:A:H2'	2.25	0.51
23:DA:2109:U:H2'	23:DA:2110:G:C8	2.46	0.51
12:CL:7:ILE:O	12:CL:11:VAL:HG23	2.10	0.51
24:DB:53:A:H2'	24:DB:54:G:O4'	2.11	0.51
1:CA:545:C:H5"	4:CD:72:GLU:HG2	1.93	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:CA:1300:G:O2'	1:CA:1301:U:P	2.69	0.50
1:AA:39:G:C6	1:AA:403:C:N3	2.78	0.50
14:CN:26:ARG:HD2	14:CN:43:CYS:SG	2.50	0.50
1:AA:976:G:C8	1:AA:1362:C:N4	2.80	0.50
23:DA:1140:C:O3'	31:DN:25:ARG:NH1	2.43	0.50
23:DA:90:U:O2'	23:DA:92:A:O4'	2.28	0.50
1:CA:1170:A:C5	1:CA:1171:G:H1'	2.46	0.50
23:BA:300:A:P	42:BY:86:ARG:HH22	2.34	0.50
1:AA:658:G:O4'	15:AO:22:THR:HB	2.11	0.50
23:DA:660:G:N2	56:DA:3728:HOH:O	2.43	0.50
23:DA:1166:C:H2'	23:DA:1167:U:C6	2.46	0.50
23:BA:2689:U:H4'	23:BA:2690:C:H5'	1.93	0.50
2:AB:55:PHE:O	2:AB:59:GLU:N	2.38	0.50
34:DQ:103:MET:CE	34:DQ:125:LEU:HD13	2.41	0.50
5:CE:31:LEU:HD22	5:CE:43:LEU:HD11	1.93	0.50
23:BA:602:G:O2'	23:BA:655:A:N6	2.44	0.50
30:DI:81:VAL:HG22	30:DI:145:VAL:O	2.11	0.50
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.10	0.50
1:CA:1122:U:N3	1:CA:1123:A:C5	2.79	0.50
1:CA:1028:C:H2'	1:CA:1029:C:H6	1.76	0.50
1:AA:1202:G:O4'	14:AN:29:ARG:NH1	2.44	0.50
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.45	0.50
1:CA:1158:C:N3	1:CA:1181:G:N2	2.58	0.50
36:DS:102:ALA:HB1	36:DS:112:PHE:CZ	2.43	0.50
27:DF:184:TYR:O	27:DF:188:ARG:HG3	2.11	0.50
26:DE:11:MET:HG2	26:DE:24:THR:HB	1.93	0.50
1:CA:1016:A:H8	1:CA:1016:A:O5'	1.95	0.50
24:BB:11:C:H3'	24:BB:12:C:H6	1.76	0.50
5:AE:53:LEU:HD12	5:AE:53:LEU:H	1.76	0.50
37:DT:120:ARG:HA	37:DT:123:GLN:HG2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:185:U:H4'	23:BA:218:A:H4'	1.93	0.50
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.77	0.50
10:AJ:61:GLU:OE1	14:AN:58:LYS:NZ	2.33	0.50
29:DH:88:LEU:CD2	29:DH:165:ALA:HA	2.40	0.50
13:AM:49:THR:O	13:AM:52:GLU:N	2.44	0.50
10:AJ:7:LYS:H	10:AJ:97:GLU:HB3	1.76	0.50
2:CB:74:LYS:NZ	2:CB:205:ASP:OD2	2.45	0.50
40:BW:65:LEU:HD12	40:BW:68:ARG:HE	1.77	0.50
38:DU:112:ARG:NH2	39:DV:47:VAL:HB	2.26	0.50
1:CA:798:G:N7	56:CA:2275:HOH:O	2.33	0.50
23:DA:71:A:H5"	23:DA:73:A:C8	2.46	0.50
1:CA:1281:U:H5"	1:CA:1282:C:OP2	2.11	0.50
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.47	0.50
23:DA:528:A:C2	23:DA:2043:C:H4'	2.47	0.50
3:AC:6:HIS:CD2	3:AC:8:ILE:HB	2.46	0.50
1:CA:736:C:H2'	1:CA:737:A:C8	2.46	0.50
23:BA:2104:G:N7	23:BA:2186:G:N2	2.58	0.50
1:CA:937:A:C5	1:CA:938:A:N7	2.79	0.50
29:BH:41:MET:HE3	29:BH:54:ARG:HA	1.94	0.50
19:AS:47:HIS:HB2	19:AS:62:ILE:HD13	1.92	0.50
23:DA:2130:U:O2'	23:DA:2158:A:N6	2.43	0.50
43:DZ:72:ARG:NH2	43:DZ:97:GLU:O	2.43	0.50
30:DI:4:ILE:HD11	30:DI:44:LEU:HD12	1.92	0.50
1:CA:101:A:O2'	1:CA:102:G:H5'	2.11	0.50
1:CA:1321:C:C6	1:CA:1322:C:H2'	2.47	0.50
23:BA:1406:U:H2'	23:BA:1407:C:C6	2.46	0.50
1:CA:834:C:H2'	1:CA:835:U:H6	1.77	0.50
23:DA:2357:U:O2	56:DA:4411:HOH:O	2.19	0.50
48:D4:14:ILE:HG23	48:D4:31:ILE:HB	1.92	0.50
2:AB:47:THR:O	2:AB:51:LEU:N	2.34	0.50
23:DA:2273:A:H2'	23:DA:2274:A:C8	2.47	0.50
23:BA:2205:C:O2	23:BA:2220:G:C2	2.64	0.50
1:CA:196:A:OP1	20:CT:68:LYS:NZ	2.36	0.50
23:DA:484:C:H2'	23:DA:485:C:C6	2.47	0.50
1:AA:875:C:O2'	8:AH:14:ARG:NH1	2.44	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
16:AP:52:ASP:HB3	16:AP:55:ARG:HB2	1.93	0.50
23:BA:1815:A:OP2	25:BD:54:ARG:NH2	2.44	0.50
33:DP:26:GLY:O	33:DP:27:HIS:CD2	2.64	0.50
1:AA:1399:C:C2	1:AA:1502:A:N6	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:126:TYR:HB2	30:BI:142:VAL:HG23	1.93	0.50
1:AA:1321:C:C3'	1:AA:1322:C:H5"	2.38	0.50
1:CA:544:G:P	4:CD:62:GLN:HE21	2.32	0.50
1:CA:1352:C:N4	1:CA:1370:G:H1	2.08	0.50
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.46	0.50
23:BA:330:A:HO2'	23:BA:331:A:H8	1.57	0.50
10:CJ:51:ARG:NE	10:CJ:61:GLU:HB2	2.27	0.50
23:BA:2203:U:O2'	23:BA:2205:C:H5'	2.11	0.50
30:DI:116:LEU:HD22	30:DI:118:LYS:O	2.10	0.50
1:CA:270:A:H2'	1:CA:271:C:C6	2.47	0.50
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.47	0.50
23:BA:322:A:OP1	27:BF:168:ARG:HD2	2.12	0.50
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.12	0.50
1:CA:552:U:H4'	12:CL:86:ARG:HG2	1.94	0.50
23:BA:1358:G:OP2	56:BA:4984:HOH:O	2.18	0.50
1:CA:1030:C:H2'	1:CA:1030(A):G:C8	2.45	0.50
1:CA:1025:U:H1'	1:CA:1026:G:N7	2.27	0.50
36:BS:96:GLY:HA2	36:BS:100:ALA:H	1.76	0.50
23:BA:2317:C:C2	23:BA:2318:G:N7	2.80	0.50
23:BA:2000:G:OP1	35:BR:5:LYS:NZ	2.39	0.50
23:DA:2143:C:N3	23:DA:2148:G:O6	2.45	0.50
1:CA:1376:U:H2'	1:CA:1377:A:H8	1.76	0.50
7:AG:69:VAL:O	7:AG:138:LYS:HG3	2.11	0.50
1:AA:624:C:H2'	1:AA:625:G:H8	1.77	0.50
1:CA:1310:G:H5'	13:CM:77:ASN:OD1	2.12	0.50
16:AP:51:VAL:HG12	16:AP:53:VAL:N	2.27	0.50
24:DB:73:A:C4	24:DB:105:A:C2	3.00	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
39:BV:35:LEU:HB2	39:BV:57:VAL:HG22	1.92	0.50
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.12	0.50
1:AA:969:A:OP1	10:AJ:55:LYS:NZ	2.44	0.50
40:DW:79:GLY:HA3	40:DW:100:THR:HG22	1.93	0.50
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.93	0.50
2:CB:47:THR:O	2:CB:51:LEU:N	2.35	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
23:BA:1794:U:H2'	23:BA:1795:C:C6	2.47	0.50
31:DN:42:TRP:HA	31:DN:48:MET:SD	2.51	0.50
40:DW:45:TYR:CZ	40:DW:49:LYS:HE3	2.46	0.50
23:BA:1371:G:HO2'	23:BA:1372:U:H5	1.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1530:C:H1'	23:BA:1531:C:OP1	2.12	0.50
1:AA:1202:G:C1'	14:AN:29:ARG:HH11	2.24	0.50
1:AA:1441:G:O2'	1:AA:1459:C:N3	2.32	0.50
22:AY:16:ILE:O	22:AY:20:VAL:HG12	2.12	0.50
1:CA:373:A:H2'	1:CA:374:A:H8	1.76	0.50
1:CA:1068:G:N7	1:CA:1094:G:C8	2.80	0.50
9:CI:118:LYS:O	9:CI:120:ARG:N	2.41	0.50
4:CD:30:LYS:C	4:CD:32:ALA:H	2.11	0.50
23:BA:154:G:H5'	23:BA:154(A):C:OP2	2.12	0.50
1:CA:59:A:H1'	1:CA:354:G:C2	2.47	0.50
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.46	0.50
23:BA:2052:G:H4'	26:BE:143:ASN:O	2.11	0.50
18:AR:45:SER:OG	18:AR:47:THR:HG22	2.11	0.50
1:AA:1023:G:H3'	1:AA:1024:G:C8	2.47	0.50
50:B6:10:LEU:HG	50:B6:54:ILE:HG13	1.92	0.50
4:AD:15:GLU:OE2	4:AD:66:ARG:NH1	2.45	0.50
8:CH:33:GLU:HG3	8:CH:59:LEU:HD11	1.93	0.50
23:DA:1824:G:OP1	25:DD:52:ARG:NH1	2.42	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
23:BA:1049:C:O2'	23:BA:1050:A:H8	1.78	0.50
1:CA:1298:C:P	7:CG:114:ARG:HH22	2.34	0.50
1:CA:926:G:C6	22:CY:87:LYS:HG3	2.46	0.50
23:BA:2839:G:C5'	35:BR:46:GLY:HA2	2.42	0.50
2:AB:74:LYS:NZ	2:AB:205:ASP:OD2	2.45	0.50
9:AI:19:LEU:O	9:AI:59:PHE:HB3	2.11	0.50
1:CA:1206:G:H4'	3:CC:192:THR:O	2.12	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
10:AJ:43:ARG:O	10:AJ:67:THR:HG23	2.11	0.50
1:CA:262:A:H2'	1:CA:263:A:C8	2.46	0.50
1:AA:107:G:H2'	1:AA:108:G:O4'	2.12	0.50
28:DG:3:LEU:HD13	48:D4:25:TYR:CE1	2.46	0.50
14:AN:24:CYS:SG	14:AN:25:VAL:N	2.85	0.50
31:DN:96:GLU:H	31:DN:96:GLU:CD	2.15	0.50
25:BD:60:ARG:NH1	56:BD:418:HOH:O	2.27	0.50
2:AB:82:ARG:HG3	2:AB:92:TYR:OH	2.12	0.50
14:CN:47:LEU:HA	14:CN:50:LYS:HB2	1.93	0.50
23:DA:1784:A:H4'	23:DA:1785:A:O5'	2.12	0.50
23:BA:1045:A:N3	23:BA:1045:A:H2'	2.26	0.50
3:CC:132:ARG:O	3:CC:136:GLN:HB2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1442:G:C8	1:AA:1442(A):G:C5	3.00	0.50
22:CY:24:LEU:HD22	22:CY:78:ILE:HD11	1.93	0.50
11:AK:85:ARG:HE	11:AK:111:ASP:HB3	1.77	0.50
23:DA:2111:C:H42	23:DA:2147:G:H22	1.59	0.50
23:BA:2125:G:H21	23:BA:2126:A:N6	2.10	0.50
23:DA:90:U:O2'	23:DA:92:A:C8	2.65	0.50
30:DI:101:LEU:HD23	30:DI:105:HIS:HB2	1.94	0.50
1:CA:176:C:H2'	1:CA:177:C:C6	2.47	0.50
1:AA:530:G:H3'	1:AA:531:U:C5'	2.42	0.50
33:BP:82:GLY:HA2	33:BP:113:LYS:O	2.12	0.50
23:BA:2031:A:C6	23:BA:2498:C:H1'	2.47	0.50
23:BA:2336:A:H61	44:B0:43:THR:HG22	1.76	0.50
23:DA:2386:C:H2'	23:DA:2387:U:C6	2.47	0.50
23:BA:821:A:H2'	23:BA:946:G:H5"	1.93	0.50
24:DB:24:G:H4'	24:DB:25:A:C8	2.47	0.50
1:AA:134:A:H61	16:AP:25:ARG:NH1	2.10	0.50
13:AM:5:ALA:C	13:AM:7:VAL:H	2.15	0.50
23:DA:652(D):C:H2'	23:DA:652(E):G:O4'	2.11	0.50
25:BD:69:ARG:NH2	25:BD:128:GLY:O	2.38	0.50
23:BA:1980:G:O2'	23:BA:1982:C:OP2	2.25	0.50
23:BA:245:G:O5'	33:BP:73:GLY:HA2	2.11	0.50
23:BA:886:C:H4'	23:BA:886:C:OP1	2.12	0.50
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.93	0.50
1:CA:392:G:H2'	1:CA:393:A:H8	1.76	0.50
1:CA:1095:U:P	1:CA:1108:G:H1	2.33	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
23:BA:1403:C:C5'	23:BA:1471:A:H1'	2.41	0.50
1:AA:474:G:H2'	1:AA:475:G:H8	1.77	0.50
23:BA:2158:A:H4'	23:BA:2159:G:H5'	1.93	0.50
1:AA:441:A:H3'	1:AA:442:C:C6	2.46	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
3:AC:182:ILE:HA	3:AC:202:ILE:O	2.12	0.50
23:BA:1417:C:H2'	23:BA:1418:G:O4'	2.11	0.50
39:BV:40:LEU:HB2	39:BV:46:VAL:HG13	1.94	0.50
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.47	0.50
1:AA:1096:C:HO2'	1:AA:1170:A:HO2'	1.60	0.50
1:AA:1003:G:H5"	1:AA:1004:A:OP2	2.11	0.49
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1529:G:C6	23:BA:1530:C:N4	2.80	0.49
1:CA:1030(A):G:N3	1:CA:1030(C):G:C8	2.80	0.49
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.92	0.49
23:DA:1429:G:H2'	23:DA:1430:C:H6	1.77	0.49
23:DA:2128:C:N4	23:DA:2160:G:H1	2.09	0.49
1:AA:1027:C:H2'	1:AA:1028:C:C5	2.47	0.49
25:DD:180:GLY:HA3	25:DD:275:LYS:HD3	1.94	0.49
8:AH:83:ILE:HB	8:AH:137:VAL:HG13	1.93	0.49
7:AG:116:ALA:O	7:AG:120:ILE:HG12	2.12	0.49
23:DA:1932:A:H2'	23:DA:1933:G:O4'	2.11	0.49
1:CA:622:A:C8	1:CA:623:C:C6	2.99	0.49
33:BP:121:LYS:HD3	33:BP:123:LEU:HD11	1.93	0.49
18:AR:73:ALA:HB3	18:AR:79:LEU:HD12	1.94	0.49
23:DA:443:A:H1'	23:DA:1201:C:O4'	2.12	0.49
19:CS:41:VAL:O	19:CS:44:MET:HB2	2.12	0.49
23:DA:870:A:C2	23:DA:908:C:C2	2.99	0.49
26:BE:9:VAL:HG13	26:BE:25:VAL:O	2.11	0.49
27:DF:6:VAL:HG22	27:DF:23:ASP:H	1.76	0.49
48:D4:36:CYS:SG	48:D4:38:LYS:O	2.70	0.49
23:BA:2036:C:H5'	23:BA:2036:C:C6	2.35	0.49
1:AA:955:U:O2'	19:AS:83:HIS:HD2	1.95	0.49
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.27	0.49
22:CY:13:THR:O	22:CY:17:ARG:HG3	2.12	0.49
1:AA:1064:G:H4'	1:AA:1065:U:OP1	2.10	0.49
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.12	0.49
1:CA:1492:A:C5	23:DA:1913:A:C2	3.01	0.49
43:DZ:144:LEU:HD12	43:DZ:148:ASP:HB3	1.94	0.49
1:CA:763:G:H2'	1:CA:764:C:C6	2.47	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
1:CA:618:C:N3	1:CA:622:A:N6	2.60	0.49
23:DA:1545:A:H2'	23:DA:1546:C:O4'	2.12	0.49
13:CM:6:GLY:HA3	13:CM:22:ILE:HD13	1.93	0.49
23:DA:207:A:H2'	23:DA:208:C:O4'	2.13	0.49
1:AA:800:G:O6	56:AA:2014:HOH:O	2.20	0.49
1:CA:1123:A:N3	10:CJ:38:ILE:HG22	2.27	0.49
22:AY:12:ILE:HD11	22:AY:16:ILE:HD11	1.93	0.49
14:CN:4:LYS:HA	14:CN:7:ILE:HG22	1.94	0.49
1:AA:1320:C:H5'	1:AA:1320:C:C6	2.45	0.49
1:CA:1386:G:N3	1:CA:1387:G:C8	2.81	0.49
23:DA:2820:A:OP1	35:DR:4:LEU:HD23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:111:ARG:HA	35:DR:1:MET:SD	2.53	0.49
23:DA:2125:G:H21	23:DA:2126:A:H62	1.60	0.49
25:DD:238:GLY:N	56:DD:407:HOH:O	2.45	0.49
23:BA:1300:U:H4'	23:BA:1301:A:C5'	2.41	0.49
27:BF:184:TYR:O	27:BF:188:ARG:HG3	2.12	0.49
24:DB:11:C:H3'	24:DB:12:C:H6	1.77	0.49
31:DN:20:GLY:HA2	31:DN:61:ARG:HD3	1.95	0.49
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
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:BA:2537:U:H2'	23:BA:2538:C:C6	2.48	0.49
29:BH:88:LEU:CD2	29:BH:165:ALA:HA	2.42	0.49
23:DA:674:G:H1'	27:DF:74:ARG:HD3	1.93	0.49
1:AA:684:A:H2'	1:AA:685:G:C8	2.47	0.49
11:CK:34:ASP:OD2	11:CK:37:GLY:N	2.45	0.49
37:DT:30:VAL:HG22	37:DT:86:ILE:HG12	1.93	0.49
18:CR:70:ILE:O	18:CR:74:ARG:HG3	2.12	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
23:DA:2251:G:H5'	56:DA:4116:HOH:O	2.11	0.49
39:DV:52:VAL:HG22	39:DV:55:ALA:HB3	1.94	0.49
23:BA:1721:G:N1	23:BA:1739:U:OP2	2.45	0.49
22:CY:78:ILE:O	22:CY:82:GLU:HG3	2.13	0.49
23:BA:2463:C:C2'	23:BA:2464:C:H5'	2.42	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
24:BB:49:C:OP1	36:BS:97:ARG:N	2.44	0.49
3:AC:6:HIS:CD2	3:AC:9:GLY:H	2.30	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
2:AB:210:SER:O	2:AB:214:ILE:HG12	2.12	0.49
1:AA:532:A:H2	1:AA:1206:G:H21	1.58	0.49
23:BA:1503:U:H2'	23:BA:1504:C:C6	2.47	0.49
14:AN:4:LYS:O	14:AN:7:ILE:HG12	2.12	0.49
1:CA:600:C:C2	1:CA:639:G:C2	3.00	0.49
23:DA:2205:C:O2	23:DA:2220:G:C2	2.65	0.49
10:CJ:35:SER:HB3	10:CJ:73:ASP:O	2.12	0.49
23:DA:2690:C:H6	23:DA:2690:C:OP2	1.94	0.49
9:AI:26:VAL:O	9:AI:32:ASP:HA	2.13	0.49
23:BA:1963:U:H4'	23:BA:1964:G:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:75:LEU:O	6:CF:79:LEU:HG	2.13	0.49
32:BO:19:ILE:HG22	32:BO:43:VAL:HG22	1.94	0.49
23:DA:2320:A:H2'	23:DA:2320:A:N3	2.28	0.49
23:DA:1580:A:OP2	23:DA:1580:A:H8	1.94	0.49
23:BA:620:G:N3	23:BA:620:G:H5'	2.27	0.49
11:CK:99:GLN:HG2	11:CK:105:VAL:HG21	1.94	0.49
23:BA:796:C:H2'	23:BA:797:C:C6	2.47	0.49
23:DA:586:A:N1	23:DA:809:G:O2'	2.41	0.49
23:BA:243:U:OP1	52:B8:6:THR:OG1	2.27	0.49
23:DA:781:A:H2	23:DA:1776:G:N3	2.11	0.49
1:AA:1368:G:OP1	56:AA:2231:HOH:O	2.19	0.49
28:DG:125:PHE:HB3	28:DG:166:ASP:OD2	2.13	0.49
23:DA:2286:A:H4'	23:DA:2287:A:O4'	2.12	0.49
1:AA:1370:G:C2	1:AA:1371:G:C8	3.00	0.49
47:D3:8:LEU:HD13	47:D3:31:LEU:CD2	2.43	0.49
1:AA:1256:A:H5'	1:AA:1258:G:C1'	2.42	0.49
6:AF:82:ARG:NH1	6:AF:82:ARG:HG3	2.26	0.49
1:CA:403:C:OP1	4:CD:137:SER:OG	2.18	0.49
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.78	0.49
23:BA:1185:C:H5"	23:BA:1186:G:OP1	2.12	0.49
6:CF:69:GLU:O	6:CF:72:VAL:HG13	2.13	0.49
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.12	0.49
26:BE:12:THR:HG21	37:BT:11:GLU:OE2	2.12	0.49
26:BE:12:THR:HG22	37:BT:58:ASN:OD1	2.13	0.49
31:BN:18:ALA:O	31:BN:19:GLU:HB3	2.11	0.49
23:DA:1815:A:OP2	25:DD:54:ARG:NH2	2.46	0.49
51:D7:34:ARG:NH1	51:D7:41:ARG:O	2.45	0.49
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.48	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
17:CQ:53:LEU:HD23	17:CQ:82:MET:HE1	1.94	0.49
2:AB:135:GLN:O	2:AB:138:LEU:N	2.44	0.49
23:BA:2648:C:H2'	23:BA:2649:U:C6	2.47	0.49
23:DA:2304:G:O6	23:DA:2312:U:O4	2.30	0.49
1:AA:1503:A:N7	1:AA:1531:A:H8	2.10	0.49
14:CN:24:CYS:HB3	14:CN:27:CYS:O	2.13	0.49
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.76	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
16:AP:51:VAL:CG1	16:AP:53:VAL:H	2.25	0.49
1:AA:1304:G:H1'	1:AA:1333:A:H61	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BB:53:A:H2'	24:BB:54:G:O4'	2.12	0.49
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.94	0.49
23:BA:1268:A:H2'	23:BA:1269:A:O4'	2.12	0.49
1:CA:719:C:C2	18:CR:50:ILE:HG12	2.48	0.49
23:BA:848:G:C4	23:BA:933:A:H8	2.30	0.49
40:DW:83:LYS:O	40:DW:84:ARG:HD3	2.11	0.49
43:BZ:150:LEU:O	43:BZ:171:ILE:HG13	2.12	0.49
33:DP:121:LYS:HD3	33:DP:123:LEU:HD11	1.93	0.49
2:CB:114:ARG:HD3	2:CB:118:LEU:HG	1.93	0.49
1:CA:1267:C:H2'	1:CA:1267:C:O2	2.12	0.49
32:BO:101:PRO:HG3	37:BT:67:SER:OG	2.12	0.49
29:BH:40:GLU:OE1	29:BH:60:ARG:NH1	2.45	0.49
23:DA:1803:A:H4'	25:DD:259:THR:HG23	1.94	0.49
2:AB:87:ARG:NH2	2:AB:233:SER:HB2	2.28	0.49
3:CC:138:VAL:HG23	3:CC:151:VAL:HG23	1.93	0.49
1:CA:974:A:P	14:CN:41:ARG:HH12	2.34	0.49
42:BY:23:ARG:HB2	42:BY:23:ARG:HH11	1.78	0.49
2:CB:53:ARG:HH12	2:CB:199:TYR:HA	1.77	0.49
1:CA:1295:G:N2	1:CA:1302:U:H3	2.07	0.49
1:CA:953:G:H4'	22:CY:6:THR:OG1	2.12	0.49
22:CY:13:THR:H	22:CY:16:ILE:HG23	1.77	0.49
4:CD:15:GLU:OE2	4:CD:66:ARG:NH1	2.46	0.49
23:DA:1287:A:H5"	23:DA:1288:U:OP2	2.13	0.49
7:AG:69:VAL:CG1	7:AG:100:ALA:HA	2.42	0.49
23:BA:330:A:H2	23:BA:1210:A:C2'	2.26	0.49
25:BD:71:ASP:HB3	25:BD:103:ARG:NH2	2.27	0.49
37:BT:51:ARG:HG3	37:BT:98:LYS:CE	2.42	0.49
23:BA:910:A:N1	23:BA:2277:G:H1'	2.28	0.49
1:AA:939:G:H5"	7:AG:102:ARG:NH1	2.28	0.49
1:CA:302:G:N3	1:CA:556:C:H4'	2.27	0.49
1:CA:189(F):U:C4	17:CQ:72:ARG:CZ	2.96	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:198:C:H2'	56:DA:3760:HOH:O	2.13	0.49
43:BZ:10:ARG:HG3	43:BZ:36:LYS:HB3	1.94	0.49
1:AA:250:A:H4'	1:AA:251:G:O5'	2.11	0.49
31:DN:33:LEU:HD12	31:DN:38:HIS:CE1	2.47	0.49
7:AG:57:GLU:O	7:AG:60:LYS:N	2.45	0.49
3:AC:154:SER:HB3	3:AC:165:THR:HG23	1.94	0.49
25:BD:77:ALA:HB2	25:BD:97:TYR:CD2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2321:G:H5”	23:DA:2322:A:OP2	2.13	0.49
23:BA:271(Q):G:O2’	23:BA:271(R):G:P	2.70	0.49
24:DB:49:C:H2’	24:DB:50:G:C8	2.47	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
1:CA:1493:A:HO2’	1:CA:1494:G:P	2.35	0.49
1:AA:73:G:C6	1:AA:97:G:C6	3.00	0.49
36:BS:35:ILE:HD13	36:BS:101:LEU:HD12	1.95	0.49
18:CR:45:SER:OG	18:CR:47:THR:HG22	2.13	0.49
8:AH:25:ASP:OD2	8:AH:60:ARG:HG3	2.13	0.49
1:AA:763:G:H2’	1:AA:764:C:C6	2.48	0.49
1:CA:453:A:H4’	16:CP:72:ARG:HG2	1.94	0.49
35:DR:56:LYS:NZ	35:DR:90:ARG:O	2.45	0.49
5:CE:12:LEU:HB3	5:CE:31:LEU:HB2	1.93	0.49
20:AT:56:MET:HG3	20:AT:57:ARG:N	2.28	0.49
56:DA:4969:HOH:O	25:DD:61:LEU:HD21	2.12	0.49
23:BA:1545:A:H2’	23:BA:1546:C:O4’	2.13	0.49
32:DO:19:ILE:HG22	32:DO:43:VAL:HG22	1.93	0.49
23:DA:1604:C:OP2	56:DA:3805:HOH:O	2.20	0.49
23:BA:2109:U:H2’	23:BA:2110:G:C8	2.48	0.49
23:DA:616:G:H5’	27:DF:205:ARG:HD2	1.95	0.49
2:CB:68:ILE:HG12	2:CB:161:ALA:HB3	1.94	0.49
1:CA:1306:A:H2’	1:CA:1307:U:O4’	2.12	0.49
5:CE:91:LEU:HD12	5:CE:120:THR:HG22	1.95	0.49
34:BQ:34:LEU:HD11	34:BQ:129:THR:HB	1.95	0.49
24:DB:23:G:O6	56:DB:322:HOH:O	2.19	0.49
23:DA:375:C:H2’	23:DA:376:C:C6	2.48	0.49
16:AP:36:ILE:HD12	16:AP:56:ALA:HB2	1.94	0.49
23:BA:2001:A:H2’	23:BA:2002:G:C8	2.48	0.49
1:AA:1003:G:N2	1:AA:1038:C:C4	2.80	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
1:AA:266:G:H5”	1:AA:267:C:C5	2.47	0.49
23:DA:330:A:O2’	23:DA:331:A:H8	1.96	0.49
1:CA:404:U:H5’	4:CD:122:ARG:HD3	1.95	0.49
13:CM:49:THR:O	13:CM:52:GLU:N	2.46	0.49
23:DA:234:C:H2’	23:DA:235:U:C6	2.48	0.49
7:CG:51:GLN:HG3	7:CG:56:GLN:O	2.12	0.49
1:AA:134:A:N6	16:AP:25:ARG:NH1	2.61	0.49
23:BA:847:U:H5	23:BA:933:A:H62	1.57	0.49
1:AA:45:U:H2’	1:AA:46:G:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1079:G:C6	1:AA:1080:A:N6	2.80	0.49
8:CH:44:PHE:HE2	8:CH:109:ILE:HD12	1.77	0.49
23:DA:1816:G:H8	25:DD:62:TYR:CZ	2.31	0.49
48:B4:14:ILE:HD12	48:B4:22:ILE:HD12	1.93	0.49
23:BA:864:G:N2	23:BA:913:U:C2	2.81	0.49
1:CA:685:G:O2'	1:CA:686:U:H5'	2.13	0.49
1:CA:1381:U:H2'	1:CA:1381:U:O2	2.13	0.49
17:CQ:95:TYR:O	17:CQ:98:LEU:HB2	2.12	0.49
45:B1:94:LEU:O	45:B1:97:LEU:HB2	2.13	0.49
2:CB:135:GLN:O	2:CB:138:LEU:N	2.44	0.49
1:CA:1162:C:N4	1:CA:1174:G:H1	2.09	0.49
23:BA:1021:A:H62	23:BA:1141:U:H3	1.61	0.49
23:BA:1506:C:C2'	23:BA:1507:A:H5'	2.39	0.49
23:BA:2319:G:N2	36:BS:3:ARG:HB2	2.28	0.49
52:D8:33:ASN:O	52:D8:34:TRP:O	2.30	0.49
23:DA:90:U:HO2'	23:DA:92:A:H8	1.59	0.49
1:CA:165:C:H2'	1:CA:166:G:H8	1.77	0.49
23:DA:2133:G:C2	23:DA:2157:G:H2'	2.47	0.49
23:DA:1300:U:H4'	23:DA:1301:A:C5'	2.43	0.49
23:DA:484:C:H2'	23:DA:485:C:H6	1.78	0.49
6:CF:8:ILE:HD12	6:CF:26:ILE:HD13	1.93	0.49
23:BA:2138:C:H2'	23:BA:2139:C:C6	2.48	0.49
1:AA:1210:C:H2'	1:AA:1211:U:H5"	1.93	0.49
43:BZ:93:ASP:HB2	43:BZ:131:ARG:HH22	1.77	0.49
23:BA:1113:U:H2'	23:BA:1114:G:C8	2.48	0.49
1:AA:1313:U:O4	19:AS:4:SER:HA	2.13	0.49
23:DA:2404:C:O3'	33:DP:77:ARG:NH2	2.46	0.49
23:BA:774:A:HO2'	23:BA:775:G:H8	1.58	0.49
30:DI:85:GLU:HG3	30:DI:86:THR:H	1.78	0.49
4:AD:94:LEU:HA	4:AD:97:LEU:HD12	1.95	0.49
23:BA:2563:U:O2	23:BA:2565:A:H8	1.96	0.49
23:BA:2321:G:H5"	23:BA:2322:A:OP2	2.13	0.48
23:DA:587:C:P	33:DP:21:ARG:HH22	2.36	0.48
24:BB:44:G:C2	24:BB:48:A:C2	3.01	0.48
23:BA:90:U:O2'	23:BA:92:A:O4'	2.30	0.48
1:CA:1316:G:H2'	1:CA:1318:A:OP2	2.13	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
35:DR:97:VAL:HG22	35:DR:114:VAL:HG13	1.94	0.48
23:DA:1607:C:H4'	23:DA:1608:A:O5'	2.13	0.48
1:CA:530:G:H3'	1:CA:531:U:C5'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:839:U:H2'	23:BA:840:C:C6	2.48	0.48
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:2296:U:OP2	36:BS:9:ARG:NH2	2.39	0.48
23:DA:562:U:C4	23:DA:2036:C:O4'	2.66	0.48
1:CA:674:G:H2'	1:CA:675:A:C8	2.48	0.48
28:BG:43:LEU:HB2	28:BG:89:GLY:HA2	1.94	0.48
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.78	0.48
13:CM:65:LYS:NZ	13:CM:69:GLU:HG2	2.29	0.48
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.48	0.48
34:DQ:5:ARG:O	43:DZ:194:PRO:HD2	2.12	0.48
5:AE:90:VAL:O	5:AE:120:THR:HA	2.14	0.48
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.95	0.48
26:DE:59:VAL:O	26:DE:64:LYS:HE3	2.13	0.48
1:AA:1382:C:H2'	1:AA:1383:C:C6	2.48	0.48
53:B9:27:CYS:SG	53:B9:28:GLU:N	2.86	0.48
23:DA:1889:A:H2'	23:DA:1890:A:C8	2.48	0.48
23:DA:1159:U:O2'	23:DA:1160:G:H5'	2.12	0.48
4:AD:30:LYS:C	4:AD:32:ALA:H	2.09	0.48
33:BP:26:GLY:O	33:BP:27:HIS:CD2	2.66	0.48
23:DA:2336:A:H61	44:D0:43:THR:HG22	1.78	0.48
32:DO:23:ARG:HG3	32:DO:24:VAL:N	2.27	0.48
1:CA:69:G:N3	1:CA:70:G:C8	2.81	0.48
16:AP:75:ARG:O	16:AP:78:GLY:N	2.34	0.48
10:CJ:33:GLN:C	10:CJ:33:GLN:HE21	2.11	0.48
28:BG:16:ARG:HE	28:BG:31:VAL:HG21	1.77	0.48
23:DA:517:C:OP1	49:D5:16:ARG:NH2	2.45	0.48
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.13	0.48
23:BA:647:G:O5'	23:BA:647:G:H8	1.96	0.48
5:CE:144:THR:OG1	5:CE:147:ASP:OD2	2.19	0.48
5:AE:89:ILE:HD13	5:AE:90:VAL:H	1.78	0.48
23:DA:1268:A:H2'	23:DA:1269:A:O4'	2.13	0.48
7:CG:44:TYR:HA	7:CG:47:CYS:HB2	1.96	0.48
1:CA:616:G:C2	1:CA:617:G:C8	3.00	0.48
28:BG:60:LEU:HB3	28:BG:68:PRO:HG3	1.95	0.48
43:BZ:7:ALA:HB3	43:BZ:61:LEU:HD12	1.94	0.48
22:CY:69:ASP:HB3	22:CY:72:THR:HB	1.95	0.48
23:DA:2576:G:H1'	56:DA:3845:HOH:O	2.13	0.48
37:BT:2:ASN:O	37:BT:6:LEU:HD22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.95	0.48
31:BN:108:PRO:O	31:BN:113:GLY:HA3	2.13	0.48
11:AK:99:GLN:HG2	11:AK:105:VAL:HG11	1.96	0.48
1:AA:738:C:H2'	1:AA:739:C:H6	1.79	0.48
1:CA:426:G:P	4:CD:36:ARG:NH1	2.86	0.48
1:CA:1358:U:H2'	1:CA:1359:C:O4'	2.13	0.48
23:BA:811:U:O2'	33:BP:21:ARG:HG3	2.13	0.48
23:DA:2173:A:H2'	23:DA:2174:C:H5'	1.95	0.48
1:CA:735:C:H2'	1:CA:736:C:C6	2.42	0.48
1:AA:1049:U:OP1	14:AN:3:ARG:HB3	2.14	0.48
29:DH:41:MET:HE3	29:DH:54:ARG:HA	1.96	0.48
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.76	0.48
23:BA:1430:C:H2'	23:BA:1431:U:H6	1.77	0.48
23:BA:11:G:C2'	23:BA:12:U:H5'	2.43	0.48
24:BB:2:C:H2'	24:BB:3:C:H6	1.79	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:DA:1165:U:H2'	23:DA:1166:C:C6	2.48	0.48
37:DT:28:VAL:HG13	37:DT:86:ILE:HG23	1.96	0.48
31:DN:4:TYR:CD2	38:DU:100:VAL:HG11	2.49	0.48
1:CA:1446:U:H4'	1:CA:1447:A:C5	2.48	0.48
23:BA:2320:A:N3	23:BA:2320:A:H2'	2.28	0.48
23:BA:1858:G:H1'	23:BA:1884:A:N6	2.28	0.48
23:BA:784:A:C8	23:BA:792:G:C5	3.01	0.48
23:DA:1587:A:H2'	23:DA:1588:C:C6	2.49	0.48
27:DF:29:ASN:H	27:DF:112:MET:CE	2.27	0.48
23:BA:27:G:O6	56:BA:4077:HOH:O	2.18	0.48
1:CA:1293:G:H2'	1:CA:1294:G:H8	1.77	0.48
1:CA:1064:G:O2'	1:CA:1065:U:OP2	2.31	0.48
1:CA:1060:C:C5	3:CC:2:GLY:HA3	2.48	0.48
22:CY:12:ILE:HG22	22:CY:13:THR:N	2.27	0.48
1:CA:148:G:O2'	1:CA:149:A:H5'	2.14	0.48
1:AA:1346:A:C2'	7:AG:10:ARG:HH22	2.27	0.48
23:DA:2364:C:H2'	23:DA:2365:G:O4'	2.12	0.48
1:CA:1112:C:H1'	3:CC:179:ARG:HG2	1.95	0.48
10:CJ:51:ARG:CZ	10:CJ:61:GLU:HB2	2.43	0.48
23:BA:2130:U:O2'	23:BA:2158:A:N6	2.45	0.48
1:AA:37:U:O2'	1:AA:547:A:N1	2.35	0.48
3:AC:52:LEU:HA	3:AC:70:VAL:HA	1.96	0.48
1:CA:601:C:H2'	1:CA:602:A:C8	2.49	0.48
23:DA:774:A:HO2'	23:DA:775:G:H8	1.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1581:G:H2'	23:DA:1582:C:O4'	2.12	0.48
16:AP:68:ASP:O	16:AP:71:ARG:HG2	2.13	0.48
23:DA:236:C:H2'	23:DA:237:C:C6	2.48	0.48
23:DA:2138:C:H2'	23:DA:2139:C:C6	2.49	0.48
23:DA:996:A:H4'	38:DU:91:ASP:OD1	2.14	0.48
24:BB:42:C:O2	28:BG:92:VAL:HA	2.14	0.48
3:CC:25:GLY:O	3:CC:27:LYS:N	2.45	0.48
2:AB:120:ALA:C	2:AB:122:PHE:H	2.17	0.48
1:CA:731:G:H5'	1:CA:766:A:H4'	1.94	0.48
23:DA:1113:U:H2'	23:DA:1114:G:C8	2.48	0.48
23:BA:764:A:H2	25:BD:219:PRO:HG3	1.78	0.48
1:CA:1163:C:C2	1:CA:1174:G:C2	3.02	0.48
23:BA:1239:G:H2'	23:BA:1240:U:O4'	2.14	0.48
1:CA:1150:U:O4	1:CA:1151:A:N6	2.46	0.48
1:AA:973:G:H3'	1:AA:974:A:H5"	1.96	0.48
23:BA:1604:C:H5'	56:BA:3876:HOH:O	2.12	0.48
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.94	0.48
14:AN:3:ARG:O	14:AN:6:LEU:HB2	2.13	0.48
1:CA:939:G:H1	1:CA:1344:C:N4	2.11	0.48
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.13	0.48
1:CA:1087:G:C6	1:CA:1088:G:O6	2.66	0.48
1:CA:429:U:H5'	4:CD:9:CYS:HB2	1.95	0.48
16:CP:51:VAL:CG1	16:CP:53:VAL:H	2.24	0.48
23:BA:528:A:N1	23:BA:2042:A:H2'	2.27	0.48
23:BA:1210:A:H5"	23:BA:1212:G:O4'	2.14	0.48
1:CA:9:G:H2'	1:CA:10:A:H8	1.78	0.48
16:AP:21:VAL:O	16:AP:33:ILE:HG12	2.13	0.48
8:CH:83:ILE:HB	8:CH:137:VAL:HG13	1.95	0.48
1:CA:684:A:H2'	1:CA:685:G:C8	2.49	0.48
17:AQ:84:LEU:O	17:AQ:87:LYS:HB2	2.14	0.48
1:AA:110:C:H2'	1:AA:111:G:O4'	2.13	0.48
23:DA:2101:G:H2'	23:DA:2102:U:O4'	2.13	0.48
3:CC:9:GLY:HA2	3:CC:12:LEU:HG	1.96	0.48
23:DA:2836:U:H2'	23:DA:2837:G:C8	2.48	0.48
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.13	0.48
34:DQ:42:ILE:HD13	34:DQ:97:VAL:HG21	1.95	0.48
23:DA:866:A:O2'	23:DA:867:C:H5'	2.13	0.48
3:AC:150:LYS:HB2	3:AC:173:VAL:HG21	1.95	0.48
13:AM:66:LEU:H	13:AM:70:LEU:HB2	1.78	0.48
24:DB:33:G:H5'	28:DG:2:PRO:HD3	1.95	0.48
1:AA:102:G:H2'	1:AA:103:C:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:62:HIS:HB2	14:AN:59:ALA:HB3	1.96	0.48
11:AK:85:ARG:HG2	11:AK:112:THR:HA	1.95	0.48
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.96	0.48
1:CA:1144:G:N2	1:CA:1146:A:H62	2.12	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
23:DA:2052:G:H4'	26:DE:143:ASN:O	2.13	0.48
17:CQ:84:LEU:O	17:CQ:87:LYS:HB2	2.14	0.48
44:B0:72:ARG:HB2	44:B0:75:LEU:HB2	1.96	0.48
12:CL:34:ARG:O	12:CL:61:THR:HG23	2.13	0.48
1:CA:1043:C:H2'	1:CA:1044:A:O4'	2.13	0.48
23:DA:1218:C:H5"	23:DA:1218:C:H6	1.79	0.48
27:DF:150:GLY:HA2	27:DF:172:TRP:CD2	2.48	0.48
1:AA:363:A:N7	12:AL:30:ALA:HB1	2.29	0.48
8:AH:44:PHE:HE2	8:AH:109:ILE:HD12	1.78	0.48
1:CA:976:G:P	14:CN:32:SER:H	2.37	0.48
1:AA:149:A:O2'	1:AA:150:C:H6	1.97	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
13:AM:88:ARG:HG3	13:AM:98:VAL:HG13	1.95	0.48
9:CI:104:ARG:NH1	9:CI:105:ASP:O	2.43	0.48
1:CA:149:A:O2'	1:CA:150:C:H6	1.97	0.48
1:AA:1158:C:H5	1:AA:1181:G:H22	1.60	0.48
15:CO:21:ASP:OD2	15:CO:24:SER:HB3	2.14	0.48
1:AA:942:G:H21	9:AI:124:GLN:NE2	2.11	0.48
1:AA:435:C:N4	1:AA:436:C:H41	2.11	0.48
1:CA:659:U:H2'	1:CA:660:G:O4'	2.13	0.48
1:CA:57:G:H2'	1:CA:58:C:H6	1.78	0.48
14:CN:59:ALA:HB1	14:CN:61:TRP:CZ3	2.49	0.48
3:AC:16:ARG:NH1	3:AC:183:ASP:HA	2.29	0.48
23:DA:2377:A:H2'	23:DA:2378:A:C8	2.48	0.48
23:BA:2869:G:H2'	23:BA:2870:C:O4'	2.14	0.48
23:DA:446:G:OP1	38:DU:3:ARG:NH1	2.47	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:AA:1325:C:O2'	1:AA:1326:C:H5'	2.13	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
1:AA:1003:G:N3	1:AA:1004:A:H1'	2.28	0.48
28:DG:43:LEU:HB2	28:DG:89:GLY:HA2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1443:G:O6	1:CA:1459:C:O2	2.32	0.48
38:DU:76:TYR:HH	38:DU:92:ARG:NH1	2.11	0.48
24:DB:6:C:C2'	24:DB:7:G:H5"	2.40	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
30:DI:77:LEU:CB	30:DI:142:VAL:HG12	2.43	0.48
23:DA:2104:G:N7	23:DA:2186:G:N2	2.62	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
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.48	0.48
43:BZ:45:ASP:OD2	43:BZ:49:ARG:NH1	2.46	0.48
1:AA:392:G:H2'	1:AA:393:A:C8	2.48	0.48
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.96	0.48
23:BA:1378:A:OP1	51:B7:10:ARG:NH2	2.47	0.48
23:BA:375:C:H2'	23:BA:376:C:C6	2.49	0.48
23:BA:1031:G:H21	53:B9:36:GLN:HE22	1.61	0.48
29:DH:67:LEU:O	29:DH:71:LEU:HB2	2.13	0.48
23:DA:226:G:H21	23:DA:228:A:H62	1.61	0.48
39:BV:52:VAL:HG22	39:BV:55:ALA:HB3	1.96	0.48
1:CA:1235:U:O2'	1:CA:1305:G:O5'	2.32	0.48
36:DS:83:LYS:HB3	36:DS:84:GLN:O	2.14	0.48
1:CA:1030(C):G:H2'	1:CA:1030(D):A:C8	2.49	0.48
1:AA:1288:A:O3'	21:AU:10:ARG:NH2	2.47	0.48
1:CA:393:A:OP1	16:CP:13:HIS:HE1	1.97	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: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
3:CC:111:LEU:CD2	3:CC:146:ALA:HB2	2.44	0.48
4:AD:65:ARG:HG2	4:AD:75:PHE:CE1	2.49	0.48
23:DA:300:A:P	42:DY:86:ARG:NH2	2.86	0.48
3:AC:51:GLY:HA3	3:AC:71:ALA:CB	2.44	0.48
50:D6:21:TYR:CE2	50:D6:38:LYS:HG2	2.49	0.48
23:DA:847:U:H5	23:DA:933:A:H62	1.59	0.48
1:CA:269:C:H2'	1:CA:270:A:C8	2.49	0.48
23:BA:1652:A:C2'	23:BA:1653:G:H5'	2.43	0.48
9:AI:99:LEU:HB3	9:AI:101:PHE:HD1	1.79	0.48
35:DR:12:ARG:HG2	35:DR:16:HIS:ND1	2.29	0.48
1:AA:659:U:H2'	1:AA:660:G:O4'	2.14	0.48
23:DA:664:C:H4'	23:DA:941:A:OP1	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:959:A:O2'	1:CA:961:U:H5'	2.14	0.48
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.49	0.48
50:B6:21:TYR:CE2	50:B6:38:LYS:HG2	2.49	0.48
1:AA:1092:A:N3	1:AA:1183:A:N6	2.61	0.48
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.96	0.48
1:CA:1323:G:H4'	1:CA:1363:C:C2	2.49	0.47
1:AA:1144:G:N2	1:AA:1146:A:H62	2.12	0.47
23:DA:2147:G:H2'	23:DA:2148:G:O4'	2.14	0.47
23:BA:2165:G:H2'	23:BA:2166:G:C8	2.48	0.47
10:AJ:16:LEU:HD23	10:AJ:17:ASP:N	2.28	0.47
43:DZ:45:ASP:O	43:DZ:49:ARG:HG3	2.13	0.47
23:DA:2526:G:H5'	23:DA:2742:C:O2'	2.14	0.47
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.14	0.47
43:BZ:125:LEU:HG	43:BZ:164:ALA:HB3	1.96	0.47
4:CD:120:LEU:HB3	4:CD:126:ILE:HD11	1.96	0.47
1:CA:942:G:C2	1:CA:1342:C:C2	3.02	0.47
23:BA:1588:C:H2'	23:BA:1589:C:H6	1.79	0.47
1:CA:767:A:H2'	1:CA:768:A:O4'	2.14	0.47
34:BQ:5:ARG:O	43:BZ:194:PRO:HD2	2.14	0.47
1:CA:545:C:H5"	4:CD:72:GLU:CB	2.44	0.47
10:AJ:68:HIS:H	10:AJ:68:HIS:CD2	2.32	0.47
1:CA:1306:A:H2'	1:CA:1307:U:C6	2.49	0.47
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.49	0.47
23:BA:284:U:H2'	23:BA:285:C:C6	2.49	0.47
23:DA:482:A:OP2	23:DA:507:A:N6	2.46	0.47
1:CA:930:C:C2'	1:CA:931:C:H5'	2.44	0.47
23:BA:1593:G:H2'	23:BA:1594:G:C8	2.49	0.47
23:DA:478:A:N1	23:DA:500:G:H4'	2.29	0.47
20:AT:75:ASN:OD1	20:AT:75:ASN:N	2.46	0.47
7:CG:15:ASP:CB	7:CG:19:GLY:H	2.27	0.47
42:BY:38:ILE:HD11	42:BY:66:PRO:HG3	1.95	0.47
23:BA:2193:G:H2'	23:BA:2194:G:C8	2.49	0.47
23:BA:1252:G:O4'	38:BU:33:ARG:HD2	2.14	0.47
23:BA:1165:U:H2'	23:BA:1166:C:C6	2.48	0.47
24:DB:45:A:O4'	28:DG:95:ARG:NH1	2.47	0.47
1:CA:1441:G:N3	1:CA:1459:C:C5	2.82	0.47
19:AS:52:TYR:CE2	19:AS:54:GLY:HA2	2.50	0.47
23:DA:11:G:C2'	23:DA:12:U:H5'	2.43	0.47
2:CB:54:THR:O	2:CB:58:ILE:HG13	2.14	0.47
23:BA:2317:C:N3	23:BA:2318:G:N7	2.61	0.47
2:CB:210:SER:O	2:CB:214:ILE:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B3:8:LEU:HD13	47:B3:31:LEU:CD2	2.42	0.47
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.32	0.47
1:CA:18:C:H4'	1:CA:1078:U:O2	2.14	0.47
1:AA:1158:C:H5	1:AA:1181:G:N1	2.09	0.47
23:DA:1028:A:N6	23:DA:1125:G:H2'	2.29	0.47
1:CA:1321:C:C3'	1:CA:1322:C:H5"	2.44	0.47
3:AC:131:ARG:NH1	5:AE:50:GLU:HG3	2.29	0.47
14:CN:37:PHE:HZ	14:CN:56:VAL:HG21	1.78	0.47
1:AA:269:C:H2'	1:AA:270:A:C8	2.49	0.47
15:AO:21:ASP:OD2	15:AO:24:SER:HB3	2.14	0.47
4:CD:18:LYS:NZ	4:CD:31:CYS:HB3	2.29	0.47
2:AB:71:VAL:HG13	2:AB:93:VAL:CG2	2.43	0.47
2:CB:55:PHE:O	2:CB:59:GLU:N	2.38	0.47
23:BA:2040:C:H2'	23:BA:2041:U:O4'	2.14	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
2:AB:127:ILE:C	2:AB:129:GLU:H	2.18	0.47
2:CB:52:GLU:O	2:CB:56:ARG:HG2	2.13	0.47
1:CA:110:C:H2'	1:CA:111:G:O4'	2.14	0.47
1:AA:413:G:N2	1:AA:428:G:H1'	2.29	0.47
44:D0:72:ARG:HB2	44:D0:75:LEU:HB2	1.96	0.47
1:CA:512:U:O2'	4:CD:42:GLN:NE2	2.44	0.47
21:AU:12:LYS:O	21:AU:16:GLY:N	2.46	0.47
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.49	0.47
23:BA:1530:C:O2'	23:BA:1531:C:P	2.73	0.47
23:DA:1376:C:OP2	56:DA:4026:HOH:O	2.20	0.47
1:CA:1004:A:H5"	1:CA:1025:U:C5	2.49	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
23:BA:2111:C:H42	23:BA:2147:G:N2	2.12	0.47
16:CP:5:ARG:HG3	16:CP:5:ARG:HH11	1.79	0.47
1:AA:1030(A):G:N2	1:AA:1032:G:O6	2.47	0.47
1:CA:542:G:H2'	1:CA:543:C:H6	1.79	0.47
24:DB:105:A:OP1	43:DZ:72:ARG:NH1	2.46	0.47
43:DZ:150:LEU:O	43:DZ:171:ILE:HG13	2.14	0.47
1:CA:1330:U:H4'	13:CM:23:TYR:HE2	1.77	0.47
37:BT:120:ARG:HA	37:BT:123:GLN:HG2	1.95	0.47
1:CA:947:G:H2'	1:CA:948:C:O4'	2.14	0.47
29:DH:17:VAL:HG21	29:DH:50:VAL:HG21	1.97	0.47
23:BA:2101:G:H2'	23:BA:2102:U:O4'	2.13	0.47
29:DH:28:GLY:HA3	29:DH:79:VAL:HB	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:36:ASP:OD2	5:CE:38:GLN:N	2.41	0.47
17:CQ:27:PHE:CE1	17:CQ:36:ILE:HD11	2.49	0.47
1:AA:501:C:H1'	1:AA:549:C:H1'	1.96	0.47
3:CC:130:VAL:HG12	3:CC:134:ILE:HD11	1.96	0.47
1:CA:1297:C:H4'	1:CA:1298:C:H5'	1.97	0.47
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.47	0.47
23:BA:1174:A:H1'	23:BA:1175:U:C5'	2.45	0.47
4:AD:110:PHE:HD1	4:AD:110:PHE:H	1.60	0.47
23:BA:1494:A:H2'	23:BA:1495:A:C8	2.49	0.47
1:CA:664:G:N2	1:CA:741:G:H1	2.07	0.47
36:DS:11:LYS:HG3	36:DS:91:PRO:HD3	1.97	0.47
1:AA:1122:U:C4	1:AA:1123:A:N7	2.82	0.47
1:AA:687:A:O2'	1:AA:688:G:OP2	2.26	0.47
10:AJ:68:HIS:N	10:AJ:68:HIS:CD2	2.81	0.47
5:CE:89:ILE:HD13	5:CE:90:VAL:H	1.78	0.47
23:DA:1588:C:H2'	23:DA:1589:C:C6	2.50	0.47
1:CA:174:C:H2'	1:CA:175:C:H6	1.79	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
24:BB:78:A:C2	24:BB:100:A:C4	3.02	0.47
24:DB:116:G:H8	24:DB:116:G:OP2	1.97	0.47
23:DA:620:G:H5'	23:DA:620:G:N3	2.29	0.47
1:AA:527:G:O2'	1:AA:535:A:N1	2.35	0.47
1:CA:516:U:C4	1:CA:517:G:C6	3.02	0.47
1:CA:1292:U:H5'	9:CI:38:GLN:HE21	1.79	0.47
2:AB:53:ARG:NH2	2:AB:198:ASP:O	2.37	0.47
23:DA:1506:C:C2'	23:DA:1507:A:H5'	2.40	0.47
1:AA:560:U:H4'	1:AA:561:U:O5'	2.15	0.47
1:AA:1365:G:C6	1:AA:1366:C:C4	3.03	0.47
1:CA:413:G:N7	4:CD:35:ARG:NH2	2.62	0.47
1:AA:77:G:O6	1:AA:78:G:C6	2.68	0.47
23:DA:2134:A:H62	23:DA:2157:G:H5'	1.79	0.47
25:BD:108:PRO:HB3	25:BD:143:HIS:HE1	1.78	0.47
29:DH:11:VAL:HG21	29:DH:50:VAL:HG23	1.96	0.47
2:AB:178:ARG:NH2	8:AH:68:ARG:HH22	2.13	0.47
23:BA:2303:G:O6	56:BA:4040:HOH:O	2.17	0.47
17:AQ:88:TYR:HD2	17:AQ:89:LEU:HD23	1.79	0.47
28:DG:96:ARG:O	28:DG:99:MET:HB3	2.14	0.47
23:DA:720:C:H2'	23:DA:721:C:C6	2.49	0.47
23:DA:2031:A:C6	23:DA:2498:C:H1'	2.49	0.47
1:CA:1225:A:N3	1:CA:1225:A:H2'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:36:ARG:CB	6:CF:36:ARG:HH11	2.27	0.47
23:DA:2076:U:H6	23:DA:2076:U:O5'	1.97	0.47
12:CL:71:PRO:O	12:CL:102:ARG:NH1	2.47	0.47
13:AM:85:GLY:HA3	19:AS:74:PHE:CD1	2.50	0.47
23:DA:886:C:H5"	56:DA:5037:HOH:O	2.14	0.47
9:CI:18:PHE:CD1	9:CI:62:TYR:HD2	2.17	0.47
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.79	0.47
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.15	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
30:DI:40:THR:O	30:DI:44:LEU:N	2.48	0.47
25:BD:180:GLY:HA3	25:BD:275:LYS:HD3	1.96	0.47
26:DE:28:ALA:HB3	26:DE:93:VAL:CG1	2.45	0.47
1:AA:765:G:H5"	1:AA:766:A:OP1	2.14	0.47
23:DA:883:G:H1	23:DA:893:C:H42	1.63	0.47
1:AA:380:G:N2	1:AA:384:G:C5	2.83	0.47
35:BR:37:THR:OG1	35:BR:40:LYS:HG3	2.15	0.47
26:DE:5:LEU:HD11	26:DE:79:ARG:HB2	1.96	0.47
30:BI:129:THR:HG22	30:BI:139:GLN:OE1	2.14	0.47
26:BE:178:GLU:OE2	26:BE:178:GLU:N	2.41	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
12:CL:84:LEU:HD22	12:CL:85:ILE:H	1.80	0.47
23:BA:1047:G:H2'	23:BA:1110:G:N1	2.30	0.47
1:AA:1442:G:O6	1:AA:1442(A):G:O6	2.33	0.47
1:CA:1442:G:HO2'	1:CA:1442(A):G:P	2.30	0.47
23:DA:2317:C:C2	23:DA:2318:G:N7	2.83	0.47
23:BA:652(I):C:H2'	23:BA:652(J):G:N7	2.28	0.47
9:CI:19:LEU:HB3	9:CI:59:PHE:CD1	2.50	0.47
30:DI:72:LEU:HA	30:DI:75:LEU:HD13	1.96	0.47
1:CA:1119:C:N3	1:CA:1154:G:O6	2.47	0.47
15:AO:17:ARG:HH11	15:AO:17:ARG:CG	2.26	0.47
23:DA:1494:A:C6	23:DA:1495:A:C6	3.03	0.47
1:AA:1456:G:HO2'	20:AT:39:LYS:HZ2	1.54	0.47
18:CR:53:ARG:HH21	18:CR:60:ALA:H	1.62	0.47
1:CA:990:C:C2	1:CA:1216:G:C2	3.03	0.47
23:BA:90:U:HO2'	23:BA:92:A:H8	1.57	0.47
26:DE:75:VAL:HG13	26:DE:77:ILE:H	1.79	0.47
43:DZ:125:LEU:HB3	43:DZ:165:VAL:HG12	1.97	0.47
23:BA:2128:C:N4	23:BA:2160:G:H1	2.12	0.47
23:BA:2134:A:H62	23:BA:2157:G:H5'	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2134:A:N6	23:BA:2157:G:H5'	2.30	0.47
1:CA:977:A:C2	1:CA:1224:G:N7	2.82	0.47
1:CA:834:C:H2'	1:CA:835:U:C6	2.49	0.47
1:AA:1072:G:C5	1:AA:1073:U:C4	3.03	0.47
22:AY:23:ARG:HA	22:AY:23:ARG:HH11	1.79	0.47
47:D3:36:VAL:HG23	56:D3:101:HOH:O	2.15	0.47
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	2.14	0.47
16:AP:52:ASP:OD2	16:AP:55:ARG:HG2	2.14	0.47
23:BA:848:G:N9	23:BA:933:A:H8	2.13	0.47
23:BA:1268:A:C2	23:BA:2013:A:C4	3.03	0.47
1:AA:939:G:H5"	7:AG:102:ARG:CZ	2.44	0.47
32:DO:43:VAL:HG12	32:DO:54:GLU:HA	1.95	0.47
1:CA:518:C:O2'	1:CA:530:G:N2	2.48	0.47
23:DA:1588:C:H2'	23:DA:1589:C:H6	1.79	0.47
3:CC:12:LEU:HA	3:CC:16:ARG:O	2.15	0.47
23:DA:2885:C:O2'	49:D5:34:PRO:HG3	2.15	0.47
7:CG:99:LEU:HD22	7:CG:103:TRP:CZ2	2.49	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:360:A:N1	56:CA:1926:HOH:O	2.35	0.47
1:AA:767:A:H2'	1:AA:768:A:O4'	2.15	0.47
23:BA:2169:A:H2'	23:BA:2170:A:C8	2.49	0.47
23:DA:1278:A:OP1	35:DR:36:THR:HG23	2.13	0.47
23:DA:747:U:O2	23:DA:2014:A:H1'	2.14	0.47
23:BA:1170:G:H5"	23:BA:1170:G:H8	1.80	0.47
15:CO:57:LEU:HA	15:CO:57:LEU:HD23	1.75	0.47
23:DA:892:G:H8	23:DA:892:G:O5'	1.98	0.47
2:CB:127:ILE:C	2:CB:129:GLU:H	2.18	0.47
23:DA:1274:A:N3	23:DA:1297:C:H1'	2.30	0.47
1:CA:449:C:O2	16:CP:42:ARG:HD2	2.15	0.47
19:AS:40:ILE:O	19:AS:67:VAL:HG13	2.15	0.47
23:DA:9:U:O2'	23:DA:10:G:OP1	2.32	0.47
1:CA:1006:C:H2'	1:CA:1007:C:O4'	2.15	0.47
3:CC:186:PHE:HA	3:CC:198:VAL:O	2.15	0.47
23:DA:284:U:H2'	23:DA:285:C:C6	2.50	0.47
1:CA:857:C:H2'	1:CA:858:G:O4'	2.15	0.47
1:AA:1446:U:O2'	1:AA:1447:A:H3'	2.15	0.47
3:CC:130:VAL:O	3:CC:132:ARG:N	2.42	0.47
23:DA:2317:C:N3	23:DA:2318:G:N7	2.63	0.47
1:AA:922:G:C6	1:AA:923:A:C6	3.02	0.47
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.45	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
20:CT:33:ILE:O	20:CT:37:SER:OG	2.26	0.47
1:AA:1259:C:C4	1:AA:1260:C:O2	2.68	0.47
23:BA:2134:A:C2	23:BA:2159:G:H4'	2.50	0.47
50:B6:16:CYS:HB2	50:B6:18:ARG:NH1	2.30	0.47
1:AA:390:C:H2'	1:AA:391:G:C8	2.50	0.47
9:AI:18:PHE:CD1	9:AI:62:TYR:HD2	2.33	0.47
23:BA:1914:C:H2'	23:BA:1915:U:H6	1.80	0.47
23:BA:2690:C:H6	23:BA:2690:C:OP2	1.97	0.47
48:B4:14:ILE:HG23	48:B4:31:ILE:HB	1.97	0.47
25:DD:68:LYS:O	25:DD:69:ARG:HB2	2.15	0.47
23:DA:1297:C:OP1	23:DA:2710:C:H4'	2.15	0.47
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.50	0.47
23:DA:704:G:O2'	23:DA:726:G:N2	2.35	0.47
30:DI:29:TYR:O	30:DI:32:PRO:HD2	2.15	0.47
10:CJ:32:ALA:O	10:CJ:76:ASN:N	2.44	0.47
23:DA:438:G:H2'	23:DA:440:G:C8	2.50	0.47
23:DA:263:C:H2'	23:DA:264:C:O4'	2.14	0.47
23:DA:2017:U:OP1	56:DA:3921:HOH:O	2.20	0.47
1:CA:387:U:OP1	56:CA:1903:HOH:O	2.20	0.47
23:BA:2601:C:H3'	56:BA:5519:HOH:O	2.13	0.47
1:CA:199:G:O2'	1:CA:200:G:H5'	2.15	0.47
23:BA:1580:A:OP2	23:BA:1580:A:H8	1.97	0.47
1:CA:321:A:C2	1:CA:333:G:C2	3.03	0.47
23:DA:1593:G:H2'	23:DA:1594:G:C8	2.50	0.47
1:AA:1285:A:H4'	1:AA:1286:A:O5'	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:AA:1442(B):A:C2	37:BT:118:ARG:NH2	2.82	0.47
23:BA:1171:G:H3'	23:BA:1173:G:H5'	1.96	0.47
1:AA:1021:G:N2	1:AA:1022:G:H1'	2.29	0.47
1:AA:673:G:N2	1:AA:674:G:C2	2.83	0.47
1:CA:937:A:H1'	1:CA:1379:G:N2	2.30	0.47
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.78	0.47
23:BA:92:A:H2'	23:BA:93:G:O4'	2.15	0.47
7:CG:24:THR:O	7:CG:27:ILE:HG12	2.15	0.47
1:CA:1310:G:H1	1:CA:1327:C:H42	1.62	0.47
1:AA:1300:G:O2'	1:AA:1301:U:P	2.73	0.47
1:CA:620:C:H2'	1:CA:621:A:O4'	2.15	0.47
25:DD:101:GLU:OE1	25:DD:103:ARG:HD3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:747:U:O2	23:BA:2014:A:H1'	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
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.79	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
10:CJ:12:ASP:HB3	10:CJ:15:THR:HG23	1.97	0.47
1:AA:448:A:P	1:AA:485:G:H22	2.37	0.47
2:AB:52:GLU:O	2:AB:56:ARG:HG2	2.14	0.47
47:D3:12:PRO:O	47:D3:15:TYR:HB2	2.15	0.47
5:AE:12:LEU:HB3	5:AE:31:LEU:HB2	1.97	0.47
53:D9:32:HIS:O	53:D9:34:GLN:HG3	2.14	0.47
1:AA:255:G:P	56:AA:2232:HOH:O	2.73	0.47
7:AG:75:VAL:HA	7:AG:87:VAL:O	2.15	0.47
23:DA:1417:C:H2'	23:DA:1418:G:O4'	2.14	0.47
23:BA:2137:C:C2	23:BA:2154:G:N2	2.83	0.47
23:DA:2136:C:C4	23:DA:2137:C:H5	2.33	0.47
1:AA:502:G:OP1	12:AL:117:ARG:N	2.48	0.47
1:CA:971:G:N1	1:CA:1363(A):A:OP2	2.38	0.47
1:CA:1028:C:H2'	1:CA:1029:C:C6	2.50	0.47
1:AA:954:G:O6	13:AM:104:ARG:NH1	2.48	0.47
9:CI:27:THR:O	9:CI:63:ILE:HB	2.15	0.47
23:BA:1176:G:N2	23:BA:1178:C:OP2	2.46	0.47
1:CA:966:G:C4	22:CY:62:VAL:HG11	2.50	0.47
23:DA:2349:G:H3'	23:DA:2350:C:H5"	1.96	0.47
23:BA:2224:G:H4'	23:BA:2226:C:C2	2.50	0.47
1:CA:433:C:O2'	1:CA:434:U:H5'	2.15	0.47
30:DI:101:LEU:O	30:DI:106:GLY:N	2.44	0.47
23:DA:271(N):U:O2'	23:DA:271(O):C:H5'	2.15	0.47
1:AA:1124:G:O2'	1:AA:1126:U:O4	2.30	0.47
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.15	0.47
1:AA:620:C:H2'	1:AA:621:A:O4'	2.15	0.47
9:CI:83:ARG:O	9:CI:86:VAL:HG22	2.16	0.47
13:AM:4:ILE:HG12	13:AM:5:ALA:N	2.30	0.47
1:CA:868:C:H2'	1:CA:869:G:O4'	2.15	0.47
23:BA:459:U:OP2	23:BA:469:G:N1	2.39	0.47
5:CE:127:ASN:HA	5:CE:128:PRO:HD3	1.80	0.47
25:DD:25:THR:HG21	25:DD:113:VAL:HG11	1.96	0.47
23:BA:2074:U:H2'	23:BA:2075:U:C6	2.50	0.47
23:DA:546:C:H6	23:DA:548:A:OP1	1.98	0.47
1:CA:129(A):G:C5	1:CA:189(H):G:H1'	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:740:U:H2'	23:DA:741:G:C8	2.50	0.47
52:D8:4:MET:HE3	52:D8:63:PRO:HG3	1.97	0.47
46:B2:16:LEU:O	46:B2:67:LYS:NZ	2.48	0.47
1:AA:179:A:H2'	1:AA:180:U:H6	1.80	0.47
23:BA:263:C:H2'	23:BA:264:C:O4'	2.15	0.47
1:AA:1057:G:C4	1:AA:1204:A:C2	3.04	0.46
1:CA:1443:G:O6	1:CA:1459:C:C2	2.68	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:68:G:H5'	1:AA:171:A:O2'	2.15	0.46
28:DG:28:VAL:O	28:DG:31:VAL:HG13	2.15	0.46
2:CB:53:ARG:NH2	2:CB:198:ASP:O	2.39	0.46
23:DA:811:U:O2'	33:DP:21:ARG:HG3	2.14	0.46
10:CJ:54:PHE:CD2	10:CJ:55:LYS:HG3	2.43	0.46
36:DS:105:ALA:O	36:DS:110:LEU:HB2	2.15	0.46
23:BA:1783:A:H5'	23:BA:2608:G:H4'	1.97	0.46
26:BE:51:PHE:CD1	26:BE:52:LEU:HD22	2.50	0.46
1:AA:1206:G:C6	1:AA:1207:G:C5	3.03	0.46
20:CT:73:HIS:HB3	20:CT:74:LYS:HE2	1.96	0.46
1:AA:1300:G:HO2'	1:AA:1301:U:P	2.37	0.46
1:AA:228:A:H5'	16:AP:62:VAL:CG2	2.44	0.46
23:BA:2887:U:H2'	23:BA:2888:C:H6	1.79	0.46
1:CA:561:U:HO2'	1:CA:562:C:P	2.37	0.46
23:DA:271(P):C:H4'	30:DI:42:SER:O	2.15	0.46
9:CI:44:VAL:HA	9:CI:45:ALA:HA	1.48	0.46
23:DA:141:A:H8	23:DA:1408:C:O2'	1.95	0.46
29:DH:13:LYS:HA	29:DH:14:GLY:HA2	1.63	0.46
1:AA:1446:U:H4'	1:AA:1447:A:C5	2.49	0.46
23:DA:2554:U:H2'	23:DA:2555:U:C6	2.49	0.46
23:BA:1292:U:H2'	23:BA:1293:C:C6	2.50	0.46
39:DV:65:GLY:HA3	39:DV:91:TYR:CZ	2.50	0.46
1:AA:690:G:C6	1:AA:691:G:C6	3.03	0.46
1:AA:1232:U:C4	1:AA:1233:G:N7	2.83	0.46
1:CA:717:C:H5"	1:CA:717:C:H6	1.79	0.46
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.50	0.46
13:AM:81:LEU:O	13:AM:86:CYS:HB3	2.15	0.46
23:DA:857:C:OP2	44:D0:77:ARG:NH2	2.48	0.46
40:BW:79:GLY:HA3	40:BW:100:THR:HG22	1.97	0.46
23:BA:2884:U:H1'	49:B5:53:ALA:HB2	1.97	0.46
23:BA:2297:C:H1'	23:BA:2322:A:C2	2.50	0.46
7:CG:111:ARG:HB3	7:CG:113:GLU:OE1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:973:G:C6	1:CA:974:A:N6	2.83	0.46
1:CA:1227:A:H3'	1:CA:1227:A:C8	2.50	0.46
23:BA:2115:G:H21	23:BA:2171:A:N6	2.12	0.46
23:BA:1494:A:O2'	23:BA:1495:A:H5'	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
20:AT:47:GLY:HA2	20:AT:48:LYS:CB	2.45	0.46
1:CA:1493:A:C2	23:DA:1913:A:C6	3.03	0.46
23:DA:904:C:H2'	23:DA:905:U:C6	2.50	0.46
8:CH:19:VAL:HG23	8:CH:21:LYS:HD3	1.98	0.46
1:AA:685:G:O2'	1:AA:686:U:H5'	2.15	0.46
23:DA:1939:U:OP1	23:DA:2604:U:O2'	2.30	0.46
28:BG:121:ASN:HA	28:BG:122:PRO:HD3	1.78	0.46
23:DA:623:G:H2'	23:DA:624:C:C6	2.50	0.46
43:DZ:110:GLY:HA3	43:DZ:174:VAL:HG11	1.97	0.46
20:CT:5:LYS:HA	20:CT:6:PRO:HD2	1.66	0.46
39:DV:49:THR:O	39:DV:49:THR:HG22	2.16	0.46
53:D9:17:ILE:HD12	53:D9:17:ILE:HA	1.78	0.46
23:BA:1607:C:H4'	23:BA:1608:A:O5'	2.15	0.46
28:DG:173:LEU:O	28:DG:178:PHE:HB2	2.15	0.46
14:CN:29:ARG:HH12	14:CN:42:ILE:HD11	1.80	0.46
1:AA:1009:G:O2'	1:AA:1010:G:H5'	2.15	0.46
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.49	0.46
23:BA:2173:A:H2'	23:BA:2174:C:H5'	1.97	0.46
7:AG:146:GLU:O	7:AG:148:ASN:N	2.48	0.46
20:CT:67:ALA:HA	20:CT:72:LEU:O	2.15	0.46
32:DO:98:VAL:HG22	32:DO:118:ALA:HA	1.98	0.46
15:CO:26:GLU:H	15:CO:26:GLU:HG2	1.26	0.46
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.15	0.46
23:DA:298:G:H5"	23:DA:299:A:OP1	2.16	0.46
1:CA:9:G:H2'	1:CA:10:A:C8	2.51	0.46
27:DF:21:ALA:O	27:DF:22:ALA:CB	2.63	0.46
1:AA:688:G:H2'	1:AA:689:C:C6	2.50	0.46
23:DA:2682:U:O2'	37:DT:58:ASN:ND2	2.47	0.46
23:DA:455:C:N3	23:DA:473:G:H5'	2.30	0.46
2:AB:42:ILE:HG21	2:AB:202:PRO:O	2.15	0.46
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.79	0.46
2:AB:178:ARG:HH21	8:AH:74:PRO:HG3	1.80	0.46
23:BA:539:G:H2'	23:BA:540:C:C6	2.51	0.46
25:DD:24:ILE:HD13	25:DD:84:TYR:HB2	1.97	0.46
3:CC:164:ARG:HG2	3:CC:165:THR:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1296:C:H4'	1:AA:1302:U:C5	2.50	0.46
10:CJ:9:ARG:HA	10:CJ:16:LEU:HD11	1.97	0.46
23:DA:65:C:H2'	23:DA:66:C:H6	1.80	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
2:CB:120:ALA:C	2:CB:122:PHE:H	2.18	0.46
1:AA:128:G:O2'	17:AQ:3:LYS:HE2	2.16	0.46
2:AB:184:VAL:HG12	2:AB:197:VAL:HG13	1.98	0.46
23:DA:2115:G:H21	23:DA:2171:A:N6	2.11	0.46
1:AA:117:G:OP2	56:AA:2109:HOH:O	2.21	0.46
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.16	0.46
1:CA:1096:C:C4	1:CA:1097:C:C5	3.04	0.46
13:CM:69:GLU:C	13:CM:71:ARG:N	2.69	0.46
23:DA:143:G:H4'	41:DX:35:THR:HG21	1.97	0.46
1:AA:947:G:O3'	13:AM:109:THR:OG1	2.32	0.46
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.15	0.46
1:AA:1256:A:H5"	1:AA:1257:U:OP1	2.16	0.46
1:AA:433:C:O2'	1:AA:434:U:H5'	2.15	0.46
23:BA:646:A:H2'	23:BA:647:G:O4'	2.16	0.46
33:BP:126:VAL:HG11	33:BP:148:LEU:HD13	1.97	0.46
23:DA:271(P):C:OP1	30:DI:45:LYS:HD2	2.15	0.46
23:DA:1503:U:H2'	23:DA:1504:C:H6	1.77	0.46
1:CA:601:C:H2'	1:CA:602:A:H8	1.79	0.46
1:AA:392:G:H2'	1:AA:393:A:H8	1.80	0.46
2:CB:82:ARG:HG3	2:CB:92:TYR:CZ	2.50	0.46
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.96	0.46
27:DF:108:LYS:O	27:DF:112:MET:HG3	2.15	0.46
23:DA:2836:U:C4	23:DA:2883:A:N6	2.83	0.46
52:D8:61:LEU:C	52:D8:63:PRO:HD3	2.35	0.46
23:BA:1816:G:H8	25:BD:62:TYR:CZ	2.33	0.46
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.98	0.46
23:DA:1243:G:O2'	33:DP:7:ARG:NH2	2.48	0.46
5:CE:81:GLU:HB3	5:CE:88:LYS:HE2	1.98	0.46
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.14	0.46
26:DE:173:VAL:CG2	26:DE:185:LYS:HB2	2.44	0.46
25:DD:145:VAL:HG12	25:DD:146:GLU:O	2.15	0.46
49:B5:11:THR:HG23	49:B5:15:ARG:HB3	1.97	0.46
23:DA:1221(A):C:C2	23:DA:1229:G:C2	3.04	0.46
23:BA:2836:U:C4	23:BA:2883:A:N6	2.84	0.46
1:CA:1333:A:H3'	1:CA:1334:G:H8	1.81	0.46
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:53:ARG:HH12	2:AB:199:TYR:HA	1.80	0.46
45:B1:3:LYS:HB3	45:B1:4:VAL:H	1.50	0.46
1:AA:149:A:O2'	1:AA:150:C:C6	2.68	0.46
23:DA:958:U:H5"	34:DQ:14:ARG:HD3	1.97	0.46
1:CA:750:G:C2	15:CO:23:GLY:HA3	2.49	0.46
1:CA:179:A:H2'	1:CA:180:U:H6	1.80	0.46
1:AA:130:A:O2'	1:AA:131:C:O5'	2.30	0.46
23:DA:171:G:H2'	23:DA:172:C:C6	2.51	0.46
1:CA:1263:C:O2'	1:CA:1264:C:H5'	2.16	0.46
23:DA:2469:A:H5"	23:DA:2470:G:OP2	2.16	0.46
1:CA:1055:A:C2	1:CA:1056:U:H1'	2.50	0.46
23:DA:1486:A:H2'	23:DA:1487:G:C8	2.48	0.46
23:BA:95:G:O2'	46:B2:46:GLN:HA	2.15	0.46
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.34	0.46
23:DA:848:G:H2'	23:DA:849:A:C8	2.50	0.46
10:AJ:61:GLU:OE2	14:AN:45:ARG:NE	2.44	0.46
23:DA:1278:A:OP1	35:DR:36:THR:CG2	2.64	0.46
1:AA:194:C:O3'	20:AT:68:LYS:HD2	2.16	0.46
4:AD:176:LEU:HD12	4:AD:177:ASP:H	1.79	0.46
24:BB:32:C:C2	24:BB:51:G:N2	2.83	0.46
41:DX:72:LYS:HE3	41:DX:73:ARG:O	2.14	0.46
23:DA:452:G:OP2	56:DA:4159:HOH:O	2.20	0.46
1:AA:414:A:H2'	1:AA:415:A:H8	1.79	0.46
28:BG:3:LEU:HD13	48:B4:25:TYR:CE1	2.50	0.46
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.49	0.46
23:BA:2295:C:O2'	23:BA:2296:U:H5'	2.15	0.46
28:DG:41:GLN:HE22	28:DG:153:ARG:HB3	1.79	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
2:CB:186:ALA:O	2:CB:201:ILE:N	2.44	0.46
36:DS:101:LEU:O	36:DS:102:ALA:HB3	2.15	0.46
1:CA:1087:G:N1	1:CA:1088:G:C6	2.84	0.46
23:BA:271(N):U:O2'	23:BA:271(O):C:H5'	2.15	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
1:CA:300:A:H1'	1:CA:565:U:O2	2.15	0.46
10:AJ:35:SER:N	10:AJ:73:ASP:O	2.48	0.46
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.99	0.46
35:DR:67:LEU:HD13	35:DR:76:VAL:HG21	1.98	0.46
23:BA:910:A:H62	34:BQ:12:GLN:HA	1.80	0.46
23:DA:1006:C:C2	23:DA:1138:G:N2	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:848:G:N9	23:DA:933:A:H8	2.14	0.46
1:AA:428:G:HO2'	1:AA:429:U:P	2.39	0.46
23:DA:1149:G:H2'	23:DA:1150:C:C6	2.50	0.46
23:BA:1274:A:N3	23:BA:1297:C:H1'	2.31	0.46
23:DA:2557:G:H2'	23:DA:2558:C:C6	2.51	0.46
1:CA:36:C:OP1	12:CL:123:LYS:NZ	2.44	0.46
47:B3:10:LYS:NZ	47:B3:15:TYR:OH	2.48	0.46
45:B1:51:VAL:HG11	45:B1:74:VAL:HG21	1.98	0.46
1:CA:116:A:OP2	1:CA:116:A:C8	2.69	0.46
23:BA:1314:C:H5'	23:BA:1314:C:H6	1.81	0.46
10:CJ:95:GLU:HG3	10:CJ:96:ILE:H	1.80	0.46
1:CA:944:G:N1	1:CA:1338:G:OP2	2.42	0.46
23:DA:1321:A:H2'	23:DA:1322:A:O4'	2.16	0.46
2:AB:87:ARG:NH1	2:AB:220:ASP:OD1	2.24	0.46
13:AM:66:LEU:O	13:AM:70:LEU:HB2	2.16	0.46
22:CY:5:ILE:HG21	22:CY:20:VAL:HG11	1.97	0.46
1:CA:983:A:H2	1:CA:984:C:C6	2.34	0.46
23:DA:1021:A:H8	23:DA:1022:G:H5"	1.79	0.46
1:CA:438:G:H4'	4:CD:123:HIS:ND1	2.30	0.46
30:DI:77:LEU:HB3	30:DI:142:VAL:HG12	1.98	0.46
1:AA:254:G:OP1	17:AQ:66:SER:OG	2.33	0.46
23:DA:2687:U:OP2	56:DA:4444:HOH:O	2.20	0.46
1:AA:868:C:H2'	1:AA:869:G:O4'	2.16	0.46
23:DA:1540:U:H2'	23:DA:1541:G:O4'	2.15	0.46
1:CA:1342:C:O2'	9:CI:124:GLN:HG3	2.15	0.46
1:CA:757:U:OP1	1:CA:822:C:O2'	2.28	0.46
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.16	0.46
23:DA:856:C:HO2'	23:DA:857:C:P	2.39	0.46
42:BY:97:ARG:HH11	42:BY:107:ASP:C	2.19	0.46
23:DA:708:C:H5'	23:DA:709:U:OP2	2.16	0.46
29:BH:113:VAL:HG11	29:BH:151:ILE:HD13	1.98	0.46
23:BA:443:A:H1'	23:BA:1201:C:O4'	2.15	0.46
2:CB:27:LYS:HD2	2:CB:193:ASP:OD1	2.15	0.46
29:DH:40:GLU:OE1	29:DH:60:ARG:NH1	2.47	0.46
23:DA:81:G:HO2'	23:DA:295:G:HO2'	1.63	0.46
2:AB:98:LEU:HD23	2:AB:98:LEU:HA	1.80	0.46
37:DT:18:ASP:OD1	37:DT:18:ASP:N	2.45	0.46
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.16	0.46
23:DA:322:A:OP1	27:DF:168:ARG:HD2	2.16	0.46
1:CA:503:C:OP2	12:CL:116:SER:HB3	2.15	0.46
1:AA:542:G:H2'	1:AA:543:C:H6	1.80	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
23:DA:2295:C:O2'	23:DA:2296:U:H5'	2.16	0.46
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.46	0.46
30:BI:77:LEU:HA	30:BI:77:LEU:HD23	1.74	0.46
1:AA:1200:C:O5'	1:AA:1201:A:H3'	2.16	0.46
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.15	0.46
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.81	0.46
20:CT:43:LEU:CD1	20:CT:51:GLU:HG2	2.46	0.46
30:DI:72:LEU:C	30:DI:74:ASN:H	2.19	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
1:CA:1102:A:H8	1:CA:1102:A:H5"	1.79	0.46
23:DA:2134:A:N3	23:DA:2159:G:O2'	2.41	0.46
1:CA:838:G:C2'	1:CA:839:U:H5"	2.46	0.46
1:AA:1149:C:P	9:AI:9:ARG:HH21	2.39	0.46
25:DD:3:VAL:O	25:DD:3:VAL:HG12	2.15	0.46
23:DA:185:U:H2'	23:DA:186:G:C8	2.51	0.46
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.15	0.46
1:CA:942:G:H21	9:CI:124:GLN:NE2	2.13	0.46
23:DA:2693:A:H2'	23:DA:2694:G:C8	2.49	0.46
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.98	0.46
23:BA:362:U:O2'	23:BA:363:G:H5"	2.16	0.46
23:BA:30:G:OP2	38:BU:5:LYS:HE2	2.15	0.46
22:CY:67:HIS:HB3	22:CY:73:ALA:HB2	1.97	0.46
1:AA:114:U:H2'	1:AA:115:G:C8	2.50	0.46
24:BB:39:A:O2'	24:BB:46:A:N1	2.34	0.46
23:BA:1668:A:H4'	23:BA:1669:A:O5'	2.16	0.46
32:DO:115:VAL:HG13	32:DO:121:VAL:HG21	1.96	0.46
36:BS:74:ALA:HA	36:BS:110:LEU:HD22	1.98	0.46
23:BA:1143:A:OP1	31:BN:25:ARG:NH2	2.49	0.46
23:DA:864:G:C6	23:DA:865:C:N4	2.84	0.46
1:CA:1009:G:C2	1:CA:1010:G:C8	3.04	0.46
23:BA:414:C:O2'	23:BA:415:A:H5'	2.16	0.46
23:DA:2430:A:H2'	23:DA:2430:A:N3	2.30	0.46
27:BF:179:GLU:H	27:BF:179:GLU:CD	2.19	0.46
24:DB:61:G:C2	24:DB:62:C:C2	3.04	0.46
23:DA:2297:C:H1'	23:DA:2322:A:C2	2.50	0.46
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.30	0.46
1:CA:1227:A:H8	1:CA:1227:A:H3'	1.80	0.46
9:AI:119:ALA:O	9:AI:120:ARG:HG3	2.15	0.46
1:CA:1084:G:C5	1:CA:1085:U:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:307:G:H21	23:DA:330:A:H62	1.62	0.46
23:BA:1701:A:H5"	23:BA:1702:G:OP2	2.16	0.46
23:DA:1914:C:H2'	23:DA:1915:U:H6	1.79	0.46
1:CA:671:G:H2'	1:CA:672:U:C6	2.51	0.46
25:DD:12:SER:HB3	25:DD:208:LYS:HB3	1.98	0.46
1:AA:174:C:H2'	1:AA:175:C:H6	1.79	0.46
2:AB:51:LEU:O	2:AB:55:PHE:HD2	1.99	0.46
43:BZ:144:LEU:HD12	43:BZ:148:ASP:HB3	1.97	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
31:DN:1:MET:O	31:DN:2:LYS:HB2	2.16	0.46
23:BA:181:A:H1'	23:BA:435:C:H5'	1.98	0.46
1:CA:624:C:H2'	1:CA:625:G:H8	1.81	0.46
22:AY:87:LYS:O	22:AY:91:LYS:HB2	2.14	0.46
39:BV:29:PRO:HA	39:BV:61:VAL:HG22	1.98	0.46
1:CA:1000:U:C2'	1:CA:1001:A:H5'	2.46	0.46
10:CJ:8:LEU:HG	10:CJ:8:LEU:H	1.59	0.46
23:DA:2581:G:H4'	23:DA:2582:G:C8	2.51	0.46
34:DQ:27:VAL:O	34:DQ:67:ARG:NH1	2.49	0.46
23:DA:2549:G:H5"	23:DA:2549:G:C8	2.51	0.46
35:BR:65:LEU:HD12	35:BR:65:LEU:HA	1.77	0.46
31:BN:1:MET:O	31:BN:2:LYS:HB2	2.16	0.46
23:DA:1027:A:C6	23:DA:1126:A:C4	3.04	0.46
49:B5:36:CYS:O	49:B5:37:LYS:HD3	2.15	0.46
1:CA:1271:G:H5'	1:CA:1314:C:H5"	1.97	0.46
26:BE:60:ASN:OD1	26:BE:62:PRO:HD2	2.16	0.46
23:DA:1009:A:O4'	38:DU:59:ARG:HG2	2.16	0.46
1:AA:1120:G:H1	1:AA:1153:C:H42	1.64	0.46
23:BA:2136:C:C4	23:BA:2137:C:H5	2.34	0.46
23:DA:1315:C:OP2	56:DA:3803:HOH:O	2.20	0.46
1:CA:1357:A:N7	1:CA:1358:U:C5	2.84	0.46
1:CA:343:U:H2'	1:CA:343:U:H6	1.49	0.46
5:CE:104:ALA:O	5:CE:107:ARG:HB3	2.16	0.46
23:DA:1488:G:H5"	23:DA:1488:G:C8	2.51	0.46
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.43	0.46
1:CA:750:G:H21	15:CO:23:GLY:HA3	1.79	0.46
33:BP:59:LEU:HG	52:B8:58:ILE:HD13	1.97	0.46
1:AA:90:U:H2'	1:AA:91:C:C6	2.51	0.46
1:CA:474:G:H2'	1:CA:475:G:H8	1.81	0.46
1:CA:177:C:P	20:CT:65:LYS:NZ	2.89	0.46
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:65:ALA:HA	3:CC:100:ALA:HB3	1.98	0.46
1:AA:942:G:C2	1:AA:1342:C:C2	3.04	0.46
43:DZ:144:LEU:HD21	43:DZ:150:LEU:HG	1.98	0.46
23:BA:2133:G:C2	23:BA:2157:G:H2'	2.51	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
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.50	0.46
23:BA:185:U:H2'	23:BA:186:G:H8	1.80	0.46
1:AA:1277:C:HO2'	1:AA:1279:A:H1'	1.81	0.46
1:CA:263:A:OP2	20:CT:79:ARG:NH1	2.49	0.46
27:DF:150:GLY:HA2	27:DF:172:TRP:CE3	2.51	0.46
23:DA:2555:U:H5"	23:DA:2556:C:OP2	2.16	0.46
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.51	0.46
23:DA:1378:A:OP1	51:D7:10:ARG:NH2	2.49	0.46
26:DE:128:SER:OG	26:DE:129:HIS:N	2.49	0.46
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.80	0.46
35:BR:97:VAL:HG22	35:BR:114:VAL:HG13	1.97	0.46
23:DA:2661:G:H2'	23:DA:2662:A:C8	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
1:CA:114:U:H2'	1:CA:115:G:C8	2.51	0.46
1:CA:688:G:H2'	1:CA:689:C:H6	1.80	0.46
5:CE:8:GLU:HA	5:CE:33:VAL:O	2.15	0.46
1:AA:616:G:C2	1:AA:617:G:C8	3.03	0.46
23:BA:993:G:OP1	38:BU:50:ARG:NH2	2.46	0.46
11:CK:62:GLN:HG3	11:CK:97:ALA:HB2	1.98	0.46
28:DG:43:LEU:HD12	28:DG:43:LEU:HA	1.82	0.45
1:AA:1130:A:C4	1:AA:1146:A:C2	3.04	0.45
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.50	0.45
23:DA:1003:G:N2	23:DA:1153:C:C2	2.84	0.45
23:BA:1173:G:O2'	23:BA:1174:A:O5'	2.34	0.45
36:BS:34:HIS:O	36:BS:97:ARG:NH2	2.49	0.45
23:DA:1327:C:P	56:DA:4835:HOH:O	2.74	0.45
1:AA:1305:G:C2	1:AA:1331:G:O2'	2.69	0.45
23:BA:1494:A:C6	23:BA:1495:A:C6	3.04	0.45
9:CI:26:VAL:HG22	9:CI:61:ALA:N	2.30	0.45
36:BS:101:LEU:HD23	36:BS:102:ALA:H	1.81	0.45
1:AA:434:U:H2'	1:AA:435:C:H6	1.81	0.45
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.80	0.45
43:BZ:125:LEU:HB3	43:BZ:165:VAL:HG12	1.98	0.45
27:DF:129:PHE:HB2	27:DF:132:VAL:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2110:G:OP1	23:DA:2118:U:N3	2.47	0.45
6:CF:61:LEU:HB3	6:CF:63:TYR:CE2	2.51	0.45
2:AB:82:ARG:HG3	2:AB:92:TYR:CZ	2.51	0.45
23:BA:774:A:N3	23:BA:774:A:H2'	2.31	0.45
1:CA:625:G:H2'	1:CA:626:U:H6	1.81	0.45
10:CJ:8:LEU:HD13	10:CJ:19:SER:OG	2.16	0.45
23:DA:2549:G:H5"	23:DA:2549:G:H8	1.81	0.45
1:CA:708:C:H2'	1:CA:709:G:H8	1.81	0.45
30:BI:9:LEU:HD21	30:BI:35:LEU:HD13	1.98	0.45
15:AO:18:PHE:HB2	15:AO:19:PRO:HD2	1.98	0.45
28:BG:149:VAL:HG22	28:BG:150:ASP:O	2.17	0.45
43:DZ:19:ARG:NH1	43:DZ:84:GLU:O	2.49	0.45
27:DF:179:GLU:H	27:DF:179:GLU:CD	2.19	0.45
29:DH:84:SER:HA	29:DH:133:VAL:O	2.16	0.45
1:CA:1346:A:C5	7:CG:10:ARG:NH2	2.84	0.45
26:DE:101:ARG:CZ	26:DE:171:GLU:HB2	2.46	0.45
1:AA:1152:A:H5'	10:AJ:13:HIS:CG	2.52	0.45
28:DG:23:PHE:HB2	28:DG:25:TYR:CZ	2.51	0.45
23:BA:1020:A:N1	23:BA:1141:U:O2'	2.43	0.45
1:CA:1305:G:O2'	1:CA:1331:G:N2	2.42	0.45
1:AA:1442(A):G:N7	1:AA:1442(B):A:N1	2.63	0.45
1:CA:390:C:H2'	1:CA:391:G:C8	2.52	0.45
23:DA:2319:G:N1	36:DS:3:ARG:HA	2.31	0.45
13:CM:9:ILE:HA	13:CM:10:PRO:HD3	1.47	0.45
36:DS:35:ILE:HD13	36:DS:101:LEU:HD12	1.97	0.45
16:CP:67:THR:H	16:CP:70:ALA:HB3	1.80	0.45
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.50	0.45
1:AA:473:G:H2'	1:AA:474:G:C8	2.48	0.45
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.41	0.45
13:CM:49:THR:OG1	13:CM:52:GLU:HG3	2.17	0.45
1:CA:1206:G:C6	1:CA:1207:G:C6	3.04	0.45
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.17	0.45
8:AH:19:VAL:HG23	8:AH:21:LYS:HD3	1.97	0.45
23:DA:1166:C:H2'	23:DA:1167:U:H6	1.81	0.45
10:AJ:54:PHE:C	10:AJ:55:LYS:O	2.54	0.45
1:CA:684:A:C6	1:CA:685:G:C6	3.05	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
41:DX:41:ASN:O	41:DX:45:THR:HG23	2.16	0.45
23:BA:1551:C:OP2	56:BA:5557:HOH:O	2.21	0.45
25:BD:10:THR:OG1	25:BD:13:ARG:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
32:DO:113:LYS:H	32:DO:113:LYS:HG2	1.43	0.45
23:BA:236:C:H2'	23:BA:237:C:C6	2.51	0.45
23:DA:1647:G:H3'	23:DA:1647:G:P	2.56	0.45
51:D7:1:MET:HB2	51:D7:1:MET:HE2	1.90	0.45
10:AJ:96:ILE:H	10:AJ:96:ILE:HD12	1.81	0.45
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.16	0.45
16:CP:21:VAL:O	16:CP:33:ILE:HG12	2.17	0.45
2:AB:68:ILE:HG12	2:AB:161:ALA:HB3	1.97	0.45
30:DI:97:ILE:O	30:DI:100:ALA:HB3	2.16	0.45
30:DI:140:LEU:HD23	30:DI:140:LEU:HA	1.70	0.45
1:CA:1128:C:H5	1:CA:1139:G:HO2'	1.64	0.45
1:AA:1227:A:C8	1:AA:1227:A:H3'	2.52	0.45
2:CB:21:ARG:HB3	2:CB:39:ILE:HG12	1.98	0.45
17:CQ:66:SER:OG	17:CQ:67:LYS:O	2.34	0.45
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.16	0.45
1:AA:1292:U:C2	1:AA:1293:G:N7	2.85	0.45
34:DQ:134:ARG:O	34:DQ:138:ASP:HB2	2.16	0.45
37:BT:119:LYS:O	37:BT:123:GLN:HG2	2.17	0.45
1:CA:797:C:O2'	1:CA:798:G:H5'	2.16	0.45
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.80	0.45
12:CL:24:VAL:O	12:CL:26:ALA:N	2.48	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
26:DE:143:ASN:HB2	26:DE:147:PRO:HD2	1.98	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:AA:841:U:C5	1:AA:848:C:H1'	2.52	0.45
40:DW:65:LEU:HD12	40:DW:68:ARG:HE	1.79	0.45
23:DA:634:C:H2'	23:DA:635:C:C6	2.51	0.45
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.16	0.45
23:BA:671:C:H2'	23:BA:672:C:C6	2.51	0.45
3:AC:178:LEU:HA	3:AC:178:LEU:HD13	1.63	0.45
30:BI:47:LEU:HA	30:BI:47:LEU:HD23	1.76	0.45
12:AL:54:LYS:N	12:AL:54:LYS:HD2	2.31	0.45
23:DA:64:A:O3'	41:DX:71:GLY:HA3	2.16	0.45
23:BA:615:G:OP1	27:BF:40:GLN:NE2	2.47	0.45
23:BA:604:G:OP2	33:BP:90:ARG:NH1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B7:24:THR:O	51:B7:28:ARG:HG3	2.16	0.45
8:CH:25:ASP:OD2	8:CH:60:ARG:HG3	2.16	0.45
23:DA:71:A:N7	41:DX:31:HIS:HE1	2.14	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
1:CA:1452:C:HO2'	1:CA:1456:G:P	2.39	0.45
23:BA:2789:C:O3'	23:BA:2790:A:H4'	2.17	0.45
1:CA:941:G:C6	1:CA:1343:G:C6	3.05	0.45
15:CO:24:SER:O	15:CO:26:GLU:N	2.50	0.45
23:BA:1588:C:H2'	23:BA:1589:C:C6	2.51	0.45
1:AA:540:G:H2'	1:AA:541:G:O4'	2.16	0.45
30:BI:130:TYR:HB3	30:BI:138:ILE:HB	1.99	0.45
9:AI:99:LEU:HB3	9:AI:101:PHE:CD1	2.51	0.45
3:AC:19:GLU:HG3	3:AC:40:ARG:NH2	2.32	0.45
23:BA:2683:C:O2	32:BO:70:LYS:NZ	2.31	0.45
23:DA:2745:C:C4	23:DA:2746:U:C4	3.04	0.45
23:DA:118:A:N3	23:DA:178:G:H1'	2.31	0.45
1:CA:841:U:H6	1:CA:841:U:OP1	1.99	0.45
24:DB:37:C:C5	24:DB:38:C:C4	3.05	0.45
27:BF:20:LEU:O	27:BF:21:ALA:O	2.34	0.45
23:DA:2713:A:N3	23:DA:2713:A:H2'	2.31	0.45
1:CA:1530:G:OP1	1:CA:1530:G:H4'	2.16	0.45
15:AO:26:GLU:HG2	15:AO:26:GLU:H	1.31	0.45
23:DA:2793:G:N2	23:DA:2804:C:H1'	2.31	0.45
23:DA:2793:G:H2'	23:DA:2794:C:O4'	2.17	0.45
27:BF:8:GLN:HB3	27:BF:19:GLU:CG	2.47	0.45
23:BA:708:C:C6	23:BA:708:C:H5"	2.51	0.45
23:BA:9:U:O2'	23:BA:10:G:OP1	2.31	0.45
25:BD:134:ARG:HD3	25:BD:135:PHE:CZ	2.52	0.45
17:AQ:60:ILE:HG12	17:AQ:61:GLU:N	2.30	0.45
23:BA:2208:A:H1'	23:BA:2219:G:C5	2.52	0.45
3:CC:130:VAL:HG12	3:CC:131:ARG:H	1.81	0.45
23:BA:83:G:N2	23:BA:102:G:H1'	2.31	0.45
19:AS:36:ARG:NH2	19:AS:72:GLY:O	2.50	0.45
23:BA:2115:G:H21	23:BA:2171:A:H61	1.64	0.45
1:CA:992:U:HO2'	1:CA:993:G:P	2.29	0.45
1:AA:1086:U:H2'	1:AA:1087:G:H8	1.81	0.45
13:CM:70:LEU:O	13:CM:74:VAL:HG23	2.16	0.45
26:BE:75:VAL:HG13	26:BE:77:ILE:H	1.82	0.45
1:AA:474:G:H2'	1:AA:475:G:C8	2.52	0.45
23:BA:171:G:H2'	23:BA:172:C:C6	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DF:129:PHE:CE2	27:DF:163:VAL:HG11	2.52	0.45
37:DT:23:ARG:HG3	37:DT:120:ARG:NH1	2.32	0.45
23:DA:646:A:H2'	23:DA:647:G:O4'	2.17	0.45
1:CA:948:C:N4	56:CA:2018:HOH:O	2.49	0.45
1:AA:622:A:C8	1:AA:623:C:C6	3.05	0.45
1:AA:1240:U:P	7:AG:116:ALA:HB2	2.56	0.45
5:AE:31:LEU:HD23	5:AE:45:PHE:HB2	1.97	0.45
1:AA:1296:C:H4'	1:AA:1302:U:C4	2.52	0.45
2:AB:101:MET:C	2:AB:102:LEU:HD12	2.37	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:BA:481:G:C4	23:BA:507:A:C2	3.04	0.45
1:CA:775:G:C2'	1:CA:776:G:H5'	2.47	0.45
25:DD:10:THR:OG1	25:DD:13:ARG:HB2	2.16	0.45
5:AE:8:GLU:HA	5:AE:33:VAL:O	2.16	0.45
43:DZ:76:LEU:HA	43:DZ:76:LEU:HD12	1.81	0.45
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.51	0.45
29:DH:149:ARG:NH1	29:DH:167:GLU:OE1	2.49	0.45
13:AM:96:LEU:HD13	13:AM:97:PRO:HD2	1.97	0.45
23:DA:1204:A:N6	23:DA:1240:U:H2'	2.30	0.45
23:DA:2312:U:H5'	28:DG:88:ILE:HD11	1.99	0.45
23:DA:2208:A:H1'	23:DA:2219:G:C5	2.50	0.45
1:CA:1277:C:C2'	1:CA:1278:U:H5'	2.46	0.45
23:BA:1581:G:H2'	23:BA:1582:C:O4'	2.17	0.45
1:AA:1216:G:OP1	14:AN:2:ALA:HA	2.16	0.45
23:BA:2319:G:C2	36:BS:3:ARG:HA	2.51	0.45
1:AA:1305:G:O2'	1:AA:1331:G:N2	2.50	0.45
6:CF:22:GLU:OE2	6:CF:82:ARG:HG2	2.17	0.45
23:DA:2327:A:H2'	23:DA:2328:A:H8	1.81	0.45
9:CI:99:LEU:HB3	9:CI:101:PHE:CE1	2.52	0.45
1:CA:965:A:C2	1:CA:969:A:C2	3.05	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
23:DA:475:U:C4	23:DA:481:G:O6	2.69	0.45
7:CG:99:LEU:HB3	7:CG:103:TRP:CZ3	2.51	0.45
10:CJ:16:LEU:HD23	10:CJ:16:LEU:HA	1.75	0.45
23:BA:414:C:H2'	23:BA:415:A:C8	2.51	0.45
52:B8:61:LEU:C	52:B8:63:PRO:HD3	2.37	0.45
1:AA:952:U:H4'	1:AA:964:A:N1	2.32	0.45
1:CA:107:G:H2'	1:CA:108:G:O4'	2.17	0.45
7:AG:26:PHE:O	7:AG:30:ILE:HG13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:190:ASP:N	4:CD:190:ASP:OD1	2.50	0.45
1:CA:1160:G:N3	1:CA:1160:G:H2'	2.32	0.45
23:DA:1899:G:H2'	23:DA:1899:G:N3	2.31	0.45
37:DT:2:ASN:O	37:DT:6:LEU:HD22	2.17	0.45
23:BA:244:A:C2	23:BA:255:A:C4	3.05	0.45
1:CA:230:G:H2'	1:CA:231:G:O4'	2.17	0.45
23:BA:2291:U:H2'	23:BA:2292:C:C6	2.52	0.45
44:D0:14:ARG:HH11	44:D0:14:ARG:HB2	1.82	0.45
23:BA:1047:G:HO2'	23:BA:1048:A:P	2.37	0.45
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.22	0.45
19:AS:36:ARG:HB3	19:AS:72:GLY:HA3	1.99	0.45
13:AM:15:VAL:HG23	13:AM:41:PRO:HA	1.98	0.45
36:DS:74:ALA:HA	36:DS:110:LEU:HD22	1.99	0.45
1:CA:1088:G:C6	1:CA:1089:G:N7	2.84	0.45
13:CM:65:LYS:HA	13:CM:66:LEU:CB	2.45	0.45
23:DA:2134:A:C2	23:DA:2159:G:H4'	2.51	0.45
26:DE:52:LEU:O	26:DE:76:ARG:N	2.38	0.45
1:AA:1318:A:H4'	19:AS:10:PHE:CZ	2.52	0.45
46:D2:51:ARG:O	46:D2:55:ARG:HD2	2.17	0.45
30:DI:4:ILE:HD11	30:DI:44:LEU:CD1	2.47	0.45
1:AA:671:G:H2'	1:AA:672:U:C6	2.50	0.45
16:CP:52:ASP:OD2	16:CP:55:ARG:HG2	2.16	0.45
23:DA:1721:G:H5'	23:DA:1722:A:OP2	2.16	0.45
10:AJ:55:LYS:O	10:AJ:56:HIS:CB	2.65	0.45
23:BA:2110:G:OP1	23:BA:2118:U:N3	2.49	0.45
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.51	0.45
34:BQ:1:MET:HG2	34:BQ:2:LEU:H	1.82	0.45
22:AY:84:GLN:O	22:AY:88:LEU:HG	2.17	0.45
31:DN:108:PRO:O	31:DN:113:GLY:HA3	2.16	0.45
23:BA:2687:U:H2'	23:BA:2688:U:O4'	2.15	0.45
23:DA:459:U:OP2	23:DA:469:G:N1	2.39	0.45
1:AA:35:G:O2'	12:AL:118:SER:O	2.23	0.45
23:BA:1125:G:H5'	53:B9:37:GLY:HA2	1.97	0.45
1:CA:1201:A:O2'	1:CA:1202:G:OP2	2.18	0.45
43:DZ:91:LEU:HA	43:DZ:91:LEU:HD12	1.75	0.45
13:AM:108:ARG:HD3	13:AM:108:ARG:HA	1.76	0.45
23:BA:1149:G:H2'	23:BA:1150:C:C6	2.52	0.45
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.50	0.45
23:DA:1239:G:H2'	23:DA:1240:U:O4'	2.17	0.45
23:BA:2152:G:H2'	23:BA:2153:G:H8	1.82	0.45
45:D1:21:ARG:HH11	45:D1:21:ARG:CG	2.18	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:43:LEU:HB3	28:DG:44:GLY:H	1.54	0.45
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.36	0.45
23:DA:1507:A:O2'	23:DA:1508:A:C8	2.70	0.45
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.51	0.45
23:BA:2172:U:H4'	23:BA:2173:A:OP2	2.16	0.45
1:CA:750:G:N2	15:CO:23:GLY:HA3	2.32	0.45
23:BA:2104:G:N2	23:BA:2105:C:C2	2.85	0.45
3:CC:179:ARG:HH21	3:CC:206:GLU:CD	2.21	0.45
1:CA:1187:G:OP1	9:CI:113:LYS:HE2	2.16	0.45
43:DZ:141:VAL:O	43:DZ:144:LEU:HB2	2.17	0.45
1:CA:102:G:H2'	1:CA:103:C:H6	1.81	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
23:DA:2336:A:H61	44:D0:43:THR:CG2	2.30	0.45
1:CA:765:G:H5"	1:CA:766:A:OP1	2.17	0.45
13:AM:86:CYS:SG	13:AM:86:CYS:O	2.74	0.45
30:DI:127:VAL:HA	30:DI:140:LEU:O	2.17	0.45
15:CO:18:PHE:HB2	15:CO:19:PRO:HD2	1.98	0.45
17:CQ:45:HIS:HB2	17:CQ:65:ILE:HD13	1.99	0.45
43:DZ:5:LEU:O	43:DZ:59:LEU:HA	2.17	0.45
17:CQ:13:ASP:N	17:CQ:13:ASP:OD1	2.50	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
19:AS:20:LEU:HD21	19:AS:43:GLU:HG2	1.99	0.45
5:AE:139:LEU:HD23	5:AE:142:LEU:HD11	1.98	0.45
20:CT:87:LYS:O	20:CT:91:LEU:HG	2.16	0.45
4:CD:36:ARG:HG2	4:CD:38:TYR:CZ	2.52	0.45
23:BA:1204:A:N6	23:BA:1240:U:H2'	2.32	0.45
23:BA:1049:C:O2'	23:BA:1050:A:P	2.75	0.45
23:DA:1530:C:O2'	23:DA:1531:C:P	2.75	0.45
9:CI:28:VAL:N	9:CI:31:GLN:O	2.32	0.45
1:AA:559:A:H4'	1:AA:560:U:H3'	1.99	0.45
30:DI:120:ILE:HG21	30:DI:126:TYR:CE1	2.52	0.45
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.51	0.45
16:CP:53:VAL:O	16:CP:56:ALA:N	2.50	0.45
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.17	0.45
23:BA:1540:U:H2'	23:BA:1541:G:O4'	2.16	0.45
1:CA:403:C:P	4:CD:137:SER:OG	2.75	0.45
43:BZ:151:HIS:C	43:BZ:153:SER:H	2.20	0.45
20:AT:33:ILE:O	20:AT:37:SER:OG	2.30	0.45
23:DA:919:G:N2	23:DA:2269:A:OP2	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DR:109:ALA:HA	35:DR:110:PRO:HD2	1.83	0.45
17:CQ:24:GLU:OE2	17:CQ:37:LYS:HD3	2.17	0.45
48:B4:36:CYS:SG	48:B4:38:LYS:O	2.75	0.45
23:BA:2772:C:H2'	23:BA:2773:C:C6	2.51	0.45
1:CA:38:G:C2	1:CA:397:A:C2	3.05	0.45
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.14	0.45
23:DA:2854:G:H2'	23:DA:2855:C:C6	2.52	0.45
17:AQ:13:ASP:OD1	17:AQ:13:ASP:N	2.50	0.45
23:DA:1292:U:H2'	23:DA:1293:C:C6	2.52	0.45
1:AA:967:C:H6	1:AA:967:C:O5'	1.99	0.45
1:CA:877:C:H5"	8:CH:88:LYS:HD3	1.99	0.45
1:AA:21:G:H2'	1:AA:22:G:C8	2.52	0.45
23:BA:2564:A:C2	23:BA:2647:U:H4'	2.51	0.45
23:DA:2815:C:H5'	49:D5:29:THR:HG21	1.99	0.45
23:BA:1021:A:C3'	23:BA:1021:A:C8	3.00	0.45
1:CA:436:C:H1'	1:CA:437:U:H5'	1.99	0.45
9:CI:26:VAL:CG1	9:CI:61:ALA:HB3	2.45	0.45
1:AA:165:C:H2'	1:AA:166:G:H8	1.77	0.45
26:DE:51:PHE:CD1	26:DE:52:LEU:HD22	2.52	0.45
25:DD:71:ASP:CB	25:DD:103:ARG:HH22	2.29	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
16:CP:72:ARG:HE	16:CP:73:LEU:HD23	1.82	0.45
43:BZ:111:VAL:HG12	43:BZ:112:ARG:H	1.82	0.45
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.32	0.45
1:AA:44:G:H2'	1:AA:45:U:O4'	2.16	0.45
7:CG:15:ASP:O	7:CG:19:GLY:N	2.49	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
19:AS:58:VAL:HA	19:AS:59:PRO:HD3	1.72	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
23:DA:1124:C:H1'	53:D9:36:GLN:NE2	2.32	0.45
1:AA:790:A:C2	22:AY:29:LYS:HD3	2.52	0.45
27:BF:140:LEU:HD13	27:BF:140:LEU:HA	1.85	0.45
1:AA:721:G:H4'	1:AA:722:A:O4'	2.16	0.45
23:DA:2294:C:P	36:DS:89:ARG:HH22	2.39	0.45
1:CA:427:U:P	4:CD:13:ARG:HH22	2.39	0.44
23:BA:1019:U:O2'	23:BA:1021:A:H2	1.80	0.44
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.52	0.44
1:CA:1392:G:H21	1:CA:1502:A:H8	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:950:U:H2'	1:CA:951:G:C8	2.52	0.44
1:CA:1151:A:C2	1:CA:1152:A:C5	3.04	0.44
23:BA:1497:U:H5"	23:BA:1498:C:H5	1.82	0.44
7:CG:72:ARG:NH1	7:CG:142:GLU:OE1	2.50	0.44
1:CA:21:G:H2'	1:CA:22:G:C8	2.52	0.44
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.52	0.44
23:DA:185:U:H4'	23:DA:218:A:H4'	1.99	0.44
1:AA:373:A:C2	1:AA:374:A:C8	3.05	0.44
1:CA:1115:C:H1'	14:CN:61:TRP:O	2.16	0.44
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HD12	1.98	0.44
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.17	0.44
16:AP:71:ARG:O	16:AP:75:ARG:N	2.44	0.44
3:CC:187:ALA:O	3:CC:198:VAL:HG23	2.16	0.44
1:AA:195:A:C6	1:AA:196:A:N1	2.85	0.44
5:CE:139:LEU:HD23	5:CE:142:LEU:HD11	1.99	0.44
1:CA:1261:A:H5'	1:CA:1283:G:O3'	2.18	0.44
23:DA:2391:G:O6	23:DA:2425:A:H8	2.00	0.44
23:DA:1549:C:H2'	23:DA:1550:C:C6	2.52	0.44
23:BA:945:A:H2	56:BA:4190:HOH:O	1.98	0.44
1:CA:380:G:N2	1:CA:384:G:C5	2.84	0.44
36:DS:39:ILE:HD12	36:DS:85:VAL:HG21	1.98	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:DA:789:A:N1	56:DA:4269:HOH:O	2.36	0.44
1:AA:1441:G:N2	1:AA:1459:C:C6	2.81	0.44
1:AA:1226:C:OP1	13:AM:91:ARG:NH1	2.50	0.44
36:DS:97:ARG:O	36:DS:100:ALA:HB3	2.18	0.44
23:BA:958:U:H5"	34:BQ:14:ARG:HD3	1.98	0.44
1:CA:922:G:N3	1:CA:1398:A:C2	2.82	0.44
45:B1:85:LEU:HB3	45:B1:89:GLU:HG3	1.98	0.44
23:BA:2147:G:H2'	23:BA:2148:G:C4'	2.47	0.44
36:BS:59:LYS:HE2	36:BS:60:GLY:HA2	1.98	0.44
1:AA:1300:G:O2'	1:AA:1301:U:H6	1.99	0.44
23:BA:252:G:P	33:BP:50:ARG:HH12	2.40	0.44
1:AA:397:A:N3	1:AA:397:A:H3'	2.32	0.44
9:CI:45:ALA:HB1	9:CI:47:LEU:N	2.31	0.44
27:DF:47:GLY:HA3	27:DF:95:ARG:O	2.17	0.44
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.99	0.44
23:BA:184:C:H2'	23:BA:185:U:C6	2.53	0.44
23:BA:848:G:H2'	23:BA:849:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BZ:144:LEU:HD21	43:BZ:150:LEU:HG	1.99	0.44
1:AA:939:G:H2'	1:AA:940:C:C6	2.52	0.44
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	1.99	0.44
23:BA:1638:C:H4'	23:BA:2710:C:O2	2.17	0.44
22:CY:44:GLU:HB3	22:CY:47:GLY:C	2.38	0.44
4:AD:10:ARG:HG3	4:AD:11:LEU:HD12	1.98	0.44
42:BY:76:CYS:HA	42:BY:77:PRO:HD3	1.90	0.44
24:DB:13:A:C2	24:DB:16:G:H1'	2.51	0.44
35:BR:26:LYS:HE2	35:BR:70:LEU:O	2.17	0.44
23:DA:181:A:H1'	23:DA:435:C:H5'	1.98	0.44
1:CA:1103:C:N3	1:CA:1104:G:C8	2.85	0.44
3:CC:45:LYS:O	3:CC:47:LEU:N	2.48	0.44
1:CA:1116:C:H2'	1:CA:1117:G:H5"	1.97	0.44
23:BA:2713:A:N3	23:BA:2713:A:H2'	2.31	0.44
17:AQ:24:GLU:OE2	17:AQ:37:LYS:HD3	2.16	0.44
1:CA:690:G:C6	1:CA:691:G:C6	3.05	0.44
23:BA:247:G:H4'	23:BA:386:G:C5	2.53	0.44
23:DA:887:A:H1'	23:DA:889:C:OP2	2.16	0.44
23:BA:1803:A:H4'	25:BD:259:THR:HG23	1.98	0.44
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.17	0.44
22:CY:26:LYS:HD3	22:CY:82:GLU:OE2	2.17	0.44
23:BA:958:U:O2'	23:BA:959:A:OP2	2.35	0.44
23:DA:526:A:H5"	23:DA:527:C:OP1	2.17	0.44
20:CT:56:MET:HG3	20:CT:57:ARG:N	2.31	0.44
36:DS:101:LEU:HD23	36:DS:102:ALA:H	1.82	0.44
1:CA:1372:U:C4	1:CA:1373:G:C4	3.06	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
23:DA:1379:A:H8	23:DA:1379:A:O5'	2.00	0.44
23:DA:2778:A:O2'	23:DA:2781:A:H5'	2.17	0.44
1:AA:858:G:O6	1:AA:869:G:H3'	2.17	0.44
1:AA:965:A:OP2	22:AY:8:LYS:NZ	2.51	0.44
2:CB:51:LEU:O	2:CB:55:PHE:HD2	2.00	0.44
1:CA:719:C:O2	18:CR:50:ILE:HG12	2.17	0.44
17:AQ:88:TYR:CD2	17:AQ:89:LEU:HD23	2.53	0.44
23:BA:2674:G:H2'	23:BA:2675:A:C8	2.52	0.44
23:DA:2564:A:C2	23:DA:2647:U:H4'	2.52	0.44
1:CA:909:A:H2'	1:CA:910:C:O4'	2.16	0.44
23:BA:2308:G:O2'	23:BA:2310:A:N7	2.50	0.44
23:DA:1185:C:H5"	23:DA:1186:G:OP1	2.17	0.44
23:BA:1866:C:H2'	23:BA:1876:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:414:A:H2'	1:CA:415:A:H8	1.80	0.44
49:D5:11:THR:HG23	49:D5:15:ARG:HB3	1.98	0.44
1:AA:909:A:H2'	1:AA:910:C:O4'	2.18	0.44
23:DA:1783:A:H5'	23:DA:2608:G:H4'	1.98	0.44
23:BA:1530:C:H2'	23:BA:1530:C:H6	1.60	0.44
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.35	0.44
3:CC:136:GLN:O	3:CC:139:GLN:N	2.51	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
3:AC:12:LEU:HD23	3:AC:12:LEU:HA	1.86	0.44
45:D1:82:LEU:HA	45:D1:85:LEU:CD2	2.42	0.44
1:AA:750:G:C2	15:AO:23:GLY:HA3	2.52	0.44
23:DA:242:G:C8	52:D8:5:LYS:HG2	2.52	0.44
2:CB:133:LYS:O	2:CB:137:ARG:HG3	2.18	0.44
23:DA:2134:A:N6	23:DA:2157:G:H5'	2.32	0.44
23:DA:330:A:O2'	23:DA:331:A:C8	2.69	0.44
1:CA:1321:C:H5"	1:CA:1322:C:H5"	1.99	0.44
23:BA:1700:A:H2'	23:BA:1701:A:O5'	2.17	0.44
1:AA:391:G:C6	1:AA:392:G:C5	3.05	0.44
23:BA:2009:G:OP1	40:BW:41:LYS:HE2	2.18	0.44
34:DQ:16:ARG:O	34:DQ:17:LEU:HD23	2.17	0.44
9:CI:83:ARG:HA	9:CI:86:VAL:HG22	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
1:AA:428:G:O2'	1:AA:429:U:OP2	2.30	0.44
8:CH:51:VAL:HG11	8:CH:60:ARG:HH11	1.81	0.44
40:BW:83:LYS:O	40:BW:84:ARG:HD3	2.17	0.44
27:BF:129:PHE:HB2	27:BF:132:VAL:HG22	1.99	0.44
1:CA:105:G:H2'	1:CA:106:C:C6	2.53	0.44
1:AA:951:G:C6	1:AA:1231:G:C6	3.05	0.44
31:DN:18:ALA:O	31:DN:19:GLU:HB3	2.17	0.44
34:DQ:57:HIS:NE2	34:DQ:116:GLU:HB3	2.33	0.44
35:BR:51:LEU:HD23	35:BR:51:LEU:HA	1.81	0.44
33:DP:6:LEU:HA	33:DP:6:LEU:HD23	1.87	0.44
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.52	0.44
23:BA:2722:G:H2'	23:BA:2723:C:C6	2.53	0.44
30:DI:83:ALA:HB1	30:DI:87:LYS:O	2.17	0.44
45:D1:51:VAL:HG11	45:D1:74:VAL:HG21	1.99	0.44
35:BR:21:TYR:OH	35:BR:43:GLU:HG2	2.17	0.44
16:AP:67:THR:H	16:AP:70:ALA:HB3	1.82	0.44
5:CE:59:GLY:O	5:CE:62:ALA:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2534:A:H3'	23:DA:2535:G:H5"	2.00	0.44
7:CG:111:ARG:NH1	7:CG:122:HIS:HB3	2.31	0.44
1:CA:1279:A:H5"	1:CA:1280:A:OP1	2.18	0.44
23:DA:2122:U:H2'	23:DA:2123:G:C8	2.50	0.44
16:CP:28:ARG:CG	16:CP:28:ARG:HH11	2.26	0.44
38:BU:92:ARG:HG2	38:BU:92:ARG:H	1.74	0.44
46:B2:50:ILE:O	46:B2:51:ARG:HB3	2.17	0.44
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.82	0.44
23:DA:2172:U:H4'	23:DA:2173:A:OP2	2.17	0.44
23:BA:2172:U:H1'	23:BA:2173:A:OP1	2.18	0.44
23:DA:830:G:H4'	23:DA:831:G:OP2	2.17	0.44
1:AA:625:G:H2'	1:AA:626:U:H6	1.82	0.44
23:BA:1794:U:H2'	23:BA:1795:C:H6	1.82	0.44
28:DG:3:LEU:HG	28:DG:3:LEU:H	1.67	0.44
23:DA:864:G:N2	23:DA:913:U:C2	2.85	0.44
32:BO:115:VAL:HG13	32:BO:121:VAL:HG21	2.00	0.44
23:BA:2793:G:H2'	23:BA:2794:C:O4'	2.17	0.44
32:DO:63:VAL:HG12	32:DO:106:LEU:HD11	1.98	0.44
4:CD:193:ASP:OD2	56:CD:401:HOH:O	2.21	0.44
39:DV:29:PRO:HA	39:DV:61:VAL:HG22	2.00	0.44
23:DA:2670:A:O2'	23:DA:2671:A:H5'	2.17	0.44
23:DA:1745(A):C:H5'	23:DA:1746:G:OP2	2.17	0.44
35:DR:70:LEU:HA	35:DR:70:LEU:HD23	1.57	0.44
1:AA:455:C:H6	1:AA:455:C:O5'	2.00	0.44
28:DG:66:GLN:HE21	28:DG:66:GLN:HB3	1.67	0.44
23:DA:769:G:O2'	23:DA:770:G:H5'	2.17	0.44
6:AF:75:LEU:O	6:AF:79:LEU:HG	2.17	0.44
1:AA:36:C:OP1	12:AL:123:LYS:NZ	2.50	0.44
1:AA:1442(A):G:C5	1:AA:1442(B):A:C6	3.06	0.44
42:DY:23:ARG:HH11	42:DY:23:ARG:HB2	1.82	0.44
1:AA:10:A:OP2	5:AE:126:ARG:HD2	2.17	0.44
23:DA:1022:G:N7	31:DN:66:LYS:HE2	2.33	0.44
13:CM:67:GLU:HA	13:CM:69:GLU:O	2.18	0.44
1:AA:76:C:O2'	1:AA:77:G:OP1	2.30	0.44
31:DN:24:GLY:HA2	31:DN:27:ALA:CB	2.48	0.44
1:CA:297:G:N2	1:CA:300:A:OP2	2.49	0.44
1:CA:1272:G:C6	1:CA:1273:G:C5	3.06	0.44
23:BA:1488:G:C8	23:BA:1488:G:H5"	2.51	0.44
37:DT:119:LYS:O	37:DT:123:GLN:HG2	2.18	0.44
10:CJ:63:PHE:HD1	14:CN:57:ARG:O	2.01	0.44
23:DA:2009:G:OP1	40:DW:41:LYS:HE2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:11:VAL:HB	27:BF:18:ARG:CB	2.48	0.44
17:CQ:57:VAL:HA	17:CQ:77:VAL:HG23	1.98	0.44
1:AA:519:C:H2'	1:AA:520:A:C8	2.52	0.44
13:AM:4:ILE:HG12	13:AM:5:ALA:H	1.81	0.44
4:AD:94:LEU:O	4:AD:97:LEU:HB2	2.18	0.44
23:BA:2096:U:H3	23:BA:2193:G:H1	1.66	0.44
23:DA:720:C:H2'	23:DA:721:C:H6	1.82	0.44
23:DA:320:A:H4'	23:DA:322:A:N7	2.33	0.44
7:CG:40:ALA:HB3	9:CI:41:VAL:HG21	2.00	0.44
46:D2:65:ASN:OD1	46:D2:69:ARG:NH1	2.51	0.44
1:CA:1076:C:C2	1:CA:1082:G:N2	2.86	0.44
23:BA:740:U:H2'	23:BA:741:G:C8	2.52	0.44
25:DD:134:ARG:HD3	25:DD:135:PHE:CZ	2.51	0.44
33:DP:1:MET:HE3	33:DP:5:ASP:HB2	2.00	0.44
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
23:DA:2483:C:N3	34:DQ:124:LYS:NZ	2.62	0.44
23:DA:1559:G:OP2	56:DA:4887:HOH:O	2.20	0.44
26:BE:173:VAL:CG2	26:BE:185:LYS:HB2	2.48	0.44
5:AE:57:LYS:HB3	5:AE:61:TYR:CE2	2.53	0.44
43:DZ:178:GLU:HA	43:DZ:178:GLU:OE2	2.18	0.44
1:CA:586:C:C2'	1:CA:587:G:H5'	2.47	0.44
26:BE:59:VAL:O	26:BE:64:LYS:HE3	2.18	0.44
23:DA:493:G:H2'	23:DA:494:G:O4'	2.18	0.44
34:BQ:27:VAL:O	34:BQ:67:ARG:NH1	2.51	0.44
23:DA:1866:C:H2'	23:DA:1876:A:O4'	2.17	0.44
1:CA:1505:G:H4'	1:CA:1506:U:H5"	1.98	0.44
23:DA:2137:C:C2	23:DA:2154:G:N2	2.85	0.44
1:AA:67:C:H4'	1:AA:172:A:C4'	2.48	0.44
1:CA:954:G:C5	1:CA:955:U:C4	3.06	0.44
37:DT:16:ARG:HB2	37:DT:79:HIS:ND1	2.32	0.44
23:DA:831:G:O2'	33:DP:38:GLN:HG2	2.18	0.44
29:BH:3:ARG:HG2	29:BH:6:ARG:HG2	1.99	0.44
23:BA:1503:U:H2'	23:BA:1504:C:H6	1.83	0.44
1:AA:1318:A:H4'	19:AS:10:PHE:CE1	2.52	0.44
23:DA:2198:A:O2'	23:DA:2224:G:N2	2.50	0.44
1:CA:1012:U:H2'	1:CA:1013:G:O4'	2.16	0.44
23:BA:1379:A:H8	23:BA:1379:A:O5'	2.01	0.44
43:DZ:138:GLU:H	43:DZ:156:LYS:HZ1	1.65	0.44
1:AA:832:C:O2'	1:AA:833:U:P	2.76	0.44
23:DA:1005:C:H2'	23:DA:1006:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1297:C:OP1	23:BA:2710:C:H4'	2.18	0.44
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.18	0.44
35:BR:70:LEU:HD23	35:BR:70:LEU:HA	1.72	0.44
23:DA:2630:G:H2'	23:DA:2631:G:O4'	2.18	0.44
43:BZ:6:LYS:HD3	43:BZ:8:TYR:OH	2.17	0.44
23:DA:1263:U:C4	23:DA:1264:G:C6	3.05	0.44
23:BA:1939:U:OP1	23:BA:2604:U:O2'	2.31	0.44
23:BA:579:G:H2'	23:BA:580:C:C6	2.53	0.44
23:BA:2275:C:H6	23:BA:2275:C:H5'	1.81	0.44
46:D2:21:LEU:HA	46:D2:21:LEU:HD23	1.86	0.44
1:CA:1124:G:H8	1:CA:1124:G:OP2	2.01	0.44
14:CN:3:ARG:HB3	14:CN:3:ARG:HE	1.53	0.44
44:D0:56:ASP:CG	44:D0:58:THR:HG1	2.21	0.44
12:CL:27:LEU:CB	12:CL:33:ARG:HD3	2.48	0.44
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	2.00	0.44
23:BA:887:A:H1'	23:BA:889:C:OP2	2.18	0.44
23:DA:2374:C:H3'	56:DA:5005:HOH:O	2.18	0.44
23:BA:832:G:OP1	33:BP:38:GLN:O	2.36	0.44
26:BE:119:ARG:HG2	26:BE:160:TYR:CG	2.53	0.44
23:BA:2143:C:N3	23:BA:2148:G:O6	2.50	0.44
1:CA:1347:G:H22	1:CA:1374:A:P	2.40	0.44
10:AJ:47:PHE:CZ	14:AN:37:PHE:HE2	2.36	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
30:BI:81:VAL:O	30:BI:146:ALA:HA	2.17	0.44
23:DA:328:U:H4'	42:DY:68:HIS:CG	2.52	0.44
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.53	0.44
33:BP:126:VAL:CG1	33:BP:148:LEU:HD13	2.48	0.44
30:DI:62:LYS:HG2	30:DI:133:HIS:NE2	2.33	0.44
2:CB:42:ILE:HG21	2:CB:202:PRO:O	2.17	0.44
10:AJ:96:ILE:CD1	10:AJ:96:ILE:H	2.29	0.44
23:DA:2267:A:H2'	56:DA:4675:HOH:O	2.17	0.44
3:CC:141:VAL:HG11	3:CC:202:ILE:HG12	2.00	0.44
1:AA:64:G:H4'	1:AA:65:U:H3'	1.99	0.44
28:DG:64:THR:HB	28:DG:94:LEU:HD21	2.00	0.44
28:DG:6:ALA:HB3	28:DG:104:GLU:OE1	2.17	0.44
26:BE:108:SER:O	26:BE:162:ALA:HA	2.17	0.44
23:DA:637:A:H8	33:DP:117:GLU:HG3	1.82	0.44
12:AL:71:PRO:O	12:AL:102:ARG:NH1	2.48	0.44
23:BA:2347:C:H2'	23:BA:2348:U:C6	2.53	0.44
33:DP:138:LEU:HA	33:DP:138:LEU:HD12	1.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:29:U:H6	23:DA:29:U:O5'	2.00	0.44
15:AO:31:LEU:HD23	15:AO:31:LEU:HA	1.58	0.44
45:D1:58:ILE:HD11	45:D1:91:LYS:HG3	1.99	0.44
23:BA:1188:U:H4'	39:BV:79:VAL:HG22	1.99	0.44
25:BD:132:PRO:HD3	25:BD:190:TYR:CZ	2.53	0.44
1:AA:891:U:OP1	56:AA:2083:HOH:O	2.21	0.44
1:CA:927:G:N1	1:CA:1391:U:C2	2.85	0.44
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.18	0.44
1:AA:1179:A:O3'	9:AI:103:THR:OG1	2.23	0.44
24:DB:32:C:C2	24:DB:51:G:N2	2.86	0.44
23:DA:2420:C:OP2	52:D8:33:ASN:HB2	2.17	0.44
23:BA:1495:A:H2'	23:BA:1496:A:H8	1.78	0.44
1:AA:750:G:H21	15:AO:23:GLY:HA3	1.83	0.44
1:CA:707:C:OP1	11:CK:85:ARG:NH1	2.48	0.44
3:CC:181:ASN:O	3:CC:203:PHE:HA	2.18	0.44
23:DA:530:G:C5	23:DA:2022:U:H5"	2.53	0.44
1:CA:520:A:N1	1:CA:536:C:H1'	2.33	0.44
23:BA:2630:G:H2'	23:BA:2631:G:O4'	2.17	0.44
1:CA:685:G:N2	1:CA:686:U:C4	2.86	0.44
1:AA:63:C:H4'	1:AA:380:G:H4'	1.99	0.44
4:AD:83:SER:HA	56:AD:403:HOH:O	2.18	0.44
12:CL:85:ILE:HA	12:CL:85:ILE:HD13	1.69	0.44
1:CA:1006:C:C2'	1:CA:1007:C:H5'	2.48	0.44
13:AM:96:LEU:O	13:AM:110:ARG:HD3	2.17	0.44
1:CA:619:U:O2	4:CD:133:VAL:HA	2.18	0.44
1:CA:724:G:C2	1:CA:725:G:C8	3.06	0.44
23:DA:804:A:H5"	23:DA:805:G:OP1	2.18	0.44
1:CA:820:U:H4'	1:CA:821:G:OP2	2.18	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
23:BA:590:A:H2'	23:BA:591:C:O4'	2.18	0.44
37:DT:37:GLY:HA2	37:DT:38:ASN:HA	1.55	0.44
23:DA:783:A:H2'	23:DA:783:A:N3	2.32	0.44
36:DS:61:ASN:O	36:DS:65:VAL:HG23	2.18	0.44
5:AE:81:GLU:HB3	5:AE:88:LYS:HE2	2.00	0.44
26:BE:73:GLU:HA	26:BE:74:PRO:HD3	1.63	0.44
1:CA:1426:C:H2'	1:CA:1427:U:C6	2.53	0.44
23:BA:1482:G:C6	23:BA:1507:A:C6	3.06	0.43
23:DA:1482:G:C6	23:DA:1507:A:C6	3.05	0.43
42:BY:20:TYR:CD2	42:BY:42:VAL:HG13	2.52	0.43
8:CH:112:LEU:HB3	8:CH:133:LEU:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:1021:A:H62	23:DA:1141:U:H3	1.66	0.43
1:CA:1493:A:N3	23:DA:1913:A:C6	2.85	0.43
1:AA:624:C:H2'	1:AA:625:G:C8	2.53	0.43
1:AA:1055:A:N6	1:AA:1206:G:C5	2.86	0.43
36:BS:87:PHE:CE1	36:BS:102:ALA:HB2	2.53	0.43
1:AA:1031:G:H2'	1:AA:1032:G:O4'	2.18	0.43
3:CC:11:ARG:O	3:CC:14:ILE:N	2.41	0.43
50:D6:11:LEU:HA	50:D6:11:LEU:HD23	1.74	0.43
35:DR:67:LEU:HD13	35:DR:67:LEU:HA	1.73	0.43
23:DA:185:U:H2'	23:DA:186:G:H8	1.83	0.43
1:CA:56:U:H2'	1:CA:57:G:H8	1.82	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
22:AY:23:ARG:HH12	22:AY:26:LYS:CD	2.30	0.43
23:BA:234:C:H2'	23:BA:235:U:H6	1.83	0.43
43:BZ:141:VAL:O	43:BZ:144:LEU:HB2	2.18	0.43
23:DA:481:G:C4	23:DA:507:A:C2	3.06	0.43
1:AA:380:G:C2	1:AA:384:G:C6	3.06	0.43
1:CA:841:U:C5	1:CA:848:C:H1'	2.53	0.43
23:BA:2389:G:H5"	23:BA:2390:U:O4'	2.18	0.43
50:D6:25:LYS:HE3	50:D6:30:THR:O	2.17	0.43
23:DA:1518:U:OP2	56:DA:4337:HOH:O	2.21	0.43
23:BA:1825:A:OP1	25:BD:249:PRO:HD3	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: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
30:BI:85:GLU:O	30:BI:86:THR:OG1	2.31	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
34:BQ:141:GLN:NE2	43:BZ:76:LEU:HD22	2.32	0.43
19:CS:7:LYS:HD3	19:CS:7:LYS:HA	1.58	0.43
23:DA:2064:C:H2'	23:DA:2065:C:C6	2.53	0.43
23:DA:2279:G:O6	44:D0:14:ARG:HD2	2.18	0.43
2:CB:87:ARG:NH2	2:CB:233:SER:HB2	2.33	0.43
2:AB:84:GLU:OE1	2:AB:216:SER:HA	2.18	0.43
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.83	0.43
30:BI:106:GLY:HA2	30:BI:107:VAL:CB	2.47	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
23:DA:11:G:H2'	23:DA:12:U:C5'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:51:A:C2	1:AA:353:A:N1	2.86	0.43
23:DA:2602:A:H1'	23:DA:2603:G:H5"	1.99	0.43
4:AD:173:TRP:CE3	4:AD:193:ASP:HB3	2.54	0.43
23:BA:2317:C:N4	23:BA:2318:G:O6	2.51	0.43
23:DA:2125:G:H22	23:DA:2172:U:H5"	1.82	0.43
36:DS:26:LEU:HD22	36:DS:87:PHE:CE1	2.53	0.43
4:AD:188:LEU:H	4:AD:188:LEU:CD2	2.27	0.43
1:AA:262:A:C6	1:AA:263:A:C6	3.05	0.43
23:BA:2778:A:O2'	23:BA:2781:A:H5'	2.18	0.43
1:CA:20:U:H2'	1:CA:21:G:O4'	2.18	0.43
1:CA:1321:C:H3'	1:CA:1322:C:H5"	2.01	0.43
3:CC:125:GLU:OE1	3:CC:190:ARG:N	2.41	0.43
1:AA:1244:C:C2	1:AA:1294:G:N2	2.85	0.43
8:AH:49:GLU:O	8:AH:51:VAL:HG13	2.17	0.43
22:AY:23:ARG:HA	22:AY:23:ARG:HD2	1.81	0.43
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.50	0.43
1:CA:999:C:H2'	1:CA:1000:U:H6	1.83	0.43
23:BA:2275:C:C6	23:BA:2275:C:H5'	2.53	0.43
23:DA:1840:G:C6	23:DA:1841:U:C4	3.06	0.43
28:BG:125:PHE:HB3	28:BG:166:ASP:OD2	2.19	0.43
23:BA:478:A:N1	23:BA:500:G:H4'	2.33	0.43
23:DA:2298:A:H2'	23:DA:2299:G:O4'	2.19	0.43
42:DY:98:VAL:HG12	42:DY:105:ALA:HA	1.99	0.43
29:BH:84:SER:HA	29:BH:133:VAL:O	2.18	0.43
40:BW:20:VAL:O	40:BW:23:LEU:HB2	2.17	0.43
23:DA:2300:G:C6	23:DA:2301:C:C4	3.06	0.43
1:AA:881:G:P	12:AL:12:ARG:HH22	2.41	0.43
46:B2:60:LEU:HD23	46:B2:60:LEU:HA	1.81	0.43
28:DG:148:MET:O	28:DG:149:VAL:HB	2.17	0.43
23:BA:601:C:O2'	23:BA:605:C:H5"	2.17	0.43
43:DZ:93:ASP:HB2	43:DZ:131:ARG:HH22	1.83	0.43
46:D2:35:LEU:HD12	46:D2:53:LEU:HD12	2.00	0.43
2:CB:101:MET:C	2:CB:102:LEU:HD12	2.39	0.43
15:AO:15:PHE:CE2	15:AO:84:LYS:HD2	2.52	0.43
23:DA:2152:G:H2'	23:DA:2153:G:H8	1.82	0.43
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.99	0.43
23:BA:2318:G:O2'	23:BA:2319:G:H5"	2.19	0.43
1:CA:673:G:N2	1:CA:674:G:C2	2.86	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
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:189:ASP:OD1	2:AB:205:ASP:HB3	2.18	0.43
1:AA:1281:U:H6	1:AA:1281:U:H2'	1.59	0.43
23:BA:1539:G:H2'	23:BA:1540:U:O4'	2.19	0.43
1:CA:814:A:H2'	1:CA:816:A:H5"	1.99	0.43
36:BS:78:LEU:HA	36:BS:82:ILE:O	2.18	0.43
1:AA:104:G:H4'	1:AA:174:C:C4'	2.49	0.43
1:AA:192:U:H4'	20:AT:57:ARG:HD2	2.00	0.43
1:AA:552:U:H4'	12:AL:87:GLY:O	2.17	0.43
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.53	0.43
23:DA:65:C:H2'	23:DA:66:C:C6	2.53	0.43
28:BG:148:MET:O	28:BG:149:VAL:HB	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
6:AF:8:ILE:HD12	6:AF:26:ILE:HD13	2.00	0.43
37:BT:113:LYS:O	37:BT:114:LEU:HD23	2.19	0.43
7:CG:104:LEU:HA	7:CG:104:LEU:HD13	1.85	0.43
36:BS:84:GLN:HG2	36:BS:84:GLN:H	1.48	0.43
23:DA:2308:G:O2'	23:DA:2310:A:N7	2.51	0.43
27:BF:108:LYS:O	27:BF:112:MET:HG3	2.18	0.43
23:BA:1162:G:O2'	39:BV:90:PRO:HG2	2.18	0.43
1:AA:911:U:OP2	12:AL:97:ARG:NH1	2.52	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
37:DT:56:GLY:O	37:DT:59:THR:HG23	2.18	0.43
9:CI:62:TYR:O	9:CI:63:ILE:HG13	2.18	0.43
23:BA:103:A:H8	23:BA:103:A:O5'	2.02	0.43
24:DB:48:A:H4'	36:DS:95:HIS:CD2	2.39	0.43
23:DA:2115:G:H21	23:DA:2171:A:H61	1.66	0.43
1:AA:78:G:N2	1:AA:92:C:N3	2.67	0.43
22:CY:29:LYS:HG3	22:CY:30:TRP:CE3	2.53	0.43
1:AA:1029:C:N3	1:AA:1032:G:O6	2.51	0.43
23:BA:11:G:H2'	23:BA:12:U:C5'	2.48	0.43
21:CU:18:TYR:HD2	21:CU:22:ARG:HD2	1.82	0.43
23:DA:184:C:H2'	23:DA:185:U:C6	2.53	0.43
39:DV:95:LEU:HD13	39:DV:97:LYS:HD3	2.00	0.43
23:BA:784:A:C5	25:BD:229:VAL:HG21	2.53	0.43
23:DA:866:A:C6	23:DA:914:C:C5	3.06	0.43
15:AO:18:PHE:CD1	15:AO:18:PHE:C	2.91	0.43
1:AA:841:U:OP1	1:AA:841:U:H6	2.01	0.43
27:BF:129:PHE:CD2	27:BF:163:VAL:HG21	2.53	0.43
23:BA:601:C:O2	23:BA:605:C:H4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.99	0.43
34:DQ:34:LEU:HD11	34:DQ:129:THR:HB	2.00	0.43
1:AA:580:U:H2'	1:AA:581:G:O4'	2.19	0.43
23:BA:637:A:OP1	33:BP:133:SER:OG	2.30	0.43
23:BA:2406:U:OP1	56:BA:4767:HOH:O	2.21	0.43
6:CF:99:ALA:HB3	18:CR:29:PHE:CE1	2.53	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
43:DZ:111:VAL:C	43:DZ:113:ALA:H	2.22	0.43
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.84	0.43
1:AA:1530:G:H4'	1:AA:1530:G:OP1	2.18	0.43
1:AA:708:C:H2'	1:AA:709:G:H8	1.84	0.43
23:DA:1598:C:H5'	41:DX:36:LYS:HB2	2.00	0.43
23:DA:2287:A:O2'	23:DA:2288:A:H3'	2.19	0.43
23:DA:1803:A:H4'	25:DD:259:THR:CG2	2.48	0.43
1:CA:1106:G:C6	1:CA:1107:C:C4	3.06	0.43
23:DA:2317:C:N4	23:DA:2318:G:O6	2.51	0.43
4:CD:22:LYS:O	4:CD:113:SER:HB3	2.18	0.43
1:CA:1347:G:HO2'	1:CA:1373:G:H1	1.65	0.43
23:BA:1485:G:O2'	23:BA:1486:A:H5'	2.17	0.43
23:DA:1405:U:H2'	23:DA:1406:U:H6	1.82	0.43
23:DA:574:C:O2	26:DE:145:LYS:NZ	2.51	0.43
23:DA:2464:C:O2'	23:DA:2465:C:P	2.76	0.43
23:DA:1478:G:O2'	23:DA:1558:A:N1	2.52	0.43
26:BE:101:ARG:CZ	26:BE:171:GLU:HB2	2.48	0.43
1:CA:10:A:OP2	5:CE:126:ARG:HD2	2.17	0.43
1:CA:832:C:O2'	1:CA:833:U:P	2.77	0.43
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB2	1.99	0.43
1:AA:174:C:H2'	1:AA:175:C:C6	2.53	0.43
1:CA:622:A:C8	1:CA:623:C:C5	3.06	0.43
32:BO:70:LYS:HE2	32:BO:70:LYS:HB3	1.72	0.43
29:DH:164:TYR:HB2	29:DH:167:GLU:HB2	1.99	0.43
1:AA:22:G:H4'	1:AA:885:G:C8	2.54	0.43
35:DR:33:ARG:NH1	35:DR:115:GLU:OE2	2.43	0.43
13:CM:86:CYS:SG	19:CS:73:GLU:HB3	2.59	0.43
41:BX:26:TYR:CE1	41:BX:89:ILE:HG13	2.53	0.43
5:AE:59:GLY:O	5:AE:62:ALA:HB3	2.17	0.43
1:AA:199:G:O2'	1:AA:200:G:H5'	2.18	0.43
23:BA:297:C:H2'	23:BA:298:G:O4'	2.17	0.43
23:DA:2679:A:H4'	26:DE:165:VAL:HG11	2.01	0.43
23:DA:1652:A:C2'	23:DA:1653:G:H5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:69:ARG:HG3	29:DH:70:THR:N	2.34	0.43
43:DZ:35:ARG:HD2	43:DZ:35:ARG:HA	1.71	0.43
1:CA:455:C:H6	1:CA:455:C:O5'	2.02	0.43
1:AA:1349:A:C2	1:AA:1374:A:C4	3.06	0.43
23:DA:829:A:N7	23:DA:2248:C:H5'	2.34	0.43
20:AT:18:GLN:O	20:AT:22:ARG:HG3	2.18	0.43
23:DA:1701:A:H5"	23:DA:1702:G:OP2	2.18	0.43
14:CN:23:ARG:HD2	14:CN:28:GLY:C	2.38	0.43
30:DI:72:LEU:HD23	30:DI:107:VAL:HG11	2.01	0.43
1:CA:991:U:O2'	1:CA:992:U:O5'	2.34	0.43
1:CA:17:U:O2'	1:CA:1079:G:H1'	2.18	0.43
29:DH:54:ARG:HD3	29:DH:65:HIS:ND1	2.34	0.43
23:BA:1796:U:H2'	23:BA:1797:C:H6	1.79	0.43
1:CA:96:U:O2'	1:CA:97:G:P	2.77	0.43
1:CA:1446:U:O2'	1:CA:1447:A:H3'	2.18	0.43
30:DI:25:TYR:HE2	30:DI:29:TYR:CD2	2.37	0.43
23:BA:708:C:H6	23:BA:708:C:H5"	1.83	0.43
33:DP:70:GLN:O	33:DP:73:GLY:N	2.42	0.43
7:AG:126:ASP:HB3	7:AG:131:LYS:O	2.19	0.43
29:BH:17:VAL:HG21	29:BH:50:VAL:HG21	1.99	0.43
1:AA:7:G:H5'	1:AA:298:A:O4'	2.18	0.43
1:CA:260:G:H2'	1:CA:261:U:C6	2.53	0.43
1:AA:958:A:C6	1:AA:959:A:C6	3.06	0.43
29:DH:64:LEU:O	29:DH:68:THR:OG1	2.32	0.43
19:CS:62:ILE:HA	19:CS:66:MET:SD	2.58	0.43
23:BA:229:A:H3'	23:BA:229:A:C8	2.54	0.43
12:CL:54:LYS:HD2	12:CL:54:LYS:N	2.34	0.43
1:AA:203:U:H2'	1:AA:203:U:OP2	2.19	0.43
23:DA:1858:G:H1'	23:DA:1884:A:N6	2.33	0.43
1:CA:1073:U:OP1	5:CE:57:LYS:HE3	2.19	0.43
23:DA:2169:A:H2'	23:DA:2170:A:C8	2.53	0.43
36:DS:10:ARG:O	36:DS:14:VAL:HG13	2.19	0.43
7:CG:111:ARG:NH1	7:CG:113:GLU:OE2	2.46	0.43
23:BA:2153:G:H2'	23:BA:2154:G:C8	2.53	0.43
1:AA:1285:A:O5'	1:AA:1285:A:H8	2.02	0.43
23:BA:2207:G:HO2'	23:BA:2208:A:P	2.33	0.43
10:CJ:36:GLY:O	10:CJ:38:ILE:N	2.51	0.43
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.49	0.43
1:AA:101:A:O2'	1:AA:102:G:H5'	2.19	0.43
23:BA:2464:C:O2'	23:BA:2465:C:P	2.76	0.43
28:BG:82:LEU:HB3	28:BG:83:ARG:H	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DB:41:U:H5"	56:DB:319:HOH:O	2.17	0.43
23:BA:2125:G:H21	23:BA:2126:A:H62	1.66	0.43
7:CG:72:ARG:HG2	7:CG:72:ARG:H	1.58	0.43
1:AA:1158:C:C4	1:AA:1160:G:C5	3.06	0.43
3:CC:180:ALA:HB1	3:CC:203:PHE:CE1	2.53	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:509:A:H5'	4:CD:54:TYR:CD2	2.53	0.43
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.34	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
13:AM:3:ARG:HG3	13:AM:4:ILE:HB	2.00	0.43
1:AA:659:U:C2'	1:AA:660:G:H5'	2.48	0.43
23:DA:1638:C:H4'	23:DA:2710:C:O2	2.19	0.43
3:CC:164:ARG:HE	3:CC:164:ARG:HB3	1.51	0.43
1:CA:1339:A:H8	1:CA:1339:A:O5'	2.02	0.43
1:AA:926:G:C6	22:AY:87:LYS:HG3	2.54	0.43
38:DU:59:ARG:HH11	38:DU:59:ARG:CB	2.32	0.43
24:DB:13:A:H2'	24:DB:70:C:O2'	2.17	0.43
23:BA:637:A:H8	33:BP:117:GLU:HG3	1.84	0.43
31:BN:42:TRP:HD1	31:BN:48:MET:HE1	1.84	0.43
23:DA:1536:C:O2'	23:DA:1537:G:P	2.77	0.43
40:BW:12:ILE:HD13	40:BW:17:VAL:HG13	2.01	0.43
1:AA:1041:A:H2'	1:AA:1042:G:O4'	2.19	0.43
23:DA:918:A:H5"	24:DB:98:G:O2'	2.19	0.43
40:DW:12:ILE:HD13	40:DW:17:VAL:HG13	2.00	0.43
28:DG:121:ASN:HA	28:DG:122:PRO:HD3	1.80	0.43
23:DA:2772:C:H2'	23:DA:2773:C:C6	2.53	0.43
23:DA:2591:C:H2'	23:DA:2592:G:C8	2.54	0.43
23:DA:247:G:H4'	23:DA:386:G:C5	2.54	0.43
47:B3:18:ASP:N	47:B3:18:ASP:OD1	2.44	0.43
43:DZ:134:PRO:HB2	43:DZ:136:PHE:O	2.19	0.43
23:DA:1224:C:O2'	39:DV:85:LYS:HA	2.18	0.43
23:DA:2295:C:H5	36:DS:13:ARG:NH2	2.16	0.43
7:CG:113:GLU:HG3	7:CG:118:VAL:HG12	2.00	0.43
23:BA:2123:G:N2	23:BA:2175:C:N3	2.60	0.43
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.53	0.43
23:DA:323:G:C8	27:DF:171:PRO:HG3	2.53	0.43
1:CA:954:G:C6	1:CA:955:U:C4	3.07	0.43
1:CA:580:U:H2'	1:CA:581:G:O4'	2.19	0.43
23:BA:2316:C:H2'	23:BA:2317:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2318:G:O2'	23:BA:2319:G:P	2.77	0.43
25:BD:238:GLY:O	25:BD:239:ARG:CB	2.59	0.43
1:AA:696:A:H1'	1:AA:786:G:O2'	2.19	0.43
1:CA:790:A:H61	1:CA:1498:U:P	2.42	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
23:DA:2611:U:P	23:DA:2611:U:H3'	2.58	0.43
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.87	0.43
23:DA:271(Q):G:O2'	23:DA:271(R):G:P	2.76	0.43
1:CA:509:A:O4'	4:CD:58:LEU:HD12	2.18	0.43
1:AA:984:C:H2'	1:AA:985:C:H6	1.83	0.43
23:DA:1581:G:H5"	23:DA:1581:G:H8	1.84	0.43
23:BA:1823:G:OP1	25:BD:54:ARG:NH1	2.51	0.43
23:DA:2331:G:O2'	44:D0:43:THR:HG22	2.19	0.43
1:AA:738:C:H2'	1:AA:739:C:C6	2.53	0.43
23:BA:1816:G:O6	25:BD:35:LYS:NZ	2.36	0.43
26:DE:14:ILE:HD11	26:DE:173:VAL:HG11	2.00	0.43
23:BA:708:C:H5'	23:BA:709:U:OP2	2.18	0.43
23:BA:2793:G:N2	23:BA:2804:C:H1'	2.33	0.43
30:BI:86:THR:O	30:BI:87:LYS:HB2	2.19	0.43
33:BP:133:SER:O	33:BP:137:LYS:HG3	2.19	0.43
23:DA:1188:U:H4'	39:DV:79:VAL:HG22	1.99	0.43
23:DA:751:A:H5'	40:DW:90:ARG:HA	2.01	0.43
24:BB:33:G:C2	24:BB:50:G:C2	3.06	0.43
37:BT:33:LYS:HG2	37:BT:34:VAL:N	2.33	0.43
23:BA:1744:C:O2'	23:BA:1745:C:H5'	2.18	0.43
23:BA:746:A:H2'	23:BA:2612:C:H5"	2.00	0.43
26:DE:1:MET:O	26:DE:84:PHE:HB2	2.18	0.43
1:CA:7:G:H5'	1:CA:298:A:O4'	2.18	0.43
35:DR:75:LEU:O	35:DR:75:LEU:HD22	2.18	0.43
31:BN:109:LYS:N	31:BN:109:LYS:HD2	2.33	0.43
2:CB:98:LEU:HA	2:CB:98:LEU:HD23	1.76	0.43
1:AA:516:U:C4	1:AA:517:G:C6	3.06	0.43
35:DR:81:ASP:O	35:DR:85:PRO:HG2	2.19	0.43
1:CA:1375:A:H4'	7:CG:29:LYS:NZ	2.34	0.43
4:AD:149:ALA:O	4:AD:152:SER:OG	2.19	0.43
25:DD:92:ILE:HD12	25:DD:104:TYR:CD2	2.54	0.43
28:BG:6:ALA:HB3	28:BG:104:GLU:OE1	2.19	0.43
23:DA:886:C:H6	56:DA:5037:HOH:O	2.02	0.43
1:AA:1442(A):G:O2'	1:AA:1442(B):A:H2'	2.18	0.43
1:AA:1353:G:C2	1:AA:1370:G:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:36:ARG:O	2:AB:39:ILE:N	2.51	0.43
40:BW:14:PRO:HG2	40:BW:78:GLU:CG	2.44	0.43
1:AA:992:U:O4	1:AA:1044:A:N7	2.52	0.43
1:CA:968:A:C8	1:CA:1062:U:H4'	2.54	0.43
1:CA:1002:G:H2'	1:CA:1003:G:O4'	2.18	0.43
23:DA:2165:G:H2'	23:DA:2166:G:C8	2.54	0.43
35:BR:2:ARG:NH1	35:BR:5:LYS:O	2.48	0.43
43:BZ:31:ARG:H	43:BZ:31:ARG:HG3	1.36	0.43
1:CA:1287:A:C6	1:CA:1288:A:C6	3.07	0.43
23:DA:832:G:OP1	33:DP:38:GLN:O	2.36	0.43
1:CA:1088:G:C5	1:CA:1089:G:N7	2.87	0.43
8:AH:119:LEU:HB3	8:AH:123:GLU:HB2	2.01	0.43
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.81	0.43
27:DF:129:PHE:HB2	27:DF:132:VAL:CG2	2.49	0.43
23:BA:2364:C:H2'	23:BA:2365:G:O4'	2.18	0.43
4:CD:18:LYS:HZ2	4:CD:31:CYS:HB3	1.83	0.43
23:BA:792:G:H5"	23:BA:793:A:H5'	1.99	0.43
1:CA:604:G:C2	1:CA:635:G:C4	3.07	0.43
23:DA:978:G:C2	23:DA:986:C:C2	3.06	0.43
1:CA:1104:G:C6	1:CA:1105:A:C5	3.07	0.43
36:BS:27:SER:HA	36:BS:88:ASP:HB3	2.01	0.43
23:BA:476:G:H4'	23:BA:502:A:N1	2.34	0.43
23:DA:735:A:H3'	23:DA:736:C:C6	2.54	0.43
43:DZ:85:HIS:HE1	43:DZ:87:ASP:OD2	2.01	0.43
1:AA:1001:A:O5'	1:AA:1001:A:H8	2.02	0.43
23:BA:2238:G:H2'	23:BA:2238:G:N3	2.32	0.43
6:AF:36:ARG:CB	6:AF:36:ARG:HH11	2.31	0.43
23:DA:2061:G:H5"	23:DA:2503:A:C2	2.53	0.43
23:DA:746:A:H2'	23:DA:2612:C:H5"	2.00	0.43
23:DA:315:G:H2'	23:DA:316:C:C6	2.54	0.43
23:DA:1700:A:H2'	23:DA:1701:A:O5'	2.19	0.43
1:AA:1285:A:H4'	1:AA:1286:A:C5'	2.49	0.43
1:AA:955:U:O2'	19:AS:83:HIS:CD2	2.72	0.43
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.34	0.43
31:DN:56:ASN:N	31:DN:125:GLY:HA3	2.28	0.43
36:BS:3:ARG:HG3	36:BS:4:LEU:N	2.27	0.43
1:AA:1309:G:OP2	13:AM:99:ARG:NH2	2.44	0.43
1:CA:436:C:O2'	1:CA:437:U:P	2.76	0.43
1:AA:923:A:H2'	1:AA:924:C:O4'	2.18	0.43
13:CM:66:LEU:HD23	13:CM:66:LEU:N	2.34	0.43
1:CA:1492:A:OP1	12:CL:47:LYS:HE3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:2103:C:O2	23:DA:2187:G:C2	2.72	0.43
23:BA:1557:C:H5"	23:BA:1558:A:OP2	2.19	0.43
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.53	0.43
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.34	0.43
3:CC:24:ALA:HB3	3:CC:29:TYR:HB2	1.99	0.43
50:B6:35:GLU:OE2	50:B6:50:ARG:HD3	2.19	0.43
23:DA:1539:G:H2'	23:DA:1540:U:O4'	2.19	0.43
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HD12	2.00	0.43
24:DB:31:C:O2'	24:DB:53:A:N6	2.52	0.43
1:AA:815:A:N7	1:AA:1509:C:O2'	2.30	0.43
23:DA:208:C:H2'	23:DA:209:C:C6	2.54	0.43
23:DA:2689:U:H4'	23:DA:2690:C:H5'	2.01	0.43
2:CB:56:ARG:O	2:CB:60:ASP:HB2	2.19	0.43
1:CA:516:U:C5	1:CA:517:G:C6	3.06	0.43
1:CA:397:A:N3	1:CA:397:A:H3'	2.33	0.43
33:DP:1:MET:CE	33:DP:5:ASP:HB2	2.49	0.43
45:D1:94:LEU:O	45:D1:97:LEU:HB2	2.19	0.43
20:AT:55:ILE:O	20:AT:58:LYS:N	2.52	0.43
23:BA:455:C:N3	23:BA:473:G:H5'	2.34	0.43
1:AA:523:A:H61	12:AL:53:ARG:NH1	2.17	0.43
1:AA:224:C:H2'	1:AA:225:C:C6	2.53	0.43
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.18	0.43
23:BA:226:G:H21	23:BA:228:A:H62	1.67	0.43
23:DA:72:U:OP1	41:DX:1:MET:N	2.52	0.43
23:BA:1048:A:O2'	23:BA:1049:C:H5"	2.19	0.42
1:AA:68:G:C4'	1:AA:171:A:H1'	2.48	0.42
28:DG:16:ARG:HE	28:DG:31:VAL:CG2	2.31	0.42
23:BA:1003:G:N2	23:BA:1153:C:C2	2.87	0.42
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.40	0.42
1:AA:1492:A:C8	23:BA:1913:A:C2	3.07	0.42
1:CA:584:G:H5'	17:CQ:91:ARG:NH2	2.32	0.42
1:CA:1084:G:C6	1:CA:1085:U:C4	3.07	0.42
25:DD:72:LYS:HG3	25:DD:103:ARG:NH2	2.34	0.42
25:BD:8:PRO:CB	25:BD:14:ARG:HB2	2.47	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
1:CA:1516:G:N1	1:CA:1519:A:OP2	2.52	0.42
23:DA:1794:U:H2'	23:DA:1795:C:H6	1.83	0.42
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.19	0.42
37:DT:51:ARG:HG3	37:DT:98:LYS:CE	2.49	0.42
23:BA:1651:G:OP1	35:BR:40:LYS:HE3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:1140:C:O3'	31:BN:25:ARG:NH1	2.52	0.42
1:AA:1151:A:O2'	1:AA:1152:A:H8	2.02	0.42
35:DR:29:LEU:HD23	35:DR:70:LEU:HD11	2.01	0.42
46:D2:53:LEU:HA	46:D2:53:LEU:HD23	1.90	0.42
39:BV:60:GLU:HB2	39:BV:97:LYS:HE2	2.01	0.42
23:BA:1843:C:H5'	25:BD:253:GLN:NE2	2.33	0.42
11:CK:20:TYR:HB2	11:CK:31:THR:HG23	2.01	0.42
1:AA:438:G:O2'	1:AA:494:U:O4	2.29	0.42
38:BU:105:VAL:O	38:BU:108:GLU:HB2	2.18	0.42
43:DZ:70:LEU:O	43:DZ:89:PHE:N	2.43	0.42
27:BF:33:LEU:HD12	27:BF:33:LEU:HA	1.81	0.42
15:AO:85:LEU:HA	15:AO:85:LEU:HD23	1.86	0.42
28:BG:66:GLN:HE21	28:BG:66:GLN:HB3	1.64	0.42
35:BR:59:ASP:OD2	35:BR:59:ASP:N	2.48	0.42
2:AB:215:LEU:HD23	2:AB:215:LEU:HA	1.73	0.42
23:BA:2430:A:N3	23:BA:2430:A:H2'	2.34	0.42
23:DA:583:G:OP2	38:DU:10:ARG:HD2	2.19	0.42
23:BA:1987:G:H2'	23:BA:1988:C:H6	1.84	0.42
23:BA:2552:U:C2	23:BA:2554:U:H5'	2.54	0.42
23:DA:667:U:O2	52:D8:2:PRO:HD2	2.19	0.42
23:DA:1482:G:O6	23:DA:1507:A:N6	2.52	0.42
14:CN:40:CYS:SG	14:CN:43:CYS:HB2	2.58	0.42
23:BA:1176:G:H1'	23:BA:1177:A:P	2.60	0.42
1:CA:1349:A:C2'	1:CA:1350:A:H8	2.28	0.42
1:CA:983:A:H1'	1:CA:1049:U:O2	2.18	0.42
23:DA:2171:A:H1'	23:DA:2172:U:C6	2.54	0.42
1:AA:1063:C:H3'	1:AA:1064:G:H2'	2.01	0.42
23:DA:92:A:H2'	23:DA:93:G:O4'	2.19	0.42
9:CI:43:ALA:HA	9:CI:74:ILE:HG21	1.99	0.42
36:DS:102:ALA:HA	36:DS:105:ALA:CB	2.48	0.42
1:CA:1147:C:H2'	9:CI:16:ARG:HH12	1.84	0.42
29:DH:3:ARG:HG2	29:DH:6:ARG:HG2	2.00	0.42
33:DP:38:GLN:O	33:DP:39:LYS:HB3	2.20	0.42
13:CM:69:GLU:O	13:CM:71:ARG:N	2.47	0.42
23:BA:963:U:OP2	56:BA:5120:HOH:O	2.20	0.42
1:AA:1300:G:C6	1:AA:1334:G:C5	3.07	0.42
30:DI:44:LEU:HA	30:DI:44:LEU:HD12	1.68	0.42
1:AA:228:A:H5'	16:AP:62:VAL:HG22	2.00	0.42
40:BW:37:ARG:HD3	40:BW:38:TYR:CE2	2.54	0.42
10:AJ:8:LEU:HA	10:AJ:95:GLU:O	2.18	0.42
1:AA:1124:G:H5'	10:AJ:35:SER:OG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:559:A:H4'	1:CA:560:U:H3'	2.01	0.42
23:DA:1999:C:H4'	23:DA:2723:C:O2	2.20	0.42
23:DA:873:G:N2	23:DA:905:U:O2	2.52	0.42
28:DG:68:PRO:HB2	28:DG:90:LEU:HB3	2.01	0.42
8:AH:21:LYS:O	8:AH:63:LEU:HD23	2.19	0.42
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.20	0.42
17:AQ:57:VAL:HA	17:AQ:77:VAL:HG23	2.00	0.42
23:DA:2405:G:OP1	33:DP:77:ARG:NH2	2.52	0.42
3:AC:16:ARG:HH12	3:AC:183:ASP:HA	1.84	0.42
30:DI:25:TYR:CE2	30:DI:29:TYR:CD2	3.07	0.42
23:DA:708:C:C6	23:DA:708:C:H5"	2.54	0.42
23:DA:947:G:N2	23:DA:971:C:C2	2.87	0.42
23:BA:751:A:H5'	40:BW:90:ARG:HA	2.00	0.42
42:DY:5:MET:HG2	42:DY:30:VAL:HG11	2.01	0.42
23:BA:2693:A:H2'	23:BA:2694:G:H8	1.85	0.42
2:AB:50:GLU:OE1	2:AB:200:ILE:HG12	2.19	0.42
28:DG:114:ILE:HB	28:DG:117:PHE:HB2	2.02	0.42
23:DA:602:G:O2'	23:DA:655:A:N6	2.52	0.42
35:DR:59:ASP:N	35:DR:59:ASP:OD2	2.50	0.42
35:BR:12:ARG:HG2	35:BR:16:HIS:ND1	2.33	0.42
33:DP:133:SER:O	33:DP:137:LYS:HG3	2.19	0.42
1:AA:358:U:H2'	1:AA:359:U:C6	2.53	0.42
1:CA:1138:G:O2'	1:CA:1140:C:OP1	2.30	0.42
15:AO:74:ASP:HA	15:AO:75:PRO:HD2	1.84	0.42
33:BP:1:MET:HE2	33:BP:5:ASP:HB2	2.01	0.42
1:AA:1375:A:C6	1:AA:1376:U:C4	3.07	0.42
23:DA:1688:U:H5'	23:DA:1689:A:OP1	2.19	0.42
1:CA:1304:G:C6	1:CA:1305:G:N1	2.87	0.42
23:DA:2070:G:C2	23:DA:2442:C:C2	3.07	0.42
24:DB:33:G:C2	24:DB:50:G:C2	3.08	0.42
42:DY:15:VAL:HG21	42:DY:42:VAL:HG11	2.01	0.42
23:DA:2318:G:O2'	23:DA:2319:G:H5"	2.19	0.42
35:DR:2:ARG:NH1	35:DR:5:LYS:O	2.45	0.42
1:CA:1456:G:HO2'	20:CT:39:LYS:NZ	2.15	0.42
23:DA:2104:G:H2'	23:DA:2104:G:N3	2.34	0.42
46:D2:50:ILE:O	46:D2:51:ARG:HB3	2.19	0.42
13:CM:48:LEU:O	13:CM:53:VAL:HG23	2.19	0.42
1:CA:751:U:H4'	15:CO:24:SER:HB2	2.01	0.42
23:BA:139(A):G:H22	41:BX:44:GLU:CD	2.22	0.42
23:DA:572:A:H5"	23:DA:573:G:OP2	2.19	0.42
1:AA:1400:C:O3'	22:AY:80:LYS:HD3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DF:11:VAL:HB	27:DF:18:ARG:HB3	2.01	0.42
9:CI:67:GLY:O	9:CI:73:GLN:NE2	2.37	0.42
23:BA:2784:C:H1'	26:BE:37:ARG:NH1	2.34	0.42
31:DN:48:MET:H	31:DN:48:MET:HG3	1.75	0.42
25:BD:68:LYS:O	25:BD:69:ARG:HB2	2.19	0.42
1:AA:1080:A:H5"	5:AE:16:THR:HG21	2.02	0.42
1:CA:617:G:H4'	16:CP:44:THR:O	2.18	0.42
23:DA:478:A:N6	23:DA:502:A:H62	2.16	0.42
1:CA:174:C:H2'	1:CA:175:C:C6	2.54	0.42
15:CO:18:PHE:C	15:CO:18:PHE:CD1	2.92	0.42
23:DA:525:U:H5'	23:DA:556:G:OP1	2.19	0.42
27:BF:104:LYS:O	27:BF:108:LYS:HB2	2.18	0.42
25:DD:77:ALA:HB2	25:DD:97:TYR:CD2	2.54	0.42
23:DA:615:G:OP1	27:DF:40:GLN:NE2	2.52	0.42
23:BA:2300:G:C6	23:BA:2301:C:C4	3.07	0.42
23:BA:1321:A:H2'	23:BA:1322:A:O4'	2.19	0.42
23:BA:305:U:H2'	23:BA:306:U:C6	2.54	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
3:CC:66:VAL:O	3:CC:68:VAL:HG23	2.19	0.42
1:AA:321:A:C2	1:AA:333:G:C2	3.07	0.42
1:CA:979:C:H42	14:CN:18:VAL:HB	1.85	0.42
25:BD:80:ALA:HB3	25:BD:94:LEU:HD13	2.02	0.42
1:CA:538:G:P	12:CL:115:LYS:H	2.41	0.42
23:BA:1531:C:N4	23:BA:1538:G:H1	2.15	0.42
23:BA:587:C:P	33:BP:21:ARG:HH22	2.39	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:AA:102:G:H2'	1:AA:103:C:C6	2.55	0.42
23:BA:2173:A:C3'	23:BA:2174:C:H5'	2.49	0.42
20:AT:72:LEU:HD23	20:AT:73:HIS:N	2.34	0.42
23:BA:652(S):C:H3'	23:BA:652(T):C:C6	2.55	0.42
23:BA:2104:G:N3	23:BA:2104:G:H2'	2.34	0.42
1:AA:1346:A:C8	1:AA:1348:U:C2	3.08	0.42
36:BS:102:ALA:HA	36:BS:105:ALA:CB	2.49	0.42
43:DZ:54:HIS:CG	43:DZ:101:PRO:HG3	2.54	0.42
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.54	0.42
23:DA:2833:G:O2'	23:DA:2834:G:P	2.77	0.42
1:CA:1274:G:H21	1:CA:1275:A:H62	1.67	0.42
1:CA:1458:G:H5"	20:CT:31:SER:CB	2.50	0.42
9:AI:27:THR:HG23	9:AI:31:GLN:N	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.85	0.42
48:B4:15:ILE:HB	48:B4:32:TYR:CD2	2.54	0.42
23:DA:1289:C:H2'	23:DA:1290:C:C6	2.54	0.42
32:DO:102:VAL:HB	32:DO:106:LEU:HD12	2.01	0.42
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.83	0.42
33:BP:1:MET:CE	33:BP:5:ASP:HB2	2.49	0.42
17:AQ:44:ALA:HA	17:AQ:71:PHE:O	2.20	0.42
23:DA:2005:A:OP1	56:DA:3823:HOH:O	2.22	0.42
23:DA:1666:G:O2'	23:DA:1667:G:H5'	2.20	0.42
23:DA:2492:U:H2'	23:DA:2493:U:H6	1.84	0.42
4:CD:176:LEU:HD12	4:CD:177:ASP:H	1.85	0.42
23:BA:323:G:C8	27:BF:171:PRO:HG3	2.54	0.42
1:CA:982:U:OP1	1:CA:982:U:H6	2.02	0.42
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.19	0.42
23:BA:717:G:H2'	23:BA:718:A:O4'	2.19	0.42
3:CC:139:GLN:HG3	3:CC:143:GLU:OE1	2.20	0.42
23:BA:1507:A:O2'	23:BA:1508:A:C8	2.70	0.42
28:DG:82:LEU:HB3	28:DG:83:ARG:H	1.63	0.42
1:AA:1007:C:N3	1:AA:1022:G:C6	2.86	0.42
1:CA:1456:G:N1	20:CT:51:GLU:OE1	2.51	0.42
1:AA:1158:C:C4	1:AA:1160:G:C4	3.08	0.42
1:CA:1097:C:H1'	1:CA:1169:A:C2	2.54	0.42
1:CA:428:G:HO2'	1:CA:429:U:P	2.42	0.42
23:BA:271(P):C:OP1	30:BI:45:LYS:HD3	2.19	0.42
23:DA:1406:U:H2'	23:DA:1407:C:H6	1.84	0.42
27:DF:195:ASP:HB3	27:DF:197:ASP:H	1.85	0.42
26:DE:144:ARG:HB3	26:DE:145:LYS:H	1.51	0.42
15:CO:9:GLN:HA	15:CO:12:ILE:HD12	2.01	0.42
23:DA:645:C:O2	23:DA:645:C:H2'	2.18	0.42
23:DA:2536:G:C6	23:DA:2537:U:C4	3.07	0.42
51:B7:30:VAL:O	51:B7:34:ARG:HG3	2.18	0.42
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
1:AA:1170:A:C8	1:AA:1171:G:C8	3.08	0.42
50:B6:11:LEU:HB2	50:B6:21:TYR:HB2	2.00	0.42
23:DA:479:A:N3	23:DA:481:G:H5"	2.34	0.42
28:BG:146:TYR:O	28:BG:149:VAL:HG12	2.19	0.42
29:BH:11:VAL:HG21	29:BH:50:VAL:HG23	2.01	0.42
23:DA:582:G:H2'	23:DA:583:G:C8	2.54	0.42
6:AF:91:VAL:HG12	6:AF:92:LYS:O	2.20	0.42
40:BW:88:ARG:HG3	40:BW:92:ARG:HH21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:581:C:OP1	38:DU:33:ARG:HG3	2.20	0.42
28:BG:173:LEU:O	28:BG:178:PHE:HB2	2.20	0.42
4:CD:159:ARG:O	4:CD:163:GLU:N	2.51	0.42
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	2.01	0.42
23:BA:1639:U:H4'	23:BA:2699:C:H4'	2.01	0.42
24:DB:17:C:H2'	24:DB:18:G:O4'	2.19	0.42
23:BA:64:A:O3'	41:BX:71:GLY:HA3	2.20	0.42
23:BA:1027:A:C6	23:BA:1126:A:C4	3.07	0.42
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.54	0.42
35:BR:56:LYS:NZ	35:BR:90:ARG:O	2.52	0.42
1:CA:1332:A:O5'	1:CA:1332:A:H8	2.02	0.42
50:B6:44:ARG:HH11	50:B6:44:ARG:HB3	1.84	0.42
46:B2:65:ASN:OD1	46:B2:69:ARG:NH1	2.51	0.42
52:D8:54:GLU:O	52:D8:58:ILE:HG13	2.19	0.42
7:CG:13:GLN:HA	7:CG:14:PRO:HD3	1.86	0.42
16:CP:14:ASN:OD1	16:CP:16:HIS:CE1	2.72	0.42
23:BA:253:C:OP2	52:B8:5:LYS:NZ	2.40	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
23:DA:2312:U:H5'	28:DG:88:ILE:CD1	2.50	0.42
23:DA:2206:G:H3'	23:DA:2207:G:H8	1.78	0.42
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	2.01	0.42
1:CA:974:A:H8	1:CA:974:A:OP1	2.02	0.42
28:DG:11:TYR:OH	28:DG:33:ARG:HG3	2.19	0.42
23:BA:1179:C:O2'	23:BA:1180:C:H5'	2.19	0.42
45:D1:3:LYS:HB3	45:D1:4:VAL:H	1.49	0.42
23:DA:2173:A:C3'	23:DA:2174:C:H5'	2.49	0.42
28:BG:43:LEU:HD12	28:BG:43:LEU:HA	1.83	0.42
1:CA:435:C:H42	1:CA:436:C:H41	1.67	0.42
1:AA:1492:A:OP1	12:AL:47:LYS:HE3	2.19	0.42
1:CA:990:C:O2	1:CA:1215:G:N1	2.37	0.42
52:D8:39:LYS:HA	52:D8:42:ARG:NH1	2.35	0.42
1:CA:1112:C:O2	3:CC:179:ARG:HG2	2.18	0.42
19:AS:12:ASP:OD1	19:AS:37:ARG:HD3	2.19	0.42
1:AA:600:C:H2'	1:AA:601:C:H6	1.81	0.42
23:BA:1405:U:H2'	23:BA:1406:U:H6	1.85	0.42
2:CB:41:ILE:HD13	2:CB:41:ILE:HA	1.91	0.42
2:CB:12:GLU:O	2:CB:16:HIS:HB2	2.20	0.42
1:AA:373:A:N3	1:AA:374:A:C8	2.88	0.42
23:BA:234:C:H2'	23:BA:235:U:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.53	0.42
40:BW:66:GLU:HA	40:BW:69:LEU:CD1	2.50	0.42
2:AB:42:ILE:HD13	2:AB:203:GLY:HA2	2.02	0.42
1:AA:520:A:N1	1:AA:536:C:H1'	2.35	0.42
23:DA:2547:U:O2	32:DO:23:ARG:NH2	2.52	0.42
23:BA:1858:G:H8	23:BA:1858:G:OP2	2.03	0.42
24:BB:42:C:O2	28:BG:93:THR:N	2.45	0.42
23:BA:484:C:H2'	23:BA:485:C:H6	1.84	0.42
23:BA:1247:A:OP1	27:BF:95:ARG:NH2	2.48	0.42
1:AA:1349:A:C2	1:AA:1374:A:C5	3.08	0.42
40:DW:1:MET:HE2	40:DW:2:GLU:H	1.83	0.42
1:CA:527:G:O2'	1:CA:535:A:N1	2.40	0.42
1:CA:1429:C:O2'	23:DA:1704:G:H5'	2.20	0.42
1:CA:728:A:N1	1:CA:729:A:C6	2.88	0.42
22:CY:58:ASN:HB2	22:CY:88:LEU:HD22	2.00	0.42
28:BG:161:THR:HG22	28:BG:163:ALA:H	1.84	0.42
23:DA:590:A:H2'	23:DA:591:C:O4'	2.19	0.42
20:AT:92:LEU:O	20:AT:96:GLY:HA2	2.19	0.42
43:BZ:5:LEU:O	43:BZ:59:LEU:HA	2.20	0.42
5:CE:41:VAL:HG23	5:CE:67:VAL:HG13	2.02	0.42
23:BA:1022:G:N7	31:BN:66:LYS:HE2	2.35	0.42
23:BA:2153:G:H2'	23:BA:2154:G:H8	1.84	0.42
1:AA:1118:C:H1'	1:AA:1179:A:C5	2.55	0.42
9:CI:27:THR:HG1	9:CI:28:VAL:H	1.66	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
23:DA:2375:G:C8	56:DA:5005:HOH:O	2.51	0.42
1:CA:1220:G:H1'	19:CS:52:TYR:CE2	2.54	0.42
1:CA:1065:U:H3	1:CA:1109:C:H5"	1.84	0.42
1:CA:953:G:C2	1:CA:954:G:H1'	2.55	0.42
23:BA:1496:A:H5"	23:BA:1497:U:OP1	2.20	0.42
23:DA:196:A:H62	33:DP:38:GLN:NE2	2.18	0.42
1:CA:474:G:H2'	1:CA:475:G:C8	2.55	0.42
1:AA:945:G:C2	1:AA:946:A:C8	3.08	0.42
23:DA:2224:G:H4'	23:DA:2226:C:C2	2.54	0.42
23:BA:2158:A:H1'	23:BA:2159:G:C8	2.54	0.42
9:AI:40:LEU:H	9:AI:40:LEU:HD23	1.84	0.42
30:BI:133:HIS:HA	30:BI:134:PRO:HD2	1.83	0.42
23:DA:311:A:C6	23:DA:328:U:C4	3.08	0.42
28:DG:73:ALA:O	28:DG:84:LYS:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
11:CK:99:GLN:HG2	11:CK:105:VAL:HG11	2.01	0.42
23:DA:438:G:H2'	23:DA:440:G:H8	1.84	0.42
1:CA:1314:C:H2'	1:CA:1315:U:H6	1.85	0.42
23:BA:2787:C:H1'	26:BE:62:PRO:HG3	2.02	0.42
19:AS:20:LEU:HD21	19:AS:43:GLU:CG	2.50	0.42
23:DA:1271:G:N2	23:DA:1617:C:O4'	2.53	0.42
3:CC:43:LEU:O	3:CC:47:LEU:HB2	2.19	0.42
12:AL:27:LEU:C	12:AL:29:GLY:H	2.23	0.42
23:DA:1514:U:H2'	23:DA:1515:G:H8	1.84	0.42
23:DA:2093:G:C6	23:DA:2225:A:C8	3.08	0.42
34:DQ:29:PHE:HB2	34:DQ:105:GLU:OE2	2.19	0.42
10:AJ:50:ILE:HA	10:AJ:60:ARG:HG2	2.02	0.42
28:BG:124:SER:HB2	28:BG:131:TYR:CE1	2.55	0.42
2:AB:9:GLU:O	2:AB:11:LEU:N	2.53	0.42
23:BA:54:G:O2'	51:B7:35:ARG:HD3	2.20	0.42
23:DA:2291:U:H2'	23:DA:2292:C:C6	2.54	0.42
23:DA:1651:G:OP1	35:DR:40:LYS:HE3	2.19	0.42
51:B7:47:ARG:HG3	51:B7:47:ARG:HH11	1.84	0.42
23:DA:862:G:H2'	23:DA:863:A:O4'	2.19	0.42
5:AE:95:ALA:HB1	5:AE:96:PRO:HD2	2.01	0.42
29:BH:46:GLU:OE1	29:BH:51:ARG:NH2	2.42	0.42
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.19	0.42
1:CA:573:A:P	56:CA:1921:HOH:O	2.72	0.42
23:BA:1529:G:O2'	23:BA:1530:C:H5'	2.20	0.42
36:DS:84:GLN:H	36:DS:84:GLN:HG2	1.48	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
23:BA:1482:G:O6	23:BA:1507:A:N6	2.53	0.42
25:DD:148:GLU:OE1	25:DD:151:LYS:NZ	2.43	0.42
23:DA:1253:A:C5	56:DA:4833:HOH:O	2.68	0.42
2:CB:35:GLU:HA	2:CB:39:ILE:O	2.20	0.42
23:DA:2172:U:H1'	23:DA:2173:A:OP1	2.20	0.42
1:CA:1492:A:H2'	1:CA:1492:A:N3	2.35	0.42
1:AA:97:G:O2'	1:AA:98:G:H5"	2.19	0.42
23:DA:75:G:H4'	46:D2:55:ARG:NH1	2.34	0.42
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	2.02	0.42
6:AF:22:GLU:OE2	6:AF:82:ARG:HG2	2.20	0.42
30:BI:27:ARG:HD2	45:B1:71:TYR:CZ	2.54	0.42
26:BE:144:ARG:HB3	26:BE:145:LYS:H	1.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:297:C:H2'	23:DA:298:G:O4'	2.19	0.42
23:BA:729:G:C5	25:BD:208:LYS:HB2	2.55	0.42
1:CA:500:G:H2'	1:CA:501:C:C6	2.55	0.42
1:CA:756:C:H2'	1:CA:757:U:O4'	2.20	0.42
30:DI:62:LYS:HE2	30:DI:133:HIS:NE2	2.35	0.42
23:DA:1000:A:C6	23:DA:1001:A:C6	3.08	0.42
43:BZ:93:ASP:HB2	43:BZ:131:ARG:NH2	2.34	0.42
6:AF:61:LEU:HB3	6:AF:63:TYR:CE2	2.54	0.42
1:CA:250:A:H4'	1:CA:251:G:O5'	2.19	0.42
23:BA:546:C:H6	23:BA:548:A:OP1	2.03	0.42
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.55	0.42
4:AD:22:LYS:HG3	4:AD:26:CYS:SG	2.59	0.42
38:DU:36:ARG:HD2	38:DU:40:PHE:CZ	2.55	0.42
19:CS:33:THR:HA	19:CS:34:TRP:CE3	2.55	0.42
7:CG:70:LYS:HA	7:CG:71:PRO:HD2	1.81	0.42
3:AC:54:ARG:HG2	3:AC:55:VAL:N	2.35	0.42
7:CG:81:GLY:O	7:CG:83:ALA:N	2.53	0.42
19:CS:58:VAL:HA	19:CS:59:PRO:HD3	1.69	0.42
23:DA:1190:G:O2'	23:DA:1191:G:H5'	2.20	0.42
23:BA:127:A:H5"	23:BA:128:C:C6	2.55	0.42
3:CC:40:ARG:O	3:CC:44:GLU:HB2	2.19	0.42
12:AL:124:LYS:HA	12:AL:125:PRO:HD3	1.92	0.42
1:CA:1490:C:H2'	1:CA:1491:G:O4'	2.19	0.42
13:CM:106:ASN:HB3	13:CM:107:ALA:H	1.38	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
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.50	0.42
1:CA:1442:G:O6	1:CA:1442(A):G:O6	2.38	0.42
1:CA:391:G:C6	1:CA:392:G:C5	3.08	0.42
23:DA:2849:U:H4'	23:DA:2868:A:C2	2.55	0.42
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.18	0.42
1:CA:1386:G:C2	1:CA:1387:G:N7	2.88	0.42
23:DA:2318:G:N3	23:DA:2318:G:H2'	2.33	0.42
28:BG:16:ARG:HE	28:BG:31:VAL:CG2	2.32	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:CH:123:GLU:O	8:CH:127:LEU:HB2	2.19	0.42
23:DA:1038:C:N4	23:DA:1117:G:H1	2.13	0.42
3:CC:92:ALA:HB1	3:CC:97:LYS:O	2.19	0.42
23:BA:1784:A:H4'	23:BA:1785:A:O5'	2.20	0.42
23:DA:2687:U:H2'	23:DA:2688:U:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DA:760:G:H2'	23:DA:761:A:O4'	2.20	0.42
1:CA:1272:G:H5'	1:CA:1273:G:OP2	2.19	0.42
26:BE:101:ARG:O	26:BE:201:THR:HG22	2.19	0.42
23:DA:2519:U:C6	23:DA:2542:A:N6	2.88	0.42
23:BA:1971:A:OP2	25:BD:242:ARG:NH2	2.53	0.42
27:DF:132:VAL:CG2	27:DF:163:VAL:HG22	2.50	0.42
45:B1:19:GLN:CB	45:B1:35:THR:HG22	2.50	0.42
1:CA:279:A:OP2	17:CQ:95:TYR:OH	2.31	0.42
23:BA:1858:G:H1'	23:BA:1884:A:H62	1.83	0.42
30:DI:29:TYR:C	30:DI:32:PRO:HD2	2.40	0.42
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HG3	2.00	0.42
5:CE:78:HIS:CD2	5:CE:142:LEU:HD23	2.55	0.42
23:BA:590:A:OP1	27:BF:95:ARG:NH1	2.53	0.42
23:DA:519:U:H2'	23:DA:520:G:C8	2.55	0.42
11:CK:22:HIS:HB3	11:CK:29:ILE:HB	2.02	0.42
8:AH:97:VAL:O	8:AH:100:ILE:HG13	2.20	0.42
33:DP:95:VAL:HG22	33:DP:125:VAL:HG12	2.02	0.42
30:BI:114:LEU:HD12	30:BI:115:ALA:H	1.85	0.42
25:BD:25:THR:HG21	25:BD:113:VAL:HG11	2.01	0.42
34:BQ:84:GLY:O	34:BQ:85:LYS:HB2	2.20	0.42
23:DA:1168:G:C2	23:DA:1182:A:C2	3.08	0.42
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.20	0.42
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.19	0.42
12:CL:110:VAL:HG23	12:CL:120:TYR:HB3	2.02	0.42
23:BA:1224:C:O2'	39:BV:85:LYS:HA	2.20	0.42
11:AK:27:ASN:OD1	11:AK:28:THR:N	2.47	0.42
27:DF:34:TRP:CE2	33:DP:8:PRO:HD3	2.55	0.42
23:DA:2153:G:H2'	23:DA:2154:G:H8	1.84	0.42
1:CA:1357:A:C8	1:CA:1358:U:C5	3.07	0.42
36:DS:83:LYS:HE2	36:DS:83:LYS:HA	2.02	0.42
1:CA:1122:U:H2'	1:CA:1123:A:O4'	2.19	0.42
1:AA:1442(A):G:C5	1:AA:1442(B):A:C5	3.08	0.42
1:AA:1226:C:H4'	19:AS:80:TYR:OH	2.19	0.42
23:DA:1507:A:HO2'	23:DA:1508:A:P	2.40	0.42
38:BU:76:TYR:HH	38:BU:92:ARG:NH1	2.16	0.42
33:BP:100:LEU:HA	33:BP:100:LEU:HD23	1.80	0.42
26:DE:115:GLY:O	26:DE:119:ARG:HB2	2.20	0.42
1:CA:192:U:C4'	20:CT:102:GLY:HA2	2.50	0.42
1:AA:947:G:N2	1:AA:1235:U:O2	2.53	0.42
1:CA:1316:G:H21	1:CA:1318:A:H3'	1.85	0.42
1:CA:404:U:H2'	1:CA:405:U:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:56:U:H2'	1:AA:57:G:H8	1.83	0.42
1:CA:1262:C:N3	1:CA:1273:G:N2	2.68	0.42
25:DD:17:THR:O	25:DD:211:ARG:NH2	2.51	0.42
23:DA:1179:C:O2'	23:DA:1180:C:H5'	2.20	0.42
24:DB:31:C:H4'	28:DG:29:TRP:CH2	2.55	0.42
13:AM:6:GLY:HA3	13:AM:67:GLU:HG3	2.02	0.42
10:CJ:35:SER:OG	10:CJ:73:ASP:HB2	2.20	0.42
28:DG:125:PHE:CZ	28:DG:170:ARG:HA	2.55	0.42
1:CA:604:G:H2'	1:CA:605:U:O4'	2.20	0.42
1:CA:1010:G:O6	1:CA:1019:C:N3	2.53	0.42
11:CK:62:GLN:NE2	11:CK:93:GLN:OE1	2.50	0.42
1:CA:380:G:C2	1:CA:384:G:C6	3.08	0.42
23:BA:2406:U:H2'	23:BA:2406:U:OP2	2.19	0.42
22:CY:58:ASN:ND2	22:CY:58:ASN:H	2.18	0.42
23:BA:2660:A:H2'	23:BA:2661:G:O4'	2.20	0.42
3:AC:22:TRP:CH2	14:AN:54:PRO:HG2	2.54	0.42
23:BA:35:G:H2'	23:BA:36:G:O4'	2.19	0.42
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.19	0.42
23:BA:825:C:OP1	56:BA:4662:HOH:O	2.22	0.42
20:CT:18:GLN:O	20:CT:22:ARG:HG3	2.20	0.42
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.20	0.42
1:CA:124:G:H4'	1:CA:291:C:O2'	2.18	0.42
1:CA:1058:G:N2	10:CJ:53:PRO:HG3	2.34	0.42
1:CA:109:A:H2'	1:CA:326:G:N2	2.34	0.42
23:BA:862:G:H2'	23:BA:863:A:O4'	2.20	0.42
23:BA:1899:G:H2'	23:BA:1899:G:N3	2.34	0.42
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.20	0.42
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	2.01	0.42
23:BA:71:A:N7	41:BX:31:HIS:HE1	2.18	0.41
1:AA:1005:A:O2'	1:AA:1036:G:N2	2.53	0.41
1:CA:1121:U:C4	1:CA:1122:U:C5	3.08	0.41
23:DA:945:A:C4	23:DA:2448:A:C2	3.07	0.41
1:CA:1442(A):G:C5	1:CA:1442(B):A:C5	3.08	0.41
1:AA:993:G:H4'	1:AA:994:A:OP2	2.19	0.41
1:CA:1004:A:C5'	1:CA:1025:U:C5	3.03	0.41
1:CA:1452:C:H2'	1:CA:1452:C:H6	1.67	0.41
1:CA:920:U:C2	1:CA:921:U:C5	3.08	0.41
2:AB:119:GLU:HG2	2:AB:153:ARG:HH22	1.85	0.41
7:CG:72:ARG:HH12	7:CG:138:LYS:NZ	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:36:ASP:OD1	3:CC:57:ILE:HG21	2.20	0.41
23:BA:89:G:H3'	23:BA:90:U:H5"	2.03	0.41
1:CA:1310:G:H2'	1:CA:1311:G:C8	2.55	0.41
26:DE:181:LEU:HD12	26:DE:181:LEU:HA	1.80	0.41
4:AD:36:ARG:HG2	4:AD:38:TYR:CZ	2.54	0.41
23:DA:2464:C:H1'	56:DA:4976:HOH:O	2.20	0.41
23:DA:1557:C:H5"	23:DA:1558:A:OP2	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
29:BH:71:LEU:HA	29:BH:71:LEU:HD12	1.74	0.41
1:CA:460:G:O6	1:CA:470:C:H5"	2.20	0.41
43:BZ:101:PRO:O	43:BZ:102:LEU:HD12	2.20	0.41
30:BI:69:LYS:HG3	30:BI:138:ILE:HG12	2.02	0.41
23:DA:781:A:N1	23:DA:1776:G:O2'	2.47	0.41
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	2.01	0.41
5:AE:31:LEU:HD22	5:AE:43:LEU:HD11	2.01	0.41
23:BA:361:G:O2'	23:BA:362:U:H5'	2.20	0.41
17:AQ:13:ASP:O	17:AQ:15:MET:N	2.53	0.41
23:BA:1999:C:H4'	23:BA:2723:C:O2	2.20	0.41
28:DG:146:TYR:O	28:DG:149:VAL:HG12	2.20	0.41
23:BA:2554:U:H2'	23:BA:2555:U:C6	2.55	0.41
23:DA:2096:U:H3	23:DA:2193:G:H1	1.68	0.41
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.18	0.41
23:BA:1561:G:OP2	56:BA:4643:HOH:O	2.21	0.41
25:DD:221:VAL:HG22	25:DD:226:MET:HE2	2.01	0.41
1:CA:911:U:OP2	12:CL:97:ARG:NH1	2.53	0.41
25:DD:232:PRO:HB3	25:DD:244:ARG:CZ	2.50	0.41
23:DA:2740:A:C6	23:DA:2764:A:C8	3.08	0.41
25:DD:166:GLN:HB2	25:DD:174:ILE:HG22	2.02	0.41
23:BA:783:A:N3	23:BA:783:A:H2'	2.35	0.41
53:B9:17:ILE:HD12	53:B9:17:ILE:HA	1.77	0.41
47:B3:4:LEU:O	47:B3:36:VAL:HA	2.19	0.41
26:DE:174:ASP:OD2	26:DE:175:VAL:N	2.52	0.41
12:CL:59:ARG:HG2	12:CL:65:GLU:HB2	2.01	0.41
27:DF:167:ALA:HB1	27:DF:173:VAL:HG11	2.01	0.41
1:AA:1003:G:C6	1:AA:1004:A:C2	3.08	0.41
1:CA:925:G:H1'	1:CA:1502:A:C4	2.55	0.41
1:AA:1054:C:N4	22:AY:45:PRO:HB2	2.34	0.41
1:AA:1052:U:O4	1:AA:1200:C:C2	2.73	0.41
1:CA:472:A:O3'	16:CP:81:ARG:HA	2.19	0.41
14:CN:29:ARG:HE	14:CN:40:CYS:HB2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:11:TYR:O	28:DG:16:ARG:HG2	2.20	0.41
1:CA:1060:C:C2'	1:CA:1061:G:H5'	2.50	0.41
36:BS:96:GLY:N	36:BS:99:LYS:HB3	2.34	0.41
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.35	0.41
23:BA:2315:G:C6	23:BA:2316:C:C4	3.09	0.41
23:DA:2420:C:H6	23:DA:2420:C:O5'	2.03	0.41
23:DA:89:G:H3'	23:DA:90:U:C5'	2.50	0.41
4:CD:22:LYS:HG3	4:CD:26:CYS:SG	2.60	0.41
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.20	0.41
14:AN:6:LEU:HD23	14:AN:23:ARG:HH12	1.84	0.41
1:CA:1090:U:H1'	1:CA:1170:A:H2	1.85	0.41
1:CA:706:A:H2'	1:CA:707:C:H5'	2.02	0.41
1:CA:429:U:H4'	1:CA:430:A:O5'	2.19	0.41
23:BA:271(O):C:H2'	23:BA:271(P):C:C6	2.55	0.41
14:CN:5:ALA:O	14:CN:9:LYS:HB2	2.20	0.41
8:AH:51:VAL:HG11	8:AH:60:ARG:HH11	1.85	0.41
50:D6:40:CYS:HA	50:D6:41:PRO:HD3	1.70	0.41
1:AA:1378:C:C5	1:AA:1379:G:C8	3.08	0.41
4:CD:173:TRP:NE1	4:CD:174:LEU:HG	2.35	0.41
23:DA:30:G:H2'	23:DA:31:C:H6	1.85	0.41
12:AL:24:VAL:HG12	12:AL:26:ALA:HB2	2.02	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
23:DA:1997:G:O2'	23:DA:1998:G:H5'	2.20	0.41
1:AA:1490:C:H2'	1:AA:1491:G:O4'	2.20	0.41
46:B2:28:LYS:HE3	46:B2:56:GLN:OE1	2.20	0.41
20:AT:64:ASP:OD1	20:AT:81:LYS:NZ	2.48	0.41
42:DY:97:ARG:HG2	42:DY:97:ARG:H	1.65	0.41
1:CA:1038:C:H2'	1:CA:1039:C:O4'	2.20	0.41
4:CD:171:GLY:HA2	4:CD:172:PRO:HD3	1.89	0.41
11:CK:103:LEU:HD23	11:CK:103:LEU:HA	1.91	0.41
23:BA:2549:G:H8	23:BA:2549:G:H5"	1.85	0.41
44:D0:49:LYS:O	44:D0:50:ASN:HB2	2.20	0.41
24:DB:19:G:OP2	24:DB:19:G:H8	2.03	0.41
1:CA:203:U:H2'	1:CA:203:U:OP2	2.20	0.41
40:BW:58:ALA:HB1	40:BW:64:MET:HB2	2.01	0.41
7:AG:48:LYS:O	7:AG:52:GLU:HG2	2.20	0.41
5:AE:127:ASN:HA	5:AE:128:PRO:HD3	1.88	0.41
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.55	0.41
1:AA:1005:A:C6	1:AA:1025:U:H1'	2.55	0.41
1:CA:1148:U:OP1	9:CI:7:THR:HG21	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1192:C:C5	1:CA:1193:G:C8	3.08	0.41
10:AJ:45:ARG:HB3	10:AJ:65:LEU:HB3	2.02	0.41
3:CC:181:ASN:N	3:CC:205:GLY:O	2.52	0.41
1:CA:97:G:O2'	1:CA:98:G:OP2	2.31	0.41
1:AA:1028:C:C2	1:AA:1033:G:N2	2.88	0.41
33:DP:126:VAL:HG11	33:DP:148:LEU:HD13	2.01	0.41
27:BF:164:ARG:O	27:BF:168:ARG:HB2	2.21	0.41
1:AA:939:G:H5"	7:AG:102:ARG:NH2	2.35	0.41
23:DA:361:G:O2'	23:DA:362:U:H5'	2.21	0.41
23:BA:2836:U:H2'	23:BA:2837:G:C8	2.55	0.41
28:BG:105:LYS:NZ	48:B4:25:TYR:O	2.49	0.41
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.20	0.41
43:BZ:5:LEU:HD23	43:BZ:47:VAL:HG21	2.03	0.41
25:BD:92:ILE:HD12	25:BD:104:TYR:CD2	2.56	0.41
23:BA:1745(A):C:H5'	23:BA:1746:G:OP2	2.20	0.41
1:AA:112:G:H4'	1:AA:389:A:H4'	2.02	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
2:CB:180:LEU:HD23	2:CB:180:LEU:HA	1.85	0.41
24:BB:1:U:O2	24:BB:1:U:H2'	2.20	0.41
18:AR:33:ASP:OD1	18:AR:36:ASN:HB2	2.21	0.41
1:AA:189(F):U:O2	17:AQ:63:ARG:NH2	2.53	0.41
25:BD:130:ALA:HA	25:BD:192:THR:HA	2.02	0.41
27:BF:34:TRP:CE2	33:BP:8:PRO:HD3	2.55	0.41
23:DA:2078:C:C4	23:DA:2079:U:C4	3.09	0.41
1:AA:502:G:P	12:AL:116:SER:HA	2.60	0.41
1:AA:1503:A:C5	1:AA:1531:A:H8	2.38	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
14:CN:29:ARG:NE	14:CN:40:CYS:HB2	2.36	0.41
23:BA:2173:A:N6	23:BA:2174:C:O2	2.53	0.41
1:CA:1118:C:H2'	1:CA:1119:C:O4'	2.20	0.41
23:DA:2540:C:H2'	23:DA:2541:A:O4'	2.20	0.41
1:CA:1169:A:C2	1:CA:1170:A:C4	3.08	0.41
5:CE:53:LEU:HD12	5:CE:53:LEU:H	1.85	0.41
1:CA:537:G:H5"	12:CL:113:ARG:NH1	2.35	0.41
23:DA:252:G:P	33:DP:50:ARG:HH12	2.42	0.41
23:DA:638:G:H2'	23:DA:639:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:48:THR:HA	19:CS:60:VAL:O	2.21	0.41
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.21	0.41
1:CA:375:U:O3'	16:CP:6:LEU:HB2	2.20	0.41
2:AB:92:TYR:HE1	2:AB:94:ASN:HB2	1.85	0.41
23:DA:2660:A:H2'	23:DA:2661:G:O4'	2.20	0.41
24:DB:37:C:C5	24:DB:38:C:C5	3.09	0.41
35:BR:29:LEU:HD23	35:BR:70:LEU:HD11	2.02	0.41
10:AJ:46:ARG:NE	10:AJ:64:GLU:OE1	2.54	0.41
23:BA:634:C:H2'	23:BA:635:C:C6	2.55	0.41
53:B9:32:HIS:O	53:B9:34:GLN:HG3	2.19	0.41
41:BX:5:TYR:CZ	46:B2:30:ARG:HB2	2.56	0.41
1:AA:953:G:C4	1:AA:1229:A:C2	3.08	0.41
15:AO:57:LEU:HA	15:AO:57:LEU:HD23	1.84	0.41
24:DB:1:U:O2	24:DB:1:U:H2'	2.21	0.41
1:AA:3:G:N3	1:AA:3:G:H2'	2.36	0.41
30:BI:51:ILE:HA	30:BI:51:ILE:HD13	1.79	0.41
23:DA:1614:A:H8	23:DA:1614:A:P	2.43	0.41
4:CD:19:LEU:HD12	4:CD:19:LEU:HA	1.87	0.41
35:DR:100:LEU:HA	35:DR:100:LEU:HD12	1.74	0.41
23:BA:438:G:H2'	23:BA:440:G:C8	2.55	0.41
26:BE:47:VAL:HG23	26:BE:84:PHE:O	2.20	0.41
18:CR:31:LEU:HD23	18:CR:31:LEU:O	2.20	0.41
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.21	0.41
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.20	0.41
23:BA:1354:A:H2'	23:BA:1355:G:O4'	2.20	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
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.21	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
23:DA:2103:C:N3	23:DA:2104:G:N7	2.68	0.41
3:CC:180:ALA:HB1	3:CC:203:PHE:HE1	1.85	0.41
23:DA:1041:C:H5'	23:DA:1042:G:OP2	2.21	0.41
23:DA:530:G:N1	56:DA:3959:HOH:O	2.36	0.41
34:BQ:72:LYS:HA	34:BQ:73:PRO:HD3	1.87	0.41
24:BB:31:C:H4'	28:BG:29:TRP:CH2	2.55	0.41
50:B6:35:GLU:CD	50:B6:50:ARG:HH11	2.23	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
1:AA:940:C:OP1	7:AG:29:LYS:NZ	2.53	0.41
1:CA:615:C:H2'	1:CA:616:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:9:GLY:HA3	14:CN:49:HIS:HA	2.01	0.41
43:DZ:19:ARG:HB2	43:DZ:19:ARG:HE	1.74	0.41
7:CG:46:ALA:HB2	7:CG:117:ALA:O	2.20	0.41
1:AA:105:G:H2'	1:AA:106:C:C6	2.56	0.41
26:DE:117:MET:O	26:DE:118:LYS:HB3	2.21	0.41
1:AA:586:C:C2'	1:AA:587:G:H5'	2.51	0.41
23:DA:536:A:H2'	23:DA:537:C:C6	2.56	0.41
23:BA:1489:U:HO2'	23:BA:1490:A:H8	1.68	0.41
6:CF:49:ALA:HB2	18:CR:78:LEU:O	2.21	0.41
23:DA:1825:A:O4'	25:DD:254:THR:HG21	2.21	0.41
38:DU:39:LEU:HD23	38:DU:39:LEU:HA	1.89	0.41
2:CB:111:ARG:HA	2:CB:111:ARG:HH11	1.85	0.41
1:AA:706:A:H2'	1:AA:707:C:H5'	2.02	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
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	2.02	0.41
45:D1:67:ILE:N	45:D1:68:PRO:HD2	2.34	0.41
23:BA:118:A:N3	23:BA:178:G:H1'	2.35	0.41
3:CC:139:GLN:O	3:CC:143:GLU:HB2	2.20	0.41
3:CC:151:VAL:HA	3:CC:199:LYS:O	2.21	0.41
1:AA:954:G:H2'	1:AA:955:U:O4'	2.20	0.41
23:BA:690:G:H2'	23:BA:691:C:C6	2.56	0.41
24:DB:29:A:OP2	36:DS:32:LEU:HD12	2.20	0.41
23:DA:1142(A):A:C4	23:DA:1144:G:C8	3.08	0.41
23:DA:2789:C:H5"	23:DA:2790:A:OP2	2.21	0.41
23:BA:2103:C:N3	23:BA:2104:G:N7	2.68	0.41
9:AI:65:VAL:O	9:AI:66:ARG:HG3	2.21	0.41
1:AA:73:G:C6	1:AA:76:C:C4	3.09	0.41
1:AA:532:A:H5'	56:AA:2283:HOH:O	2.19	0.41
23:DA:2262:U:H4'	23:DA:2328:A:C2	2.56	0.41
14:AN:40:CYS:SG	14:AN:43:CYS:CB	2.99	0.41
43:DZ:99:TYR:HA	43:DZ:124:ILE:O	2.20	0.41
3:CC:52:LEU:HB2	3:CC:69:HIS:O	2.19	0.41
1:CA:1012:U:C4	1:CA:1013:G:C5	3.09	0.41
44:D0:27:GLU:HB2	44:D0:69:PHE:HD1	1.85	0.41
23:DA:686:G:N2	23:DA:788:A:H61	2.18	0.41
29:BH:140:LYS:HE3	29:BH:140:LYS:HB2	1.81	0.41
16:CP:52:ASP:HB3	16:CP:55:ARG:HB2	2.01	0.41
1:AA:66:G:O4'	1:AA:173:U:C5	2.74	0.41
2:AB:71:VAL:O	2:AB:165:VAL:HG23	2.20	0.41
23:DA:476:G:H4'	23:DA:502:A:N1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:150:GLY:HA2	27:BF:172:TRP:CE3	2.56	0.41
1:AA:429:U:H4'	1:AA:430:A:O5'	2.21	0.41
1:CA:113:G:H2'	1:CA:114:U:C6	2.56	0.41
12:AL:85:ILE:HA	12:AL:85:ILE:HD13	1.70	0.41
29:BH:8:PRO:O	29:BH:69:ARG:NH1	2.53	0.41
1:AA:293:G:C6	1:AA:294:U:C4	3.08	0.41
4:CD:94:LEU:HA	4:CD:97:LEU:HD12	2.02	0.41
42:BY:79:CYS:HB2	42:BY:81:LYS:H	1.86	0.41
33:DP:82:GLY:HA2	33:DP:113:LYS:O	2.20	0.41
35:DR:54:LEU:O	35:DR:57:ARG:HB2	2.20	0.41
33:DP:132:LYS:HE2	33:DP:132:LYS:HB2	1.84	0.41
43:BZ:91:LEU:HA	43:BZ:91:LEU:HD12	1.84	0.41
23:BA:1510:G:H2'	23:BA:1511:C:C6	2.55	0.41
29:BH:38:SER:HA	29:BH:39:PRO:HD3	1.84	0.41
23:DA:225:A:O2'	23:DA:257:A:H4'	2.20	0.41
2:AB:27:LYS:HD2	2:AB:193:ASP:OD1	2.21	0.41
1:CA:975:A:H5'	1:CA:975:A:H8	1.86	0.41
20:CT:4:LYS:HA	20:CT:4:LYS:HD3	1.95	0.41
1:AA:954:G:OP1	22:AY:17:ARG:NH2	2.53	0.41
22:AY:12:ILE:CG2	22:AY:17:ARG:HE	2.33	0.41
23:BA:569:U:C4	23:BA:570:G:C6	3.09	0.41
23:BA:2171:A:H1'	23:BA:2172:U:C6	2.55	0.41
39:DV:40:LEU:HD11	39:DV:101:GLY:HA2	2.02	0.41
1:CA:1371:G:OP1	9:CI:11:LYS:O	2.39	0.41
23:DA:1452:A:O2'	23:DA:1453:U:H2'	2.20	0.41
1:CA:376:G:P	16:CP:67:THR:HG21	2.60	0.41
1:AA:1493:A:C2	1:AA:1494:G:C8	3.08	0.41
43:DZ:98:MET:O	43:DZ:125:LEU:HD12	2.20	0.41
1:AA:433:C:C2'	1:AA:434:U:H5'	2.51	0.41
1:CA:22:G:H4'	1:CA:885:G:C8	2.55	0.41
1:AA:1292:U:N3	1:AA:1293:G:N7	2.69	0.41
1:CA:44:G:H2'	1:CA:45:U:O4'	2.21	0.41
23:DA:2536:G:C5	23:DA:2537:U:C5	3.09	0.41
1:CA:659:U:C2'	1:CA:660:G:H5'	2.51	0.41
37:BT:23:ARG:HG3	37:BT:120:ARG:NH1	2.34	0.41
23:DA:30:G:OP2	38:DU:5:LYS:HE2	2.20	0.41
1:AA:756:C:H2'	1:AA:757:U:O4'	2.21	0.41
6:CF:10:LEU:HD21	6:CF:61:LEU:HD22	2.02	0.41
28:DG:105:LYS:NZ	48:D4:25:TYR:O	2.53	0.41
29:DH:71:LEU:HA	29:DH:71:LEU:HD12	1.68	0.41
1:AA:691:G:H2'	1:AA:692:U:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:10:LEU:HD21	6:AF:61:LEU:HD22	2.03	0.41
23:BA:1987:G:H2'	23:BA:1988:C:C6	2.55	0.41
42:DY:97:ARG:HH11	42:DY:107:ASP:C	2.23	0.41
29:BH:5:GLY:HA2	29:BH:69:ARG:HB3	2.03	0.41
28:BG:61:ALA:O	28:BG:65:GLY:N	2.47	0.41
23:DA:422:A:H2'	23:DA:423:A:C8	2.55	0.41
23:DA:338:G:H2'	23:DA:339:U:H6	1.85	0.41
23:BA:2404:C:O3'	33:BP:77:ARG:NH2	2.53	0.41
23:DA:2699:C:H2'	23:DA:2700:C:O4'	2.21	0.41
1:AA:1310:G:H5'	13:AM:77:ASN:ND2	2.35	0.41
23:DA:2094:G:C2	23:DA:2196:C:C2	3.09	0.41
23:DA:998:C:H3'	56:DA:4571:HOH:O	2.19	0.41
1:CA:648:A:H2'	1:CA:649:G:C8	2.56	0.41
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	2.03	0.41
23:DA:2305:A:H5"	28:DG:134:GLY:HA3	2.02	0.41
1:CA:678:U:H2'	1:CA:679:C:C6	2.56	0.41
23:DA:1170:G:H5"	23:DA:1170:G:H8	1.85	0.41
23:DA:671:C:H2'	23:DA:672:C:C6	2.55	0.41
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.20	0.41
23:BA:2273:A:H2'	23:BA:2274:A:C8	2.56	0.41
31:BN:69:GLN:O	31:BN:71:ILE:HD12	2.21	0.41
23:DA:86:C:H4'	23:DA:104:U:H1'	2.01	0.41
1:CA:538:G:P	12:CL:115:LYS:HB2	2.60	0.41
23:DA:1531:C:N4	23:DA:1538:G:H1	2.15	0.41
37:BT:56:GLY:O	37:BT:59:THR:HG23	2.20	0.41
13:AM:65:LYS:O	13:AM:70:LEU:HG	2.20	0.41
1:CA:149:A:O2'	1:CA:150:C:C6	2.67	0.41
1:AA:741:G:H2'	1:AA:742:G:O4'	2.21	0.41
1:CA:936:C:H2'	1:CA:937:A:O4'	2.20	0.41
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	2.20	0.41
1:CA:741:G:H2'	1:CA:742:G:O4'	2.21	0.41
36:DS:11:LYS:HD3	36:DS:15:ARG:NH1	2.35	0.41
23:DA:699:A:C2	23:DA:1633:G:N3	2.89	0.41
1:AA:1256:A:H5'	1:AA:1258:G:H1'	2.03	0.41
43:DZ:152:ALA:N	43:DZ:171:ILE:HG12	2.35	0.41
33:DP:126:VAL:CG1	33:DP:148:LEU:HD13	2.51	0.41
35:BR:67:LEU:HD13	35:BR:67:LEU:HA	1.87	0.41
48:D4:15:ILE:HB	48:D4:32:TYR:CD2	2.56	0.41
23:DA:1180:C:H2'	23:DA:1181:C:H6	1.86	0.41
16:CP:72:ARG:HG3	16:CP:72:ARG:NH1	2.36	0.41
25:DD:183:ARG:HG3	25:DD:270:ILE:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:270:A:H2'	1:AA:271:C:H6	1.86	0.41
2:CB:71:VAL:HG13	2:CB:93:VAL:HG21	2.02	0.41
34:DQ:72:LYS:HA	34:DQ:73:PRO:HD3	1.89	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
1:AA:411:A:C6	1:AA:429:U:C4	3.09	0.41
1:CA:200:G:H1	1:CA:217:C:H42	1.68	0.41
2:AB:56:ARG:O	2:AB:60:ASP:HB2	2.21	0.41
23:BA:362:U:H6	23:BA:362:U:H2'	1.54	0.41
5:AE:57:LYS:HB3	5:AE:61:TYR:HE2	1.84	0.41
23:BA:2250:G:OP2	23:BA:2275:C:H2'	2.20	0.41
43:BZ:76:LEU:HA	43:BZ:76:LEU:HD12	1.83	0.41
23:BA:242:G:C8	52:B8:5:LYS:HG2	2.56	0.41
2:CB:111:ARG:HD3	2:CB:111:ARG:HA	1.83	0.41
1:AA:719:C:C2	18:AR:50:ILE:HG12	2.56	0.41
23:DA:1324:G:C5	23:DA:1328:G:O6	2.73	0.41
23:DA:1790:C:H2'	23:DA:1791:A:C5	2.56	0.41
50:D6:23:THR:OG1	50:D6:24:GLU:N	2.54	0.41
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.36	0.41
47:D3:3:ARG:HD3	47:D3:60:GLU:OE1	2.21	0.41
23:BA:2712:U:OP1	23:BA:2714:G:H4'	2.21	0.41
26:DE:60:ASN:OD1	26:DE:62:PRO:HD2	2.21	0.41
23:BA:287:C:H2'	23:BA:288:C:H6	1.86	0.41
23:DA:659:C:H4'	27:DF:100:THR:O	2.21	0.41
23:BA:748:G:C8	40:BW:89:ALA:HB1	2.55	0.41
12:CL:8:ASN:O	12:CL:12:ARG:HG3	2.21	0.41
33:DP:101:VAL:HA	33:DP:106:LEU:O	2.21	0.41
7:CG:68:ASN:ND2	7:CG:128:ALA:O	2.53	0.41
2:CB:179:LYS:HA	8:CH:72:PRO:HG3	2.02	0.41
23:DA:2768:C:H2'	23:DA:2769:C:O4'	2.19	0.41
30:BI:91:SER:HB3	30:BI:121:LYS:HD3	2.02	0.41
1:AA:163:C:H2'	1:AA:164:U:O4'	2.20	0.41
23:DA:2600:A:O2'	23:DA:2601:C:H5'	2.21	0.41
24:BB:43:C:OP1	48:B4:2:LYS:HB2	2.20	0.41
33:BP:68:GLN:HG3	52:B8:12:LYS:HG2	2.03	0.41
1:CA:546:G:OP1	4:CD:73:ARG:HB2	2.21	0.41
23:DA:886:C:H1'	23:DA:890:A:N6	2.36	0.41
23:BA:1022:G:H22	23:BA:1142(A):A:H2	1.55	0.41
23:DA:1702:G:H2'	23:DA:1703:G:O4'	2.20	0.41
37:DT:56:GLY:O	37:DT:59:THR:CG2	2.69	0.41
1:AA:954:G:H21	1:AA:1227:A:H62	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:73:GLU:O	13:AM:76:ALA:HB3	2.21	0.41
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.55	0.41
22:CY:23:ARG:HG3	22:CY:78:ILE:HG13	2.03	0.41
23:BA:1177:A:H2'	23:BA:1177:A:OP2	2.21	0.41
1:AA:994:A:N7	1:AA:1216:G:H4'	2.36	0.41
2:CB:185:ILE:HG22	2:CB:199:TYR:CD1	2.55	0.41
23:BA:2464:C:O2'	23:BA:2465:C:H6	2.03	0.41
1:CA:1066:C:O2'	1:CA:1067:A:H5'	2.20	0.41
22:CY:17:ARG:O	22:CY:20:VAL:HG12	2.21	0.41
46:B2:51:ARG:O	46:B2:55:ARG:HD2	2.21	0.41
52:D8:34:TRP:CE2	52:D8:35:GLN:HB3	2.56	0.41
23:DA:1021:A:C3'	23:DA:1021:A:C8	3.03	0.41
1:CA:872:A:C4	1:CA:874:G:N7	2.89	0.41
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.35	0.41
9:CI:74:ILE:HA	9:CI:77:ILE:HD12	2.03	0.41
36:DS:87:PHE:CE1	36:DS:102:ALA:HB2	2.56	0.41
1:CA:1089:G:H1	1:CA:1096:C:N4	2.14	0.41
45:D1:49:VAL:O	45:D1:59:THR:HA	2.20	0.41
1:CA:1493:A:C2	1:CA:1494:G:C8	3.09	0.41
23:BA:2838:G:C6	23:BA:2839:G:C5	3.09	0.41
1:CA:473:G:H2'	1:CA:474:G:C8	2.51	0.41
23:BA:330:A:O2'	23:BA:331:A:H8	2.03	0.41
19:CS:35:SER:O	19:CS:37:ARG:N	2.54	0.41
27:BF:103:LYS:HA	27:BF:106:ARG:HG2	2.03	0.41
1:CA:542:G:H2'	1:CA:543:C:C6	2.54	0.41
26:DE:116:VAL:HG13	26:DE:122:PHE:CB	2.50	0.41
48:D4:42:PHE:CB	48:D4:43:TYR:HB2	2.49	0.41
9:AI:46:ALA:HB2	9:AI:74:ILE:HG22	2.02	0.41
1:CA:1238:A:OP1	1:CA:1335:C:H1'	2.20	0.41
23:BA:1429:G:HO2'	23:BA:1430:C:H5'	1.86	0.41
23:DA:573:G:O2'	23:DA:574:C:H3'	2.20	0.41
23:BA:695:G:OP1	23:BA:1380:G:O2'	2.28	0.41
1:CA:561:U:O2'	1:CA:562:C:P	2.78	0.41
1:CA:1055:A:O2'	3:CC:161:GLU:O	2.35	0.41
23:DA:2473:U:C2	23:DA:2474:C:C6	3.09	0.41
23:DA:2040:C:H2'	23:DA:2041:U:O4'	2.20	0.41
8:CH:21:LYS:O	8:CH:63:LEU:HD23	2.21	0.41
1:AA:984:C:H2'	1:AA:985:C:C6	2.56	0.41
2:CB:71:VAL:HG13	2:CB:93:VAL:HG23	2.03	0.41
13:AM:87:TYR:C	13:AM:89:GLY:N	2.74	0.41
30:DI:88:ILE:HG22	30:DI:89:TYR:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:48:TRP:N	16:CP:48:TRP:CD1	2.88	0.41
1:AA:938:A:N6	1:AA:939:G:C6	2.89	0.41
23:BA:2118:U:O2'	23:BA:2119:A:H5"	2.21	0.41
30:DI:85:GLU:CG	30:DI:86:THR:H	2.34	0.41
44:D0:70:GLN:HG2	44:D0:72:ARG:HG2	2.03	0.41
23:DA:708:C:H6	23:DA:708:C:H5"	1.86	0.41
23:BA:1028:A:N6	23:BA:1125:G:H2'	2.35	0.41
23:DA:1031:G:H21	53:D9:36:GLN:HE22	1.68	0.41
23:DA:1549:C:H2'	23:DA:1550:C:H6	1.86	0.41
50:D6:9:LEU:HD21	50:D6:25:LYS:HB3	2.03	0.41
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.53	0.41
12:AL:27:LEU:CB	12:AL:33:ARG:HD3	2.51	0.41
23:DA:2095:C:H2'	23:DA:2096:U:O4'	2.21	0.41
12:AL:32:PHE:HB3	12:AL:84:LEU:HD11	2.03	0.41
2:AB:25:ASN:O	2:AB:27:LYS:N	2.53	0.41
23:DA:2721:A:O2'	23:DA:2874:C:H5'	2.21	0.41
22:AY:93:GLU:C	22:AY:95:ARG:H	2.22	0.41
1:CA:1365:G:H5'	56:CA:2156:HOH:O	2.21	0.41
15:CO:29:VAL:HG11	15:CO:81:LEU:HD21	2.03	0.41
23:DA:265:A:H1'	23:DA:266:G:O4'	2.21	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
25:BD:183:ARG:HG3	25:BD:270:ILE:HG12	2.03	0.41
1:CA:1380:U:C2	7:CG:3:ARG:NH1	2.89	0.41
31:BN:30:ILE:HG22	31:BN:34:LEU:HD22	2.02	0.41
23:DA:1314:C:H5'	23:DA:1314:C:H6	1.86	0.41
1:CA:134:A:H61	16:CP:25:ARG:NH1	2.18	0.41
23:BA:2093:G:C6	23:BA:2225:A:C8	3.08	0.41
38:DU:61:TRP:CD2	38:DU:93:LYS:HA	2.56	0.41
27:BF:64:ILE:HG21	27:BF:78:ILE:HG23	2.03	0.41
37:BT:45:PHE:CE1	37:BT:74:ARG:HG3	2.56	0.41
31:DN:5:VAL:H	38:DU:64:ARG:HH22	1.68	0.41
23:BA:271(K):U:H4'	23:BA:271(L):U:OP2	2.15	0.41
1:CA:443:C:H2'	1:CA:444:C:H6	1.86	0.41
23:BA:2497:A:H5"	56:BA:4022:HOH:O	2.21	0.41
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.21	0.41
13:CM:13:LYS:O	13:CM:18:ALA:HB2	2.21	0.41
23:BA:1686:C:C2'	23:BA:1687:G:H5'	2.51	0.41
25:DD:33:LEU:HD23	25:DD:33:LEU:HA	1.86	0.41
35:BR:17:ARG:HD2	35:BR:17:ARG:HH11	1.63	0.41
39:DV:68:LYS:HE3	39:DV:68:LYS:HB3	1.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D6:44:ARG:HB3	50:D6:44:ARG:HH11	1.86	0.41
3:CC:46:GLU:H	3:CC:46:GLU:CD	2.24	0.41
23:BA:2637:U:C2'	23:BA:2638:G:H5'	2.51	0.41
25:BD:24:ILE:HD13	25:BD:84:TYR:HB2	2.03	0.41
23:DA:2716:U:O2'	23:DA:2717:G:H5'	2.21	0.41
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.51	0.41
1:CA:1299:A:C6	1:CA:1301:U:C2	3.09	0.41
23:DA:83:G:H22	23:DA:102:G:H1'	1.84	0.41
19:AS:75:ALA:HA	19:AS:76:PRO:HD3	1.90	0.41
1:AA:1091:U:C2	1:AA:1095:U:N3	2.89	0.41
23:DA:2316:C:H2'	23:DA:2317:C:H6	1.84	0.41
1:AA:561:U:O2'	1:AA:562:C:P	2.80	0.41
1:AA:561:U:HO2'	1:AA:562:C:P	2.43	0.41
1:AA:9:G:H5"	5:AE:126:ARG:HD3	2.03	0.41
3:AC:6:HIS:HA	3:AC:7:PRO:HD3	1.64	0.41
23:DA:2147:G:H2'	23:DA:2148:G:C4'	2.51	0.41
9:CI:37:PHE:HB3	9:CI:43:ALA:HB1	2.02	0.41
23:BA:2103:C:O2	23:BA:2187:G:C2	2.73	0.41
1:AA:167:G:O2'	1:AA:168:G:H5'	2.20	0.41
1:CA:1187:G:H3'	1:CA:1188:A:H8	1.85	0.41
23:DA:2158:A:H1'	23:DA:2159:G:C8	2.55	0.41
1:AA:475:G:C2'	1:AA:476:G:H5'	2.51	0.41
33:BP:47:ASP:OD2	33:BP:50:ARG:NH2	2.53	0.41
23:BA:2134:A:HO2'	23:BA:2159:G:N2	2.19	0.41
8:CH:49:GLU:OE2	8:CH:62:TYR:OH	2.39	0.41
1:AA:142:G:H2'	1:AA:143:A:C8	2.56	0.41
1:CA:977:A:N1	1:CA:1224:G:C8	2.89	0.41
1:AA:834:C:H2'	1:AA:835:U:C6	2.56	0.41
28:DG:57:ALA:HA	28:DG:68:PRO:HG2	2.01	0.41
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.86	0.41
23:DA:784:A:C5	25:DD:229:VAL:HG21	2.56	0.41
1:AA:751:U:H4'	15:AO:24:SER:HB2	2.03	0.41
1:AA:657:G:C2	1:AA:658:G:C8	3.08	0.41
1:AA:965:A:H5'	1:AA:969:A:O4'	2.21	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
23:BA:30:G:H2'	23:BA:31:C:C6	2.56	0.41
23:DA:2266:A:H4'	23:DA:2267:A:C4	2.55	0.41
31:BN:48:MET:H	31:BN:48:MET:HG3	1.58	0.41
7:CG:46:ALA:O	7:CG:50:ILE:N	2.48	0.41
23:DA:414:C:O2'	23:DA:415:A:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:720:C:H2'	23:BA:721:C:C6	2.55	0.41
1:AA:53:A:N1	1:AA:54:C:C2	2.89	0.41
23:DA:107:C:H2'	23:DA:108:U:H6	1.86	0.41
1:CA:547:A:H5'	56:CA:2174:HOH:O	2.20	0.41
15:CO:15:PHE:CE2	15:CO:84:LYS:HD2	2.56	0.41
34:BQ:103:MET:CE	34:BQ:125:LEU:HD13	2.51	0.41
23:BA:857:C:H4'	44:B0:23:VAL:HG21	2.01	0.41
41:DX:54:VAL:HG13	41:DX:81:VAL:HG12	2.02	0.41
38:BU:58:ARG:HA	38:BU:61:TRP:CE3	2.56	0.41
31:DN:109:LYS:HD2	31:DN:109:LYS:N	2.35	0.41
28:BG:128:ARG:HE	28:BG:128:ARG:HB2	1.57	0.41
52:D8:30:ARG:HA	52:D8:30:ARG:HD3	1.82	0.41
1:AA:611:A:H2	1:AA:630:G:H22	1.69	0.41
23:DA:960:A:H5"	23:DA:961:C:OP2	2.21	0.41
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.20	0.41
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:AA:152:A:N6	1:AA:170:U:C2	2.89	0.40
23:DA:1488:G:H5'	23:DA:1489:U:OP2	2.20	0.40
1:CA:983:A:H3'	1:CA:983:A:N3	2.36	0.40
1:AA:785:G:C2'	1:AA:786:G:H5'	2.51	0.40
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.21	0.40
26:BE:52:LEU:O	26:BE:76:ARG:N	2.45	0.40
23:DA:1913:A:OP2	23:DA:1913:A:H3'	2.20	0.40
3:CC:35:GLU:HG2	3:CC:36:ASP:N	2.35	0.40
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.56	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
33:DP:97:PRO:HD3	33:DP:126:VAL:O	2.20	0.40
26:BE:117:MET:O	26:BE:118:LYS:HB3	2.21	0.40
23:DA:296:C:O2'	23:DA:297:C:H5'	2.20	0.40
23:DA:271(P):C:C2'	23:DA:271(Q):G:H5'	2.51	0.40
1:AA:1024:G:H8	1:AA:1024:G:P	2.44	0.40
1:CA:453:A:C6	1:CA:454:C:C4	3.09	0.40
12:AL:7:ILE:HA	12:AL:7:ILE:HD13	1.88	0.40
23:DA:1816:G:O6	25:DD:35:LYS:NZ	2.42	0.40
23:DA:601:C:OP1	27:DF:108:LYS:HE3	2.20	0.40
23:DA:445:C:O2'	23:DA:446:G:H5'	2.21	0.40
12:CL:32:PHE:HB3	12:CL:84:LEU:HD11	2.03	0.40
1:CA:116:A:H61	1:CA:313:A:H1'	1.85	0.40
23:DA:2119:A:C6	23:DA:2170:A:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BA:2492:U:H2'	23:BA:2493:U:H6	1.86	0.40
23:DA:614:U:H2'	23:DA:614(A):U:O4'	2.21	0.40
23:BA:1290:C:H2'	23:BA:1291:C:H6	1.85	0.40
5:CE:95:ALA:HB1	5:CE:96:PRO:HD2	2.02	0.40
1:AA:1030(B):C:H2'	1:AA:1030(C):G:H5'	2.03	0.40
31:DN:14:VAL:HG13	31:DN:138:LEU:HG	2.03	0.40
36:BS:67:ARG:O	36:BS:71:ARG:HG3	2.21	0.40
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.85	0.40
1:CA:668:G:O4'	15:CO:49:ASP:HB2	2.20	0.40
23:DA:922:U:H2'	23:DA:923:C:C6	2.56	0.40
23:BA:2705:A:H2'	23:BA:2706:G:O4'	2.21	0.40
23:DA:2597:G:H2'	23:DA:2598:A:C8	2.56	0.40
23:BA:2345:G:N3	23:BA:2381:C:H2'	2.36	0.40
1:AA:723:U:H6	1:AA:723:U:H2'	1.73	0.40
15:CO:3:ILE:HD13	15:CO:3:ILE:H	1.85	0.40
7:CG:90:GLU:H	7:CG:90:GLU:CD	2.24	0.40
31:BN:20:GLY:HA2	31:BN:61:ARG:HD3	2.04	0.40
23:DA:597:U:H2'	23:DA:598:G:C8	2.56	0.40
23:DA:2702:U:H4'	23:DA:2703:C:OP1	2.22	0.40
23:DA:2136:C:C5	23:DA:2137:C:H5	2.39	0.40
43:BZ:160:GLY:CA	43:BZ:161:VAL:HB	2.38	0.40
1:AA:1503:A:N9	1:AA:1531:A:H8	2.19	0.40
45:B1:86:SER:O	45:B1:89:GLU:HG2	2.20	0.40
26:DE:119:ARG:HG2	26:DE:160:TYR:HB2	2.02	0.40
33:BP:52:GLU:HB3	33:BP:55:ARG:HD2	2.03	0.40
1:CA:1088:G:C6	1:CA:1089:G:C5	3.10	0.40
29:BH:54:ARG:HD3	29:BH:65:HIS:ND1	2.35	0.40
1:CA:1492:A:H3'	1:CA:1493:A:O4'	2.21	0.40
23:DA:2104:G:N2	23:DA:2105:C:C2	2.89	0.40
23:BA:1558:A:N3	23:BA:1558:A:O4'	2.54	0.40
13:CM:52:GLU:O	13:CM:56:LEU:HB2	2.20	0.40
3:CC:52:LEU:CB	3:CC:70:VAL:HA	2.51	0.40
1:AA:232:G:H1'	1:AA:262:A:N1	2.36	0.40
23:BA:1701:A:OP2	56:BA:5549:HOH:O	2.22	0.40
23:BA:300:A:P	42:BY:86:ARG:NH2	2.94	0.40
23:DA:729:G:C5	25:DD:208:LYS:HB2	2.56	0.40
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.85	0.40
8:AH:14:ARG:O	8:AH:18:ARG:HD3	2.21	0.40
11:CK:45:GLY:O	11:CK:50:TYR:HB2	2.21	0.40
35:DR:97:VAL:CG2	35:DR:114:VAL:HG13	2.51	0.40
23:DA:1589:C:H2'	23:DA:1590:U:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:D0:72:ARG:CB	44:D0:75:LEU:HB2	2.51	0.40
1:CA:116:A:OP2	56:CA:1949:HOH:O	2.22	0.40
39:BV:61:VAL:HG22	39:BV:61:VAL:O	2.21	0.40
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.85	0.40
50:D6:30:THR:OG1	50:D6:30:THR:O	2.39	0.40
27:BF:29:ASN:H	27:BF:112:MET:CE	2.34	0.40
3:CC:19:GLU:HB2	3:CC:40:ARG:HH22	1.86	0.40
12:AL:84:LEU:HD22	12:AL:85:ILE:H	1.84	0.40
25:BD:232:PRO:HB3	25:BD:244:ARG:CZ	2.51	0.40
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	2.03	0.40
34:DQ:48:GLU:O	34:DQ:52:VAL:HG23	2.21	0.40
23:DA:819:A:C4	23:DA:1189:A:C2	3.08	0.40
31:DN:23:LEU:HD12	31:DN:99:LEU:HD23	2.02	0.40
5:CE:18:ARG:O	5:CE:24:ARG:HB2	2.22	0.40
17:CQ:85:VAL:O	17:CQ:89:LEU:HG	2.22	0.40
36:BS:39:ILE:HD12	36:BS:85:VAL:HG21	2.02	0.40
46:B2:3:LEU:HA	46:B2:3:LEU:HD23	1.87	0.40
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.36	0.40
23:DA:2238:G:N3	23:DA:2238:G:H2'	2.36	0.40
31:BN:128:HIS:H	31:BN:128:HIS:CD2	2.39	0.40
38:DU:16:LYS:HB3	38:DU:16:LYS:HE2	1.66	0.40
3:CC:109:PRO:O	3:CC:112:SER:HB3	2.22	0.40
23:BA:225:A:O2'	23:BA:257:A:H4'	2.22	0.40
25:BD:221:VAL:HG22	25:BD:226:MET:CE	2.51	0.40
23:DA:1786:A:H1'	23:DA:1938:A:N6	2.36	0.40
23:BA:2298:A:H2'	23:BA:2299:G:O4'	2.22	0.40
23:BA:265:A:H1'	23:BA:266:G:O4'	2.21	0.40
1:AA:593:G:C2	1:AA:647:C:O2	2.74	0.40
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.21	0.40
1:AA:40:C:C2	1:AA:402:G:N2	2.81	0.40
23:DA:1371:G:O6	56:DA:4328:HOH:O	2.22	0.40
1:CA:1442:G:C8	1:CA:1442(A):G:C4	3.10	0.40
1:CA:926:G:O4'	22:CY:91:LYS:HE2	2.21	0.40
23:BA:1173:G:OP2	23:BA:1173:G:H2'	2.21	0.40
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.56	0.40
23:DA:1022:G:C5	23:DA:1140:C:C4	3.09	0.40
36:DS:110:LEU:HD12	36:DS:110:LEU:HA	2.01	0.40
47:D3:8:LEU:HD23	47:D3:8:LEU:HA	1.81	0.40
1:AA:1492:A:H2'	1:AA:1492:A:N3	2.36	0.40
12:AL:47:LYS:HA	12:AL:48:PRO:HA	1.80	0.40
36:DS:90:GLY:HA3	36:DS:91:PRO:HD2	1.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DP:52:GLU:HB3	33:DP:55:ARG:HD2	2.03	0.40
1:AA:1329:A:OP1	13:AM:28:ALA:HB3	2.22	0.40
23:BA:2526:G:H5'	23:BA:2742:C:O2'	2.21	0.40
7:CG:56:GLN:HB2	7:CG:57:GLU:H	1.59	0.40
7:CG:148:ASN:HD22	7:CG:151:TYR:HD1	1.66	0.40
13:CM:44:ARG:HB2	13:CM:47:ASP:OD2	2.21	0.40
39:BV:5:VAL:HG11	39:BV:57:VAL:HG21	2.04	0.40
10:AJ:55:LYS:HG2	10:AJ:56:HIS:N	2.36	0.40
3:AC:180:ALA:HB1	3:AC:182:ILE:HG13	2.04	0.40
4:AD:30:LYS:CB	4:AD:35:ARG:HD2	2.51	0.40
34:DQ:39:PRO:HA	34:DQ:97:VAL:O	2.22	0.40
17:CQ:87:LYS:HD3	17:CQ:87:LYS:HA	1.82	0.40
23:BA:1164:G:H2'	23:BA:1165:U:C6	2.57	0.40
23:DA:150:C:H2'	23:DA:151:C:C6	2.56	0.40
3:AC:125:GLU:HG2	3:AC:189:ALA:HB1	2.04	0.40
40:DW:58:ALA:HB1	40:DW:64:MET:HB2	2.01	0.40
15:CO:74:ASP:HA	15:CO:75:PRO:HD2	1.84	0.40
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.20	0.40
23:BA:2061:G:H5"	23:BA:2503:A:C2	2.57	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
43:DZ:48:PHE:HE2	43:DZ:71:VAL:HG11	1.87	0.40
7:AG:41:ARG:H	7:AG:41:ARG:HG3	1.43	0.40
27:BF:162:LEU:HA	27:BF:162:LEU:HD12	1.93	0.40
13:CM:30:ALA:O	13:CM:34:LEU:HG	2.21	0.40
4:CD:8:VAL:HG22	4:CD:21:LEU:CD1	2.51	0.40
25:BD:4:LYS:HG2	25:BD:18:VAL:CG2	2.51	0.40
11:CK:21:ILE:HB	11:CK:84:VAL:HG22	2.03	0.40
23:DA:1686:C:H2'	23:DA:1687:G:O4'	2.21	0.40
23:DA:2295:C:OP1	36:DS:10:ARG:NH1	2.55	0.40
1:AA:1004:A:N7	1:AA:1036:G:C2	2.90	0.40
23:BA:271(Q):G:O2'	23:BA:271(R):G:OP2	2.39	0.40
1:CA:1150:U:C4	1:CA:1151:A:N7	2.90	0.40
23:BA:1721:G:H8	23:BA:1741:A:H62	1.70	0.40
2:AB:21:ARG:HB3	2:AB:39:ILE:HG12	2.02	0.40
23:BA:1174:A:H5'	23:BA:1177:A:N6	2.26	0.40
1:CA:1094:G:OP1	56:CA:2093:HOH:O	2.21	0.40
1:CA:953:G:C6	1:CA:954:G:C5	3.10	0.40
1:CA:1350:A:H2'	1:CA:1351:U:C6	2.56	0.40
1:CA:1118:C:OP1	9:CI:9:ARG:NH1	2.36	0.40
43:DZ:182:LYS:HE3	43:DZ:186:GLU:OE2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1452:C:HO2'	1:AA:1456:G:P	2.42	0.40
1:CA:1189:C:H4'	3:CC:10:PHE:CE1	2.57	0.40
20:AT:10:LEU:CG	20:AT:11:SER:H	2.35	0.40
1:AA:1380:U:C2	7:AG:3:ARG:NH1	2.90	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
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.22	0.40
5:CE:90:VAL:O	5:CE:120:THR:HA	2.21	0.40
3:AC:150:LYS:HE3	3:AC:150:LYS:HB2	1.83	0.40
1:CA:930:C:H2'	1:CA:931:C:H5'	2.04	0.40
19:AS:74:PHE:N	19:AS:74:PHE:CD2	2.89	0.40
23:DA:548:A:O2'	23:DA:549:G:OP1	2.37	0.40
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.56	0.40
23:DA:863:A:P	34:DQ:22:LYS:HG3	2.61	0.40
23:BA:856:C:HO2'	23:BA:857:C:P	2.44	0.40
1:CA:257:G:H2'	1:CA:258:G:O4'	2.21	0.40
37:BT:128:GLU:O	37:BT:129:ARG:C	2.59	0.40
33:DP:68:GLN:HG3	52:D8:12:LYS:HG2	2.03	0.40
25:DD:132:PRO:HD3	25:DD:190:TYR:CZ	2.57	0.40
23:BA:1575:C:H2'	23:BA:1576:U:C6	2.56	0.40
20:CT:41:ILE:HD12	20:CT:42:GLN:N	2.36	0.40
23:DA:374:A:H5'	56:DA:4884:HOH:O	2.20	0.40
23:BA:776:G:H4'	23:BA:777:A:O5'	2.21	0.40
23:DA:1385:G:H4'	23:DA:1386:C:OP1	2.22	0.40
23:DA:982:C:H6	23:DA:982:C:O5'	2.04	0.40
1:CA:66:G:OP1	1:CA:66:G:H8	2.05	0.40
1:AA:257:G:H2'	1:AA:258:G:O4'	2.21	0.40
40:DW:20:VAL:O	40:DW:23:LEU:HB2	2.20	0.40
34:BQ:42:ILE:HD13	34:BQ:97:VAL:HG21	2.04	0.40
31:BN:39:ARG:HA	31:BN:40:PRO:HD3	1.96	0.40
23:DA:2296:U:O2'	23:DA:2297:C:OP2	2.26	0.40
41:BX:33:LYS:HA	41:BX:33:LYS:HD3	1.88	0.40
37:BT:16:ARG:HB2	37:BT:79:HIS:ND1	2.36	0.40
1:CA:1245:A:C6	1:CA:1246:C:C4	3.09	0.40
1:CA:1356:G:N2	1:CA:1367:C:C2	2.89	0.40
23:BA:1889:A:H2'	23:BA:1890:A:C8	2.56	0.40
1:AA:954:G:C6	1:AA:955:U:N3	2.90	0.40
42:DY:20:TYR:N	42:DY:20:TYR:CD1	2.89	0.40
23:BA:2318:G:N3	23:BA:2318:G:H2'	2.36	0.40
23:BA:2114:A:H3'	23:BA:2115:G:H8	1.84	0.40
24:DB:95:C:H2'	24:DB:96:U:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:735:C:H2'	1:AA:736:C:C6	2.46	0.40
1:CA:1309:G:O3'	13:CM:77:ASN:ND2	2.54	0.40
1:CA:790:A:H1'	22:CY:29:LYS:O	2.21	0.40
1:CA:93:G:H1'	1:CA:96:U:H5'	2.04	0.40
23:BA:2833:G:O2'	23:BA:2834:G:P	2.80	0.40
30:BI:131:LYS:C	30:BI:133:HIS:H	2.25	0.40
23:DA:250:G:P	52:D8:13:ARG:HH22	2.44	0.40
1:AA:1291:G:C5	1:AA:1292:U:C5	3.09	0.40
15:AO:9:GLN:HA	15:AO:12:ILE:HD12	2.02	0.40
30:DI:68:LEU:HD13	30:DI:68:LEU:HA	1.49	0.40
23:BA:2850:A:OP2	23:BA:2866:U:C5	2.72	0.40
1:CA:130:A:O2'	1:CA:131:C:O5'	2.30	0.40
23:DA:795:C:H2'	23:DA:796:C:C6	2.57	0.40
1:CA:658:G:C6	1:CA:659:U:C4	3.09	0.40
25:DD:85:ASP:OD2	25:DD:88:ARG:NH1	2.43	0.40
25:DD:106:ILE:O	25:DD:108:PRO:HD3	2.20	0.40
1:AA:1060:C:O2'	10:AJ:56:HIS:HD2	2.04	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
5:CE:89:ILE:HD13	5:CE:90:VAL:N	2.37	0.40
8:AH:39:LEU:O	8:AH:44:PHE:N	2.53	0.40
29:DH:71:LEU:O	29:DH:74:ASN:HB2	2.22	0.40
23:DA:228:A:H2'	23:DA:230:U:O4'	2.21	0.40
1:CA:858:G:O6	1:CA:869:G:H3'	2.21	0.40
23:BA:443:A:N7	27:BF:45:ARG:HG2	2.37	0.40
12:CL:27:LEU:CB	12:CL:62:SER:HB3	2.51	0.40
30:BI:86:THR:HG22	30:BI:122:GLU:OE2	2.21	0.40
23:DA:2492:U:H2'	23:DA:2493:U:C6	2.56	0.40
23:BA:2637:U:O2'	23:BA:2638:G:H5'	2.21	0.40
45:D1:86:SER:O	45:D1:89:GLU:HG2	2.22	0.40
31:BN:94:HIS:HB3	31:BN:97:ARG:HD3	2.03	0.40
26:DE:72:VAL:HA	26:DE:73:GLU:HB3	2.04	0.40
23:DA:2756:U:H1'	23:DA:2757:A:H5"	2.03	0.40
11:AK:84:VAL:HG11	11:AK:91:ARG:HD2	2.04	0.40
2:CB:215:LEU:HA	2:CB:215:LEU:HD23	1.74	0.40
23:DA:897:C:O5'	23:DA:897:C:H6	2.04	0.40
43:DZ:56:VAL:HG23	43:DZ:133:ILE:HD13	2.04	0.40
23:BA:614:U:H2'	23:BA:614(A):U:O4'	2.22	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%)	21 49
2	CB	233/256 (91%)	187 (80%)	43 (18%)	3 (1%)	15 37
3	AC	204/239 (85%)	176 (86%)	28 (14%)	0	100 100
3	CC	204/239 (85%)	169 (83%)	31 (15%)	4 (2%)	9 24
4	AD	206/209 (99%)	186 (90%)	20 (10%)	0	100 100
4	CD	206/209 (99%)	182 (88%)	23 (11%)	1 (0%)	34 63
5	AE	146/162 (90%)	128 (88%)	17 (12%)	1 (1%)	26 55
5	CE	146/162 (90%)	130 (89%)	15 (10%)	1 (1%)	26 55
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%)	26 55
7	CG	153/156 (98%)	130 (85%)	22 (14%)	1 (1%)	26 55
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%)	12 30
9	CI	123/128 (96%)	104 (85%)	14 (11%)	5 (4%)	3 7
10	AJ	94/105 (90%)	72 (77%)	15 (16%)	7 (7%)	1 1
10	CJ	94/105 (90%)	72 (77%)	18 (19%)	4 (4%)	3 7
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%)	24 51
12	CL	120/132 (91%)	109 (91%)	10 (8%)	1 (1%)	24 51
13	AM	112/126 (89%)	86 (77%)	22 (20%)	4 (4%)	4 9
13	CM	110/126 (87%)	86 (78%)	18 (16%)	6 (6%)	2 4
14	AN	58/61 (95%)	50 (86%)	7 (12%)	1 (2%)	11 29
14	CN	58/61 (95%)	49 (84%)	5 (9%)	4 (7%)	1 2
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%)	15 37
16	CP	80/88 (91%)	74 (92%)	5 (6%)	1 (1%)	15 37
17	AQ	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	19 45
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%)	15 37
19	CS	76/93 (82%)	57 (75%)	18 (24%)	1 (1%)	15 37
20	AT	94/106 (89%)	77 (82%)	17 (18%)	0	100 100
20	CT	102/106 (96%)	79 (78%)	20 (20%)	3 (3%)	6 14
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%)	17 42
22	CY	92/119 (77%)	87 (95%)	5 (5%)	0	100 100
25	BD	273/276 (99%)	262 (96%)	8 (3%)	3 (1%)	17 42
25	DD	273/276 (99%)	262 (96%)	8 (3%)	3 (1%)	17 42
26	BE	202/206 (98%)	191 (95%)	8 (4%)	3 (2%)	13 32
26	DE	202/206 (98%)	187 (93%)	12 (6%)	3 (2%)	13 32
27	BF	201/210 (96%)	189 (94%)	10 (5%)	2 (1%)	19 45
27	DF	201/210 (96%)	191 (95%)	8 (4%)	2 (1%)	19 45
28	BG	179/182 (98%)	149 (83%)	26 (14%)	4 (2%)	8 22
28	DG	179/182 (98%)	148 (83%)	29 (16%)	2 (1%)	17 42
29	BH	172/180 (96%)	161 (94%)	10 (6%)	1 (1%)	30 59

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
29	DH	172/180 (96%)	160 (93%)	9 (5%)	3 (2%)	11 29
30	BI	144/148 (97%)	116 (81%)	24 (17%)	4 (3%)	6 15
30	DI	144/148 (97%)	119 (83%)	22 (15%)	3 (2%)	9 23
31	BN	138/140 (99%)	125 (91%)	11 (8%)	2 (1%)	14 35
31	DN	138/140 (99%)	125 (91%)	11 (8%)	2 (1%)	14 35
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%)	14 35
33	DP	147/150 (98%)	130 (88%)	15 (10%)	2 (1%)	14 35
34	BQ	139/141 (99%)	132 (95%)	6 (4%)	1 (1%)	26 55
34	DQ	139/141 (99%)	131 (94%)	6 (4%)	2 (1%)	14 35
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%)	21 49
36	DS	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	21 49
37	BT	129/146 (88%)	125 (97%)	4 (3%)	0	100 100
37	DT	128/146 (88%)	124 (97%)	3 (2%)	1 (1%)	24 51
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%)	17 42
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%)	9 24
43	DZ	201/206 (98%)	181 (90%)	15 (8%)	5 (2%)	7 18
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%)	9 23
45	D1	95/98 (97%)	92 (97%)	1 (1%)	2 (2%)	9 23
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%)	8 20
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%)	8 22
51	D7	46/49 (94%)	44 (96%)	1 (2%)	1 (2%)	8 22
52	B8	62/65 (95%)	60 (97%)	1 (2%)	1 (2%)	12 30
52	D8	62/65 (95%)	59 (95%)	1 (2%)	2 (3%)	5 12
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%)	17 42

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%)	3 7
2	CB	181/220 (82%)	151 (83%)	30 (17%)	3 7
3	AC	114/188 (61%)	97 (85%)	17 (15%)	4 9

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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	AS	43/80 (54%)	37 (86%)	6 (14%)	4 10
19	CS	44/80 (55%)	32 (73%)	12 (27%)	0 1
20	AT	62/82 (76%)	53 (86%)	9 (14%)	4 10
20	CT	72/82 (88%)	61 (85%)	11 (15%)	3 8
21	AU	18/22 (82%)	15 (83%)	3 (17%)	3 7
21	CU	14/22 (64%)	11 (79%)	3 (21%)	1 3
22	AY	82/104 (79%)	70 (85%)	12 (15%)	4 9
22	CY	79/104 (76%)	63 (80%)	16 (20%)	1 4
25	BD	215/218 (99%)	191 (89%)	24 (11%)	7 17
25	DD	215/218 (99%)	190 (88%)	25 (12%)	7 16
26	BE	163/166 (98%)	140 (86%)	23 (14%)	4 10
26	DE	163/166 (98%)	139 (85%)	24 (15%)	4 9
27	BF	158/166 (95%)	134 (85%)	24 (15%)	3 9
27	DF	157/166 (95%)	135 (86%)	22 (14%)	4 10
28	BG	128/156 (82%)	107 (84%)	21 (16%)	3 7
28	DG	128/156 (82%)	107 (84%)	21 (16%)	3 7
29	BH	141/148 (95%)	125 (89%)	16 (11%)	7 16
29	DH	141/148 (95%)	128 (91%)	13 (9%)	11 25
30	BI	100/124 (81%)	73 (73%)	27 (27%)	0 2
30	DI	100/124 (81%)	75 (75%)	25 (25%)	1 2
31	BN	117/119 (98%)	99 (85%)	18 (15%)	3 8
31	DN	117/119 (98%)	99 (85%)	18 (15%)	3 8
32	BO	98/100 (98%)	89 (91%)	9 (9%)	11 25
32	DO	98/100 (98%)	91 (93%)	7 (7%)	18 41
33	BP	114/116 (98%)	94 (82%)	20 (18%)	2 6
33	DP	114/116 (98%)	95 (83%)	19 (17%)	3 7
34	BQ	111/111 (100%)	94 (85%)	17 (15%)	3 8
34	DQ	111/111 (100%)	95 (86%)	16 (14%)	4 10
35	BR	101/101 (100%)	81 (80%)	20 (20%)	1 4
35	DR	101/101 (100%)	81 (80%)	20 (20%)	1 4
36	BS	84/88 (96%)	70 (83%)	14 (17%)	3 7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
36	DS	86/88 (98%)	70 (81%)	16 (19%)	2 5
37	BT	110/127 (87%)	90 (82%)	20 (18%)	2 5
37	DT	110/127 (87%)	93 (84%)	17 (16%)	3 8
38	BU	93/94 (99%)	80 (86%)	13 (14%)	4 10
38	DU	93/94 (99%)	81 (87%)	12 (13%)	5 12
39	BV	80/82 (98%)	65 (81%)	15 (19%)	2 5
39	DV	81/82 (99%)	65 (80%)	16 (20%)	1 4
40	BW	89/92 (97%)	77 (86%)	12 (14%)	5 11
40	DW	89/92 (97%)	78 (88%)	11 (12%)	6 13
41	BX	75/78 (96%)	66 (88%)	9 (12%)	6 14
41	DX	73/78 (94%)	66 (90%)	7 (10%)	10 24
42	BY	80/91 (88%)	66 (82%)	14 (18%)	2 6
42	DY	79/91 (87%)	64 (81%)	15 (19%)	2 5
43	BZ	159/179 (89%)	137 (86%)	22 (14%)	4 10
43	DZ	155/179 (87%)	136 (88%)	19 (12%)	6 14
44	B0	59/67 (88%)	52 (88%)	7 (12%)	6 15
44	D0	61/67 (91%)	51 (84%)	10 (16%)	3 7
45	B1	78/83 (94%)	65 (83%)	13 (17%)	3 7
45	D1	78/83 (94%)	66 (85%)	12 (15%)	3 8
46	B2	65/67 (97%)	57 (88%)	8 (12%)	6 14
46	D2	63/67 (94%)	55 (87%)	8 (13%)	5 13
47	B3	49/52 (94%)	44 (90%)	5 (10%)	9 21
47	D3	50/52 (96%)	44 (88%)	6 (12%)	6 14
48	B4	39/63 (62%)	34 (87%)	5 (13%)	5 12
48	D4	39/63 (62%)	35 (90%)	4 (10%)	9 20
49	B5	50/52 (96%)	43 (86%)	7 (14%)	4 10
49	D5	49/52 (94%)	44 (90%)	5 (10%)	9 21
50	B6	50/52 (96%)	40 (80%)	10 (20%)	1 4
50	D6	48/52 (92%)	37 (77%)	11 (23%)	1 3
51	B7	41/42 (98%)	35 (85%)	6 (15%)	4 9
51	D7	38/42 (90%)	32 (84%)	6 (16%)	3 8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
52	B8	52/55 (94%)	45 (86%)	7 (14%)	5 11
52	D8	52/55 (94%)	45 (86%)	7 (14%)	5 11
53	B9	32/34 (94%)	30 (94%)	2 (6%)	22 48
53	D9	32/34 (94%)	31 (97%)	1 (3%)	47 78
All	All	8871/10274 (86%)	7518 (85%)	1353 (15%)	3 8

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%)	0.12	80 (5%) 29 28	37, 73, 129, 165	0
1	CA	1491/1522 (97%)	0.28	112 (7%) 17 15	40, 84, 135, 175	0
2	AB	229/256 (89%)	0.71	29 (12%) 5 4	76, 103, 123, 135	0
2	CB	235/256 (91%)	1.54	79 (33%) 0 0	80, 108, 127, 135	0
3	AC	206/239 (86%)	0.27	11 (5%) 30 28	62, 81, 98, 105	0
3	CC	206/239 (86%)	1.25	55 (26%) 1 1	85, 109, 122, 130	0
4	AD	208/209 (99%)	0.97	36 (17%) 2 1	64, 85, 105, 113	0
4	CD	208/209 (99%)	0.76	29 (13%) 4 3	68, 85, 103, 111	0
5	AE	148/162 (91%)	0.07	0 100 100	59, 73, 86, 101	0
5	CE	148/162 (91%)	0.56	15 (10%) 9 7	62, 77, 91, 105	0
6	AF	100/101 (99%)	0.04	4 (4%) 42 41	61, 72, 85, 100	0
6	CF	99/101 (98%)	0.20	3 (3%) 54 54	62, 74, 86, 95	0
7	AG	155/156 (99%)	-0.02	7 (4%) 37 36	64, 76, 91, 100	0
7	CG	155/156 (99%)	1.23	43 (27%) 1 1	86, 102, 111, 118	0
8	AH	138/138 (100%)	0.48	8 (5%) 26 25	61, 75, 83, 94	0
8	CH	138/138 (100%)	0.61	14 (10%) 9 7	64, 79, 87, 95	0
9	AI	125/128 (97%)	0.61	14 (11%) 7 5	64, 93, 106, 114	0
9	CI	125/128 (97%)	2.03	46 (36%) 0 0	89, 118, 126, 133	0
10	AJ	96/105 (91%)	1.27	20 (20%) 1 1	63, 96, 120, 124	0
10	CJ	96/105 (91%)	2.23	45 (46%) 0 0	95, 118, 135, 144	0
11	AK	114/129 (88%)	0.47	9 (7%) 15 13	50, 72, 91, 107	0
11	CK	114/129 (88%)	0.80	16 (14%) 4 3	54, 77, 95, 109	0
12	AL	122/132 (92%)	0.61	5 (4%) 41 41	54, 68, 82, 95	0
12	CL	122/132 (92%)	0.94	20 (16%) 2 2	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%)	0.14	7 (6%) 25 23	68, 82, 97, 102	0
13	CM	112/126 (88%)	1.65	40 (35%) 0 0	94, 117, 126, 134	0
14	AN	60/61 (98%)	0.50	4 (6%) 21 19	68, 79, 92, 102	0
14	CN	60/61 (98%)	1.58	19 (31%) 1 0	99, 110, 121, 128	0
15	AO	88/89 (98%)	0.38	3 (3%) 49 49	52, 73, 90, 94	0
15	CO	88/89 (98%)	0.67	11 (12%) 5 4	58, 77, 91, 96	0
16	AP	82/88 (93%)	1.08	14 (17%) 2 1	68, 82, 100, 110	0
16	CP	82/88 (93%)	0.50	5 (6%) 25 23	66, 79, 94, 103	0
17	AQ	99/105 (94%)	0.42	4 (4%) 42 41	57, 74, 87, 92	0
17	CQ	99/105 (94%)	0.66	9 (9%) 11 9	60, 75, 85, 94	0
18	AR	68/88 (77%)	0.11	3 (4%) 38 37	62, 73, 92, 96	0
18	CR	68/88 (77%)	0.62	9 (13%) 4 4	65, 76, 92, 96	0
19	AS	81/93 (87%)	0.68	9 (11%) 7 5	74, 89, 105, 128	0
19	CS	78/93 (83%)	2.25	39 (50%) 0 0	100, 118, 130, 133	0
20	AT	96/106 (90%)	0.89	12 (12%) 5 4	66, 82, 100, 106	0
20	CT	104/106 (98%)	0.86	14 (13%) 4 3	64, 83, 103, 119	0
21	AU	23/27 (85%)	0.76	3 (13%) 5 4	71, 80, 83, 90	0
21	CU	23/27 (85%)	1.88	9 (39%) 0 0	97, 106, 115, 119	0
22	AY	95/119 (79%)	0.08	2 (2%) 67 68	51, 64, 81, 92	0
22	CY	94/119 (78%)	2.37	52 (55%) 0 0	76, 95, 113, 120	0
23	BA	2827/2915 (96%)	0.07	116 (4%) 41 41	24, 40, 120, 169	0
23	DA	2798/2915 (95%)	-0.17	158 (5%) 28 26	27, 46, 118, 170	0
24	BB	120/122 (98%)	-0.12	1 (0%) 87 88	39, 65, 76, 119	0
24	DB	120/122 (98%)	0.93	29 (24%) 1 1	50, 81, 97, 130	0
25	BD	275/276 (99%)	-0.08	0 100 100	24, 39, 51, 79	0
25	DD	275/276 (99%)	-0.23	1 (0%) 93 94	26, 43, 55, 84	0
26	BE	204/206 (99%)	-0.11	0 100 100	24, 44, 64, 81	0
26	DE	204/206 (99%)	-0.08	3 (1%) 76 76	27, 48, 69, 84	0
27	BF	203/210 (96%)	0.12	1 (0%) 91 93	25, 49, 82, 113	0
27	DF	203/210 (96%)	0.23	13 (6%) 23 21	28, 58, 84, 115	0
28	BG	181/182 (99%)	0.22	6 (3%) 50 50	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%)	2.17	87 (48%) 0 0	78, 96, 116, 140	0
29	BH	174/180 (96%)	0.21	3 (1%) 73 74	49, 64, 80, 92	0
29	DH	174/180 (96%)	1.67	57 (32%) 0 0	61, 78, 92, 101	0
30	BI	146/148 (98%)	0.45	13 (8%) 12 9	46, 75, 91, 98	0
30	DI	146/148 (98%)	0.61	14 (9%) 10 8	49, 81, 99, 107	0
31	BN	140/140 (100%)	0.08	0 100 100	30, 44, 66, 83	0
31	DN	140/140 (100%)	-0.02	4 (2%) 55 55	35, 52, 73, 86	0
32	BO	122/122 (100%)	-0.13	0 100 100	34, 43, 62, 65	0
32	DO	122/122 (100%)	-0.31	1 (0%) 87 88	37, 47, 65, 68	0
33	BP	149/150 (99%)	0.20	1 (0%) 89 90	25, 51, 77, 96	0
33	DP	149/150 (99%)	0.51	18 (12%) 6 4	30, 60, 87, 99	0
34	BQ	141/141 (100%)	0.13	0 100 100	31, 47, 59, 74	0
34	DQ	141/141 (100%)	0.16	8 (5%) 27 26	39, 55, 69, 79	0
35	BR	118/118 (100%)	0.04	0 100 100	30, 39, 51, 62	0
35	DR	118/118 (100%)	-0.24	0 100 100	33, 42, 55, 67	0
36	BS	110/112 (98%)	0.18	1 (0%) 85 86	48, 62, 77, 85	0
36	DS	110/112 (98%)	1.51	27 (24%) 1 1	59, 74, 87, 93	0
37	BT	131/146 (89%)	-0.15	1 (0%) 87 88	38, 46, 76, 103	0
37	DT	130/146 (89%)	-0.22	2 (1%) 76 76	41, 50, 73, 105	0
38	BU	116/118 (98%)	0.13	1 (0%) 85 86	28, 38, 53, 70	0
38	DU	116/118 (98%)	-0.12	3 (2%) 59 59	33, 45, 61, 70	0
39	BV	101/101 (100%)	0.05	1 (0%) 84 85	27, 48, 67, 83	0
39	DV	101/101 (100%)	0.64	9 (8%) 12 9	32, 59, 76, 85	0
40	BW	112/113 (99%)	-0.14	0 100 100	28, 35, 52, 92	0
40	DW	111/113 (98%)	-0.33	0 100 100	32, 40, 58, 85	0
41	BX	95/96 (98%)	-0.01	0 100 100	33, 43, 65, 84	0
41	DX	95/96 (98%)	-0.01	2 (2%) 67 68	39, 50, 68, 89	0
42	BY	107/110 (97%)	-0.04	0 100 100	44, 55, 77, 88	0
42	DY	107/110 (97%)	0.74	14 (13%) 5 4	53, 63, 82, 91	0
43	BZ	198/206 (96%)	-0.03	0 100 100	48, 68, 91, 103	0
43	DZ	203/206 (98%)	1.01	38 (18%) 2 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%)	0.03	0 100 100	37, 44, 57, 75	0
44	D0	77/85 (90%)	0.45	7 (9%) 11 9	44, 52, 67, 101	0
45	B1	97/98 (98%)	0.14	2 (2%) 67 68	31, 44, 74, 82	0
45	D1	97/98 (98%)	-0.07	3 (3%) 52 52	33, 48, 78, 85	0
46	B2	70/72 (97%)	0.20	1 (1%) 78 77	42, 56, 67, 93	0
46	D2	71/72 (98%)	0.52	7 (9%) 9 7	51, 65, 76, 94	0
47	B3	59/60 (98%)	0.12	1 (1%) 73 74	33, 42, 66, 84	0
47	D3	59/60 (98%)	0.66	6 (10%) 9 6	39, 50, 76, 96	0
48	B4	46/71 (64%)	0.18	2 (4%) 39 38	73, 96, 111, 116	0
48	D4	46/71 (64%)	1.33	12 (26%) 1 1	89, 107, 118, 124	0
49	B5	59/60 (98%)	-0.08	0 100 100	23, 38, 56, 68	0
49	D5	59/60 (98%)	-0.10	2 (3%) 49 49	27, 43, 61, 73	0
50	B6	53/54 (98%)	-0.19	0 100 100	40, 46, 59, 66	0
50	D6	53/54 (98%)	-0.03	0 100 100	47, 52, 60, 70	0
51	B7	48/49 (97%)	0.02	0 100 100	26, 30, 51, 71	0
51	D7	48/49 (97%)	-0.15	0 100 100	28, 33, 54, 82	0
52	B8	64/65 (98%)	0.11	0 100 100	34, 38, 45, 57	0
52	D8	64/65 (98%)	0.10	1 (1%) 74 75	38, 44, 50, 60	0
53	B9	36/37 (97%)	0.16	0 100 100	38, 46, 57, 69	0
53	D9	36/37 (97%)	0.13	1 (2%) 56 57	45, 55, 66, 76	0
All	All	20617/21484 (95%)	0.29	1646 (7%) 15 13	23, 63, 117, 175	0

All (1646) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	CA	1036	G	16.2
1	CA	1030(B)	C	13.2
23	DA	2139	C	12.7
9	CI	30	GLY	11.8
23	DA	2154	G	11.5
23	DA	2153	G	10.7
23	DA	2138	C	10.6
23	DA	2155	G	10.2
28	DG	17	PRO	9.9
9	CI	36	TYR	9.7

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Mol	Chain	Res	Type	RSRZ
36	DS	56	LEU	9.7
23	DA	2147	G	9.6
23	BA	2132	U	9.5
10	CJ	27	ALA	9.4
1	CA	1030(A)	G	9.2
23	DA	2137	C	9.2
23	DA	2148	G	9.2
23	BA	2133	G	9.2
23	BA	2793	G	9.2
23	BA	888	C	9.1
13	CM	6	GLY	9.0
23	DA	2159	G	8.9
23	DA	2803	C	8.9
23	DA	2140	C	8.9
23	BA	2116	G	8.8
23	DA	2146	C	8.8
23	DA	2136	C	8.6
2	CB	133	LYS	8.5
4	AD	23	GLY	8.5
2	CB	70	PHE	8.5
28	DG	13	GLU	8.5
23	DA	2164	C	8.5
23	DA	2168	G	8.4
23	DA	2156	G	8.4
11	CK	13	GLN	8.4
23	DA	229	A	8.3
1	CA	1026	G	8.2
1	CA	1035	A	8.1
23	DA	2160	G	8.1
28	DG	35	GLU	8.0
9	CI	64	THR	7.9
23	DA	2125	G	7.9
9	CI	7	THR	7.8
19	CS	71	LEU	7.8
23	DA	2173	A	7.7
1	AA	1030(B)	C	7.7
28	DG	2	PRO	7.7
43	DZ	203	GLU	7.7
28	DG	19	LEU	7.6
2	CB	163	PHE	7.6
23	DA	2116	G	7.6
1	CA	1257	U	7.6

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Mol	Chain	Res	Type	RSRZ
1	CA	1001	A	7.5
23	BA	2805	G	7.4
23	BA	2147	G	7.4
23	BA	2792	G	7.3
10	CJ	77	PRO	7.3
23	DA	2165	G	7.3
23	BA	2135	A	7.3
23	BA	2129	C	7.3
1	CA	1001(A)	G	7.3
23	DA	2124	G	7.2
23	DA	2793	G	7.2
1	AA	1036	G	7.1
23	BA	652(I)	C	7.1
23	DA	2802	G	7.1
23	DA	2134	A	7.1
1	CA	1028	C	7.1
19	CS	12	ASP	7.1
23	DA	2158	A	7.1
23	BA	2158	A	7.0
1	AA	1026	G	7.0
23	BA	2803	C	7.0
20	CT	106	ALA	6.9
23	DA	2167	U	6.9
4	AD	120	LEU	6.9
23	DA	2135	A	6.9
23	DA	2162	G	6.9
2	CB	122	PHE	6.9
2	CB	165	VAL	6.8
23	DA	2157	G	6.8
19	CS	49	ILE	6.8
9	CI	69	GLY	6.8
7	CG	156	TRP	6.8
20	AT	95	ALA	6.8
23	DA	2145	C	6.8
10	CJ	34	VAL	6.8
19	CS	69	HIS	6.8
9	CI	66	ARG	6.7
23	BA	2157	G	6.7
23	DA	2133	G	6.7
1	CA	1002	G	6.7
23	BA	652(J)	G	6.6
1	CA	1030	C	6.6

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Mol	Chain	Res	Type	RSRZ
28	DG	155	MET	6.6
10	CJ	45	ARG	6.6
23	BA	2131	G	6.6
23	DA	2804	C	6.5
36	DS	52	SER	6.5
1	AA	1001(A)	G	6.5
1	CA	1286	A	6.4
1	AA	1024	G	6.4
36	DS	55	ALA	6.4
23	BA	2159	G	6.4
48	D4	40	HIS	6.3
2	CB	214	ILE	6.3
10	CJ	33	GLN	6.3
28	DG	73	ALA	6.3
22	CY	92	GLY	6.3
29	DH	59	ARG	6.3
13	CM	7	VAL	6.3
1	AA	1027	C	6.2
23	BA	2794	C	6.2
1	AA	1030(C)	G	6.2
23	DA	2152	G	6.2
23	DA	2170	A	6.2
2	CB	132	LYS	6.2
23	DA	2169	A	6.2
23	DA	2166	G	6.2
3	CC	87	LEU	6.1
1	CA	1030(C)	G	6.1
13	CM	64	TRP	6.1
23	DA	2141	G	6.1
23	BA	652(Q)	G	6.1
23	DA	2142	C	6.1
23	DA	2174	C	6.1
19	CS	64	GLU	6.1
28	BG	49	ASP	6.0
23	DA	2110	G	6.0
28	DG	29	TRP	6.0
23	DA	2144	U	6.0
13	CM	110	ARG	6.0
36	DS	54	LEU	5.9
29	DH	141	VAL	5.9
9	CI	88	TYR	5.9
28	DG	25	TYR	5.9

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Mol	Chain	Res	Type	RSRZ
28	DG	176	LEU	5.9
23	DA	2120	G	5.9
10	CJ	26	ALA	5.9
1	CA	1037	C	5.9
1	AA	1023	G	5.9
23	BA	2160	G	5.9
39	DV	1	MET	5.8
23	BA	652(S)	C	5.8
23	DA	2132	U	5.8
1	AA	91	C	5.8
1	AA	1001	A	5.8
23	BA	2126	A	5.8
23	DA	2126	A	5.8
1	CA	1034	G	5.8
23	BA	2153	G	5.8
1	AA	3	G	5.8
1	CA	1003	G	5.8
23	BA	2804	C	5.8
23	DA	2179	C	5.8
22	CY	42	SER	5.8
23	BA	2130	U	5.8
10	AJ	10	GLY	5.7
1	AA	1257	U	5.7
9	CI	63	ILE	5.7
23	DA	2131	G	5.7
9	CI	9	ARG	5.7
9	CI	59	PHE	5.7
7	AG	156	TRP	5.7
1	CA	1129	C	5.6
1	CA	1029	C	5.6
23	DA	2171	A	5.6
13	CM	102	ARG	5.6
2	CB	232	PRO	5.6
1	CA	1027	C	5.6
23	DA	2112	G	5.6
23	DA	2172	U	5.6
1	AA	97	G	5.6
23	BA	2108	C	5.6
29	DH	43	VAL	5.5
10	CJ	65	LEU	5.5
13	CM	65	LYS	5.5
28	DG	72	ARG	5.5

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Mol	Chain	Res	Type	RSRZ
1	AA	841	U	5.5
23	DA	2111	C	5.5
1	AA	1037	C	5.5
23	DA	2794	C	5.5
23	BA	2894	G	5.5
23	DA	652(T)	C	5.4
28	DG	69	ALA	5.4
1	AA	1002	G	5.4
24	DB	118	G	5.4
22	CY	71	TYR	5.4
7	CG	118	VAL	5.4
47	D3	60	GLU	5.4
23	BA	2125	G	5.4
9	CI	26	VAL	5.3
23	DA	2106	G	5.3
2	AB	121	LEU	5.3
23	DA	1509	C	5.3
23	DA	2119	A	5.3
23	DA	2176	A	5.3
23	DA	2805	G	5.3
36	DS	46	VAL	5.2
28	DG	138	GLN	5.2
28	DG	149	VAL	5.2
1	AA	1005	A	5.2
14	CN	37	PHE	5.2
36	DS	57	LYS	5.2
19	CS	52	TYR	5.2
28	DG	182	LYS	5.2
19	AS	61	TYR	5.2
1	AA	202	U	5.2
23	DA	1042	G	5.2
42	DY	1	MET	5.2
1	CA	1030(D)	A	5.2
9	CI	67	GLY	5.2
23	BA	2136	C	5.1
23	DA	2118	U	5.1
23	DA	2143	C	5.1
23	DA	2161	C	5.1
23	DA	2178	C	5.1
36	DS	39	ILE	5.1
19	CS	36	ARG	5.1
19	CS	63	THR	5.1

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Mol	Chain	Res	Type	RSRZ
48	D4	44	THR	5.1
23	BA	2168	G	5.1
29	DH	58	GLU	5.1
10	CJ	67	THR	5.1
22	CY	45	PRO	5.0
23	BA	2134	A	5.0
23	DA	2104	G	5.0
28	DG	157	ILE	5.0
43	DZ	12	GLY	5.0
22	CY	3	MET	5.0
1	AA	1028	C	5.0
19	CS	35	SER	5.0
23	BA	2173	A	5.0
27	DF	208	GLY	5.0
4	CD	4	TYR	5.0
22	CY	50	ALA	4.9
23	BA	652(H)	C	4.9
23	DA	280	C	4.9
13	CM	92	HIS	4.9
2	CB	188	ALA	4.9
10	AJ	24	VAL	4.9
2	CB	97	TRP	4.9
10	CJ	23	ILE	4.9
7	CG	78	ARG	4.9
22	CY	46	GLN	4.9
19	CS	53	ASN	4.9
23	DA	2792	G	4.9
36	DS	58	LEU	4.9
29	DH	101	ARG	4.9
23	BA	2167	U	4.9
14	CN	55	GLY	4.9
23	BA	2139	C	4.8
2	AB	125	PRO	4.8
36	DS	48	LEU	4.8
28	DG	39	ILE	4.8
29	DH	4	ILE	4.8
23	BA	2155	G	4.8
23	DA	2310	A	4.8
4	AD	108	LEU	4.8
29	DH	71	LEU	4.8
1	AA	1030	C	4.8
19	CS	34	TRP	4.8

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Mol	Chain	Res	Type	RSRZ
2	CB	68	ILE	4.7
3	CC	65	ALA	4.7
28	DG	12	TYR	4.7
1	CA	1131	G	4.7
11	CK	126	ARG	4.7
10	AJ	8	LEU	4.7
1	AA	1447	A	4.7
10	CJ	47	PHE	4.7
10	CJ	20	ALA	4.7
23	BA	2144	U	4.7
29	DH	82	GLY	4.7
1	AA	90	U	4.7
9	CI	65	VAL	4.7
23	DA	2105	C	4.6
23	DA	2163	C	4.6
1	AA	1031	G	4.6
22	CY	9	GLN	4.6
3	CC	66	VAL	4.6
10	CJ	70	ARG	4.6
11	CK	42	TRP	4.6
21	CU	10	ARG	4.6
22	CY	61	LEU	4.6
36	DS	45	GLY	4.6
4	AD	175	SER	4.6
11	CK	32	ILE	4.6
23	BA	2161	C	4.6
21	CU	14	TRP	4.6
23	BA	1176	G	4.6
1	CA	1459	C	4.6
1	AA	1000	U	4.6
8	CH	1	MET	4.6
31	DN	140	VAL	4.6
13	CM	72	ALA	4.5
23	DA	2114	A	4.5
23	BA	1509	C	4.5
10	AJ	72	VAL	4.5
12	CL	64	TYR	4.5
29	DH	115	VAL	4.5
2	CB	187	LEU	4.5
2	CB	81	VAL	4.5
12	CL	69	TYR	4.5
23	BA	2156	G	4.5

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Mol	Chain	Res	Type	RSRZ
1	CA	1006	C	4.5
23	DA	888	C	4.5
28	DG	49	ASP	4.5
49	D5	60	VAL	4.5
2	AB	127	ILE	4.5
1	AA	1021	G	4.5
23	BA	2117	A	4.5
23	DA	2177	C	4.5
22	CY	37	PRO	4.5
23	DA	2107	C	4.5
11	CK	75	TYR	4.5
2	CB	37	ASN	4.4
23	DA	2894	G	4.4
7	CG	75	VAL	4.4
34	DQ	60	ARG	4.4
23	DA	2113	U	4.4
23	BA	2145	C	4.4
3	AC	193	TYR	4.4
23	DA	1043	C	4.4
28	DG	137	GLU	4.4
9	AI	44	VAL	4.4
18	CR	58	LEU	4.4
29	DH	175	LYS	4.4
2	AB	131	PRO	4.4
14	CN	54	PRO	4.4
34	DQ	59	ARG	4.4
4	CD	7	PRO	4.4
23	DA	2801(A)	A	4.4
2	CB	140	HIS	4.4
28	DG	120	LEU	4.4
2	AB	130	ARG	4.4
23	BA	2154	G	4.4
22	CY	65	GLY	4.3
22	CY	39	ILE	4.3
13	CM	69	GLU	4.3
23	DA	1115	G	4.3
23	DA	2115	G	4.3
23	DA	2896	C	4.3
4	CD	35	ARG	4.3
48	D4	7	PRO	4.3
5	CE	12	LEU	4.3
30	DI	85	GLU	4.3

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Mol	Chain	Res	Type	RSRZ
2	AB	16	HIS	4.3
4	AD	138	TYR	4.3
20	CT	99	LEU	4.3
36	DS	73	LEU	4.3
29	DH	5	GLY	4.3
1	AA	203	U	4.3
22	CY	38	HIS	4.3
7	CG	82	GLY	4.3
22	CY	10	MET	4.3
2	AB	128	GLU	4.2
29	DH	83	TYR	4.2
18	CR	22	VAL	4.2
28	DG	160	VAL	4.2
1	CA	1132	C	4.2
1	CA	1040	U	4.2
1	AA	93	G	4.2
23	DA	2149	G	4.2
29	DH	50	VAL	4.2
1	AA	1035	A	4.2
23	DA	1041	C	4.2
19	CS	68	GLY	4.2
37	BT	38	ASN	4.2
29	DH	2	SER	4.2
9	CI	115	GLY	4.2
23	DA	652(B)	A	4.2
23	DA	2123	G	4.2
29	DH	110	SER	4.1
22	CY	70	MET	4.1
23	DA	2790	A	4.1
1	AA	1137	C	4.1
28	DG	9	ARG	4.1
2	AB	122	PHE	4.1
7	CG	76	ARG	4.1
23	DA	2109	U	4.1
9	CI	68	GLY	4.1
28	DG	85	GLY	4.1
9	CI	46	ALA	4.1
9	CI	37	PHE	4.1
1	CA	1248	A	4.1
23	BA	2801(A)	A	4.1
1	CA	1020	U	4.1
1	AA	204	U	4.1

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Mol	Chain	Res	Type	RSRZ
2	CB	15	VAL	4.1
22	CY	15	ALA	4.1
44	D0	85	ALA	4.1
1	AA	848	C	4.1
48	D4	43	TYR	4.0
1	CA	1033	G	4.0
19	CS	9	VAL	4.0
28	DG	92	VAL	4.0
23	BA	2141	G	4.0
23	BA	2152	G	4.0
7	CG	32	ARG	4.0
22	CY	41	LEU	4.0
13	CM	66	LEU	4.0
29	DH	48	GLY	4.0
24	DB	64	C	4.0
10	CJ	66	ARG	4.0
22	CY	77	LEU	4.0
1	CA	1024	G	4.0
3	CC	8	ILE	4.0
19	CS	82	GLY	4.0
28	DG	89	GLY	4.0
1	AA	1030(A)	G	3.9
1	CA	1023	G	3.9
1	CA	1031	G	3.9
23	BA	2146	C	3.9
23	BA	2174	C	3.9
3	CC	23	TYR	3.9
4	AD	104	VAL	3.9
23	DA	11	G	3.9
28	DG	84	LYS	3.9
9	CI	17	VAL	3.9
28	DG	21	ARG	3.9
1	CA	1007	C	3.9
23	BA	2143	C	3.9
28	DG	88	ILE	3.9
11	AK	60	ALA	3.9
16	AP	7	ALA	3.9
23	BA	652(B)	A	3.9
2	CB	31	TYR	3.9
2	CB	48	MET	3.9
2	CB	101	MET	3.9
23	DA	2180	U	3.9

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Mol	Chain	Res	Type	RSRZ
28	DG	65	GLY	3.9
13	AM	87	TYR	3.9
10	CJ	54	PHE	3.9
8	CH	96	GLY	3.9
1	AA	96	U	3.8
7	CG	41	ARG	3.8
9	AI	46	ALA	3.8
42	DY	42	VAL	3.8
8	CH	131	GLY	3.8
1	AA	98	G	3.8
1	CA	1021	G	3.8
38	DU	88	ILE	3.8
28	DG	87	PRO	3.8
10	CJ	78	ASN	3.8
1	AA	1006	C	3.8
10	CJ	29	ARG	3.8
23	DA	1114	G	3.8
23	DA	2127	G	3.8
7	CG	4	ARG	3.8
24	DB	120	A	3.8
3	AC	68	VAL	3.8
9	CI	61	ALA	3.8
42	DY	89	PHE	3.8
23	BA	652(G)	G	3.8
23	BA	2124	G	3.8
28	DG	135	LEU	3.8
23	DA	272(A)	U	3.8
46	D2	41	ILE	3.8
4	CD	183	GLY	3.8
9	CI	8	GLY	3.8
23	BA	2896	C	3.8
14	CN	36	PHE	3.8
3	CC	153	VAL	3.8
42	DY	55	TYR	3.8
3	CC	81	GLY	3.8
43	DZ	198	LYS	3.8
1	CA	1005	A	3.7
20	CT	3	GLN	3.7
24	DB	117	G	3.7
1	AA	1029	C	3.7
23	BA	2142	C	3.7
10	AJ	34	VAL	3.7

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Mol	Chain	Res	Type	RSRZ
7	CG	81	GLY	3.7
23	BA	2107	C	3.7
23	BA	2164	C	3.7
24	DB	5	C	3.7
22	CY	4	ASN	3.7
10	CJ	72	VAL	3.7
10	CJ	36	GLY	3.7
1	AA	1004	A	3.7
13	CM	76	ALA	3.7
9	CI	28	VAL	3.7
11	CK	14	VAL	3.7
43	DZ	162	GLU	3.7
4	AD	158	ILE	3.7
42	DY	44	ILE	3.7
1	AA	71	C	3.7
28	DG	80	PHE	3.7
23	BA	2802	G	3.7
4	CD	36	ARG	3.7
9	CI	85	LEU	3.7
13	CM	9	ILE	3.7
22	CY	51	ASP	3.7
26	DE	204	ALA	3.7
1	AA	1038	C	3.7
23	DA	2108	C	3.7
1	CA	1442(A)	G	3.7
23	BA	2115	G	3.7
2	AB	101	MET	3.7
10	AJ	38	ILE	3.7
11	CK	31	THR	3.7
2	CB	143	GLU	3.7
3	CC	160	ALA	3.6
4	AD	170	VAL	3.6
7	CG	80	VAL	3.6
28	DG	172	LEU	3.6
23	DA	614(B)	G	3.6
28	DG	178	PHE	3.6
33	DP	91	PHE	3.6
14	CN	56	VAL	3.6
1	CA	1019	C	3.6
23	DA	6	A	3.6
8	CH	95	VAL	3.6
22	CY	49	VAL	3.6

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Mol	Chain	Res	Type	RSRZ
23	BA	272(A)	U	3.6
23	BA	2172	U	3.6
12	CL	33	ARG	3.6
13	CM	88	ARG	3.6
48	D4	25	TYR	3.6
7	CG	34	GLY	3.6
23	DA	2117	A	3.6
10	CJ	40	LEU	3.6
14	CN	25	VAL	3.6
1	AA	1009	G	3.6
23	BA	1026	U	3.6
23	DA	2151	G	3.6
23	DA	645	C	3.6
1	CA	1014	A	3.6
28	DG	16	ARG	3.6
9	AI	8	GLY	3.6
23	DA	2807	G	3.6
2	CB	201	ILE	3.6
5	CE	149	GLU	3.6
3	AC	47	LEU	3.6
36	DS	31	SER	3.6
1	AA	218	C	3.6
33	DP	94	GLU	3.6
19	CS	38	SER	3.6
4	AD	148	VAL	3.6
28	DG	28	VAL	3.6
2	CB	193	ASP	3.6
21	CU	13	ILE	3.5
23	BA	2171	A	3.5
43	DZ	125	LEU	3.5
19	CS	67	VAL	3.5
23	BA	2151	G	3.5
23	DA	2791	C	3.5
14	CN	8	GLU	3.5
29	DH	132	ARG	3.5
1	AA	1032	G	3.5
1	AA	1033	G	3.5
2	CB	123	ALA	3.5
10	CJ	32	ALA	3.5
1	CA	1130	A	3.5
16	AP	80	PHE	3.5
10	CJ	76	ASN	3.5

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Mol	Chain	Res	Type	RSRZ
23	DA	2121	G	3.5
7	CG	2	ALA	3.5
9	CI	15	ALA	3.5
14	AN	18	VAL	3.5
23	DA	2175	C	3.5
38	BU	117	GLN	3.5
2	CB	118	LEU	3.5
2	CB	142	LEU	3.5
8	AH	58	TYR	3.5
28	DG	131	TYR	3.5
1	AA	70	G	3.5
2	CB	136	VAL	3.5
4	CD	45	GLN	3.5
29	DH	30	LYS	3.5
9	CI	20	ARG	3.5
28	DG	133	LEU	3.5
23	BA	2790	A	3.5
28	DG	26	GLN	3.5
1	AA	1034	G	3.5
2	CB	130	ARG	3.5
4	CD	161	ASN	3.5
2	CB	115	LEU	3.5
3	AC	87	LEU	3.5
3	CC	57	ILE	3.5
10	AJ	66	ARG	3.4
28	BG	2	PRO	3.4
1	AA	201	C	3.4
1	CA	1009	G	3.4
48	D4	8	LYS	3.4
13	CM	114	ARG	3.4
17	CQ	98	LEU	3.4
1	CA	1149	C	3.4
22	CY	75	ASN	3.4
23	BA	2109	U	3.4
23	DA	614(A)	U	3.4
1	AA	92	C	3.4
1	CA	1320	C	3.4
16	AP	58	TYR	3.4
7	CG	116	ALA	3.4
3	CC	206	GLU	3.4
29	DH	34	GLU	3.4
19	CS	42	PRO	3.4

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Mol	Chain	Res	Type	RSRZ
43	DZ	177	PRO	3.4
2	CB	41	ILE	3.4
5	CE	13	ILE	3.4
20	CT	4	LYS	3.4
52	D8	21	LYS	3.4
10	CJ	35	SER	3.4
30	BI	75	LEU	3.4
3	CC	71	ALA	3.4
22	CY	7	SER	3.4
39	DV	46	VAL	3.4
3	CC	189	ALA	3.4
14	CN	2	ALA	3.4
23	BA	2175	C	3.4
20	AT	103	GLY	3.4
29	DH	41	MET	3.4
43	DZ	93	ASP	3.4
19	CS	62	ILE	3.3
39	DV	42	GLY	3.3
1	CA	1285	A	3.3
3	CC	199	LYS	3.3
10	AJ	69	ASN	3.3
22	CY	29	LYS	3.3
23	BA	2128	C	3.3
28	DG	8	LYS	3.3
3	CC	35	GLU	3.3
7	AG	85	TYR	3.3
2	CB	161	ALA	3.3
3	CC	145	GLY	3.3
29	DH	102	ALA	3.3
42	DY	43	ASN	3.3
1	AA	1007	C	3.3
43	DZ	196	VAL	3.3
29	DH	123	PHE	3.3
15	CO	10	LYS	3.3
27	DF	13	SER	3.3
1	AA	1025	U	3.3
14	CN	52	GLN	3.3
12	CL	120	TYR	3.3
23	BA	2163	C	3.3
9	AI	15	ALA	3.3
7	CG	73	MET	3.3
11	CK	123	LYS	3.3

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Mol	Chain	Res	Type	RSRZ
24	DB	56	G	3.3
30	BI	107	VAL	3.3
28	DG	34	LEU	3.3
4	CD	122	ARG	3.3
44	D0	11	ARG	3.3
22	CY	74	ILE	3.3
12	CL	27	LEU	3.3
23	DA	1113	U	3.3
23	DA	2897	U	3.3
37	DT	37	GLY	3.3
20	CT	105	SER	3.3
23	DA	282	A	3.3
29	DH	35	VAL	3.3
30	BI	128	LEU	3.3
1	AA	99	U	3.3
1	CA	1039	C	3.2
7	CG	36	LYS	3.2
28	DG	41	GLN	3.2
33	DP	90	ARG	3.2
23	DA	1037	G	3.2
27	DF	132	VAL	3.2
28	DG	3	LEU	3.2
28	DG	5	VAL	3.2
43	DZ	191	VAL	3.2
23	BA	652(R)	C	3.2
1	CA	1446	U	3.2
23	BA	2176	A	3.2
5	CE	11	ILE	3.2
4	CD	6	GLY	3.2
4	CD	119	GLN	3.2
9	CI	19	LEU	3.2
28	DG	15	VAL	3.2
2	CB	63	MET	3.2
28	DG	102	PHE	3.2
24	DB	21	G	3.2
9	CI	10	ARG	3.2
12	CL	85	ILE	3.2
17	CQ	65	ILE	3.2
43	DZ	197	ILE	3.2
23	BA	890	A	3.2
23	BA	2114	A	3.2
43	DZ	155	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
5	CE	45	PHE	3.2
23	DA	1170	G	3.2
3	CC	202	ILE	3.2
10	CJ	8	LEU	3.2
2	CB	164	VAL	3.2
29	DH	57	ASP	3.2
43	DZ	1	MET	3.2
7	CG	117	ALA	3.2
8	CH	116	LYS	3.2
23	BA	2807	G	3.2
1	CA	1000	U	3.2
7	CG	104	LEU	3.2
9	CI	110	GLU	3.2
19	CS	73	GLU	3.2
7	CG	31	MET	3.2
2	CB	62	ALA	3.2
9	CI	70	LYS	3.2
5	CE	14	ARG	3.2
28	DG	82	LEU	3.2
23	DA	2185	C	3.2
1	CA	841	U	3.2
3	CC	194	GLY	3.2
9	CI	38	GLN	3.2
22	CY	47	GLY	3.2
2	AB	134	GLU	3.2
13	CM	75	ALA	3.2
2	CB	92	TYR	3.1
1	AA	65	U	3.1
1	CA	1163	C	3.1
23	DA	2150	U	3.1
25	DD	276	LYS	3.1
23	BA	652(C)	G	3.1
16	AP	38	TYR	3.1
33	DP	135	LEU	3.1
2	CB	134	GLU	3.1
1	AA	1129	C	3.1
2	CB	209	ARG	3.1
3	CC	113	ALA	3.1
14	AN	2	ALA	3.1
23	DA	352	G	3.1
29	DH	74	ASN	3.1
14	CN	29	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
21	CU	24	ARG	3.1
1	CA	1041	A	3.1
23	DA	2129	C	3.1
2	CB	240	GLN	3.1
7	CG	37	ASN	3.1
27	DF	139	PHE	3.1
3	CC	159	GLY	3.1
23	DA	281	G	3.1
18	CR	21	LYS	3.1
8	CH	124	ALA	3.1
23	BA	2140	C	3.1
19	AS	52	TYR	3.1
28	DG	109	VAL	3.1
30	DI	57	ARG	3.1
36	DS	37	ALA	3.1
43	DZ	202	GLU	3.1
1	AA	1020	U	3.1
19	CS	65	ASN	3.1
36	DS	110	LEU	3.1
4	AD	124	GLY	3.1
20	AT	55	ILE	3.1
1	AA	999	C	3.1
42	DY	65	ALA	3.1
4	CD	11	LEU	3.1
23	BA	2897	U	3.1
1	CA	848	C	3.1
23	BA	278	A	3.1
43	DZ	156	LYS	3.0
36	DS	80	LEU	3.0
42	DY	90	LEU	3.0
7	AG	42	ILE	3.0
11	CK	43	SER	3.0
15	CO	7	GLU	3.0
29	DH	46	GLU	3.0
28	DG	126	ASP	3.0
4	AD	135	LEU	3.0
21	CU	2	GLY	3.0
27	DF	131	GLY	3.0
1	CA	1150	U	3.0
3	CC	28	GLN	3.0
24	DB	63	G	3.0
23	DA	1584	C	3.0

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Mol	Chain	Res	Type	RSRZ
4	AD	169	LYS	3.0
43	DZ	194	PRO	3.0
29	DH	49	VAL	3.0
43	DZ	9	TYR	3.0
23	BA	1106	G	3.0
23	BA	2118	U	3.0
23	BA	2892	A	3.0
3	CC	19	GLU	3.0
13	AM	43	THR	3.0
48	D4	1	MET	3.0
13	CM	99	ARG	3.0
29	DH	148	ILE	3.0
5	CE	33	VAL	3.0
13	CM	98	VAL	3.0
46	D2	63	VAL	3.0
2	AB	37	ASN	3.0
9	CI	62	TYR	3.0
39	DV	101	GLY	3.0
23	BA	2169	A	3.0
34	DQ	1	MET	3.0
18	CR	66	LEU	3.0
24	DB	4	C	3.0
24	DB	65	C	3.0
29	DH	67	LEU	3.0
30	DI	35	LEU	3.0
23	BA	2113	U	3.0
2	CB	185	ILE	3.0
29	DH	6	ARG	2.9
2	CB	77	ALA	2.9
4	AD	111	ALA	2.9
43	DZ	201	LYS	2.9
12	CL	94	PRO	2.9
9	CI	29	ASN	2.9
12	AL	56	ALA	2.9
36	DS	47	THR	2.9
28	DG	97	ASP	2.9
1	AA	1019	C	2.9
23	BA	2165	G	2.9
24	DB	23	G	2.9
4	AD	2	GLY	2.9
10	CJ	69	ASN	2.9
18	AR	31	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
33	DP	109	GLY	2.9
3	CC	172	ARG	2.9
21	CU	22	ARG	2.9
24	DB	62	C	2.9
26	DE	72	VAL	2.9
3	AC	167	TRP	2.9
9	AI	125	TYR	2.9
1	CA	938	A	2.9
1	CA	1460	A	2.9
3	CC	179	ARG	2.9
5	CE	109	ILE	2.9
43	DZ	161	VAL	2.9
24	DB	11	C	2.9
7	CG	33	ASP	2.9
6	CF	35	ALA	2.9
36	DS	59	LYS	2.9
2	AB	227	GLY	2.9
19	AS	74	PHE	2.9
43	DZ	160	GLY	2.9
48	B4	17	GLY	2.9
3	CC	152	ILE	2.9
4	CD	5	ILE	2.9
22	CY	40	ILE	2.9
24	BB	120	A	2.9
30	DI	107	VAL	2.9
43	DZ	56	VAL	2.9
3	CC	167	TRP	2.9
22	CY	94	ALA	2.9
23	DA	885	C	2.9
29	DH	112	PRO	2.9
43	DZ	199	LYS	2.9
2	CB	197	VAL	2.9
4	AD	125	HIS	2.9
23	DA	2312	U	2.9
1	AA	1030(D)	A	2.9
24	DB	53	A	2.9
3	AC	81	GLY	2.9
9	CI	6	GLY	2.9
11	CK	37	GLY	2.9
18	CR	56	THR	2.9
21	CU	11	GLY	2.9
29	DH	128	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
29	DH	77	LYS	2.9
23	DA	652(E)	G	2.8
29	DH	89	ILE	2.8
12	CL	39	VAL	2.8
1	AA	149	A	2.8
3	CC	22	TRP	2.8
23	BA	6	A	2.8
23	BA	889	C	2.8
7	CG	27	ILE	2.8
6	AF	98	LEU	2.8
22	CY	67	HIS	2.8
9	AI	26	VAL	2.8
47	D3	6	VAL	2.8
4	CD	69	GLY	2.8
3	CC	60	ALA	2.8
10	AJ	20	ALA	2.8
20	AT	46	GLU	2.8
24	DB	66	A	2.8
1	AA	63	C	2.8
1	CA	1161	C	2.8
22	CY	24	LEU	2.8
28	DG	90	LEU	2.8
33	DP	88	LEU	2.8
3	CC	155	GLY	2.8
20	AT	101	GLY	2.8
27	DF	16	GLY	2.8
42	DY	93	GLY	2.8
1	AA	1022	G	2.8
2	CB	57	PHE	2.8
29	DH	36	PRO	2.8
15	AO	88	ARG	2.8
2	CB	139	LYS	2.8
13	CM	22	ILE	2.8
20	AT	91	LEU	2.8
22	AY	35	ILE	2.8
36	DS	40	ILE	2.8
1	AA	161	A	2.8
13	CM	53	VAL	2.8
42	DY	16	ALA	2.8
4	CD	42	GLN	2.8
7	CG	26	PHE	2.8
36	DS	33	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
27	DF	7	TYR	2.8
29	BH	2	SER	2.8
10	AJ	36	GLY	2.8
29	DH	52	VAL	2.8
1	CA	1275	A	2.8
1	CA	1377	A	2.8
2	CB	55	PHE	2.8
2	CB	152	PHE	2.8
3	CC	26	LYS	2.8
20	CT	44	ALA	2.8
22	CY	8	LYS	2.8
36	DS	51	ALA	2.8
1	CA	723	U	2.8
4	AD	4	TYR	2.8
7	CG	130	GLY	2.8
9	AI	126	SER	2.8
34	DQ	81	VAL	2.8
36	DS	49	VAL	2.8
45	D1	83	GLU	2.8
13	AM	114	ARG	2.8
4	AD	117	ALA	2.8
10	AJ	27	ALA	2.8
18	CR	60	ALA	2.8
16	AP	59	TRP	2.8
1	CA	1141	C	2.8
1	CA	1322	C	2.8
10	AJ	73	ASP	2.8
23	DA	2309	A	2.8
12	CL	95	GLY	2.8
23	DA	2296	U	2.8
7	CG	146	GLU	2.8
10	CJ	68	HIS	2.8
17	CQ	76	LEU	2.8
19	AS	47	HIS	2.8
20	CT	53	LEU	2.8
3	CC	142	MET	2.8
22	CY	84	GLN	2.8
29	DH	121	ILE	2.8
13	CM	15	VAL	2.8
22	CY	20	VAL	2.8
7	CG	28	ASN	2.8
21	AU	17	THR	2.8

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Mol	Chain	Res	Type	RSRZ
53	D9	37	GLY	2.8
2	CB	135	GLN	2.7
7	CG	38	LEU	2.7
10	AJ	97	GLU	2.7
23	DA	2130	U	2.7
36	DS	34	HIS	2.7
1	AA	1531	A	2.7
1	CA	1261	A	2.7
2	CB	239	VAL	2.7
4	CD	26	CYS	2.7
28	DG	79	ASN	2.7
9	CI	18	PHE	2.7
28	DG	71	THR	2.7
43	DZ	13	GLU	2.7
43	DZ	114	GLY	2.7
4	CD	157	LEU	2.7
23	DA	879	G	2.7
30	BI	68	LEU	2.7
13	CM	59	TYR	2.7
24	DB	20	C	2.7
28	BG	88	ILE	2.7
1	CA	1250	A	2.7
2	AB	132	LYS	2.7
23	DA	878	A	2.7
2	CB	26	PRO	2.7
15	CO	6	GLU	2.7
13	CM	55	ARG	2.7
27	DF	172	TRP	2.7
33	DP	102	ARG	2.7
20	AT	53	LEU	2.7
1	CA	1265	G	2.7
22	CY	12	ILE	2.7
4	CD	33	MET	2.7
29	DH	24	VAL	2.7
1	AA	1039	C	2.7
23	BA	2179	C	2.7
33	DP	92	GLU	2.7
12	CL	26	ALA	2.7
9	CI	27	THR	2.7
4	AD	153	ARG	2.7
28	DG	136	ARG	2.7
1	AA	1286	A	2.7

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Mol	Chain	Res	Type	RSRZ
10	CJ	62	HIS	2.7
12	AL	52	LEU	2.7
3	CC	29	TYR	2.7
11	AK	21	ILE	2.7
7	CG	9	VAL	2.7
10	CJ	10	GLY	2.7
1	CA	1221	G	2.7
2	CB	88	ALA	2.7
2	CB	137	ARG	2.7
19	CS	10	PHE	2.7
27	DF	134	GLY	2.7
23	DA	2308	G	2.7
45	D1	26	ARG	2.7
23	DA	1508	A	2.7
28	DG	108	ASN	2.7
8	CH	45	ILE	2.7
9	CI	44	VAL	2.7
21	AU	18	TYR	2.7
29	DH	99	VAL	2.7
15	CO	38	ARG	2.7
13	CM	5	ALA	2.7
19	AS	50	ALA	2.7
17	CQ	100	LYS	2.7
2	AB	231	GLU	2.7
3	CC	39	ILE	2.7
19	CS	29	ARG	2.7
20	AT	80	ARG	2.7
43	DZ	50	GLN	2.7
19	AS	46	GLY	2.7
36	DS	69	VAL	2.7
43	DZ	3	TYR	2.7
48	D4	19	GLY	2.7
19	CS	70	LYS	2.7
4	AD	37	PRO	2.7
13	AM	2	ALA	2.7
22	CY	48	PHE	2.7
7	CG	113	GLU	2.7
13	CM	8	GLU	2.7
22	CY	79	ASN	2.7
28	DG	40	ASN	2.7
13	CM	95	GLY	2.7
22	CY	87	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
23	DA	652(U)	G	2.7
3	CC	44	GLU	2.7
1	CA	1176	A	2.7
8	CH	127	LEU	2.6
33	DP	15	ARG	2.6
10	CJ	49	VAL	2.6
43	DZ	137	ILE	2.6
16	AP	17	TYR	2.6
29	DH	159	GLU	2.6
9	AI	61	ALA	2.6
23	BA	2123	G	2.6
2	CB	217	ARG	2.6
29	DH	60	ARG	2.6
30	BI	140	LEU	2.6
43	DZ	18	LEU	2.6
7	AG	153	HIS	2.6
22	CY	19	HIS	2.6
23	DA	1963	U	2.6
2	CB	60	ASP	2.6
9	AI	41	VAL	2.6
12	CL	55	VAL	2.6
13	CM	78	ILE	2.6
2	CB	34	ALA	2.6
9	AI	37	PHE	2.6
14	CN	34	TYR	2.6
42	DY	45	VAL	2.6
17	CQ	95	TYR	2.6
43	DZ	38	TYR	2.6
3	AC	101	LEU	2.6
3	CC	196	LEU	2.6
23	DA	1178	C	2.6
1	CA	1220	G	2.6
9	CI	21	PRO	2.6
9	CI	98	PRO	2.6
13	CM	113	PRO	2.6
2	CB	90	MET	2.6
10	CJ	85	LEU	2.6
11	CK	71	LYS	2.6
23	BA	2138	C	2.6
2	CB	21	ARG	2.6
13	AM	108	ARG	2.6
21	CU	15	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
1	CA	1022	G	2.6
9	AI	59	PHE	2.6
19	CS	31	ILE	2.6
19	CS	74	PHE	2.6
30	BI	79	ILE	2.6
43	DZ	71	VAL	2.6
15	CO	34	LEU	2.6
28	DG	24	GLY	2.6
28	DG	27	ASN	2.6
48	D4	45	GLY	2.6
23	BA	1045	A	2.6
23	DA	2809	A	2.6
28	DG	150	ASP	2.6
20	CT	86	ARG	2.6
34	DQ	5	ARG	2.6
4	CD	158	ILE	2.6
10	AJ	37	PRO	2.6
10	CJ	75	ILE	2.6
11	CK	74	ALA	2.6
12	AL	26	ALA	2.6
19	CS	50	ALA	2.6
4	AD	101	LEU	2.6
15	CO	31	LEU	2.6
31	DN	116	LEU	2.6
1	CA	1160	G	2.6
19	AS	66	MET	2.6
4	CD	25	ARG	2.6
23	BA	229	A	2.6
4	CD	18	LYS	2.6
4	CD	146	ILE	2.6
12	CL	18	VAL	2.6
12	CL	100	ILE	2.6
18	AR	29	PHE	2.6
2	CB	100	GLY	2.5
13	CM	51	ALA	2.5
14	CN	53	LEU	2.5
39	DV	20	LEU	2.5
1	AA	78	G	2.5
10	CJ	38	ILE	2.5
14	CN	16	PHE	2.5
30	DI	59	ALA	2.5
8	AH	59	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
28	DG	175	LEU	2.5
47	D3	26	LEU	2.5
1	AA	1008	C	2.5
5	CE	133	TYR	2.5
16	CP	13	HIS	2.5
19	CS	66	MET	2.5
1	CA	1032	G	2.5
3	CC	103	VAL	2.5
4	AD	133	VAL	2.5
6	AF	6	VAL	2.5
29	DH	55	PRO	2.5
3	CC	204	LEU	2.5
4	CD	134	ASP	2.5
12	AL	41	ARG	2.5
17	AQ	25	ARG	2.5
1	CA	1493	A	2.5
30	BI	70	GLU	2.5
9	CI	114	TYR	2.5
19	CS	80	TYR	2.5
1	AA	1459	C	2.5
23	DA	886	C	2.5
2	CB	30	ARG	2.5
4	AD	112	VAL	2.5
7	CG	42	ILE	2.5
47	D3	59	VAL	2.5
23	DA	7	G	2.5
2	CB	148	TYR	2.5
7	AG	154	TYR	2.5
10	CJ	30	SER	2.5
23	BA	886	C	2.5
23	DA	2128	C	2.5
12	CL	29	GLY	2.5
29	DH	93	GLY	2.5
2	CB	231	GLU	2.5
28	DG	4	ASP	2.5
28	DG	180	PHE	2.5
29	DH	7	LEU	2.5
30	DI	3	VAL	2.5
13	CM	87	TYR	2.5
1	AA	180	U	2.5
1	CA	1174	G	2.5
23	BA	2127	G	2.5

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Mol	Chain	Res	Type	RSRZ
23	DA	1739	U	2.5
19	CS	72	GLY	2.5
4	CD	160	GLN	2.5
1	CA	1097	C	2.5
2	CB	200	ILE	2.5
12	AL	85	ILE	2.5
15	CO	11	VAL	2.5
23	BA	878	A	2.5
28	BG	151	ALA	2.5
43	DZ	37	VAL	2.5
22	CY	72	THR	2.5
42	DY	5	MET	2.5
2	CB	236	TYR	2.5
22	CY	82	GLU	2.5
46	D2	20	GLU	2.5
1	CA	1308	U	2.5
1	CA	1271	G	2.5
19	CS	11	VAL	2.5
22	CY	73	ALA	2.5
1	CA	1137	C	2.5
9	CI	11	LYS	2.5
42	DY	94	LYS	2.5
23	DA	2602	A	2.5
29	DH	111	HIS	2.5
43	DZ	55	HIS	2.5
3	CC	127	ARG	2.5
15	AO	83	GLU	2.5
4	AD	180	GLY	2.5
28	DG	134	GLY	2.5
45	B1	2	SER	2.5
9	CI	5	TYR	2.5
22	CY	14	PRO	2.5
23	DA	2808	U	2.5
24	DB	22	U	2.5
2	AB	133	LYS	2.4
30	BI	101	LEU	2.4
30	DI	72	LEU	2.4
2	CB	120	ALA	2.4
3	CC	6	HIS	2.4
23	BA	652(P)	G	2.4
28	DG	48	GLU	2.4
33	DP	144	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
44	D0	72	ARG	2.4
2	AB	228	GLY	2.4
23	BA	2119	A	2.4
24	DB	15	A	2.4
9	AI	34	ASN	2.4
10	CJ	39	PRO	2.4
8	AH	61	VAL	2.4
14	CN	10	ALA	2.4
11	AK	13	GLN	2.4
23	BA	2112	G	2.4
28	DG	148	MET	2.4
2	AB	126	GLU	2.4
4	CD	156	GLU	2.4
13	AM	56	LEU	2.4
2	CB	71	VAL	2.4
4	CD	105	VAL	2.4
2	CB	190	THR	2.4
20	AT	68	LYS	2.4
1	AA	79	G	2.4
2	CB	131	PRO	2.4
4	AD	172	PRO	2.4
7	AG	18	TYR	2.4
31	DN	23	LEU	2.4
9	CI	113	LYS	2.4
13	AM	53	VAL	2.4
33	DP	121	LYS	2.4
28	DG	161	THR	2.4
46	D2	42	GLY	2.4
7	CG	154	TYR	2.4
11	AK	25	TYR	2.4
5	CE	121	LYS	2.4
8	AH	39	LEU	2.4
8	CH	62	TYR	2.4
28	DG	11	TYR	2.4
13	CM	111	LYS	2.4
22	CY	26	LYS	2.4
1	CA	1260	C	2.4
1	AA	1442(A)	G	2.4
4	CD	148	VAL	2.4
11	AK	61	ALA	2.4
28	DG	171	ALA	2.4
11	CK	40	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
23	BA	2106	G	2.4
16	AP	55	ARG	2.4
30	BI	139	GLN	2.4
3	CC	187	ALA	2.4
7	CG	25	ALA	2.4
33	DP	101	VAL	2.4
45	D1	2	SER	2.4
2	AB	117	GLU	2.4
24	DB	114	C	2.4
22	CY	17	ARG	2.4
23	DA	2473	U	2.4
24	DB	55	U	2.4
46	D2	9	GLN	2.4
1	CA	1004	A	2.4
2	AB	63	MET	2.4
7	CG	99	LEU	2.4
10	CJ	41	PRO	2.4
28	DG	117	PHE	2.4
46	D2	1	MET	2.4
11	AK	69	ALA	2.4
11	CK	80	VAL	2.4
7	CG	5	ARG	2.4
12	CL	70	ILE	2.4
13	CM	73	GLU	2.4
16	CP	56	ALA	2.4
28	DG	159	VAL	2.4
29	DH	9	ILE	2.4
13	CM	63	THR	2.4
23	BA	885	C	2.4
1	CA	630	G	2.3
3	CC	186	PHE	2.3
10	AJ	77	PRO	2.3
4	AD	167	GLY	2.3
2	AB	148	TYR	2.3
39	DV	43	GLU	2.3
14	CN	50	LYS	2.3
2	CB	220	ASP	2.3
10	CJ	6	ILE	2.3
43	DZ	39	VAL	2.3
1	AA	470	C	2.3
1	CA	1162	C	2.3
1	CA	1344	C	2.3

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Mol	Chain	Res	Type	RSRZ
1	CA	1378	C	2.3
23	DA	2895	U	2.3
8	CH	55	GLY	2.3
10	CJ	63	PHE	2.3
28	DG	106	LEU	2.3
19	AS	32	LYS	2.3
16	AP	71	ARG	2.3
12	CL	62	SER	2.3
19	AS	57	HIS	2.3
23	BA	2110	G	2.3
23	DA	2304	G	2.3
4	AD	126	ILE	2.3
22	CY	54	ILE	2.3
23	BA	2170	A	2.3
29	DH	47	GLU	2.3
19	CS	26	GLY	2.3
17	CQ	92	ARG	2.3
1	AA	194	C	2.3
15	CO	9	GLN	2.3
28	DG	169	ALA	2.3
3	CC	207	VAL	2.3
43	DZ	100	VAL	2.3
18	CR	61	LYS	2.3
23	BA	652(F)	G	2.3
14	CN	51	GLY	2.3
4	AD	176	LEU	2.3
10	AJ	40	LEU	2.3
10	AJ	85	LEU	2.3
23	DA	2892	A	2.3
1	AA	1136	U	2.3
2	AB	135	GLN	2.3
41	DX	1	MET	2.3
7	CG	40	ALA	2.3
1	AA	72	C	2.3
1	CA	1249	C	2.3
3	CC	184	TYR	2.3
10	CJ	24	VAL	2.3
23	BA	2111	C	2.3
19	CS	37	ARG	2.3
28	DG	33	ARG	2.3
4	CD	202	LEU	2.3
1	CA	1224	G	2.3

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Mol	Chain	Res	Type	RSRZ
23	DA	10	G	2.3
23	DA	100	G	2.3
23	DA	2190	G	2.3
2	CB	146	GLN	2.3
18	CR	20	ALA	2.3
3	AC	103	VAL	2.3
1	AA	217	C	2.3
1	CA	1051	C	2.3
20	CT	8	ARG	2.3
23	BA	2137	C	2.3
44	D0	76	GLY	2.3
2	CB	76	GLN	2.3
5	CE	31	LEU	2.3
28	DG	47	LYS	2.3
7	CG	74	GLU	2.3
8	CH	123	GLU	2.3
16	CP	54	GLU	2.3
29	DH	116	GLU	2.3
36	DS	50	SER	2.3
1	CA	1164	G	2.3
3	CC	201	TYR	2.3
13	CM	108	ARG	2.3
16	AP	81	ARG	2.3
28	DG	91	ARG	2.3
2	AB	61	LEU	2.3
2	CB	51	LEU	2.3
17	AQ	14	LYS	2.3
23	BA	2178	C	2.3
29	BH	171	LEU	2.3
29	DH	87	LEU	2.3
15	AO	15	PHE	2.3
18	CR	29	PHE	2.3
27	DF	15	SER	2.3
29	DH	124	GLU	2.3
48	D4	29	PRO	2.3
27	BF	17	ARG	2.3
44	D0	74	ARG	2.3
3	CC	195	VAL	2.3
11	AK	20	TYR	2.3
24	DB	69	G	2.3
28	DG	101	ILE	2.3
2	CB	147	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
27	DF	135	LYS	2.3
1	CA	1447	A	2.2
8	CH	63	LEU	2.2
23	DA	890	A	2.2
30	DI	61	ARG	2.2
7	CG	7	ALA	2.2
13	CM	82	MET	2.2
2	CB	38	GLY	2.2
36	DS	36	TYR	2.2
43	DZ	99	TYR	2.2
2	CB	49	GLU	2.2
26	DE	73	GLU	2.2
6	CF	97	PHE	2.2
10	CJ	28	ARG	2.2
37	DT	112	ARG	2.2
1	CA	1289	A	2.2
1	CA	936	C	2.2
2	AB	77	ALA	2.2
3	CC	146	ALA	2.2
17	CQ	45	HIS	2.2
4	AD	181	MET	2.2
20	CT	102	GLY	2.2
2	AB	201	ILE	2.2
7	CG	129	GLU	2.2
13	CM	60	VAL	2.2
16	AP	54	GLU	2.2
33	DP	83	VAL	2.2
47	B3	59	VAL	2.2
29	BH	148	ILE	2.2
3	CC	33	LEU	2.2
4	AD	31	CYS	2.2
19	CS	81	ARG	2.2
36	DS	20	ARG	2.2
2	CB	94	ASN	2.2
23	DA	353	G	2.2
24	DB	24	G	2.2
30	DI	100	ALA	2.2
1	CA	687	A	2.2
1	CA	979	C	2.2
1	CA	1321	C	2.2
23	DA	901	A	2.2
30	DI	37	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
22	CY	78	ILE	2.2
3	CC	188	LEU	2.2
21	AU	21	TYR	2.2
30	BI	72	LEU	2.2
1	CA	1240	U	2.2
23	DA	272(I)	U	2.2
23	DA	362	U	2.2
16	AP	37	GLY	2.2
20	AT	50	GLU	2.2
30	BI	117	GLU	2.2
2	CB	218	ALA	2.2
9	AI	106	ALA	2.2
28	DG	57	ALA	2.2
43	DZ	7	ALA	2.2
1	CA	1142	G	2.2
1	CA	1156	G	2.2
1	CA	1370	G	2.2
9	CI	53	VAL	2.2
24	DB	51	G	2.2
2	AB	137	ARG	2.2
3	AC	127	ARG	2.2
1	CA	1008	C	2.2
1	CA	1264	C	2.2
23	DA	264	C	2.2
36	DS	24	LEU	2.2
41	DX	92	LEU	2.2
23	DA	357	A	2.2
24	DB	25	A	2.2
33	DP	97	PRO	2.2
1	CA	1219	U	2.2
23	BA	2296	U	2.2
23	DA	271(K)	U	2.2
48	D4	16	CYS	2.2
20	CT	97	ALA	2.2
20	CT	85	MET	2.2
3	CC	18	TRP	2.2
9	CI	91	ASP	2.2
29	DH	105	LEU	2.2
10	AJ	11	PHE	2.2
23	BA	2149	G	2.2
44	D0	45	PHE	2.2
48	D4	42	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
1	CA	1016	A	2.2
24	DB	26	A	2.2
7	CG	155	ARG	2.2
9	CI	93	ARG	2.2
10	AJ	70	ARG	2.2
13	CM	94	ARG	2.2
28	DG	98	ARG	2.2
29	DH	51	ARG	2.2
47	D3	29	ARG	2.2
22	CY	60	VAL	2.2
28	BG	76	SER	2.2
7	CG	85	TYR	2.2
11	AK	75	TYR	2.2
12	CL	32	PHE	2.2
15	CO	19	PRO	2.2
28	DG	125	PHE	2.2
28	DG	36	LYS	2.2
29	DH	25	LYS	2.2
47	D3	15	TYR	2.2
1	AA	1003	G	2.2
1	CA	71	C	2.2
13	CM	71	ARG	2.2
24	DB	119	G	2.2
1	CA	1012	U	2.2
1	CA	1348	U	2.2
30	BI	65	ALA	2.2
49	D5	53	ALA	2.2
2	AB	165	VAL	2.2
6	AF	90	VAL	2.2
22	CY	93	GLU	2.2
4	AD	70	ILE	2.1
28	DG	144	ILE	2.1
30	DI	4	ILE	2.1
39	BV	101	GLY	2.1
7	AG	4	ARG	2.1
16	AP	24	ALA	2.1
45	B1	89	GLU	2.1
1	AA	64	G	2.1
1	CA	97	G	2.1
4	CD	19	LEU	2.1
5	CE	148	VAL	2.1
13	CM	74	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
23	BA	2166	G	2.1
24	DB	110	G	2.1
27	DF	163	VAL	2.1
46	B2	70	GLN	2.1
46	D2	6	VAL	2.1
13	CM	4	ILE	2.1
22	AY	16	ILE	2.1
3	AC	128	PHE	2.1
2	CB	33	TYR	2.1
48	B4	32	TYR	2.1
33	DP	136	GLU	2.1
2	CB	224	GLN	2.1
3	CC	163	ALA	2.1
14	AN	13	THR	2.1
27	DF	196	LEU	2.1
33	DP	99	LEU	2.1
4	AD	12	CYS	2.1
23	BA	652(T)	C	2.1
1	CA	1017	G	2.1
1	CA	1177	G	2.1
9	AI	49	PRO	2.1
20	CT	98	PRO	2.1
23	DA	1169	G	2.1
24	DB	54	G	2.1
43	DZ	82	ARG	2.1
10	CJ	25	GLU	2.1
10	CJ	64	GLU	2.1
24	DB	52	A	2.1
2	CB	16	HIS	2.1
3	AC	100	ALA	2.1
1	CA	204	U	2.1
10	CJ	31	GLY	2.1
15	CO	25	THR	2.1
17	CQ	97	SER	2.1
19	CS	45	VAL	2.1
28	DG	43	LEU	2.1
29	DH	19	VAL	2.1
30	DI	92	VAL	2.1
31	DN	22	THR	2.1
33	DP	138	LEU	2.1
29	DH	97	ARG	2.1
42	DY	18	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
44	D0	9	SER	2.1
10	AJ	23	ILE	2.1
17	CQ	60	ILE	2.1
23	BA	1175	U	2.1
1	CA	72	C	2.1
1	CA	1263	C	2.1
4	AD	24	GLU	2.1
11	AK	19	ALA	2.1
18	AR	24	ALA	2.1
23	DA	359	A	2.1
8	CH	130	GLY	2.1
16	AP	73	LEU	2.1
32	DO	58	VAL	2.1
1	CA	1025	U	2.1
2	CB	58	ILE	2.1
4	AD	30	LYS	2.1
8	AH	13	ILE	2.1
20	AT	51	GLU	2.1
28	DG	14	GLU	2.1
2	AB	163	PHE	2.1
10	CJ	11	PHE	2.1
23	BA	2177	C	2.1
43	DZ	8	TYR	2.1
7	CG	6	ARG	2.1
1	CA	1175	G	2.1
3	CC	43	LEU	2.1
4	CD	21	LEU	2.1
9	CI	72	GLY	2.1
12	CL	60	LEU	2.1
33	BP	148	LEU	2.1
43	DZ	91	LEU	2.1
22	CY	13	THR	2.1
23	BA	1046	A	2.1
23	DA	653	A	2.1
39	DV	45	THR	2.1
5	CE	84	PHE	2.1
9	CI	87	GLN	2.1
16	CP	48	TRP	2.1
1	AA	223	U	2.1
6	CF	4	TYR	2.1
2	CB	99	GLY	2.1
3	CC	53	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
5	CE	8	GLU	2.1
23	BA	652(O)	C	2.1
8	AH	107	LEU	2.1
12	CL	67	THR	2.1
30	DI	43	ASN	2.1
1	AA	630	G	2.1
1	CA	1442	G	2.1
2	AB	28	PHE	2.1
14	AN	16	PHE	2.1
23	DA	354	G	2.1
23	DA	892	G	2.1
28	DG	32	PRO	2.1
23	BA	1508	A	2.1
23	DA	2311	A	2.1
1	CA	202	U	2.1
14	CN	3	ARG	2.1
15	CO	88	ARG	2.1
8	AH	49	GLU	2.1
34	DQ	112	GLU	2.1
12	CL	63	GLY	2.1
13	CM	23	TYR	2.1
8	CH	2	LEU	2.0
14	CN	39	LEU	2.0
20	CT	92	LEU	2.0
4	AD	129	ASN	2.0
22	CY	58	ASN	2.0
30	BI	142	VAL	2.0
16	CP	41	PRO	2.0
34	DQ	65	PHE	2.0
39	DV	2	PHE	2.0
16	AP	57	ARG	2.0
22	CY	22	ASP	2.0
1	CA	1255	G	2.0
23	BA	892	G	2.0
4	AD	27	TYR	2.0
7	CG	39	ALA	2.0
7	CG	121	ALA	2.0
11	CK	15	ALA	2.0
3	CC	37	GLN	2.0
22	CY	88	LEU	2.0
28	BG	82	LEU	2.0
39	DV	94	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
29	DH	85	LYS	2.0
8	AH	45	ILE	2.0
21	CU	6	ARG	2.0
23	BA	1052	C	2.0
23	DA	652(D)	C	2.0
23	DA	2103	C	2.0
30	DI	1	MET	2.0
19	CS	8	GLY	2.0
29	DH	78	GLY	2.0
2	AB	95	GLN	2.0
5	CE	130	ASN	2.0
17	AQ	53	LEU	2.0
19	CS	32	LYS	2.0
20	AT	72	LEU	2.0
38	DU	86	ALA	2.0
33	DP	132	LYS	2.0
38	DU	109	LEU	2.0
1	AA	383	A	2.0
19	CS	33	THR	2.0
28	DG	112	PRO	2.0
10	CJ	96	ILE	2.0
14	CN	7	ILE	2.0
19	CS	47	HIS	2.0
3	CC	104	GLN	2.0
28	DG	78	SER	2.0
3	CC	3	ASN	2.0
3	CC	108	ASN	2.0
36	BS	37	ALA	2.0
10	CJ	60	ARG	2.0
4	AD	8	VAL	2.0
6	AF	88	VAL	2.0
11	CK	30	VAL	2.0
19	CS	39	THR	2.0
1	CA	1258	G	2.0
2	CB	202	PRO	2.0
10	CJ	89	ASP	2.0
17	AQ	27	PHE	2.0
23	DA	2833	G	2.0
34	DQ	104	PHE	2.0
1	AA	1044	A	2.0

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

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

6.3 Carbohydrates (i)

There are no 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1639	1/1	0.81	0.84	62.14	57,57,57,57	0
54	MG	BA	3620	1/1	0.96	0.42	42.28	40,40,40,40	0
54	MG	DA	3053	1/1	0.91	0.29	40.33	28,28,28,28	0
54	MG	AA	1619	1/1	0.89	0.57	39.12	45,45,45,45	0
54	MG	DA	3129	1/1	0.95	0.45	37.14	38,38,38,38	0
54	MG	BA	3462	1/1	0.83	0.44	37.03	36,36,36,36	0
54	MG	DA	3055	1/1	0.95	0.37	24.71	25,25,25,25	0
54	MG	DA	3583	1/1	0.87	0.46	23.32	35,35,35,35	0
54	MG	DA	3098	1/1	0.95	0.47	23.22	52,52,52,52	0
54	MG	CA	1753	1/1	0.90	0.36	22.30	74,74,74,74	0
54	MG	BA	3633	1/1	0.91	0.23	21.92	25,25,25,25	0
54	MG	DA	3175	1/1	0.78	0.35	21.85	31,31,31,31	0
54	MG	BA	3386	1/1	0.85	0.38	21.14	32,32,32,32	0
54	MG	DA	3307	1/1	0.91	0.49	20.84	79,79,79,79	0
54	MG	BA	3179	1/1	0.98	0.35	20.33	31,31,31,31	0
54	MG	BA	3191	1/1	0.97	0.28	17.79	43,43,43,43	0
54	MG	DA	3026	1/1	0.90	0.30	17.72	47,47,47,47	0
54	MG	BA	3359	1/1	0.96	0.32	17.46	19,19,19,19	0
54	MG	DA	3130	1/1	0.76	0.65	17.00	49,49,49,49	0
54	MG	DA	3086	1/1	0.77	0.29	17.00	54,54,54,54	0
54	MG	BA	3058	1/1	0.94	0.41	16.20	57,57,57,57	0
54	MG	DA	3150	1/1	0.99	0.33	15.62	29,29,29,29	0
54	MG	DA	3003	1/1	0.92	0.28	15.58	34,34,34,34	0
54	MG	DA	3577	1/1	0.78	0.34	15.57	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3057	1/1	0.97	0.30	14.97	29,29,29,29	0
54	MG	DA	3013	1/1	0.80	0.27	14.55	60,60,60,60	0
54	MG	D7	101	1/1	0.88	0.66	14.55	41,41,41,41	0
54	MG	BF	302	1/1	0.98	0.46	13.62	31,31,31,31	0
54	MG	BE	301	1/1	0.89	0.46	13.36	43,43,43,43	0
54	MG	DA	3116	1/1	0.96	0.33	13.30	26,26,26,26	0
54	MG	DA	3257	1/1	0.94	0.28	13.20	40,40,40,40	0
54	MG	DA	3025	1/1	0.95	0.33	12.24	35,35,35,35	0
54	MG	CA	1603	1/1	0.92	0.77	12.20	83,83,83,83	0
54	MG	BA	3085	1/1	0.95	0.23	12.14	23,23,23,23	0
54	MG	DA	3250	1/1	0.96	0.35	12.04	38,38,38,38	0
54	MG	BA	3398	1/1	0.94	0.27	11.97	30,30,30,30	0
54	MG	BV	201	1/1	0.95	0.33	11.93	30,30,30,30	0
54	MG	DA	3179	1/1	0.84	0.24	11.60	43,43,43,43	0
54	MG	BF	305	1/1	0.94	0.45	11.46	29,29,29,29	0
54	MG	AA	1763	1/1	0.95	0.26	11.38	73,73,73,73	0
54	MG	DA	3222	1/1	0.89	0.28	11.37	37,37,37,37	0
54	MG	DA	3176	1/1	0.90	0.29	11.32	37,37,37,37	0
54	MG	BA	3345	1/1	0.81	0.29	11.24	54,54,54,54	0
54	MG	AA	1784	1/1	0.91	0.30	10.78	63,63,63,63	0
54	MG	DA	3137	1/1	0.86	0.26	10.75	45,45,45,45	0
54	MG	DA	3064	1/1	0.94	0.30	10.64	36,36,36,36	0
54	MG	DA	3395	1/1	0.76	0.31	10.56	75,75,75,75	0
54	MG	BA	3074	1/1	0.75	0.32	10.44	32,32,32,32	0
54	MG	BA	3428	1/1	0.97	0.26	10.36	23,23,23,23	0
54	MG	BA	3018	1/1	0.89	0.29	10.25	52,52,52,52	0
54	MG	DA	3010	1/1	0.91	0.21	10.04	48,48,48,48	0
54	MG	DA	3170	1/1	0.95	0.27	9.95	31,31,31,31	0
54	MG	BA	3102	1/1	0.86	0.24	9.74	33,33,33,33	0
54	MG	DA	3472	1/1	0.89	0.20	9.72	73,73,73,73	0
54	MG	DA	3576	1/1	0.95	0.26	9.64	36,36,36,36	0
54	MG	BA	3643	1/1	0.91	0.34	9.59	28,28,28,28	0
54	MG	DA	3035	1/1	0.97	0.18	9.41	43,43,43,43	0
54	MG	BA	3358	1/1	0.97	0.33	9.09	22,22,22,22	0
54	MG	DA	3496	1/1	0.91	0.24	8.91	38,38,38,38	0
54	MG	DA	3318	1/1	0.72	0.25	8.84	75,75,75,75	0
54	MG	DA	3131	1/1	0.97	0.32	8.64	25,25,25,25	0
54	MG	DA	3398	1/1	0.93	0.23	8.61	53,53,53,53	0
54	MG	BA	3528	1/1	0.99	0.26	8.59	27,27,27,27	0
54	MG	AA	1620	1/1	0.94	0.37	8.41	61,61,61,61	0
54	MG	BA	3190	1/1	0.98	0.23	8.35	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3366	1/1	0.97	0.23	8.28	41,41,41,41	0
54	MG	BA	3103	1/1	0.92	0.40	8.21	33,33,33,33	0
54	MG	CA	1620	1/1	0.84	0.40	8.19	74,74,74,74	0
54	MG	DA	3034	1/1	0.95	0.25	8.15	34,34,34,34	0
54	MG	DA	3107	1/1	0.98	0.23	8.06	38,38,38,38	0
54	MG	BA	3033	1/1	0.94	0.25	8.01	31,31,31,31	0
54	MG	DA	3199	1/1	0.97	0.26	7.98	29,29,29,29	0
54	MG	BA	3433	1/1	0.94	0.29	7.62	31,31,31,31	0
54	MG	DA	3100	1/1	0.87	0.26	7.54	56,56,56,56	0
54	MG	BA	3520	1/1	0.96	0.22	7.39	29,29,29,29	0
54	MG	BA	3654	1/1	0.95	0.28	7.36	27,27,27,27	0
54	MG	DA	3115	1/1	0.97	0.28	7.35	33,33,33,33	0
54	MG	B0	101	1/1	0.94	0.30	7.34	40,40,40,40	0
54	MG	DA	3569	1/1	0.85	0.34	7.28	60,60,60,60	0
54	MG	AA	1650	1/1	0.90	0.27	7.21	74,74,74,74	0
54	MG	BA	3371	1/1	0.95	0.25	7.14	26,26,26,26	0
54	MG	BA	3619	1/1	0.86	0.35	7.11	75,75,75,75	0
54	MG	BA	3279	1/1	0.92	0.22	7.09	38,38,38,38	0
54	MG	AA	1679	1/1	0.88	0.29	7.06	58,58,58,58	0
54	MG	AA	1649	1/1	0.93	0.26	7.05	71,71,71,71	0
54	MG	DA	3258	1/1	0.94	0.23	7.03	35,35,35,35	0
54	MG	BA	3248	1/1	0.83	0.26	6.96	30,30,30,30	0
54	MG	DA	3021	1/1	0.97	0.20	6.89	32,32,32,32	0
54	MG	DA	3554	1/1	0.60	0.20	6.83	70,70,70,70	0
54	MG	AA	1751	1/1	0.99	0.26	6.76	54,54,54,54	0
54	MG	BA	3178	1/1	0.97	0.27	6.74	23,23,23,23	0
54	MG	BA	3624	1/1	0.93	0.27	6.68	36,36,36,36	0
54	MG	DA	3549	1/1	0.92	0.23	6.65	39,39,39,39	0
54	MG	BA	3008	1/1	0.98	0.24	6.62	20,20,20,20	0
54	MG	BA	3537	1/1	0.78	0.26	6.52	66,66,66,66	0
54	MG	DA	3500	1/1	0.88	0.21	6.50	56,56,56,56	0
54	MG	BA	3148	1/1	0.96	0.23	6.35	21,21,21,21	0
54	MG	DA	3156	1/1	0.95	0.23	6.35	34,34,34,34	0
54	MG	DA	3428	1/1	0.92	0.20	6.26	36,36,36,36	0
54	MG	BA	3209	1/1	0.97	0.24	6.20	19,19,19,19	0
54	MG	CA	1619	1/1	0.97	0.43	6.16	56,56,56,56	0
54	MG	BA	3060	1/1	0.98	0.24	6.11	49,49,49,49	0
54	MG	DA	3042	1/1	0.91	0.26	6.07	50,50,50,50	0
54	MG	BA	3406	1/1	0.98	0.21	6.02	25,25,25,25	0
54	MG	B3	103	1/1	0.97	0.27	6.01	38,38,38,38	0
54	MG	DA	3429	1/1	0.96	0.23	5.98	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3200	1/1	0.96	0.17	5.83	34,34,34,34	0
54	MG	DA	3219	1/1	0.92	0.22	5.72	32,32,32,32	0
54	MG	BA	3621	1/1	0.86	0.21	5.68	35,35,35,35	0
54	MG	BA	3104	1/1	0.92	0.26	5.64	27,27,27,27	0
54	MG	AA	1626	1/1	0.95	0.23	5.58	32,32,32,32	0
54	MG	DA	3295	1/1	0.80	0.19	5.52	58,58,58,58	0
54	MG	BA	3387	1/1	0.98	0.25	5.50	27,27,27,27	0
54	MG	BA	3543	1/1	0.98	0.21	5.46	29,29,29,29	0
54	MG	DA	3073	1/1	0.93	0.18	5.42	41,41,41,41	0
54	MG	CA	1710	1/1	0.93	0.21	5.36	55,55,55,55	0
54	MG	CA	1645	1/1	0.77	0.38	5.35	69,69,69,69	0
54	MG	BU	203	1/1	0.95	0.33	5.26	31,31,31,31	0
54	MG	DD	304	1/1	0.87	0.23	5.23	39,39,39,39	0
54	MG	DA	3528	1/1	0.98	0.22	5.20	36,36,36,36	0
54	MG	DA	3019	1/1	0.92	0.19	4.98	46,46,46,46	0
54	MG	AM	201	1/1	0.95	0.27	4.97	78,78,78,78	0
54	MG	AA	1776	1/1	0.93	0.25	4.79	68,68,68,68	0
54	MG	DA	3441	1/1	0.96	0.21	4.72	63,63,63,63	0
54	MG	CA	1739	1/1	0.84	0.27	4.69	76,76,76,76	0
54	MG	DA	3430	1/1	0.95	0.23	4.69	28,28,28,28	0
54	MG	BA	3388	1/1	0.98	0.25	4.62	20,20,20,20	0
54	MG	BA	3243	1/1	0.98	0.24	4.60	31,31,31,31	0
54	MG	AA	1630	1/1	0.85	0.29	4.60	76,76,76,76	0
54	MG	BA	3553	1/1	0.94	0.23	4.54	27,27,27,27	0
54	MG	DA	3291	1/1	0.95	0.18	4.44	64,64,64,64	0
54	MG	AA	1634	1/1	0.93	0.28	4.42	58,58,58,58	0
54	MG	CA	1760	1/1	0.92	0.32	4.21	93,93,93,93	0
54	MG	CA	1615	1/1	0.94	0.21	4.13	42,42,42,42	0
54	MG	BA	3481	1/1	0.94	0.21	4.11	22,22,22,22	0
54	MG	BA	3415	1/1	0.97	0.23	4.10	26,26,26,26	0
54	MG	DA	3008	1/1	0.97	0.22	4.09	44,44,44,44	0
54	MG	BA	3335	1/1	0.96	0.24	4.08	43,43,43,43	0
54	MG	BE	302	1/1	0.96	0.25	4.06	29,29,29,29	0
54	MG	BA	3080	1/1	0.95	0.22	4.05	42,42,42,42	0
54	MG	DA	3427	1/1	0.98	0.21	4.00	24,24,24,24	0
54	MG	BA	3230	1/1	0.95	0.24	3.90	29,29,29,29	0
54	MG	BA	3162	1/1	0.97	0.24	3.89	22,22,22,22	0
54	MG	DA	3210	1/1	0.97	0.18	3.89	47,47,47,47	0
54	MG	DA	3513	1/1	0.92	0.19	3.85	52,52,52,52	0
54	MG	DA	3162	1/1	0.92	0.17	3.76	33,33,33,33	0
54	MG	BA	3382	1/1	0.83	0.22	3.74	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3430	1/1	0.97	0.22	3.74	27,27,27,27	0
54	MG	BA	3360	1/1	0.80	0.23	3.68	41,41,41,41	0
54	MG	AA	1752	1/1	0.96	0.24	3.66	102,102,102,102	0
54	MG	DA	3012	1/1	0.99	0.18	3.65	34,34,34,34	0
54	MG	BA	3518	1/1	0.98	0.28	3.62	28,28,28,28	0
54	MG	DA	3587	1/1	0.98	0.18	3.57	49,49,49,49	0
54	MG	BA	3431	1/1	0.92	0.21	3.45	28,28,28,28	0
54	MG	DA	3484	1/1	0.85	0.26	3.45	34,34,34,34	0
54	MG	BA	3372	1/1	0.93	0.24	3.44	32,32,32,32	0
54	MG	BA	3649	1/1	0.98	0.21	3.40	30,30,30,30	0
54	MG	AA	1666	1/1	0.94	0.29	3.39	71,71,71,71	0
54	MG	DA	3221	1/1	0.93	0.21	3.34	27,27,27,27	0
54	MG	CA	1768	1/1	0.88	0.34	3.29	95,95,95,95	0
54	MG	BU	201	1/1	0.95	0.24	3.29	30,30,30,30	0
54	MG	BA	3249	1/1	0.98	0.24	3.12	20,20,20,20	0
54	MG	BE	304	1/1	0.94	0.27	3.07	53,53,53,53	0
54	MG	AA	1682	1/1	0.98	0.23	3.05	48,48,48,48	0
54	MG	BA	3015	1/1	0.93	0.21	2.96	32,32,32,32	0
54	MG	BA	3086	1/1	0.97	0.23	2.91	21,21,21,21	0
54	MG	BA	3159	1/1	0.97	0.20	2.91	44,44,44,44	0
54	MG	BA	3418	1/1	0.95	0.23	2.90	28,28,28,28	0
54	MG	B9	102	1/1	0.96	0.28	2.83	29,29,29,29	0
54	MG	BA	3365	1/1	0.97	0.20	2.82	33,33,33,33	0
54	MG	DA	3072	1/1	0.89	0.30	2.78	60,60,60,60	0
54	MG	AA	1765	1/1	0.83	0.21	2.72	57,57,57,57	0
54	MG	DA	3300	1/1	0.92	0.19	2.71	29,29,29,29	0
54	MG	BA	3296	1/1	0.88	0.19	2.66	40,40,40,40	0
54	MG	DA	3062	1/1	0.95	0.25	2.63	43,43,43,43	0
54	MG	BR	203	1/1	0.95	0.25	2.62	33,33,33,33	0
54	MG	AA	1644	1/1	0.86	0.16	2.62	58,58,58,58	0
54	MG	DA	3493	1/1	0.93	0.20	2.58	33,33,33,33	0
54	MG	BA	3533	1/1	0.89	0.19	2.58	24,24,24,24	0
54	MG	DA	3207	1/1	0.89	0.16	2.57	27,27,27,27	0
54	MG	DA	3259	1/1	0.97	0.16	2.57	39,39,39,39	0
54	MG	AA	1691	1/1	0.90	0.22	2.53	57,57,57,57	0
54	MG	BE	303	1/1	0.94	0.28	2.52	47,47,47,47	0
54	MG	BA	3568	1/1	0.92	0.19	2.51	35,35,35,35	0
54	MG	BA	3421	1/1	0.97	0.20	2.49	34,34,34,34	0
54	MG	BA	3053	1/1	0.88	0.21	2.44	33,33,33,33	0
54	MG	BA	3032	1/1	0.93	0.19	2.40	25,25,25,25	0
54	MG	BA	3393	1/1	0.97	0.20	2.37	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	AA	1787	1/1	0.79	0.20	2.37	54,54,54,54	0
54	MG	DA	3054	1/1	0.92	0.21	2.35	46,46,46,46	0
54	MG	DA	3455	1/1	0.95	0.21	2.27	34,34,34,34	0
54	MG	BA	3377	1/1	0.81	0.19	2.24	44,44,44,44	0
54	MG	DA	3245	1/1	0.91	0.20	2.22	37,37,37,37	0
54	MG	AA	1651	1/1	0.88	0.23	2.17	62,62,62,62	0
54	MG	DA	3195	1/1	0.97	0.17	2.08	33,33,33,33	0
54	MG	BA	3035	1/1	0.94	0.21	2.04	23,23,23,23	0
54	MG	AI	201	1/1	0.90	0.29	2.01	67,67,67,67	0
54	MG	BA	3403	1/1	0.97	0.19	2.01	35,35,35,35	0
54	MG	AA	1696	1/1	0.93	0.23	1.99	66,66,66,66	0
54	MG	CA	1611	1/1	0.94	0.18	1.92	56,56,56,56	0
54	MG	BA	3315	1/1	0.92	0.19	1.91	63,63,63,63	0
54	MG	BB	206	1/1	0.95	0.20	1.90	34,34,34,34	0
54	MG	BA	3037	1/1	0.92	0.17	1.89	33,33,33,33	0
54	MG	DA	3373	1/1	0.95	0.15	1.88	58,58,58,58	0
54	MG	BA	3389	1/1	0.97	0.22	1.86	30,30,30,30	0
54	MG	CA	1716	1/1	0.96	0.20	1.79	49,49,49,49	0
54	MG	B3	102	1/1	0.82	0.20	1.74	52,52,52,52	0
54	MG	DA	3473	1/1	0.99	0.23	1.68	34,34,34,34	0
54	MG	DA	3565	1/1	0.87	0.19	1.62	62,62,62,62	0
54	MG	BA	3267	1/1	0.86	0.18	1.60	56,56,56,56	0
54	MG	BA	3391	1/1	0.97	0.21	1.58	24,24,24,24	0
54	MG	BH	201	1/1	0.90	0.20	1.55	60,60,60,60	0
54	MG	BA	3636	1/1	0.93	0.19	1.55	25,25,25,25	0
54	MG	BA	3370	1/1	0.95	0.21	1.54	23,23,23,23	0
54	MG	BA	3357	1/1	0.98	0.19	1.50	40,40,40,40	0
54	MG	AA	1762	1/1	0.85	0.31	1.48	78,78,78,78	0
54	MG	DA	3246	1/1	0.95	0.17	1.44	41,41,41,41	0
54	MG	BD	302	1/1	0.96	0.26	1.43	37,37,37,37	0
54	MG	CA	1627	1/1	0.93	0.19	1.35	72,72,72,72	0
54	MG	BR	202	1/1	0.97	0.21	1.35	35,35,35,35	0
54	MG	DA	3393	1/1	0.76	0.19	1.31	52,52,52,52	0
54	MG	BA	3385	1/1	0.98	0.18	1.30	31,31,31,31	0
54	MG	CA	1621	1/1	0.95	0.23	1.30	87,87,87,87	0
54	MG	BA	3052	1/1	0.92	0.18	1.24	38,38,38,38	0
54	MG	DA	3097	1/1	0.94	0.18	1.21	30,30,30,30	0
54	MG	DA	3447	1/1	0.91	0.20	1.19	58,58,58,58	0
54	MG	DA	3402	1/1	0.76	0.17	1.19	53,53,53,53	0
54	MG	CA	1711	1/1	0.92	0.21	1.18	55,55,55,55	0
54	MG	AA	1657	1/1	0.97	0.24	1.17	51,51,51,51	0
54	MG	DA	3495	1/1	0.90	0.17	1.16	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3348	1/1	0.81	0.14	1.13	87,87,87,87	0
54	MG	CA	1713	1/1	0.76	0.32	1.12	95,95,95,95	0
54	MG	DA	3178	1/1	0.92	0.15	1.12	42,42,42,42	0
54	MG	BA	3412	1/1	0.98	0.18	1.10	19,19,19,19	0
54	MG	AA	1631	1/1	0.95	0.17	1.10	64,64,64,64	0
54	MG	CA	1661	1/1	0.91	0.16	1.09	55,55,55,55	0
54	MG	BA	3151	1/1	0.85	0.21	1.07	34,34,34,34	0
54	MG	AA	1616	1/1	0.90	0.17	1.07	55,55,55,55	0
54	MG	DA	3214	1/1	0.96	0.16	1.03	32,32,32,32	0
54	MG	DA	3166	1/1	0.86	0.16	1.03	56,56,56,56	0
54	MG	DA	3201	1/1	0.95	0.16	1.02	29,29,29,29	0
54	MG	DA	3068	1/1	0.94	0.16	1.00	38,38,38,38	0
54	MG	DA	3551	1/1	0.80	0.16	0.95	69,69,69,69	0
54	MG	BA	3339	1/1	0.96	0.16	0.91	34,34,34,34	0
54	MG	DA	3360	1/1	0.96	0.18	0.87	36,36,36,36	0
54	MG	BA	3227	1/1	0.92	0.24	0.86	55,55,55,55	0
54	MG	CA	1686	1/1	0.97	0.27	0.83	67,67,67,67	0
54	MG	CA	1783	1/1	0.89	0.27	0.82	73,73,73,73	0
54	MG	BA	3404	1/1	0.96	0.20	0.80	27,27,27,27	0
54	MG	BA	3069	1/1	0.97	0.16	0.79	42,42,42,42	0
54	MG	BA	3017	1/1	0.98	0.17	0.78	27,27,27,27	0
54	MG	DA	3421	1/1	0.97	0.15	0.77	44,44,44,44	0
54	MG	AA	1605	1/1	0.61	0.24	0.74	62,62,62,62	0
54	MG	BA	3698	1/1	0.99	0.22	0.70	24,24,24,24	0
54	MG	DA	3406	1/1	0.96	0.14	0.64	54,54,54,54	0
54	MG	BA	3505	1/1	0.91	0.17	0.64	38,38,38,38	0
54	MG	DA	3048	1/1	0.96	0.14	0.62	50,50,50,50	0
54	MG	BA	3541	1/1	0.94	0.19	0.61	21,21,21,21	0
54	MG	DA	3018	1/1	0.96	0.16	0.60	54,54,54,54	0
54	MG	DA	3059	1/1	0.89	0.16	0.55	43,43,43,43	0
54	MG	DA	3354	1/1	0.98	0.15	0.53	39,39,39,39	0
54	MG	CA	1743	1/1	0.96	0.16	0.49	65,65,65,65	0
54	MG	BA	3137	1/1	0.93	0.19	0.48	45,45,45,45	0
54	MG	DA	3184	1/1	0.92	0.14	0.48	33,33,33,33	0
54	MG	CA	1691	1/1	0.95	0.17	0.47	74,74,74,74	0
54	MG	BA	3258	1/1	0.97	0.21	0.45	18,18,18,18	0
54	MG	CA	1649	1/1	0.96	0.21	0.44	67,67,67,67	0
54	MG	DA	3292	1/1	0.69	0.18	0.42	59,59,59,59	0
54	MG	BA	3384	1/1	0.98	0.18	0.39	29,29,29,29	0
54	MG	AA	1773	1/1	0.97	0.19	0.39	52,52,52,52	0
54	MG	DA	3233	1/1	0.92	0.14	0.38	42,42,42,42	0
54	MG	CA	1779	1/1	0.82	0.18	0.35	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3311	1/1	0.97	0.18	0.32	34,34,34,34	0
54	MG	DA	3390	1/1	0.87	0.19	0.29	73,73,73,73	0
55	ZN	AD	301	1/1	0.96	0.27	0.28	76,76,76,76	0
54	MG	DA	3041	1/1	0.96	0.14	0.27	34,34,34,34	0
54	MG	DA	3458	1/1	0.93	0.15	0.27	58,58,58,58	0
54	MG	DA	3349	1/1	0.93	0.15	0.27	55,55,55,55	0
54	MG	BA	3632	1/1	0.97	0.18	0.25	29,29,29,29	0
54	MG	BA	3364	1/1	0.96	0.18	0.23	24,24,24,24	0
54	MG	DA	3532	1/1	0.96	0.13	0.21	58,58,58,58	0
54	MG	BE	305	1/1	0.91	0.20	0.20	35,35,35,35	0
54	MG	CA	1703	1/1	0.88	0.17	0.19	46,46,46,46	0
54	MG	BA	3628	1/1	0.97	0.16	0.18	46,46,46,46	0
54	MG	DA	3578	1/1	0.94	0.14	0.16	45,45,45,45	0
54	MG	DA	3401	1/1	0.95	0.15	0.16	56,56,56,56	0
54	MG	BA	3487	1/1	0.81	0.18	0.15	49,49,49,49	0
54	MG	DA	3491	1/1	0.96	0.16	0.15	42,42,42,42	0
54	MG	DA	3571	1/1	0.82	0.16	0.09	53,53,53,53	0
54	MG	BA	3095	1/1	0.97	0.18	0.04	39,39,39,39	0
54	MG	D9	102	1/1	0.95	0.17	0.01	51,51,51,51	0
55	ZN	CD	301	1/1	0.75	0.30	-0.03	93,93,93,93	0
54	MG	CA	1655	1/1	0.94	0.16	-0.03	66,66,66,66	0
54	MG	CA	1688	1/1	0.74	0.23	-0.06	110,110,110,110	0
54	MG	DA	3412	1/1	0.91	0.13	-0.10	75,75,75,75	0
54	MG	DA	3301	1/1	0.94	0.14	-0.12	31,31,31,31	0
54	MG	BA	3604	1/1	0.99	0.20	-0.15	43,43,43,43	0
54	MG	BA	3411	1/1	0.97	0.18	-0.22	24,24,24,24	0
54	MG	DA	3319	1/1	0.91	0.13	-0.26	53,53,53,53	0
54	MG	DA	3302	1/1	0.89	0.14	-0.26	51,51,51,51	0
54	MG	BA	3063	1/1	0.97	0.17	-0.26	31,31,31,31	0
54	MG	DA	3561	1/1	0.95	0.12	-0.26	65,65,65,65	0
54	MG	BB	202	1/1	0.92	0.17	-0.29	45,45,45,45	0
54	MG	AA	1717	1/1	0.93	0.19	-0.31	79,79,79,79	0
54	MG	BA	3029	1/1	0.89	0.18	-0.32	38,38,38,38	0
54	MG	BA	3476	1/1	0.96	0.14	-0.32	55,55,55,55	0
54	MG	BA	3443	1/1	0.96	0.17	-0.32	31,31,31,31	0
54	MG	BD	304	1/1	0.95	0.17	-0.35	19,19,19,19	0
54	MG	DA	3172	1/1	0.93	0.15	-0.37	30,30,30,30	0
54	MG	CA	1618	1/1	0.82	0.14	-0.37	61,61,61,61	0
54	MG	DA	3261	1/1	0.95	0.13	-0.38	37,37,37,37	0
54	MG	BA	3027	1/1	0.90	0.17	-0.40	32,32,32,32	0
54	MG	CA	1616	1/1	0.71	0.15	-0.40	71,71,71,71	0
55	ZN	B6	101	1/1	0.99	0.13	-0.40	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1738	1/1	0.94	0.18	-0.44	52,52,52,52	0
54	MG	AA	1714	1/1	0.62	0.17	-0.44	58,58,58,58	0
54	MG	DQ	203	1/1	0.93	0.12	-0.46	62,62,62,62	0
54	MG	BA	3261	1/1	0.92	0.17	-0.48	21,21,21,21	0
54	MG	CA	1718	1/1	0.84	0.14	-0.49	76,76,76,76	0
54	MG	DA	3290	1/1	0.97	0.12	-0.49	47,47,47,47	0
54	MG	BA	3157	1/1	0.96	0.16	-0.51	36,36,36,36	0
54	MG	DA	3183	1/1	0.97	0.14	-0.51	36,36,36,36	0
54	MG	DA	3572	1/1	0.86	0.13	-0.52	45,45,45,45	0
54	MG	DA	3114	1/1	0.95	0.13	-0.53	36,36,36,36	0
54	MG	CA	1679	1/1	0.99	0.15	-0.53	53,53,53,53	0
54	MG	BA	3084	1/1	0.91	0.17	-0.54	43,43,43,43	0
54	MG	DD	302	1/1	0.92	0.14	-0.56	32,32,32,32	0
54	MG	DO	201	1/1	0.72	0.13	-0.56	67,67,67,67	0
54	MG	AA	1774	1/1	0.94	0.14	-0.56	78,78,78,78	0
54	MG	BA	3275	1/1	0.97	0.15	-0.60	31,31,31,31	0
54	MG	DA	3420	1/1	0.93	0.12	-0.60	52,52,52,52	0
54	MG	CA	1664	1/1	0.12	0.15	-0.62	62,62,62,62	0
54	MG	DA	3011	1/1	0.93	0.16	-0.64	45,45,45,45	0
54	MG	DA	3017	1/1	0.97	0.11	-0.65	48,48,48,48	0
54	MG	BB	205	1/1	0.86	0.13	-0.65	48,48,48,48	0
54	MG	B6	102	1/1	0.78	0.17	-0.66	69,69,69,69	0
54	MG	DA	3186	1/1	0.95	0.13	-0.66	27,27,27,27	0
55	ZN	D6	101	1/1	0.98	0.13	-0.67	66,66,66,66	0
54	MG	DA	3432	1/1	0.80	0.12	-0.68	67,67,67,67	0
54	MG	DF	303	1/1	0.91	0.17	-0.71	56,56,56,56	0
54	MG	D8	102	1/1	0.94	0.15	-0.72	66,66,66,66	0
54	MG	DA	3603	1/1	0.95	0.14	-0.74	44,44,44,44	0
54	MG	DA	3051	1/1	0.90	0.14	-0.74	73,73,73,73	0
54	MG	DA	3289	1/1	0.86	0.13	-0.76	44,44,44,44	0
55	ZN	B5	102	1/1	0.99	0.14	-0.79	42,42,42,42	0
54	MG	DA	3057	1/1	0.96	0.14	-0.79	53,53,53,53	0
54	MG	CA	1665	1/1	0.92	0.16	-0.80	60,60,60,60	0
54	MG	BA	3405	1/1	0.98	0.16	-0.81	22,22,22,22	0
54	MG	BT	201	1/1	0.96	0.14	-0.81	49,49,49,49	0
54	MG	BA	3231	1/1	0.97	0.19	-0.82	35,35,35,35	0
54	MG	BA	3046	1/1	0.94	0.15	-0.83	35,35,35,35	0
54	MG	CA	1751	1/1	0.91	0.10	-0.84	89,89,89,89	0
54	MG	DA	3071	1/1	0.95	0.13	-0.85	39,39,39,39	0
54	MG	DA	3058	1/1	0.97	0.12	-0.85	38,38,38,38	0
54	MG	BA	3186	1/1	0.95	0.17	-0.85	30,30,30,30	0
54	MG	BA	3043	1/1	0.89	0.17	-0.86	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3403	1/1	0.87	0.12	-0.87	56,56,56,56	0
55	ZN	BY	201	1/1	0.99	0.12	-0.88	54,54,54,54	0
54	MG	BA	3424	1/1	0.95	0.14	-0.88	25,25,25,25	0
54	MG	DA	3052	1/1	0.96	0.14	-0.88	35,35,35,35	0
54	MG	DA	3082	1/1	0.97	0.12	-0.91	34,34,34,34	0
54	MG	BA	3106	1/1	0.95	0.12	-0.93	48,48,48,48	0
54	MG	DA	3204	1/1	0.96	0.14	-0.95	32,32,32,32	0
55	ZN	D4	101	1/1	0.73	0.09	-0.96	173,173,173,173	0
55	ZN	D5	101	1/1	0.97	0.10	-0.96	53,53,53,53	0
54	MG	DA	3335	1/1	0.82	0.13	-0.96	68,68,68,68	0
54	MG	BG	201	1/1	0.89	0.13	-0.97	56,56,56,56	0
54	MG	DA	3075	1/1	0.90	0.13	-0.98	48,48,48,48	0
54	MG	DA	3328	1/1	0.84	0.12	-1.03	52,52,52,52	0
54	MG	AA	1743	1/1	0.95	0.15	-1.03	58,58,58,58	0
54	MG	DA	3275	1/1	0.84	0.13	-1.03	69,69,69,69	0
54	MG	BA	3454	1/1	0.92	0.12	-1.04	55,55,55,55	0
54	MG	BO	201	1/1	0.94	0.15	-1.06	53,53,53,53	0
54	MG	BA	3408	1/1	0.90	0.16	-1.07	24,24,24,24	0
55	ZN	D9	101	1/1	0.98	0.09	-1.11	68,68,68,68	0
54	MG	CA	1747	1/1	0.94	0.15	-1.11	63,63,63,63	0
55	ZN	B4	101	1/1	0.86	0.07	-1.12	117,117,117,117	0
54	MG	AA	1606	1/1	0.89	0.12	-1.14	63,63,63,63	0
54	MG	CA	1741	1/1	0.27	0.12	-1.14	117,117,117,117	0
54	MG	AA	1712	1/1	0.98	0.15	-1.17	43,43,43,43	0
54	MG	AD	303	1/1	0.92	0.13	-1.18	84,84,84,84	0
54	MG	BA	3313	1/1	0.98	0.16	-1.19	23,23,23,23	0
54	MG	BA	3082	1/1	0.98	0.16	-1.25	26,26,26,26	0
54	MG	BA	3662	1/1	0.92	0.15	-1.28	26,26,26,26	0
54	MG	BB	210	1/1	0.89	0.15	-1.33	62,62,62,62	0
54	MG	AA	1789	1/1	0.88	0.11	-1.36	78,78,78,78	0
54	MG	CA	1722	1/1	0.98	0.13	-1.37	58,58,58,58	0
55	ZN	CN	101	1/1	0.96	0.08	-1.37	108,108,108,108	0
54	MG	DA	3336	1/1	0.97	0.13	-1.38	53,53,53,53	0
54	MG	DA	3151	1/1	0.94	0.13	-1.39	31,31,31,31	0
54	MG	DA	3357	1/1	0.93	0.13	-1.41	45,45,45,45	0
54	MG	DA	3344	1/1	0.94	0.10	-1.44	56,56,56,56	0
54	MG	DA	3228	1/1	0.98	0.13	-1.46	60,60,60,60	0
54	MG	DB	201	1/1	0.91	0.11	-1.48	67,67,67,67	0
54	MG	D1	101	1/1	0.84	0.09	-1.53	59,59,59,59	0
54	MG	DA	3343	1/1	0.95	0.11	-1.56	54,54,54,54	0
54	MG	DA	3440	1/1	0.98	0.12	-1.59	65,65,65,65	0
54	MG	BA	3564	1/1	0.69	0.12	-1.60	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3263	1/1	0.90	0.11	-1.60	63,63,63,63	0
54	MG	DA	3443	1/1	0.91	0.07	-1.62	51,51,51,51	0
54	MG	BA	3301	1/1	0.89	0.11	-1.63	61,61,61,61	0
54	MG	BA	3283	1/1	0.95	0.16	-1.66	36,36,36,36	0
55	ZN	DY	201	1/1	0.97	0.05	-1.68	77,77,77,77	0
54	MG	DE	302	1/1	0.96	0.14	-1.80	37,37,37,37	0
54	MG	BA	3048	1/1	0.93	0.13	-1.81	35,35,35,35	0
54	MG	CA	1643	1/1	0.67	0.12	-1.85	76,76,76,76	0
54	MG	BA	3409	1/1	0.97	0.14	-1.87	26,26,26,26	0
54	MG	DA	3005	1/1	0.96	0.12	-1.88	53,53,53,53	0
54	MG	DA	3415	1/1	0.89	0.12	-1.90	53,53,53,53	0
54	MG	BA	3549	1/1	0.94	0.15	-1.94	22,22,22,22	0
54	MG	DA	3304	1/1	0.95	0.10	-1.94	39,39,39,39	0
54	MG	DA	3252	1/1	0.93	0.13	-1.95	45,45,45,45	0
54	MG	DA	3212	1/1	0.94	0.09	-1.97	32,32,32,32	0
54	MG	AA	1708	1/1	0.96	0.13	-1.98	61,61,61,61	0
54	MG	DA	3471	1/1	0.92	0.14	-2.00	41,41,41,41	0
54	MG	BA	3224	1/1	0.95	0.17	-2.01	28,28,28,28	0
54	MG	BA	3450	1/1	0.98	0.13	-2.06	24,24,24,24	0
54	MG	DA	3056	1/1	0.93	0.11	-2.08	31,31,31,31	0
54	MG	DA	3266	1/1	0.90	0.12	-2.08	40,40,40,40	0
54	MG	BA	3416	1/1	0.97	0.16	-2.18	22,22,22,22	0
54	MG	BQ	203	1/1	0.96	0.14	-2.18	38,38,38,38	0
54	MG	BA	3010	1/1	0.99	0.14	-2.19	27,27,27,27	0
54	MG	DA	3240	1/1	0.76	0.11	-2.21	56,56,56,56	0
54	MG	BA	3608	1/1	0.93	0.13	-2.21	21,21,21,21	0
54	MG	AA	1632	1/1	0.90	0.11	-2.22	64,64,64,64	0
54	MG	BA	3464	1/1	0.97	0.14	-2.24	28,28,28,28	0
54	MG	BA	3650	1/1	0.94	0.14	-2.25	53,53,53,53	0
54	MG	BF	303	1/1	0.96	0.12	-2.29	43,43,43,43	0
55	ZN	B9	101	1/1	0.99	0.10	-2.29	49,49,49,49	0
54	MG	CA	1744	1/1	0.94	0.08	-2.33	69,69,69,69	0
54	MG	DA	3433	1/1	0.97	0.11	-2.36	34,34,34,34	0
54	MG	BA	3244	1/1	0.87	0.13	-2.37	49,49,49,49	0
54	MG	CA	1755	1/1	0.88	0.13	-2.38	79,79,79,79	0
54	MG	DA	3248	1/1	0.97	0.10	-2.42	59,59,59,59	0
54	MG	BA	3627	1/1	0.91	0.13	-2.47	40,40,40,40	0
54	MG	CA	1662	1/1	0.96	0.09	-2.51	54,54,54,54	0
54	MG	AA	1745	1/1	0.92	0.10	-2.51	63,63,63,63	0
54	MG	BA	3041	1/1	0.99	0.13	-2.54	29,29,29,29	0
54	MG	BA	3216	1/1	0.95	0.12	-2.55	64,64,64,64	0
54	MG	BA	3020	1/1	0.79	0.09	-2.56	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3434	1/1	0.95	0.08	-2.57	60,60,60,60	0
54	MG	DA	3313	1/1	0.97	0.12	-2.58	34,34,34,34	0
54	MG	BA	3354	1/1	0.98	0.13	-2.58	24,24,24,24	0
54	MG	BA	3455	1/1	0.95	0.09	-2.59	41,41,41,41	0
54	MG	BA	3254	1/1	0.96	0.12	-2.60	36,36,36,36	0
54	MG	BA	3036	1/1	0.97	0.12	-2.61	41,41,41,41	0
54	MG	DA	3288	1/1	0.94	0.12	-2.62	51,51,51,51	0
54	MG	DA	3350	1/1	0.94	0.08	-2.68	40,40,40,40	0
54	MG	CA	1712	1/1	0.94	0.08	-2.69	55,55,55,55	0
54	MG	DA	3380	1/1	0.93	0.09	-2.71	47,47,47,47	0
54	MG	BA	3045	1/1	0.97	0.19	-2.71	35,35,35,35	0
54	MG	BA	3177	1/1	0.97	0.13	-2.73	41,41,41,41	0
55	ZN	AN	101	1/1	0.99	0.11	-2.74	118,118,118,118	0
54	MG	AA	1728	1/1	0.98	0.07	-2.78	68,68,68,68	0
54	MG	BA	3232	1/1	0.99	0.16	-2.82	24,24,24,24	0
54	MG	DA	3269	1/1	0.95	0.10	-2.82	36,36,36,36	0
54	MG	DE	301	1/1	0.96	0.10	-2.82	29,29,29,29	0
54	MG	BA	3381	1/1	0.95	0.12	-2.88	41,41,41,41	0
54	MG	BA	3508	1/1	0.99	0.10	-3.01	33,33,33,33	0
54	MG	BA	3466	1/1	0.94	0.07	-3.05	78,78,78,78	0
54	MG	AA	1808	1/1	0.93	0.12	-3.06	43,43,43,43	0
54	MG	BA	3602	1/1	0.97	0.06	-3.06	43,43,43,43	0
54	MG	BA	3328	1/1	0.81	0.13	-3.07	49,49,49,49	0
54	MG	CA	1663	1/1	0.90	0.14	-3.07	75,75,75,75	0
54	MG	DA	3180	1/1	0.96	0.11	-3.08	29,29,29,29	0
54	MG	DA	3588	1/1	0.94	0.11	-3.12	38,38,38,38	0
54	MG	BA	3310	1/1	0.96	0.13	-3.15	19,19,19,19	0
54	MG	AA	1742	1/1	0.92	0.12	-3.19	78,78,78,78	0
54	MG	BA	3379	1/1	0.91	0.12	-3.20	30,30,30,30	0
54	MG	BA	3098	1/1	0.93	0.13	-3.22	39,39,39,39	0
54	MG	BD	303	1/1	0.95	0.12	-3.31	33,33,33,33	0
54	MG	AA	1739	1/1	0.94	0.11	-3.31	72,72,72,72	0
54	MG	BA	3557	1/1	0.80	0.14	-3.36	25,25,25,25	0
54	MG	BA	3395	1/1	0.85	0.11	-3.40	37,37,37,37	0
54	MG	BA	3349	1/1	0.98	0.15	-3.40	30,30,30,30	0
54	MG	DB	207	1/1	0.81	0.08	-3.41	82,82,82,82	0
54	MG	BA	3056	1/1	0.91	0.13	-3.46	32,32,32,32	0
54	MG	DA	3022	1/1	0.93	0.10	-3.49	37,37,37,37	0
54	MG	DA	3069	1/1	0.95	0.10	-3.49	67,67,67,67	0
54	MG	DA	3405	1/1	0.85	0.13	-3.54	56,56,56,56	0
54	MG	BD	305	1/1	0.98	0.07	-3.55	46,46,46,46	0
54	MG	DA	3255	1/1	0.80	0.08	-3.57	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3016	1/1	0.94	0.09	-3.58	64,64,64,64	0
54	MG	CA	1608	1/1	0.94	0.12	-3.58	54,54,54,54	0
54	MG	DA	3174	1/1	0.96	0.11	-3.58	24,24,24,24	0
54	MG	BA	3396	1/1	0.98	0.15	-3.61	39,39,39,39	0
54	MG	BA	3329	1/1	0.89	0.14	-3.61	30,30,30,30	0
54	MG	DA	3060	1/1	0.90	0.09	-3.66	57,57,57,57	0
54	MG	BA	3185	1/1	0.89	0.10	-3.67	44,44,44,44	0
54	MG	DA	3274	1/1	0.86	0.09	-3.67	51,51,51,51	0
54	MG	DA	3609	1/1	0.97	0.10	-3.71	42,42,42,42	0
54	MG	DA	3394	1/1	0.89	0.11	-3.74	59,59,59,59	0
54	MG	BA	3380	1/1	0.96	0.11	-3.82	37,37,37,37	0
54	MG	AA	1788	1/1	0.74	0.11	-3.82	76,76,76,76	0
54	MG	BA	3127	1/1	0.97	0.11	-3.83	30,30,30,30	0
54	MG	AA	1720	1/1	0.96	0.10	-3.84	74,74,74,74	0
54	MG	CA	1656	1/1	0.97	0.07	-3.85	66,66,66,66	0
54	MG	DA	3279	1/1	0.92	0.07	-3.93	66,66,66,66	0
54	MG	BB	204	1/1	0.94	0.10	-3.96	47,47,47,47	0
54	MG	DA	3600	1/1	0.95	0.07	-3.98	33,33,33,33	0
54	MG	BA	3667	1/1	0.97	0.12	-4.01	22,22,22,22	0
54	MG	DA	3334	1/1	0.94	0.10	-4.04	45,45,45,45	0
54	MG	DA	3243	1/1	0.97	0.11	-4.04	32,32,32,32	0
54	MG	DA	3339	1/1	0.96	0.08	-4.13	53,53,53,53	0
54	MG	BA	3245	1/1	0.97	0.10	-4.21	29,29,29,29	0
54	MG	AA	1754	1/1	0.90	0.09	-4.22	49,49,49,49	0
54	MG	BA	3402	1/1	0.99	0.14	-4.23	31,31,31,31	0
54	MG	BA	3083	1/1	0.94	0.10	-4.27	32,32,32,32	0
54	MG	DA	3604	1/1	0.93	0.07	-4.38	72,72,72,72	0
54	MG	DA	3512	1/1	0.93	0.08	-4.49	43,43,43,43	0
54	MG	DA	3315	1/1	0.83	0.07	-4.51	49,49,49,49	0
54	MG	BA	3562	1/1	0.89	0.08	-4.62	34,34,34,34	0
54	MG	DA	3330	1/1	0.85	0.11	-4.71	56,56,56,56	0
54	MG	DA	3268	1/1	0.81	0.09	-4.74	54,54,54,54	0
54	MG	BA	3182	1/1	0.96	0.10	-4.92	30,30,30,30	0
54	MG	BA	3674	1/1	0.92	0.10	-4.93	62,62,62,62	0
54	MG	BA	3181	1/1	0.97	0.07	-5.00	41,41,41,41	0
54	MG	BR	205	1/1	0.94	0.12	-5.01	45,45,45,45	0
54	MG	DA	3217	1/1	0.92	0.07	-5.16	54,54,54,54	0
54	MG	BA	3356	1/1	0.95	0.09	-5.20	55,55,55,55	0
54	MG	BA	3312	1/1	0.98	0.12	-5.29	32,32,32,32	0
54	MG	BA	3293	1/1	0.96	0.11	-5.30	36,36,36,36	0
54	MG	BA	3116	1/1	0.92	0.10	-5.35	50,50,50,50	0
54	MG	BA	3506	1/1	0.96	0.07	-5.40	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3149	1/1	0.95	0.13	-5.41	24,24,24,24	0
54	MG	DA	3181	1/1	0.95	0.09	-5.41	50,50,50,50	0
54	MG	DA	3160	1/1	0.95	0.04	-5.43	42,42,42,42	0
54	MG	BA	3132	1/1	0.95	0.11	-5.50	45,45,45,45	0
54	MG	CA	1698	1/1	0.96	0.10	-5.58	62,62,62,62	0
54	MG	DA	3080	1/1	0.97	0.09	-5.63	48,48,48,48	0
54	MG	DA	3267	1/1	0.92	0.07	-5.65	34,34,34,34	0
54	MG	BA	3166	1/1	0.98	0.09	-5.73	53,53,53,53	0
54	MG	AA	1737	1/1	0.97	0.12	-5.88	41,41,41,41	0
54	MG	BA	3644	1/1	0.95	0.15	-6.00	35,35,35,35	0
54	MG	CA	1693	1/1	0.98	0.07	-6.08	73,73,73,73	0
54	MG	DA	3213	1/1	0.94	0.10	-6.31	33,33,33,33	0
54	MG	BA	3700	1/1	0.98	0.08	-6.40	41,41,41,41	0
54	MG	DA	3155	1/1	0.89	0.10	-6.61	53,53,53,53	0
54	MG	BA	3180	1/1	0.97	0.09	-6.65	42,42,42,42	0
54	MG	BA	3407	1/1	0.99	0.13	-6.66	24,24,24,24	0
54	MG	BA	3337	1/1	0.95	0.07	-6.73	27,27,27,27	0
54	MG	BA	3155	1/1	0.91	0.13	-6.77	37,37,37,37	0
54	MG	BA	3426	1/1	0.96	0.09	-6.87	28,28,28,28	0
54	MG	DA	3271	1/1	0.95	0.05	-6.89	42,42,42,42	0
54	MG	AA	1722	1/1	0.97	0.05	-6.90	48,48,48,48	0
54	MG	BA	3175	1/1	0.95	0.07	-7.02	31,31,31,31	0
54	MG	BA	3023	1/1	0.94	0.11	-7.46	43,43,43,43	0
54	MG	BA	3212	1/1	0.97	0.07	-7.51	52,52,52,52	0
54	MG	CA	1697	1/1	0.83	0.06	-7.56	95,95,95,95	0
54	MG	BA	3214	1/1	0.94	0.07	-7.77	39,39,39,39	0
54	MG	BA	3573	1/1	0.95	0.10	-7.90	54,54,54,54	0
54	MG	DA	3215	1/1	0.95	0.09	-7.93	30,30,30,30	0
54	MG	BA	3062	1/1	0.97	0.11	-7.98	32,32,32,32	0
54	MG	AA	1705	1/1	0.95	0.08	-8.35	46,46,46,46	0
54	MG	DA	3590	1/1	0.97	0.07	-8.49	59,59,59,59	0
54	MG	BA	3242	1/1	0.87	0.08	-8.76	45,45,45,45	0
54	MG	BA	3486	1/1	0.92	0.14	-9.05	25,25,25,25	0
54	MG	BA	3170	1/1	0.95	0.10	-9.57	38,38,38,38	0
54	MG	BA	3493	1/1	0.96	0.11	-9.81	65,65,65,65	0
54	MG	DA	3203	1/1	0.98	0.06	-9.91	36,36,36,36	0
54	MG	DA	3202	1/1	0.96	0.05	-10.14	29,29,29,29	0
54	MG	BA	3542	1/1	0.94	0.07	-10.72	33,33,33,33	0
54	MG	BA	3237	1/1	0.93	0.06	-11.15	41,41,41,41	0
54	MG	BA	3238	1/1	0.87	0.10	-11.51	39,39,39,39	0
54	MG	BA	3115	1/1	0.98	0.08	-12.93	35,35,35,35	0
54	MG	BA	3326	1/1	0.90	0.07	-20.78	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3176	1/1	0.99	0.10	-23.28	27,27,27,27	0
54	MG	BA	3259	1/1	0.96	0.13	-25.17	20,20,20,20	0
54	MG	BB	213	1/1	0.86	0.11	-	46,46,46,46	0
54	MG	AA	1613	1/1	0.85	0.34	-	77,77,77,77	0
54	MG	DR	201	1/1	0.95	0.31	-	40,40,40,40	0
54	MG	DA	3007	1/1	0.96	0.25	-	59,59,59,59	0
54	MG	DA	3102	1/1	0.96	0.23	-	48,48,48,48	0
54	MG	CA	1749	1/1	0.95	0.16	-	69,69,69,69	0
54	MG	AA	1719	1/1	0.94	0.16	-	66,66,66,66	0
54	MG	DA	3459	1/1	0.95	0.09	-	90,90,90,90	0
54	MG	DA	3593	1/1	0.92	0.15	-	58,58,58,58	0
54	MG	BA	3228	1/1	0.94	0.26	-	44,44,44,44	0
54	MG	AA	1735	1/1	0.98	0.44	-	62,62,62,62	0
54	MG	DA	3352	1/1	0.84	0.15	-	82,82,82,82	0
54	MG	DP	201	1/1	0.81	0.20	-	78,78,78,78	0
54	MG	BZ	302	1/1	0.96	0.13	-	45,45,45,45	0
54	MG	CA	1617	1/1	0.91	0.29	-	63,63,63,63	0
54	MG	BA	3435	1/1	0.96	0.05	-	40,40,40,40	0
54	MG	BA	3504	1/1	0.93	0.16	-	53,53,53,53	0
54	MG	DA	3384	1/1	0.86	0.35	-	49,49,49,49	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	3099	1/1	0.95	0.25	-	54,54,54,54	0
54	MG	BA	3429	1/1	0.94	0.13	-	59,59,59,59	0
54	MG	BA	3287	1/1	0.85	0.27	-	44,44,44,44	0
54	MG	DA	3573	1/1	0.82	0.54	-	68,68,68,68	0
54	MG	DA	3276	1/1	0.93	0.16	-	76,76,76,76	0
54	MG	BA	3658	1/1	0.90	0.09	-	61,61,61,61	0
54	MG	BB	201	1/1	0.76	0.22	-	67,67,67,67	0
54	MG	DA	3153	1/1	0.97	0.10	-	32,32,32,32	0
54	MG	BT	203	1/1	0.98	0.06	-	51,51,51,51	0
54	MG	BA	3704	1/1	0.83	0.18	-	70,70,70,70	0
54	MG	DA	3312	1/1	0.84	0.12	-	52,52,52,52	0
54	MG	BA	3206	1/1	0.91	0.14	-	67,67,67,67	0
54	MG	BA	3246	1/1	0.96	0.15	-	46,46,46,46	0
54	MG	DA	3422	1/1	0.94	0.07	-	71,71,71,71	0
54	MG	BA	3663	1/1	0.97	0.06	-	53,53,53,53	0
54	MG	CA	1658	1/1	0.97	0.10	-	64,64,64,64	0
54	MG	BA	3716	1/1	0.80	0.17	-	54,54,54,54	0
54	MG	BA	3436	1/1	0.78	0.17	-	41,41,41,41	0
54	MG	CA	1758	1/1	0.53	0.24	-	64,64,64,64	0
54	MG	DA	3135	1/1	0.89	0.17	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	AA	1677	1/1	0.96	0.05	-	50,50,50,50	0
54	MG	DA	3236	1/1	0.84	0.09	-	40,40,40,40	0
54	MG	BA	3109	1/1	0.95	0.12	-	37,37,37,37	0
54	MG	BA	3480	1/1	0.94	0.10	-	58,58,58,58	0
54	MG	AA	1807	1/1	0.88	0.11	-	73,73,73,73	0
54	MG	DA	3294	1/1	0.91	0.10	-	67,67,67,67	0
54	MG	BA	3088	1/1	0.92	0.15	-	42,42,42,42	0
54	MG	BA	3200	1/1	0.97	0.16	-	24,24,24,24	0
54	MG	DA	3136	1/1	0.81	0.71	-	62,62,62,62	0
54	MG	DA	3141	1/1	0.62	0.36	-	70,70,70,70	0
54	MG	AA	1723	1/1	0.95	0.11	-	82,82,82,82	0
54	MG	BB	219	1/1	0.93	0.17	-	54,54,54,54	0
54	MG	BA	3390	1/1	0.93	0.25	-	33,33,33,33	0
54	MG	DA	3410	1/1	0.69	0.20	-	80,80,80,80	0
54	MG	B9	104	1/1	0.94	0.10	-	52,52,52,52	0
54	MG	CA	1782	1/1	0.87	0.21	-	63,63,63,63	0
54	MG	BA	3123	1/1	0.97	0.21	-	48,48,48,48	0
54	MG	DA	3103	1/1	0.95	0.33	-	48,48,48,48	0
54	MG	BA	3666	1/1	0.94	0.14	-	78,78,78,78	0
54	MG	DB	204	1/1	0.97	0.18	-	65,65,65,65	0
54	MG	BA	3211	1/1	0.97	0.15	-	49,49,49,49	0
54	MG	DA	3539	1/1	0.93	0.16	-	54,54,54,54	0
54	MG	DA	3502	1/1	0.84	0.08	-	78,78,78,78	0
54	MG	CA	1794	1/1	0.93	0.12	-	57,57,57,57	0
54	MG	DA	3594	1/1	0.89	0.09	-	62,62,62,62	0
54	MG	BA	3229	1/1	0.94	0.14	-	61,61,61,61	0
54	MG	BA	3047	1/1	0.94	0.13	-	30,30,30,30	0
54	MG	DA	3359	1/1	0.87	0.39	-	69,69,69,69	0
54	MG	BA	3350	1/1	0.97	0.14	-	28,28,28,28	0
54	MG	DA	3253	1/1	0.91	0.12	-	58,58,58,58	0
54	MG	CA	1776	1/1	0.82	0.23	-	76,76,76,76	0
54	MG	BA	3635	1/1	0.95	0.07	-	72,72,72,72	0
54	MG	AA	1790	1/1	0.96	0.20	-	63,63,63,63	0
54	MG	AA	1792	1/1	0.96	0.09	-	51,51,51,51	0
54	MG	BA	3589	1/1	0.93	0.15	-	41,41,41,41	0
54	MG	CA	1742	1/1	0.84	0.12	-	99,99,99,99	0
54	MG	DA	3522	1/1	0.95	0.13	-	59,59,59,59	0
54	MG	AA	1601	1/1	0.96	0.40	-	52,52,52,52	0
54	MG	AA	1716	1/1	0.88	0.06	-	62,62,62,62	0
54	MG	BA	3465	1/1	0.91	0.15	-	24,24,24,24	0
54	MG	BA	3026	1/1	0.88	0.21	-	50,50,50,50	0
54	MG	DA	3570	1/1	0.92	0.14	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DW	201	1/1	0.95	0.06	-	63,63,63,63	0
54	MG	DA	3413	1/1	0.96	0.06	-	78,78,78,78	0
54	MG	DA	3117	1/1	0.89	0.17	-	69,69,69,69	0
54	MG	DA	3575	1/1	0.90	0.21	-	98,98,98,98	0
54	MG	BA	3576	1/1	0.89	0.10	-	55,55,55,55	0
54	MG	BA	3668	1/1	0.96	0.08	-	60,60,60,60	0
54	MG	CA	1674	1/1	0.80	0.12	-	80,80,80,80	0
54	MG	DA	3439	1/1	0.94	0.34	-	57,57,57,57	0
54	MG	DA	3283	1/1	0.84	0.14	-	51,51,51,51	0
54	MG	BA	3468	1/1	0.95	0.15	-	63,63,63,63	0
54	MG	BA	3699	1/1	0.94	0.12	-	43,43,43,43	0
54	MG	BA	3011	1/1	0.92	0.30	-	47,47,47,47	0
54	MG	BA	3348	1/1	0.95	0.09	-	44,44,44,44	0
54	MG	BA	3130	1/1	0.82	0.13	-	79,79,79,79	0
54	MG	AA	1733	1/1	0.94	0.12	-	59,59,59,59	0
54	MG	BA	3005	1/1	0.93	0.12	-	56,56,56,56	0
54	MG	DA	3314	1/1	0.91	0.16	-	31,31,31,31	0
54	MG	BA	3447	1/1	0.79	0.09	-	53,53,53,53	0
54	MG	BA	3199	1/1	0.98	0.05	-	46,46,46,46	0
54	MG	DA	3090	1/1	0.89	0.14	-	45,45,45,45	0
54	MG	AA	1704	1/1	0.94	0.07	-	75,75,75,75	0
54	MG	CA	1651	1/1	0.94	0.10	-	55,55,55,55	0
54	MG	DA	3519	1/1	0.90	0.17	-	61,61,61,61	0
54	MG	BA	3590	1/1	0.68	0.35	-	77,77,77,77	0
54	MG	DF	304	1/1	0.97	0.07	-	41,41,41,41	0
54	MG	BT	202	1/1	0.91	0.28	-	52,52,52,52	0
54	MG	DA	3534	1/1	0.94	0.25	-	53,53,53,53	0
54	MG	DA	3251	1/1	0.95	0.20	-	41,41,41,41	0
54	MG	BA	3366	1/1	0.97	0.20	-	36,36,36,36	0
54	MG	BA	3491	1/1	0.81	0.11	-	72,72,72,72	0
54	MG	CA	1706	1/1	0.92	0.21	-	76,76,76,76	0
54	MG	BA	3323	1/1	0.97	0.12	-	57,57,57,57	0
54	MG	DA	3001	1/1	0.93	0.12	-	38,38,38,38	0
54	MG	BQ	201	1/1	0.69	0.37	-	61,61,61,61	0
54	MG	BA	3314	1/1	0.84	0.16	-	39,39,39,39	0
54	MG	AA	1636	1/1	0.92	0.10	-	49,49,49,49	0
54	MG	BA	3292	1/1	0.96	0.09	-	36,36,36,36	0
54	MG	BA	3437	1/1	0.98	0.17	-	28,28,28,28	0
54	MG	AA	1686	1/1	0.61	0.32	-	68,68,68,68	0
54	MG	DA	3520	1/1	0.89	0.13	-	74,74,74,74	0
54	MG	BA	3555	1/1	0.98	0.13	-	23,23,23,23	0
54	MG	BA	3501	1/1	0.78	0.15	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3436	1/1	0.87	0.13	-	77,77,77,77	0
54	MG	BA	3055	1/1	0.93	0.27	-	44,44,44,44	0
54	MG	DA	3542	1/1	0.93	0.23	-	65,65,65,65	0
54	MG	BA	3580	1/1	0.94	0.17	-	49,49,49,49	0
54	MG	CA	1677	1/1	0.75	0.20	-	86,86,86,86	0
54	MG	AA	1747	1/1	0.98	0.07	-	60,60,60,60	0
54	MG	DA	3396	1/1	0.98	0.14	-	48,48,48,48	0
54	MG	AA	1628	1/1	0.93	0.34	-	81,81,81,81	0
54	MG	AA	1635	1/1	0.63	0.11	-	77,77,77,77	0
54	MG	DA	3544	1/1	0.96	0.15	-	67,67,67,67	0
54	MG	BA	3714	1/1	0.87	0.14	-	47,47,47,47	0
54	MG	CA	1659	1/1	0.88	0.13	-	89,89,89,89	0
54	MG	DA	3244	1/1	0.85	0.19	-	32,32,32,32	0
54	MG	CA	1759	1/1	0.79	0.09	-	95,95,95,95	0
54	MG	BA	3691	1/1	0.95	0.11	-	57,57,57,57	0
54	MG	BA	3256	1/1	0.92	0.14	-	38,38,38,38	0
54	MG	BA	3319	1/1	0.98	0.17	-	26,26,26,26	0
54	MG	DA	3168	1/1	0.87	0.17	-	41,41,41,41	0
54	MG	DA	3431	1/1	0.99	0.15	-	27,27,27,27	0
54	MG	CA	1740	1/1	0.98	0.35	-	72,72,72,72	0
54	MG	CA	1791	1/1	0.71	0.15	-	72,72,72,72	0
54	MG	CA	1680	1/1	0.90	0.04	-	92,92,92,92	0
54	MG	BA	3597	1/1	0.95	0.14	-	36,36,36,36	0
54	MG	BA	3107	1/1	0.93	0.23	-	47,47,47,47	0
54	MG	DA	3297	1/1	0.89	0.13	-	49,49,49,49	0
54	MG	DA	3310	1/1	0.94	0.30	-	47,47,47,47	0
54	MG	BA	3324	1/1	0.93	0.13	-	48,48,48,48	0
54	MG	DE	303	1/1	0.97	0.31	-	31,31,31,31	0
54	MG	DA	3375	1/1	0.85	0.05	-	60,60,60,60	0
54	MG	AA	1668	1/1	0.93	0.07	-	52,52,52,52	0
54	MG	BA	3492	1/1	0.94	0.11	-	57,57,57,57	0
54	MG	DA	3190	1/1	0.91	0.14	-	43,43,43,43	0
54	MG	DA	3438	1/1	0.95	0.09	-	54,54,54,54	0
54	MG	BA	3234	1/1	0.92	0.10	-	61,61,61,61	0
54	MG	CA	1775	1/1	0.91	0.11	-	78,78,78,78	0
54	MG	BB	212	1/1	0.97	0.08	-	49,49,49,49	0
54	MG	DA	3424	1/1	0.91	0.19	-	49,49,49,49	0
54	MG	CA	1788	1/1	0.94	0.11	-	51,51,51,51	0
54	MG	BA	3442	1/1	0.97	0.26	-	24,24,24,24	0
54	MG	BA	3195	1/1	0.96	0.10	-	46,46,46,46	0
54	MG	BA	3527	1/1	0.93	0.15	-	51,51,51,51	0
54	MG	AA	1665	1/1	0.92	0.20	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3636	1/1	0.84	0.19	-	66,66,66,66	0
54	MG	BA	3108	1/1	0.94	0.14	-	51,51,51,51	0
54	MG	CA	1778	1/1	0.77	0.10	-	83,83,83,83	0
54	MG	BA	3152	1/1	0.80	0.17	-	48,48,48,48	0
54	MG	DA	3567	1/1	0.95	0.15	-	57,57,57,57	0
54	MG	BD	307	1/1	0.83	0.22	-	65,65,65,65	0
54	MG	BA	3456	1/1	0.97	0.13	-	37,37,37,37	0
54	MG	BQ	205	1/1	0.90	0.15	-	42,42,42,42	0
54	MG	CA	1767	1/1	0.89	0.10	-	86,86,86,86	0
54	MG	CA	1670	1/1	0.93	0.23	-	80,80,80,80	0
54	MG	BA	3220	1/1	0.90	0.32	-	62,62,62,62	0
54	MG	DA	3091	1/1	0.95	0.98	-	38,38,38,38	0
54	MG	BA	3299	1/1	0.94	0.17	-	44,44,44,44	0
54	MG	BA	3252	1/1	0.88	0.13	-	52,52,52,52	0
54	MG	DA	3385	1/1	0.97	0.15	-	59,59,59,59	0
54	MG	AA	1730	1/1	0.84	0.18	-	70,70,70,70	0
54	MG	DA	3198	1/1	0.87	0.39	-	52,52,52,52	0
54	MG	BA	3327	1/1	0.89	0.07	-	69,69,69,69	0
54	MG	BA	3425	1/1	0.95	0.16	-	38,38,38,38	0
54	MG	CA	1785	1/1	0.75	0.17	-	84,84,84,84	0
54	MG	BS	201	1/1	0.97	0.13	-	63,63,63,63	0
54	MG	BD	306	1/1	0.93	0.19	-	30,30,30,30	0
54	MG	B7	101	1/1	0.87	0.08	-	45,45,45,45	0
54	MG	AA	1815	1/1	0.95	0.09	-	72,72,72,72	0
54	MG	DA	3376	1/1	0.94	0.13	-	73,73,73,73	0
54	MG	DA	3414	1/1	0.80	0.10	-	66,66,66,66	0
54	MG	BA	3222	1/1	0.88	0.08	-	34,34,34,34	0
54	MG	DA	3388	1/1	0.93	0.35	-	73,73,73,73	0
54	MG	BA	3140	1/1	0.94	0.17	-	44,44,44,44	0
54	MG	DA	3536	1/1	0.89	0.06	-	76,76,76,76	0
54	MG	DA	3543	1/1	0.80	0.13	-	54,54,54,54	0
54	MG	DA	3325	1/1	0.92	0.11	-	72,72,72,72	0
54	MG	DA	3614	1/1	0.62	0.86	-	92,92,92,92	0
54	MG	BA	3394	1/1	0.98	0.11	-	27,27,27,27	0
54	MG	BA	3660	1/1	0.97	0.05	-	39,39,39,39	0
54	MG	CA	1704	1/1	0.97	0.13	-	71,71,71,71	0
54	MG	AA	1803	1/1	0.95	0.08	-	81,81,81,81	0
54	MG	BA	3131	1/1	0.98	0.14	-	28,28,28,28	0
54	MG	DA	3535	1/1	0.90	0.38	-	67,67,67,67	0
54	MG	BA	3392	1/1	0.97	0.29	-	29,29,29,29	0
54	MG	AA	1647	1/1	0.95	0.30	-	73,73,73,73	0
54	MG	CA	1756	1/1	0.88	0.09	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3236	1/1	0.95	0.15	-	27,27,27,27	0
54	MG	AA	1801	1/1	0.85	0.08	-	87,87,87,87	0
54	MG	BA	3050	1/1	0.98	0.26	-	54,54,54,54	0
54	MG	CA	1632	1/1	0.85	0.31	-	57,57,57,57	0
54	MG	BA	3670	1/1	0.86	0.16	-	65,65,65,65	0
54	MG	BA	3087	1/1	0.95	0.23	-	36,36,36,36	0
54	MG	BA	3548	1/1	0.98	0.13	-	32,32,32,32	0
54	MG	DA	3630	1/1	0.96	0.05	-	76,76,76,76	0
54	MG	BA	3135	1/1	0.94	0.10	-	50,50,50,50	0
54	MG	AA	1758	1/1	0.94	0.13	-	48,48,48,48	0
54	MG	CA	1708	1/1	0.99	0.06	-	73,73,73,73	0
54	MG	BA	3438	1/1	0.98	0.14	-	31,31,31,31	0
54	MG	BA	3298	1/1	0.95	0.23	-	43,43,43,43	0
54	MG	BQ	204	1/1	0.93	0.12	-	46,46,46,46	0
54	MG	DA	3036	1/1	0.85	0.25	-	62,62,62,62	0
54	MG	BA	3579	1/1	0.70	0.26	-	57,57,57,57	0
54	MG	DA	3161	1/1	0.96	0.15	-	47,47,47,47	0
54	MG	BA	3007	1/1	0.87	0.15	-	41,41,41,41	0
54	MG	CA	1745	1/1	0.98	0.28	-	52,52,52,52	0
54	MG	CA	1702	1/1	0.90	0.12	-	55,55,55,55	0
54	MG	B8	101	1/1	0.94	0.30	-	45,45,45,45	0
54	MG	DA	3462	1/1	0.85	0.15	-	63,63,63,63	0
54	MG	AA	1798	1/1	0.91	0.11	-	67,67,67,67	0
54	MG	BA	3603	1/1	0.91	0.27	-	39,39,39,39	0
54	MG	DA	3031	1/1	0.91	0.36	-	46,46,46,46	0
54	MG	CA	1765	1/1	0.92	0.10	-	87,87,87,87	0
54	MG	BA	3068	1/1	0.91	0.09	-	40,40,40,40	0
54	MG	DA	3270	1/1	0.96	0.17	-	24,24,24,24	0
54	MG	DA	3382	1/1	0.93	0.07	-	57,57,57,57	0
54	MG	BQ	202	1/1	0.97	0.22	-	47,47,47,47	0
54	MG	DA	3182	1/1	0.79	0.16	-	45,45,45,45	0
54	MG	CA	1629	1/1	0.78	0.32	-	81,81,81,81	0
54	MG	BA	3250	1/1	0.98	0.12	-	39,39,39,39	0
54	MG	DA	3490	1/1	0.94	0.09	-	60,60,60,60	0
54	MG	DA	3468	1/1	0.98	0.06	-	66,66,66,66	0
54	MG	DA	3238	1/1	0.97	0.08	-	44,44,44,44	0
54	MG	DA	3545	1/1	0.92	0.07	-	53,53,53,53	0
54	MG	AA	1678	1/1	0.92	0.43	-	75,75,75,75	0
54	MG	BA	3606	1/1	0.87	0.10	-	63,63,63,63	0
54	MG	BA	3496	1/1	0.88	0.30	-	56,56,56,56	0
54	MG	AA	1767	1/1	0.57	0.18	-	70,70,70,70	0
54	MG	BA	3586	1/1	0.96	0.19	-	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3232	1/1	0.95	0.09	-	45,45,45,45	0
54	MG	BA	3126	1/1	0.97	0.17	-	30,30,30,30	0
54	MG	AA	1661	1/1	0.97	0.18	-	62,62,62,62	0
54	MG	DA	3306	1/1	0.94	0.11	-	68,68,68,68	0
54	MG	AA	1757	1/1	0.82	0.22	-	91,91,91,91	0
54	MG	AA	1741	1/1	0.94	0.18	-	58,58,58,58	0
54	MG	BA	3561	1/1	0.85	0.16	-	46,46,46,46	0
54	MG	DA	3127	1/1	0.97	0.25	-	24,24,24,24	0
54	MG	AA	1689	1/1	0.94	0.17	-	56,56,56,56	0
54	MG	DA	3038	1/1	0.80	0.21	-	85,85,85,85	0
54	MG	BA	3479	1/1	0.93	0.09	-	77,77,77,77	0
54	MG	BA	3724	1/1	0.92	0.11	-	97,97,97,97	0
54	MG	DA	3595	1/1	0.93	0.18	-	90,90,90,90	0
54	MG	BA	3306	1/1	0.94	0.13	-	61,61,61,61	0
54	MG	DB	209	1/1	0.96	0.14	-	67,67,67,67	0
54	MG	AA	1641	1/1	0.93	0.18	-	62,62,62,62	0
54	MG	BN	201	1/1	0.90	0.12	-	57,57,57,57	0
54	MG	BA	3547	1/1	0.92	0.20	-	33,33,33,33	0
54	MG	BA	3558	1/1	0.98	0.13	-	60,60,60,60	0
54	MG	BA	3536	1/1	0.85	0.20	-	54,54,54,54	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	CA	1769	1/1	0.96	0.10	-	58,58,58,58	0
54	MG	DA	3351	1/1	0.87	0.14	-	68,68,68,68	0
54	MG	AA	1759	1/1	0.92	0.21	-	74,74,74,74	0
54	MG	AA	1629	1/1	0.95	0.51	-	59,59,59,59	0
54	MG	DA	3149	1/1	0.83	0.42	-	46,46,46,46	0
54	MG	BA	3171	1/1	0.93	0.12	-	49,49,49,49	0
54	MG	DA	3399	1/1	0.87	0.17	-	80,80,80,80	0
54	MG	BA	3578	1/1	0.94	0.10	-	49,49,49,49	0
54	MG	BA	3551	1/1	0.96	0.10	-	60,60,60,60	0
54	MG	BA	3721	1/1	0.92	0.41	-	53,53,53,53	0
54	MG	BA	3110	1/1	0.95	0.14	-	60,60,60,60	0
54	MG	DA	3020	1/1	0.86	0.08	-	66,66,66,66	0
54	MG	CA	1604	1/1	0.67	0.49	-	70,70,70,70	0
54	MG	DA	3029	1/1	0.99	0.14	-	37,37,37,37	0
54	MG	CA	1799	1/1	0.93	0.10	-	99,99,99,99	0
54	MG	CA	1650	1/1	0.81	0.33	-	65,65,65,65	0
54	MG	BA	3449	1/1	0.85	0.14	-	40,40,40,40	0
54	MG	AA	1618	1/1	0.92	0.57	-	57,57,57,57	0
54	MG	BA	3203	1/1	0.96	0.23	-	39,39,39,39	0
54	MG	AA	1778	1/1	0.97	0.10	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	AA	1615	1/1	0.88	0.16	-	76,76,76,76	0
54	MG	BA	3695	1/1	0.95	0.12	-	52,52,52,52	0
54	MG	DA	3541	1/1	0.90	0.14	-	46,46,46,46	0
54	MG	BA	3523	1/1	0.96	0.14	-	43,43,43,43	0
54	MG	CA	1642	1/1	0.91	0.61	-	64,64,64,64	0
54	MG	DA	3224	1/1	0.93	0.11	-	60,60,60,60	0
54	MG	DA	3529	1/1	0.95	0.14	-	65,65,65,65	0
54	MG	DA	3311	1/1	0.94	0.13	-	31,31,31,31	0
54	MG	BA	3690	1/1	0.82	0.09	-	42,42,42,42	0
54	MG	DA	3110	1/1	0.89	0.19	-	56,56,56,56	0
54	MG	BA	3318	1/1	0.94	0.08	-	64,64,64,64	0
54	MG	AA	1608	1/1	0.77	0.21	-	66,66,66,66	0
54	MG	BA	3194	1/1	0.97	0.19	-	52,52,52,52	0
54	MG	BA	3560	1/1	0.77	0.28	-	93,93,93,93	0
54	MG	AA	1674	1/1	0.58	0.12	-	75,75,75,75	0
54	MG	BA	3587	1/1	0.87	0.07	-	60,60,60,60	0
54	MG	CA	1622	1/1	0.87	0.14	-	65,65,65,65	0
54	MG	BA	3270	1/1	0.92	0.11	-	51,51,51,51	0
54	MG	AA	1756	1/1	0.80	0.10	-	107,107,107,107	0
54	MG	BA	3678	1/1	0.98	0.29	-	47,47,47,47	0
54	MG	BA	3685	1/1	0.81	0.30	-	69,69,69,69	0
54	MG	CA	1671	1/1	0.68	0.07	-	78,78,78,78	0
54	MG	CA	1644	1/1	0.89	0.12	-	63,63,63,63	0
54	MG	DA	3448	1/1	0.96	0.28	-	53,53,53,53	0
54	MG	BA	3516	1/1	0.96	0.07	-	54,54,54,54	0
54	MG	AA	1755	1/1	0.85	0.38	-	76,76,76,76	0
54	MG	DA	3327	1/1	0.92	0.08	-	66,66,66,66	0
54	MG	CA	1660	1/1	0.71	0.23	-	65,65,65,65	0
54	MG	CA	1638	1/1	0.96	0.60	-	65,65,65,65	0
54	MG	BA	3705	1/1	0.91	0.10	-	57,57,57,57	0
54	MG	DA	3467	1/1	0.82	0.11	-	85,85,85,85	0
54	MG	BA	3611	1/1	0.96	0.06	-	32,32,32,32	0
54	MG	BA	3613	1/1	0.99	0.10	-	50,50,50,50	0
54	MG	CA	1792	1/1	0.94	0.14	-	65,65,65,65	0
54	MG	DA	3140	1/1	0.83	0.40	-	60,60,60,60	0
54	MG	DA	3627	1/1	0.93	0.12	-	58,58,58,58	0
54	MG	AA	1797	1/1	0.88	0.10	-	106,106,106,106	0
54	MG	DA	3065	1/1	0.83	0.25	-	74,74,74,74	0
54	MG	AA	1725	1/1	0.94	0.13	-	62,62,62,62	0
54	MG	BA	3490	1/1	0.92	0.23	-	74,74,74,74	0
54	MG	DA	3225	1/1	0.98	0.11	-	53,53,53,53	0
54	MG	BA	3024	1/1	0.94	0.26	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1772	1/1	0.97	0.09	-	61,61,61,61	0
54	MG	BA	3346	1/1	0.97	0.09	-	43,43,43,43	0
54	MG	DA	3345	1/1	0.96	0.15	-	56,56,56,56	0
54	MG	CA	1696	1/1	0.93	0.07	-	71,71,71,71	0
54	MG	DA	3465	1/1	0.90	0.07	-	63,63,63,63	0
54	MG	CA	1800	1/1	0.88	0.05	-	76,76,76,76	0
54	MG	CA	1725	1/1	0.95	0.20	-	91,91,91,91	0
54	MG	BA	3274	1/1	0.96	0.13	-	48,48,48,48	0
54	MG	BA	3638	1/1	0.82	0.15	-	82,82,82,82	0
54	MG	DA	3634	1/1	0.92	0.20	-	75,75,75,75	0
54	MG	BA	3172	1/1	0.80	0.13	-	65,65,65,65	0
54	MG	BA	3696	1/1	0.96	0.06	-	38,38,38,38	0
54	MG	DA	3474	1/1	0.89	0.19	-	41,41,41,41	0
54	MG	BA	3189	1/1	0.97	0.06	-	71,71,71,71	0
54	MG	BA	3679	1/1	0.75	0.09	-	80,80,80,80	0
54	MG	DA	3305	1/1	0.93	0.15	-	66,66,66,66	0
54	MG	DA	3049	1/1	0.93	0.10	-	49,49,49,49	0
54	MG	BA	3484	1/1	0.98	0.08	-	41,41,41,41	0
54	MG	BA	3044	1/1	0.92	0.25	-	53,53,53,53	0
54	MG	DA	3404	1/1	0.87	0.28	-	62,62,62,62	0
54	MG	DA	3625	1/1	0.93	0.12	-	76,76,76,76	0
54	MG	DB	205	1/1	0.75	0.23	-	92,92,92,92	0
54	MG	B2	102	1/1	0.87	0.19	-	60,60,60,60	0
54	MG	DA	3241	1/1	0.94	0.19	-	47,47,47,47	0
54	MG	BA	3325	1/1	0.97	0.23	-	28,28,28,28	0
54	MG	DA	3197	1/1	0.94	0.09	-	28,28,28,28	0
54	MG	CA	1601	1/1	0.92	0.19	-	55,55,55,55	0
54	MG	B9	103	1/1	0.89	0.18	-	52,52,52,52	0
54	MG	BA	3073	1/1	0.85	0.10	-	74,74,74,74	0
54	MG	DA	3558	1/1	0.65	0.25	-	70,70,70,70	0
54	MG	DA	3514	1/1	0.94	0.29	-	92,92,92,92	0
54	MG	DA	3227	1/1	0.93	0.07	-	39,39,39,39	0
54	MG	DA	3517	1/1	0.94	0.15	-	52,52,52,52	0
54	MG	DA	3249	1/1	0.86	0.14	-	47,47,47,47	0
54	MG	DA	3165	1/1	0.96	0.13	-	36,36,36,36	0
54	MG	BA	3160	1/1	0.91	0.12	-	32,32,32,32	0
54	MG	AA	1731	1/1	0.92	0.17	-	72,72,72,72	0
54	MG	DQ	201	1/1	0.96	0.12	-	52,52,52,52	0
54	MG	BA	3128	1/1	0.79	0.23	-	63,63,63,63	0
54	MG	BA	3013	1/1	0.91	0.28	-	24,24,24,24	0
54	MG	DA	3355	1/1	0.93	0.10	-	67,67,67,67	0
54	MG	AA	1693	1/1	0.88	0.17	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1633	1/1	0.97	0.18	-	50,50,50,50	0
54	MG	BA	3291	1/1	0.92	0.07	-	68,68,68,68	0
54	MG	BA	3665	1/1	0.95	0.06	-	72,72,72,72	0
54	MG	BA	3522	1/1	0.92	0.24	-	53,53,53,53	0
54	MG	AA	1799	1/1	0.95	0.15	-	44,44,44,44	0
54	MG	BA	3331	1/1	0.91	0.11	-	47,47,47,47	0
54	MG	BF	304	1/1	0.88	0.09	-	47,47,47,47	0
54	MG	DA	3146	1/1	0.97	0.25	-	55,55,55,55	0
54	MG	BA	3347	1/1	0.93	0.23	-	44,44,44,44	0
54	MG	DA	3085	1/1	0.93	0.08	-	60,60,60,60	0
54	MG	BA	3105	1/1	0.89	0.29	-	44,44,44,44	0
54	MG	BA	3021	1/1	0.95	0.23	-	67,67,67,67	0
54	MG	DA	3605	1/1	0.87	0.17	-	49,49,49,49	0
54	MG	DA	3451	1/1	0.85	0.10	-	60,60,60,60	0
54	MG	BA	3478	1/1	0.91	0.14	-	50,50,50,50	0
54	MG	DA	3619	1/1	0.81	0.15	-	57,57,57,57	0
54	MG	AA	1683	1/1	0.95	0.21	-	69,69,69,69	0
54	MG	DA	3128	1/1	0.95	0.32	-	47,47,47,47	0
54	MG	BA	3028	1/1	0.96	0.16	-	34,34,34,34	0
54	MG	AA	1687	1/1	0.94	0.22	-	79,79,79,79	0
54	MG	CA	1684	1/1	0.95	0.27	-	82,82,82,82	0
54	MG	DA	3101	1/1	0.84	0.14	-	60,60,60,60	0
54	MG	CA	1602	1/1	0.93	0.23	-	70,70,70,70	0
54	MG	BA	3014	1/1	0.90	0.19	-	61,61,61,61	0
54	MG	DA	3139	1/1	0.91	0.32	-	53,53,53,53	0
54	MG	DA	3142	1/1	0.96	0.11	-	48,48,48,48	0
54	MG	BA	3729	1/1	0.97	0.25	-	42,42,42,42	0
54	MG	DA	3187	1/1	0.98	0.14	-	44,44,44,44	0
54	MG	DA	3613	1/1	0.96	0.15	-	45,45,45,45	0
54	MG	BA	3139	1/1	0.98	0.17	-	55,55,55,55	0
54	MG	DA	3145	1/1	0.79	0.13	-	60,60,60,60	0
54	MG	CQ	201	1/1	0.86	0.11	-	76,76,76,76	0
54	MG	BA	3351	1/1	0.95	0.11	-	49,49,49,49	0
54	MG	CA	1730	1/1	0.83	0.16	-	65,65,65,65	0
54	MG	BA	3378	1/1	0.99	0.12	-	24,24,24,24	0
54	MG	BA	3368	1/1	0.99	0.08	-	27,27,27,27	0
54	MG	DA	3504	1/1	0.97	0.12	-	52,52,52,52	0
54	MG	BA	3281	1/1	0.86	0.12	-	43,43,43,43	0
54	MG	BA	3655	1/1	0.61	0.35	-	68,68,68,68	0
54	MG	BA	3353	1/1	0.94	0.11	-	51,51,51,51	0
54	MG	AA	1806	1/1	0.94	0.15	-	60,60,60,60	0
54	MG	DA	3626	1/1	0.89	0.10	-	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3120	1/1	0.84	0.10	-	54,54,54,54	0
54	MG	DA	3523	1/1	0.87	0.15	-	73,73,73,73	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	3477	1/1	0.76	0.09	-	63,63,63,63	0
54	MG	CA	1737	1/1	0.91	0.23	-	75,75,75,75	0
54	MG	DA	3125	1/1	0.97	0.24	-	59,59,59,59	0
54	MG	AD	302	1/1	0.90	0.42	-	73,73,73,73	0
54	MG	BA	3530	1/1	0.92	0.06	-	95,95,95,95	0
54	MG	CA	1676	1/1	0.98	0.06	-	64,64,64,64	0
54	MG	BA	3071	1/1	0.87	0.22	-	46,46,46,46	0
54	MG	DA	3516	1/1	0.94	0.08	-	56,56,56,56	0
54	MG	BA	3475	1/1	0.95	0.07	-	45,45,45,45	0
54	MG	DA	3444	1/1	0.95	0.12	-	73,73,73,73	0
54	MG	DA	3030	1/1	0.93	0.43	-	63,63,63,63	0
54	MG	CA	1735	1/1	0.86	0.12	-	85,85,85,85	0
54	MG	BA	3469	1/1	0.92	0.16	-	65,65,65,65	0
54	MG	DA	3498	1/1	0.94	0.24	-	39,39,39,39	0
54	MG	DA	3046	1/1	0.94	0.27	-	58,58,58,58	0
54	MG	DA	3589	1/1	0.95	0.07	-	42,42,42,42	0
54	MG	BA	3514	1/1	0.90	0.10	-	29,29,29,29	0
54	MG	BA	3072	1/1	0.77	0.21	-	48,48,48,48	0
54	MG	CA	1675	1/1	0.87	0.18	-	75,75,75,75	0
54	MG	BA	3489	1/1	0.98	0.04	-	57,57,57,57	0
54	MG	DA	3579	1/1	0.80	0.18	-	52,52,52,52	0
54	MG	DA	3374	1/1	0.87	0.09	-	73,73,73,73	0
54	MG	AA	1697	1/1	0.96	0.16	-	50,50,50,50	0
54	MG	CA	1750	1/1	0.73	0.14	-	88,88,88,88	0
54	MG	BA	3271	1/1	0.94	0.09	-	66,66,66,66	0
54	MG	BB	209	1/1	0.97	0.15	-	45,45,45,45	0
54	MG	BA	3122	1/1	0.96	0.13	-	46,46,46,46	0
54	MG	BA	3001	1/1	0.94	0.13	-	45,45,45,45	0
54	MG	DA	3157	1/1	0.90	0.17	-	33,33,33,33	0
54	MG	DA	3568	1/1	0.95	0.16	-	62,62,62,62	0
54	MG	DO	202	1/1	0.85	0.08	-	60,60,60,60	0
54	MG	AA	1652	1/1	0.84	0.19	-	63,63,63,63	0
54	MG	BA	3079	1/1	0.97	0.18	-	45,45,45,45	0
54	MG	AA	1715	1/1	0.93	0.16	-	61,61,61,61	0
54	MG	BA	3715	1/1	0.89	0.16	-	88,88,88,88	0
54	MG	AL	201	1/1	0.95	0.07	-	65,65,65,65	0
54	MG	BA	3401	1/1	0.97	0.28	-	34,34,34,34	0
54	MG	DA	3239	1/1	0.98	0.12	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1641	1/1	0.92	0.21	-	62,62,62,62	0
54	MG	DA	3446	1/1	0.87	0.10	-	68,68,68,68	0
54	MG	BA	3600	1/1	0.70	0.24	-	58,58,58,58	0
54	MG	DA	3470	1/1	0.94	0.12	-	50,50,50,50	0
54	MG	BA	3334	1/1	0.72	0.17	-	39,39,39,39	0
54	MG	BA	3119	1/1	0.97	0.08	-	57,57,57,57	0
54	MG	AA	1814	1/1	0.98	0.13	-	66,66,66,66	0
54	MG	DA	3509	1/1	0.87	0.16	-	70,70,70,70	0
54	MG	BA	3168	1/1	0.87	0.15	-	68,68,68,68	0
54	MG	BD	301	1/1	0.95	0.17	-	51,51,51,51	0
54	MG	AA	1667	1/1	0.86	0.17	-	84,84,84,84	0
54	MG	BA	3198	1/1	0.99	0.20	-	35,35,35,35	0
54	MG	BA	3512	1/1	0.75	0.21	-	71,71,71,71	0
54	MG	BA	3657	1/1	0.93	0.20	-	91,91,91,91	0
54	MG	DA	3096	1/1	0.66	0.21	-	61,61,61,61	0
54	MG	DA	3494	1/1	0.76	0.26	-	64,64,64,64	0
54	MG	BA	3290	1/1	0.93	0.13	-	27,27,27,27	0
54	MG	DA	3381	1/1	0.95	0.10	-	55,55,55,55	0
54	MG	BA	3269	1/1	0.95	0.11	-	51,51,51,51	0
54	MG	AP	101	1/1	0.96	0.10	-	81,81,81,81	0
54	MG	DA	3423	1/1	0.95	0.08	-	37,37,37,37	0
54	MG	DA	3231	1/1	0.94	0.10	-	51,51,51,51	0
54	MG	BA	3459	1/1	0.96	0.24	-	57,57,57,57	0
54	MG	BA	3002	1/1	0.93	0.10	-	60,60,60,60	0
54	MG	CA	1715	1/1	0.77	0.20	-	85,85,85,85	0
54	MG	AA	1700	1/1	0.92	0.29	-	69,69,69,69	0
54	MG	AA	1771	1/1	0.96	0.06	-	67,67,67,67	0
54	MG	DA	3466	1/1	0.74	0.17	-	65,65,65,65	0
54	MG	BA	3217	1/1	0.92	0.08	-	60,60,60,60	0
54	MG	BA	3463	1/1	0.93	0.14	-	38,38,38,38	0
54	MG	DA	3566	1/1	0.90	0.19	-	70,70,70,70	0
54	MG	BA	3147	1/1	0.94	0.23	-	33,33,33,33	0
54	MG	BA	3233	1/1	0.95	0.07	-	53,53,53,53	0
54	MG	DA	3557	1/1	0.96	0.38	-	55,55,55,55	0
54	MG	BA	3022	1/1	0.95	0.24	-	38,38,38,38	0
54	MG	BA	3701	1/1	0.86	0.15	-	34,34,34,34	0
54	MG	BA	3223	1/1	0.96	0.15	-	24,24,24,24	0
54	MG	DA	3104	1/1	0.96	0.46	-	51,51,51,51	0
54	MG	DA	3418	1/1	0.87	0.09	-	48,48,48,48	0
54	MG	BA	3114	1/1	0.97	0.08	-	39,39,39,39	0
54	MG	BA	3262	1/1	0.97	0.04	-	51,51,51,51	0
54	MG	BA	3467	1/1	0.86	0.13	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1801	1/1	0.89	0.09	-	88,88,88,88	0
54	MG	BA	3006	1/1	0.86	0.11	-	67,67,67,67	0
54	MG	CA	1762	1/1	0.95	0.12	-	86,86,86,86	0
54	MG	BA	3717	1/1	0.84	0.14	-	45,45,45,45	0
54	MG	BA	3445	1/1	0.95	0.06	-	60,60,60,60	0
54	MG	DA	3063	1/1	0.87	0.25	-	47,47,47,47	0
54	MG	DA	3596	1/1	0.87	0.38	-	60,60,60,60	0
54	MG	AA	1800	1/1	0.95	0.18	-	70,70,70,70	0
54	MG	DA	3265	1/1	0.98	0.16	-	34,34,34,34	0
54	MG	DA	3014	1/1	0.54	0.50	-	73,73,73,73	0
54	MG	BA	3584	1/1	0.94	0.15	-	48,48,48,48	0
54	MG	BA	3340	1/1	0.93	0.09	-	38,38,38,38	0
54	MG	BA	3235	1/1	0.93	0.15	-	45,45,45,45	0
54	MG	BA	3383	1/1	0.95	0.13	-	26,26,26,26	0
54	MG	CA	1723	1/1	0.95	0.14	-	66,66,66,66	0
54	MG	CA	1687	1/1	0.97	0.18	-	68,68,68,68	0
54	MG	BA	3637	1/1	0.90	0.15	-	81,81,81,81	0
54	MG	DA	3602	1/1	0.85	0.09	-	53,53,53,53	0
54	MG	DA	3622	1/1	0.78	0.10	-	80,80,80,80	0
54	MG	DA	3435	1/1	0.72	0.09	-	77,77,77,77	0
54	MG	AA	1718	1/1	0.93	0.11	-	59,59,59,59	0
54	MG	BA	3219	1/1	0.91	0.17	-	67,67,67,67	0
54	MG	DA	3515	1/1	0.95	0.13	-	54,54,54,54	0
54	MG	BA	3075	1/1	0.91	0.19	-	36,36,36,36	0
54	MG	AA	1795	1/1	0.95	0.08	-	87,87,87,87	0
54	MG	AA	1669	1/1	0.87	0.12	-	80,80,80,80	0
54	MG	BA	3712	1/1	0.94	0.14	-	49,49,49,49	0
54	MG	BA	3521	1/1	0.96	0.17	-	35,35,35,35	0
54	MG	BA	3681	1/1	0.97	0.22	-	31,31,31,31	0
54	MG	AA	1612	1/1	0.97	0.15	-	61,61,61,61	0
54	MG	DA	3040	1/1	0.77	0.15	-	58,58,58,58	0
54	MG	DA	3548	1/1	0.97	0.11	-	54,54,54,54	0
54	MG	BY	202	1/1	0.95	0.15	-	49,49,49,49	0
54	MG	AA	1642	1/1	0.97	0.14	-	53,53,53,53	0
54	MG	DA	3612	1/1	0.98	0.36	-	49,49,49,49	0
54	MG	BA	3040	1/1	0.91	0.14	-	52,52,52,52	0
54	MG	BA	3722	1/1	0.92	0.12	-	71,71,71,71	0
54	MG	DA	3032	1/1	0.84	0.34	-	59,59,59,59	0
54	MG	BA	3515	1/1	0.98	0.10	-	35,35,35,35	0
54	MG	BA	3146	1/1	0.94	0.23	-	34,34,34,34	0
54	MG	DA	3591	1/1	0.92	0.25	-	39,39,39,39	0
54	MG	BA	3446	1/1	0.96	0.14	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3472	1/1	0.98	0.07	-	34,34,34,34	0
54	MG	DA	3309	1/1	0.89	0.21	-	45,45,45,45	0
54	MG	BA	3012	1/1	0.97	0.17	-	37,37,37,37	0
54	MG	DA	3487	1/1	0.98	0.27	-	65,65,65,65	0
54	MG	AA	1699	1/1	0.89	0.17	-	65,65,65,65	0
54	MG	BB	203	1/1	0.93	0.24	-	48,48,48,48	0
54	MG	DA	3083	1/1	0.89	0.11	-	50,50,50,50	0
54	MG	CA	1763	1/1	0.79	0.08	-	66,66,66,66	0
54	MG	DA	3285	1/1	0.93	0.22	-	68,68,68,68	0
54	MG	DA	3171	1/1	0.95	0.10	-	28,28,28,28	0
54	MG	BA	3651	1/1	0.94	0.29	-	34,34,34,34	0
54	MG	CA	1736	1/1	0.84	0.19	-	94,94,94,94	0
54	MG	BA	3289	1/1	0.92	0.24	-	58,58,58,58	0
54	MG	DA	3601	1/1	0.98	0.15	-	32,32,32,32	0
54	MG	CA	1728	1/1	0.94	0.05	-	79,79,79,79	0
54	MG	BA	3591	1/1	0.90	0.24	-	104,104,104,104	0
54	MG	DA	3262	1/1	0.91	0.19	-	55,55,55,55	0
54	MG	DA	3216	1/1	0.90	0.10	-	43,43,43,43	0
54	MG	CA	1699	1/1	0.94	0.29	-	73,73,73,73	0
54	MG	BA	3307	1/1	0.90	0.15	-	46,46,46,46	0
54	MG	DA	3321	1/1	0.84	0.20	-	74,74,74,74	0
54	MG	BA	3585	1/1	0.94	0.09	-	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	DA	3237	1/1	0.88	0.10	-	51,51,51,51	0
54	MG	DA	3111	1/1	0.95	0.19	-	44,44,44,44	0
54	MG	BA	3534	1/1	0.91	0.09	-	69,69,69,69	0
54	MG	BA	3164	1/1	0.97	0.17	-	39,39,39,39	0
54	MG	BA	3025	1/1	0.92	0.19	-	34,34,34,34	0
54	MG	BA	3647	1/1	0.94	0.13	-	59,59,59,59	0
54	MG	BA	3112	1/1	0.93	0.19	-	52,52,52,52	0
54	MG	BB	214	1/1	0.98	0.14	-	38,38,38,38	0
54	MG	BA	3051	1/1	0.98	0.13	-	33,33,33,33	0
54	MG	CA	1795	1/1	0.93	0.06	-	66,66,66,66	0
54	MG	AA	1724	1/1	0.89	0.12	-	93,93,93,93	0
54	MG	DA	3617	1/1	0.83	0.08	-	74,74,74,74	0
54	MG	BA	3138	1/1	0.97	0.06	-	64,64,64,64	0
54	MG	AA	1673	1/1	0.96	0.05	-	76,76,76,76	0
54	MG	BA	3038	1/1	0.93	0.19	-	34,34,34,34	0
54	MG	BA	3009	1/1	0.97	0.22	-	23,23,23,23	0
54	MG	DA	3479	1/1	0.77	0.16	-	66,66,66,66	0
54	MG	CA	1771	1/1	0.89	0.21	-	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1701	1/1	0.94	0.05	-	74,74,74,74	0
54	MG	CA	1606	1/1	0.77	0.36	-	83,83,83,83	0
54	MG	DA	3061	1/1	0.94	0.08	-	45,45,45,45	0
54	MG	DA	3124	1/1	0.69	0.21	-	69,69,69,69	0
54	MG	DD	301	1/1	0.92	0.07	-	61,61,61,61	0
54	MG	DA	3303	1/1	0.96	0.14	-	46,46,46,46	0
54	MG	DD	305	1/1	0.93	0.16	-	56,56,56,56	0
54	MG	BA	3432	1/1	0.85	0.20	-	68,68,68,68	0
54	MG	DA	3378	1/1	0.97	0.11	-	65,65,65,65	0
54	MG	AA	1746	1/1	0.97	0.14	-	63,63,63,63	0
54	MG	DA	3284	1/1	0.83	0.19	-	70,70,70,70	0
54	MG	AA	1698	1/1	0.85	0.20	-	78,78,78,78	0
54	MG	CA	1789	1/1	0.91	0.12	-	66,66,66,66	0
54	MG	DA	3606	1/1	0.70	0.32	-	82,82,82,82	0
54	MG	DA	3377	1/1	0.97	0.07	-	74,74,74,74	0
54	MG	DA	3416	1/1	0.82	0.17	-	64,64,64,64	0
54	MG	BA	3367	1/1	0.97	0.22	-	34,34,34,34	0
54	MG	BA	3295	1/1	0.96	0.20	-	52,52,52,52	0
54	MG	BA	3545	1/1	0.72	0.10	-	63,63,63,63	0
54	MG	BA	3067	1/1	0.85	0.56	-	55,55,55,55	0
54	MG	DA	3211	1/1	0.86	0.08	-	38,38,38,38	0
54	MG	AA	1794	1/1	0.58	0.20	-	111,111,111,111	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	AA	1817	1/1	0.93	0.33	-	78,78,78,78	0
54	MG	DA	3371	1/1	0.86	0.28	-	76,76,76,76	0
54	MG	BA	3693	1/1	0.95	0.09	-	36,36,36,36	0
54	MG	AA	1753	1/1	0.94	0.11	-	71,71,71,71	0
54	MG	D5	103	1/1	0.72	0.17	-	61,61,61,61	0
54	MG	CA	1719	1/1	0.79	0.11	-	90,90,90,90	0
54	MG	BA	3117	1/1	0.80	0.21	-	67,67,67,67	0
54	MG	DA	3356	1/1	0.92	0.34	-	44,44,44,44	0
54	MG	AA	1653	1/1	0.97	0.20	-	64,64,64,64	0
54	MG	DA	3453	1/1	0.86	0.09	-	49,49,49,49	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
54	MG	AA	1655	1/1	0.98	0.07	-	64,64,64,64	0
54	MG	AA	1614	1/1	0.93	0.20	-	42,42,42,42	0
54	MG	DA	3169	1/1	0.98	0.14	-	32,32,32,32	0
54	MG	AA	1681	1/1	0.92	0.08	-	44,44,44,44	0
54	MG	DA	3286	1/1	0.85	0.13	-	69,69,69,69	0
54	MG	BA	3684	1/1	0.95	0.16	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3061	1/1	0.90	0.16	-	44,44,44,44	0
54	MG	BA	3221	1/1	0.97	0.17	-	51,51,51,51	0
54	MG	BA	3582	1/1	0.90	0.27	-	66,66,66,66	0
54	MG	BA	3575	1/1	0.98	0.17	-	59,59,59,59	0
54	MG	DA	3043	1/1	0.96	0.06	-	64,64,64,64	0
54	MG	BA	3153	1/1	0.95	0.14	-	36,36,36,36	0
54	MG	DA	3152	1/1	0.90	0.21	-	52,52,52,52	0
54	MG	BA	3470	1/1	0.95	0.11	-	33,33,33,33	0
54	MG	CA	1777	1/1	0.81	0.12	-	130,130,130,130	0
54	MG	CA	1714	1/1	0.96	0.19	-	67,67,67,67	0
54	MG	BA	3305	1/1	0.90	0.09	-	67,67,67,67	0
54	MG	BA	3273	1/1	0.95	0.15	-	60,60,60,60	0
54	MG	BA	3526	1/1	0.90	0.22	-	55,55,55,55	0
54	MG	BF	306	1/1	0.93	0.12	-	61,61,61,61	0
54	MG	AA	1732	1/1	0.96	0.38	-	68,68,68,68	0
54	MG	B3	101	1/1	0.78	0.19	-	54,54,54,54	0
54	MG	DA	3452	1/1	0.93	0.22	-	45,45,45,45	0
54	MG	BA	3065	1/1	0.96	0.17	-	36,36,36,36	0
54	MG	BA	3689	1/1	0.88	0.17	-	55,55,55,55	0
54	MG	AA	1645	1/1	0.94	0.09	-	54,54,54,54	0
54	MG	CA	1682	1/1	0.93	0.20	-	60,60,60,60	0
54	MG	DA	3581	1/1	0.88	0.16	-	46,46,46,46	0
54	MG	DA	3367	1/1	0.92	0.06	-	67,67,67,67	0
54	MG	BA	3414	1/1	0.97	0.19	-	23,23,23,23	0
54	MG	DA	3028	1/1	0.87	0.12	-	62,62,62,62	0
54	MG	AA	1659	1/1	0.95	0.21	-	75,75,75,75	0
54	MG	CA	1729	1/1	0.49	0.23	-	84,84,84,84	0
54	MG	BA	3297	1/1	0.92	0.12	-	52,52,52,52	0
54	MG	DA	3273	1/1	0.96	0.05	-	93,93,93,93	0
54	MG	AA	1796	1/1	0.93	0.31	-	100,100,100,100	0
54	MG	BA	3513	1/1	0.91	0.12	-	46,46,46,46	0
54	MG	BA	3510	1/1	0.87	0.07	-	77,77,77,77	0
54	MG	DA	3189	1/1	0.99	0.14	-	36,36,36,36	0
54	MG	BA	3163	1/1	0.90	0.31	-	30,30,30,30	0
54	MG	DA	3555	1/1	0.95	0.44	-	63,63,63,63	0
54	MG	D7	102	1/1	0.87	0.18	-	65,65,65,65	0
54	MG	BA	3614	1/1	0.95	0.34	-	47,47,47,47	0
54	MG	BA	3629	1/1	0.93	0.24	-	34,34,34,34	0
54	MG	BA	3165	1/1	0.73	0.33	-	41,41,41,41	0
54	MG	BA	3355	1/1	0.96	0.10	-	51,51,51,51	0
54	MG	BA	3460	1/1	0.95	0.10	-	51,51,51,51	0
54	MG	DA	3317	1/1	0.91	0.20	-	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3457	1/1	0.85	0.08	-	53,53,53,53	0
54	MG	DA	3531	1/1	0.95	0.04	-	51,51,51,51	0
54	MG	CA	1681	1/1	0.68	0.21	-	83,83,83,83	0
54	MG	DA	3147	1/1	0.94	0.11	-	52,52,52,52	0
54	MG	CA	1652	1/1	0.92	0.18	-	88,88,88,88	0
54	MG	BA	3497	1/1	0.99	0.16	-	29,29,29,29	0
54	MG	BA	3134	1/1	0.87	0.08	-	50,50,50,50	0
54	MG	BA	3554	1/1	0.92	0.13	-	41,41,41,41	0
54	MG	DA	3084	1/1	0.78	0.23	-	45,45,45,45	0
54	MG	BA	3677	1/1	0.94	0.11	-	72,72,72,72	0
54	MG	DA	3133	1/1	0.95	0.39	-	50,50,50,50	0
54	MG	BA	3552	1/1	0.98	0.13	-	26,26,26,26	0
54	MG	BA	3639	1/1	0.90	0.13	-	56,56,56,56	0
54	MG	BA	3502	1/1	0.96	0.17	-	34,34,34,34	0
54	MG	CA	1803	1/1	0.85	0.17	-	55,55,55,55	0
54	MG	AA	1664	1/1	0.93	0.12	-	74,74,74,74	0
54	MG	DA	3368	1/1	0.96	0.07	-	56,56,56,56	0
54	MG	AA	1779	1/1	0.81	0.17	-	68,68,68,68	0
54	MG	BA	3440	1/1	0.95	0.07	-	50,50,50,50	0
54	MG	BA	3169	1/1	0.83	0.16	-	60,60,60,60	0
54	MG	CA	1761	1/1	0.71	0.13	-	92,92,92,92	0
54	MG	BA	3363	1/1	0.94	0.22	-	48,48,48,48	0
54	MG	DA	3489	1/1	0.94	0.16	-	48,48,48,48	0
54	MG	DA	3506	1/1	0.96	0.16	-	57,57,57,57	0
54	MG	DA	3009	1/1	0.98	0.17	-	27,27,27,27	0
54	MG	AA	1662	1/1	0.97	0.08	-	64,64,64,64	0
54	MG	DP	203	1/1	0.94	0.12	-	61,61,61,61	0
54	MG	CA	1717	1/1	0.94	0.08	-	85,85,85,85	0
54	MG	BA	3003	1/1	0.86	0.40	-	68,68,68,68	0
54	MG	AA	1617	1/1	0.95	0.35	-	58,58,58,58	0
54	MG	BA	3535	1/1	0.80	0.10	-	58,58,58,58	0
54	MG	DA	3629	1/1	0.87	0.10	-	80,80,80,80	0
54	MG	BA	3100	1/1	0.96	0.20	-	41,41,41,41	0
54	MG	AA	1764	1/1	0.76	0.27	-	70,70,70,70	0
54	MG	DA	3411	1/1	0.82	0.14	-	89,89,89,89	0
54	MG	AA	1721	1/1	0.86	0.12	-	77,77,77,77	0
54	MG	AE	201	1/1	0.95	0.24	-	62,62,62,62	0
54	MG	DA	3437	1/1	0.97	0.19	-	54,54,54,54	0
54	MG	CA	1648	1/1	0.96	0.09	-	72,72,72,72	0
54	MG	DA	3346	1/1	0.78	0.12	-	57,57,57,57	0
54	MG	BA	3300	1/1	0.92	0.15	-	54,54,54,54	0
54	MG	CA	1752	1/1	0.91	0.11	-	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DB	202	1/1	0.98	0.20	-	67,67,67,67	0
54	MG	DR	202	1/1	0.98	0.17	-	45,45,45,45	0
54	MG	BA	3727	1/1	0.96	0.17	-	94,94,94,94	0
54	MG	BA	3336	1/1	0.85	0.16	-	71,71,71,71	0
54	MG	BA	3499	1/1	0.86	0.19	-	35,35,35,35	0
54	MG	DB	206	1/1	0.23	1.96	-	115,115,115,115	0
54	MG	AA	1702	1/1	0.97	0.06	-	67,67,67,67	0
54	MG	AA	1793	1/1	0.81	0.23	-	78,78,78,78	0
54	MG	BA	3441	1/1	0.97	0.14	-	58,58,58,58	0
54	MG	BB	207	1/1	0.96	0.17	-	49,49,49,49	0
54	MG	DA	3081	1/1	0.93	0.13	-	60,60,60,60	0
54	MG	DA	3078	1/1	0.98	0.31	-	41,41,41,41	0
54	MG	BA	3204	1/1	0.97	0.20	-	47,47,47,47	0
54	MG	DA	3134	1/1	0.85	0.22	-	71,71,71,71	0
54	MG	DA	3369	1/1	0.86	0.11	-	85,85,85,85	0
54	MG	BA	3659	1/1	0.85	0.07	-	61,61,61,61	0
54	MG	BA	3709	1/1	0.88	0.12	-	47,47,47,47	0
54	MG	DA	3167	1/1	0.93	0.11	-	30,30,30,30	0
54	MG	DA	3050	1/1	0.83	0.17	-	52,52,52,52	0
54	MG	CA	1787	1/1	0.86	0.20	-	84,84,84,84	0
54	MG	DT	202	1/1	0.93	0.06	-	62,62,62,62	0
54	MG	BA	3277	1/1	0.87	0.21	-	32,32,32,32	0
54	MG	AA	1786	1/1	0.85	0.13	-	89,89,89,89	0
54	MG	CA	1636	1/1	0.95	0.19	-	58,58,58,58	0
54	MG	BA	3495	1/1	0.92	0.12	-	57,57,57,57	0
54	MG	DA	3592	1/1	0.72	0.12	-	72,72,72,72	0
54	MG	BA	3111	1/1	0.77	0.74	-	67,67,67,67	0
54	MG	DA	3138	1/1	0.96	0.36	-	49,49,49,49	0
54	MG	CA	1612	1/1	0.77	0.77	-	84,84,84,84	0
54	MG	DA	3616	1/1	0.89	0.09	-	63,63,63,63	0
54	MG	BA	3427	1/1	0.94	0.13	-	28,28,28,28	0
54	MG	BA	3419	1/1	0.94	0.15	-	29,29,29,29	0
54	MG	BA	3034	1/1	0.85	0.20	-	40,40,40,40	0
54	MG	BR	204	1/1	0.56	0.20	-	49,49,49,49	0
54	MG	DA	3511	1/1	0.98	0.07	-	44,44,44,44	0
54	MG	AA	1769	1/1	0.82	0.11	-	69,69,69,69	0
54	MG	CA	1631	1/1	0.83	0.10	-	87,87,87,87	0
54	MG	CA	1672	1/1	0.94	0.09	-	74,74,74,74	0
54	MG	DA	3469	1/1	0.93	0.16	-	56,56,56,56	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	DA	3177	1/1	0.99	0.19	-	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3158	1/1	0.97	0.20	-	49,49,49,49	0
54	MG	CA	1657	1/1	0.55	0.15	-	85,85,85,85	0
54	MG	BA	3434	1/1	0.96	0.10	-	56,56,56,56	0
54	MG	DA	3525	1/1	0.92	0.21	-	57,57,57,57	0
54	MG	DA	3478	1/1	0.69	0.29	-	64,64,64,64	0
54	MG	CA	1780	1/1	0.95	0.11	-	74,74,74,74	0
54	MG	BA	3646	1/1	0.87	0.17	-	38,38,38,38	0
54	MG	BA	3593	1/1	0.96	0.29	-	34,34,34,34	0
54	MG	DA	3044	1/1	0.94	0.41	-	55,55,55,55	0
54	MG	BA	3049	1/1	0.98	0.21	-	26,26,26,26	0
54	MG	CA	1754	1/1	0.95	0.12	-	77,77,77,77	0
54	MG	DA	3242	1/1	0.98	0.12	-	36,36,36,36	0
54	MG	BA	3240	1/1	0.91	0.14	-	66,66,66,66	0
54	MG	DA	3108	1/1	0.73	0.38	-	70,70,70,70	0
54	MG	BA	3077	1/1	0.89	0.21	-	43,43,43,43	0
54	MG	AA	1713	1/1	0.95	0.18	-	61,61,61,61	0
54	MG	D0	101	1/1	0.67	0.16	-	78,78,78,78	0
54	MG	AA	1791	1/1	0.87	0.16	-	68,68,68,68	0
54	MG	DA	3461	1/1	0.94	0.08	-	76,76,76,76	0
54	MG	BR	201	1/1	0.95	0.43	-	39,39,39,39	0
54	MG	BA	3320	1/1	0.97	0.15	-	42,42,42,42	0
54	MG	AA	1770	1/1	0.92	0.08	-	80,80,80,80	0
54	MG	BA	3196	1/1	0.92	0.19	-	52,52,52,52	0
54	MG	BA	3251	1/1	0.85	0.13	-	24,24,24,24	0
54	MG	DA	3492	1/1	0.96	0.17	-	59,59,59,59	0
54	MG	BA	3362	1/1	0.94	0.14	-	30,30,30,30	0
54	MG	DA	3599	1/1	0.97	0.07	-	45,45,45,45	0
54	MG	BA	3294	1/1	0.96	0.08	-	32,32,32,32	0
54	MG	BA	3569	1/1	0.83	0.12	-	67,67,67,67	0
54	MG	BA	3121	1/1	0.97	0.34	-	26,26,26,26	0
54	MG	BA	3452	1/1	0.95	0.11	-	54,54,54,54	0
54	MG	DA	3633	1/1	0.98	0.19	-	49,49,49,49	0
54	MG	BA	3247	1/1	0.97	0.12	-	45,45,45,45	0
54	MG	BA	3601	1/1	0.98	0.16	-	43,43,43,43	0
54	MG	BA	3097	1/1	0.91	0.14	-	40,40,40,40	0
54	MG	BA	3532	1/1	0.89	0.19	-	31,31,31,31	0
54	MG	DA	3159	1/1	0.62	0.15	-	66,66,66,66	0
54	MG	DA	3481	1/1	0.94	0.16	-	51,51,51,51	0
54	MG	AA	1685	1/1	0.92	0.38	-	57,57,57,57	0
54	MG	BA	3598	1/1	0.97	0.18	-	34,34,34,34	0
54	MG	BA	3054	1/1	0.96	0.13	-	31,31,31,31	0
54	MG	DA	3121	1/1	0.91	0.20	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	AA	1610	1/1	0.91	0.09	-	64,64,64,64	0
54	MG	DA	3632	1/1	0.67	0.14	-	72,72,72,72	0
54	MG	DA	3087	1/1	0.92	0.36	-	52,52,52,52	0
54	MG	BA	3352	1/1	0.93	0.09	-	37,37,37,37	0
54	MG	BA	3016	1/1	0.89	0.15	-	44,44,44,44	0
54	MG	DA	3324	1/1	0.87	0.24	-	86,86,86,86	0
54	MG	DA	3370	1/1	0.87	0.19	-	87,87,87,87	0
54	MG	DA	3417	1/1	0.95	0.10	-	59,59,59,59	0
54	MG	DA	3419	1/1	0.91	0.10	-	51,51,51,51	0
54	MG	DA	3299	1/1	0.95	0.08	-	33,33,33,33	0
54	MG	BA	3031	1/1	0.84	0.14	-	66,66,66,66	0
54	MG	DA	3223	1/1	0.94	0.08	-	39,39,39,39	0
54	MG	DA	3045	1/1	0.94	0.19	-	48,48,48,48	0
54	MG	BA	3066	1/1	0.92	0.10	-	41,41,41,41	0
54	MG	BA	3333	1/1	0.91	0.05	-	54,54,54,54	0
54	MG	DA	3112	1/1	0.94	0.20	-	48,48,48,48	0
54	MG	AA	1711	1/1	0.98	0.11	-	35,35,35,35	0
54	MG	BA	3509	1/1	0.82	0.14	-	77,77,77,77	0
54	MG	DQ	202	1/1	0.98	0.31	-	39,39,39,39	0
54	MG	AA	1633	1/1	0.76	0.21	-	69,69,69,69	0
54	MG	AA	1772	1/1	0.81	0.14	-	71,71,71,71	0
54	MG	DA	3234	1/1	0.96	0.20	-	52,52,52,52	0
54	MG	BA	3477	1/1	0.61	0.18	-	101,101,101,101	0
54	MG	BA	3725	1/1	0.87	0.14	-	57,57,57,57	0
54	MG	B1	101	1/1	0.95	0.22	-	40,40,40,40	0
54	MG	BA	3278	1/1	0.95	0.20	-	39,39,39,39	0
54	MG	DA	3533	1/1	0.88	0.07	-	79,79,79,79	0
54	MG	DA	3256	1/1	0.96	0.22	-	57,57,57,57	0
54	MG	DA	3326	1/1	0.84	0.17	-	69,69,69,69	0
54	MG	DA	3093	1/1	0.85	0.24	-	55,55,55,55	0
54	MG	DA	3552	1/1	0.98	0.08	-	56,56,56,56	0
54	MG	BA	3090	1/1	0.95	0.32	-	30,30,30,30	0
54	MG	DA	3480	1/1	0.88	0.06	-	57,57,57,57	0
54	MG	DA	3298	1/1	0.85	0.11	-	51,51,51,51	0
54	MG	BA	3265	1/1	0.90	0.05	-	69,69,69,69	0
54	MG	AA	1603	1/1	0.78	0.11	-	62,62,62,62	0
54	MG	BA	3167	1/1	0.91	0.12	-	45,45,45,45	0
54	MG	BA	3625	1/1	0.92	0.22	-	52,52,52,52	0
54	MG	DA	3123	1/1	0.96	0.12	-	48,48,48,48	0
54	MG	CA	1625	1/1	0.92	0.21	-	69,69,69,69	0
54	MG	BA	3205	1/1	0.82	0.12	-	67,67,67,67	0
54	MG	CA	1683	1/1	0.96	0.06	-	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3400	1/1	0.96	0.07	-	39,39,39,39	0
54	MG	BA	3458	1/1	0.89	0.11	-	45,45,45,45	0
54	MG	BA	3610	1/1	0.94	0.13	-	36,36,36,36	0
54	MG	CA	1757	1/1	0.89	0.16	-	75,75,75,75	0
54	MG	DA	3148	1/1	0.90	0.11	-	55,55,55,55	0
54	MG	CA	1720	1/1	0.92	0.17	-	84,84,84,84	0
54	MG	DA	3620	1/1	0.90	0.06	-	65,65,65,65	0
54	MG	BA	3192	1/1	0.88	0.21	-	62,62,62,62	0
54	MG	BA	3634	1/1	0.95	0.05	-	63,63,63,63	0
54	MG	DA	3333	1/1	0.92	0.14	-	54,54,54,54	0
54	MG	BA	3707	1/1	0.94	0.09	-	49,49,49,49	0
54	MG	DA	3316	1/1	0.75	0.12	-	87,87,87,87	0
54	MG	BA	3142	1/1	0.91	0.29	-	36,36,36,36	0
54	MG	BA	3498	1/1	0.99	0.14	-	45,45,45,45	0
54	MG	BV	203	1/1	0.96	0.10	-	56,56,56,56	0
54	MG	BA	3488	1/1	0.98	0.11	-	20,20,20,20	0
54	MG	CA	1689	1/1	0.89	0.04	-	90,90,90,90	0
54	MG	BA	3531	1/1	0.94	0.20	-	25,25,25,25	0
54	MG	CA	1694	1/1	0.88	0.10	-	69,69,69,69	0
54	MG	BA	3133	1/1	0.95	0.20	-	30,30,30,30	0
54	MG	DA	3407	1/1	0.97	0.15	-	51,51,51,51	0
54	MG	BA	3266	1/1	0.93	0.18	-	66,66,66,66	0
54	MG	BZ	301	1/1	0.90	0.28	-	61,61,61,61	0
54	MG	BA	3113	1/1	0.88	0.24	-	48,48,48,48	0
54	MG	AA	1775	1/1	0.98	0.11	-	63,63,63,63	0
54	MG	DA	3386	1/1	0.96	0.18	-	64,64,64,64	0
54	MG	BA	3076	1/1	0.83	0.40	-	58,58,58,58	0
54	MG	BA	3188	1/1	0.93	0.15	-	47,47,47,47	0
54	MG	AA	1805	1/1	0.95	0.11	-	82,82,82,82	0
54	MG	DA	3004	1/1	0.85	0.24	-	64,64,64,64	0
54	MG	DA	3293	1/1	0.92	0.11	-	85,85,85,85	0
54	MG	BA	3546	1/1	0.93	0.12	-	46,46,46,46	0
54	MG	DA	3486	1/1	0.77	0.28	-	44,44,44,44	0
54	MG	DA	3547	1/1	0.52	0.44	-	89,89,89,89	0
54	MG	DA	3550	1/1	0.90	0.19	-	51,51,51,51	0
54	MG	BA	3239	1/1	0.91	0.08	-	63,63,63,63	0
54	MG	DT	201	1/1	0.93	0.07	-	52,52,52,52	0
54	MG	BA	3059	1/1	0.73	0.20	-	54,54,54,54	0
54	MG	CA	1773	1/1	0.88	0.14	-	89,89,89,89	0
54	MG	AA	1703	1/1	0.89	0.28	-	64,64,64,64	0
54	MG	AA	1637	1/1	0.96	0.34	-	64,64,64,64	0
54	MG	AA	1670	1/1	0.95	0.18	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3120	1/1	0.97	0.17	-	47,47,47,47	0
54	MG	CA	1798	1/1	0.93	0.28	-	67,67,67,67	0
54	MG	DA	3597	1/1	0.93	0.18	-	73,73,73,73	0
54	MG	AA	1812	1/1	0.94	0.24	-	82,82,82,82	0
54	MG	B5	101	1/1	0.90	0.16	-	49,49,49,49	0
54	MG	DA	3426	1/1	0.98	0.13	-	55,55,55,55	0
54	MG	DA	3372	1/1	0.94	0.13	-	79,79,79,79	0
54	MG	BA	3241	1/1	0.98	0.18	-	56,56,56,56	0
54	MG	DA	3024	1/1	0.88	0.24	-	64,64,64,64	0
54	MG	BA	3574	1/1	0.92	0.19	-	41,41,41,41	0
54	MG	BA	3344	1/1	0.94	0.15	-	41,41,41,41	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	DA	3077	1/1	0.88	0.19	-	42,42,42,42	0
54	MG	BA	3675	1/1	0.94	0.09	-	48,48,48,48	0
54	MG	AA	1611	1/1	0.78	0.15	-	75,75,75,75	0
54	MG	AA	1804	1/1	0.91	0.19	-	64,64,64,64	0
54	MG	D8	101	1/1	0.90	0.26	-	52,52,52,52	0
54	MG	BA	3260	1/1	0.83	0.33	-	31,31,31,31	0
54	MG	BA	3572	1/1	0.95	0.08	-	44,44,44,44	0
54	MG	BB	208	1/1	0.96	0.14	-	33,33,33,33	0
54	MG	AA	1625	1/1	0.97	0.31	-	42,42,42,42	0
54	MG	DA	3296	1/1	0.94	0.27	-	61,61,61,61	0
54	MG	BA	3669	1/1	0.76	0.14	-	44,44,44,44	0
54	MG	D5	102	1/1	0.97	0.11	-	44,44,44,44	0
54	MG	BA	3309	1/1	0.83	0.15	-	69,69,69,69	0
54	MG	DA	3226	1/1	0.83	0.16	-	41,41,41,41	0
54	MG	AA	1783	1/1	0.92	0.20	-	71,71,71,71	0
54	MG	BA	3583	1/1	0.81	0.09	-	63,63,63,63	0
54	MG	DA	3527	1/1	0.98	0.15	-	38,38,38,38	0
54	MG	AA	1777	1/1	0.83	0.13	-	100,100,100,100	0
54	MG	AA	1734	1/1	0.90	0.10	-	50,50,50,50	0
54	MG	BA	3369	1/1	0.94	0.11	-	27,27,27,27	0
54	MG	AA	1785	1/1	0.90	0.16	-	61,61,61,61	0
54	MG	BA	3645	1/1	0.96	0.18	-	59,59,59,59	0
54	MG	BA	3517	1/1	0.57	0.17	-	91,91,91,91	0
54	MG	BA	3529	1/1	0.88	0.26	-	52,52,52,52	0
54	MG	CA	1607	1/1	0.55	0.99	-	96,96,96,96	0
54	MG	BA	3630	1/1	0.96	0.12	-	57,57,57,57	0
54	MG	BA	3129	1/1	0.86	0.07	-	69,69,69,69	0
54	MG	DA	3126	1/1	0.88	0.17	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3501	1/1	0.92	0.13	-	85,85,85,85	0
54	MG	DA	3584	1/1	0.97	0.08	-	37,37,37,37	0
54	MG	BA	3652	1/1	0.94	0.13	-	51,51,51,51	0
54	MG	BA	3268	1/1	0.96	0.07	-	52,52,52,52	0
54	MG	BA	3595	1/1	0.92	0.09	-	78,78,78,78	0
54	MG	DA	3322	1/1	0.91	0.20	-	61,61,61,61	0
54	MG	DA	3559	1/1	0.82	0.41	-	76,76,76,76	0
54	MG	CA	1700	1/1	0.92	0.12	-	56,56,56,56	0
54	MG	AA	1744	1/1	0.96	0.14	-	74,74,74,74	0
54	MG	BA	3125	1/1	0.97	0.16	-	39,39,39,39	0
54	MG	DA	3118	1/1	0.83	0.15	-	75,75,75,75	0
54	MG	AM	202	1/1	0.90	0.14	-	59,59,59,59	0
54	MG	DA	3278	1/1	0.92	0.06	-	71,71,71,71	0
54	MG	DA	3188	1/1	0.91	0.15	-	51,51,51,51	0
54	MG	DA	3206	1/1	0.91	0.12	-	34,34,34,34	0
54	MG	DA	3067	1/1	0.92	0.26	-	58,58,58,58	0
54	MG	BA	3648	1/1	0.92	0.20	-	42,42,42,42	0
54	MG	DA	3192	1/1	0.95	0.09	-	37,37,37,37	0
54	MG	BA	3673	1/1	0.88	0.27	-	69,69,69,69	0
54	MG	CA	1774	1/1	0.93	0.22	-	73,73,73,73	0
54	MG	DA	3524	1/1	0.92	0.09	-	61,61,61,61	0
54	MG	DA	3538	1/1	0.93	0.16	-	60,60,60,60	0
54	MG	BA	3631	1/1	0.96	0.25	-	35,35,35,35	0
54	MG	BA	3687	1/1	0.95	0.09	-	53,53,53,53	0
54	MG	BA	3664	1/1	0.89	0.08	-	56,56,56,56	0
54	MG	BA	3150	1/1	0.91	0.10	-	70,70,70,70	0
54	MG	BA	3143	1/1	0.93	0.17	-	23,23,23,23	0
54	MG	DA	3586	1/1	0.78	0.21	-	142,142,142,142	0
54	MG	BA	3417	1/1	0.95	0.13	-	25,25,25,25	0
54	MG	DA	3383	1/1	0.92	0.14	-	59,59,59,59	0
54	MG	BA	3343	1/1	0.83	0.17	-	48,48,48,48	0
54	MG	DA	3340	1/1	0.84	0.17	-	72,72,72,72	0
54	MG	DA	3610	1/1	0.96	0.10	-	79,79,79,79	0
54	MG	BA	3096	1/1	0.97	0.22	-	36,36,36,36	0
54	MG	DA	3260	1/1	0.96	0.12	-	57,57,57,57	0
54	MG	DA	3122	1/1	0.72	0.25	-	58,58,58,58	0
54	MG	BA	3374	1/1	0.97	0.20	-	27,27,27,27	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	CA	1748	1/1	0.97	0.19	-	57,57,57,57	0
54	MG	DA	3132	1/1	0.93	0.11	-	54,54,54,54	0
54	MG	AA	1658	1/1	0.75	0.25	-	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1705	1/1	0.81	0.16	-	72,72,72,72	0
54	MG	AA	1688	1/1	0.92	0.20	-	62,62,62,62	0
54	MG	AA	1646	1/1	0.77	0.26	-	87,87,87,87	0
54	MG	DA	3106	1/1	0.91	0.26	-	55,55,55,55	0
54	MG	BA	3565	1/1	0.95	0.20	-	57,57,57,57	0
54	MG	CA	1734	1/1	0.94	0.15	-	79,79,79,79	0
54	MG	CA	1793	1/1	0.74	0.20	-	89,89,89,89	0
54	MG	DA	3488	1/1	0.97	0.16	-	46,46,46,46	0
54	MG	BA	3124	1/1	0.97	0.17	-	24,24,24,24	0
54	MG	DA	3457	1/1	0.96	0.14	-	59,59,59,59	0
54	MG	DA	3194	1/1	0.93	0.20	-	22,22,22,22	0
54	MG	DA	3037	1/1	0.92	0.17	-	52,52,52,52	0
54	MG	BA	3692	1/1	0.89	0.13	-	38,38,38,38	0
54	MG	DA	3163	1/1	0.84	0.14	-	39,39,39,39	0
54	MG	DA	3445	1/1	0.92	0.13	-	45,45,45,45	0
54	MG	CA	1646	1/1	0.74	0.11	-	71,71,71,71	0
54	MG	DA	3229	1/1	0.94	0.16	-	76,76,76,76	0
54	MG	BW	201	1/1	0.93	0.15	-	44,44,44,44	0
54	MG	BA	3423	1/1	0.87	0.09	-	46,46,46,46	0
54	MG	DA	3482	1/1	0.92	0.14	-	69,69,69,69	0
54	MG	DA	3218	1/1	0.92	0.09	-	57,57,57,57	0
54	MG	DA	3499	1/1	0.98	0.07	-	55,55,55,55	0
54	MG	BA	3208	1/1	0.92	0.26	-	57,57,57,57	0
54	MG	BN	202	1/1	0.91	0.12	-	57,57,57,57	0
54	MG	CA	1605	1/1	0.89	0.15	-	63,63,63,63	0
54	MG	BA	3511	1/1	0.76	0.09	-	72,72,72,72	0
54	MG	DA	3503	1/1	0.80	0.12	-	59,59,59,59	0
54	MG	DA	3089	1/1	0.86	0.29	-	50,50,50,50	0
54	MG	B0	104	1/1	0.95	0.06	-	49,49,49,49	0
54	MG	CA	1623	1/1	0.94	0.12	-	60,60,60,60	0
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	BA	3609	1/1	0.96	0.04	-	37,37,37,37	0
54	MG	DA	3392	1/1	0.92	0.09	-	43,43,43,43	0
54	MG	DA	3553	1/1	0.92	0.11	-	64,64,64,64	0
54	MG	DA	3191	1/1	0.90	0.18	-	56,56,56,56	0
54	MG	BA	3688	1/1	0.82	0.12	-	72,72,72,72	0
54	MG	AA	1695	1/1	0.84	0.14	-	57,57,57,57	0
54	MG	DA	3070	1/1	0.95	0.26	-	51,51,51,51	0
54	MG	DA	3164	1/1	0.73	0.15	-	64,64,64,64	0
54	MG	BA	3728	1/1	0.98	0.07	-	47,47,47,47	0
54	MG	DA	3144	1/1	0.87	0.23	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	AA	1740	1/1	0.91	0.26	-	70,70,70,70	0
54	MG	DA	3580	1/1	0.96	0.18	-	39,39,39,39	0
54	MG	BA	3703	1/1	0.96	0.06	-	26,26,26,26	0
54	MG	AA	1726	1/1	0.97	0.22	-	75,75,75,75	0
54	MG	DA	3076	1/1	0.89	0.37	-	54,54,54,54	0
54	MG	DA	3105	1/1	0.94	0.20	-	54,54,54,54	0
54	MG	BA	3713	1/1	0.96	0.10	-	35,35,35,35	0
54	MG	BA	3671	1/1	0.92	0.31	-	50,50,50,50	0
54	MG	BA	3264	1/1	0.49	0.10	-	86,86,86,86	0
54	MG	DQ	204	1/1	0.91	0.14	-	67,67,67,67	0
54	MG	DA	3281	1/1	0.89	0.25	-	85,85,85,85	0
54	MG	CA	1668	1/1	0.91	0.26	-	65,65,65,65	0
54	MG	BV	202	1/1	0.91	0.33	-	83,83,83,83	0
54	MG	BA	3494	1/1	0.95	0.14	-	52,52,52,52	0
54	MG	DA	3628	1/1	0.87	0.10	-	59,59,59,59	0
54	MG	AA	1760	1/1	0.92	0.27	-	74,74,74,74	0
54	MG	CA	1666	1/1	0.88	0.12	-	71,71,71,71	0
54	MG	BA	3285	1/1	0.79	0.30	-	96,96,96,96	0
54	MG	BA	3556	1/1	0.98	0.20	-	52,52,52,52	0
54	MG	AA	1738	1/1	0.95	0.04	-	62,62,62,62	0
54	MG	BA	3193	1/1	0.97	0.14	-	46,46,46,46	0
54	MG	BA	3594	1/1	0.85	0.17	-	56,56,56,56	0
54	MG	AA	1672	1/1	0.95	0.13	-	50,50,50,50	0
54	MG	BA	3607	1/1	0.96	0.07	-	76,76,76,76	0
54	MG	DA	3585	1/1	0.95	0.29	-	36,36,36,36	0
54	MG	BA	3030	1/1	0.90	0.26	-	44,44,44,44	0
54	MG	CA	1802	1/1	0.98	0.08	-	60,60,60,60	0
54	MG	DA	3143	1/1	0.85	0.26	-	62,62,62,62	0
54	MG	CA	1764	1/1	0.84	0.13	-	90,90,90,90	0
54	MG	BA	3210	1/1	0.86	0.16	-	58,58,58,58	0
54	MG	DA	3006	1/1	0.94	0.17	-	42,42,42,42	0
54	MG	DA	3563	1/1	0.94	0.41	-	57,57,57,57	0
54	MG	AA	1648	1/1	0.98	0.19	-	73,73,73,73	0
54	MG	DA	3220	1/1	0.90	0.10	-	48,48,48,48	0
54	MG	DA	3364	1/1	0.90	0.10	-	54,54,54,54	0
54	MG	DA	3193	1/1	0.94	0.08	-	66,66,66,66	0
54	MG	DA	3033	1/1	0.93	0.19	-	48,48,48,48	0
54	MG	BP	202	1/1	0.88	0.28	-	54,54,54,54	0
54	MG	BA	3694	1/1	0.94	0.19	-	21,21,21,21	0
54	MG	BA	3004	1/1	0.98	0.20	-	53,53,53,53	0
54	MG	BA	3723	1/1	0.73	0.12	-	70,70,70,70	0
54	MG	BA	3303	1/1	0.96	0.15	-	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3099	1/1	0.90	0.27	-	47,47,47,47	0
54	MG	BA	3622	1/1	0.97	0.09	-	31,31,31,31	0
54	MG	BA	3039	1/1	0.96	0.14	-	58,58,58,58	0
54	MG	BA	3540	1/1	0.92	0.07	-	64,64,64,64	0
54	MG	BA	3616	1/1	0.96	0.18	-	26,26,26,26	0
54	MG	AA	1802	1/1	0.95	0.37	-	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	3023	1/1	0.94	0.30	-	68,68,68,68	0
54	MG	DA	3391	1/1	0.91	0.10	-	62,62,62,62	0
54	MG	DF	302	1/1	0.90	0.18	-	63,63,63,63	0
54	MG	DA	3323	1/1	0.95	0.13	-	69,69,69,69	0
54	MG	CA	1695	1/1	0.92	0.33	-	76,76,76,76	0
54	MG	DA	3442	1/1	0.93	0.19	-	59,59,59,59	0
54	MG	BA	3282	1/1	0.98	0.18	-	29,29,29,29	0
54	MG	BA	3686	1/1	0.92	0.07	-	43,43,43,43	0
54	MG	AA	1663	1/1	0.96	0.09	-	62,62,62,62	0
54	MG	DA	3230	1/1	0.99	0.09	-	31,31,31,31	0
54	MG	BA	3697	1/1	0.98	0.18	-	27,27,27,27	0
54	MG	BA	3145	1/1	0.91	0.17	-	33,33,33,33	0
54	MG	BA	3070	1/1	0.93	0.33	-	39,39,39,39	0
54	MG	AA	1748	1/1	0.98	0.14	-	57,57,57,57	0
54	MG	DA	3608	1/1	0.92	0.10	-	74,74,74,74	0
54	MG	CA	1790	1/1	0.93	0.14	-	48,48,48,48	0
54	MG	CA	1733	1/1	0.91	0.11	-	89,89,89,89	0
54	MG	AA	1810	1/1	0.95	0.15	-	67,67,67,67	0
54	MG	DA	3263	1/1	0.91	0.10	-	54,54,54,54	0
54	MG	BA	3642	1/1	0.90	0.14	-	46,46,46,46	0
54	MG	BA	3064	1/1	0.90	0.31	-	54,54,54,54	0
54	MG	BA	3507	1/1	0.90	0.14	-	67,67,67,67	0
54	MG	DA	3353	1/1	0.92	0.06	-	79,79,79,79	0
54	MG	DA	3400	1/1	0.95	0.17	-	41,41,41,41	0
54	MG	DA	3095	1/1	0.93	0.18	-	65,65,65,65	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	DA	3341	1/1	0.69	0.14	-	60,60,60,60	0
54	MG	CA	1678	1/1	0.97	0.09	-	55,55,55,55	0
54	MG	BA	3682	1/1	0.91	0.17	-	55,55,55,55	0
54	MG	BA	3448	1/1	0.94	0.20	-	46,46,46,46	0
54	MG	BA	3615	1/1	0.92	0.38	-	60,60,60,60	0
54	MG	DA	3387	1/1	0.86	0.08	-	72,72,72,72	0
54	MG	BA	3081	1/1	0.98	0.14	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3450	1/1	0.89	0.12	-	70,70,70,70	0
54	MG	CA	1727	1/1	0.98	0.26	-	63,63,63,63	0
54	MG	DA	3618	1/1	0.64	0.37	-	93,93,93,93	0
54	MG	BA	3184	1/1	0.89	0.22	-	37,37,37,37	0
54	MG	AA	1604	1/1	0.90	0.55	-	66,66,66,66	0
54	MG	DA	3611	1/1	0.94	0.17	-	57,57,57,57	0
54	MG	CA	1766	1/1	0.86	0.16	-	65,65,65,65	0
54	MG	BA	3413	1/1	0.99	0.14	-	24,24,24,24	0
54	MG	DA	3631	1/1	0.98	0.06	-	54,54,54,54	0
54	MG	CA	1797	1/1	0.79	0.21	-	68,68,68,68	0
54	MG	DA	3088	1/1	0.87	0.20	-	39,39,39,39	0
54	MG	BA	3525	1/1	0.96	0.13	-	47,47,47,47	0
54	MG	DA	3337	1/1	0.68	0.24	-	65,65,65,65	0
54	MG	DA	3363	1/1	0.91	0.14	-	51,51,51,51	0
54	MG	BA	3322	1/1	0.75	0.28	-	54,54,54,54	0
54	MG	DA	3526	1/1	0.94	0.13	-	42,42,42,42	0
54	MG	AA	1761	1/1	0.92	0.06	-	65,65,65,65	0
54	MG	BA	3361	1/1	0.88	0.21	-	30,30,30,30	0
54	MG	AF	201	1/1	0.92	0.16	-	53,53,53,53	0
54	MG	BA	3288	1/1	0.97	0.17	-	44,44,44,44	0
54	MG	BA	3439	1/1	0.98	0.08	-	30,30,30,30	0
54	MG	BA	3444	1/1	0.92	0.14	-	50,50,50,50	0
54	MG	DA	3338	1/1	0.84	0.23	-	67,67,67,67	0
54	MG	BA	3156	1/1	0.95	0.15	-	28,28,28,28	0
54	MG	DA	3556	1/1	0.88	0.05	-	87,87,87,87	0
54	MG	BA	3672	1/1	0.75	0.31	-	69,69,69,69	0
54	MG	CA	1784	1/1	0.93	0.12	-	53,53,53,53	0
54	MG	BA	3154	1/1	0.96	0.12	-	47,47,47,47	0
54	MG	AA	1729	1/1	0.91	0.10	-	55,55,55,55	0
54	MG	CA	1690	1/1	0.84	0.14	-	75,75,75,75	0
54	MG	DA	3379	1/1	0.96	0.11	-	69,69,69,69	0
54	MG	BA	3161	1/1	0.96	0.18	-	20,20,20,20	0
54	MG	BA	3317	1/1	0.87	0.16	-	69,69,69,69	0
54	MG	AA	1602	1/1	0.95	0.19	-	70,70,70,70	0
54	MG	DA	3331	1/1	0.94	0.12	-	48,48,48,48	0
54	MG	B0	102	1/1	0.96	0.15	-	50,50,50,50	0
54	MG	DA	3475	1/1	0.95	0.16	-	60,60,60,60	0
54	MG	BA	3473	1/1	0.95	0.14	-	54,54,54,54	0
54	MG	DA	3546	1/1	0.94	0.07	-	64,64,64,64	0
54	MG	BA	3726	1/1	0.61	0.16	-	73,73,73,73	0
54	MG	BA	3719	1/1	0.92	0.10	-	83,83,83,83	0
54	MG	DA	3397	1/1	0.96	0.15	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BF	301	1/1	0.92	0.15	-	40,40,40,40	0
54	MG	BA	3376	1/1	0.93	0.19	-	37,37,37,37	0
54	MG	DA	3358	1/1	0.94	0.07	-	59,59,59,59	0
54	MG	BB	215	1/1	0.97	0.11	-	57,57,57,57	0
54	MG	BA	3567	1/1	0.91	0.16	-	66,66,66,66	0
54	MG	BA	3612	1/1	0.90	0.26	-	58,58,58,58	0
54	MG	BA	3397	1/1	0.94	0.14	-	36,36,36,36	0
54	MG	DA	3521	1/1	0.93	0.14	-	43,43,43,43	0
54	MG	AA	1627	1/1	0.94	0.19	-	58,58,58,58	0
54	MG	CA	1669	1/1	0.85	0.20	-	71,71,71,71	0
54	MG	DA	3409	1/1	0.89	0.10	-	53,53,53,53	0
54	MG	BA	3623	1/1	0.87	0.18	-	85,85,85,85	0
54	MG	AA	1766	1/1	0.95	0.12	-	57,57,57,57	0
54	MG	AA	1684	1/1	0.93	0.10	-	43,43,43,43	0
54	MG	BA	3656	1/1	0.84	0.21	-	50,50,50,50	0
54	MG	CA	1732	1/1	0.95	0.23	-	63,63,63,63	0
54	MG	CA	1653	1/1	0.85	0.15	-	85,85,85,85	0
54	MG	DA	3264	1/1	0.90	0.11	-	91,91,91,91	0
54	MG	BA	3605	1/1	0.00	0.57	-	89,89,89,89	0
54	MG	BA	3618	1/1	0.91	0.09	-	67,67,67,67	0
54	MG	CA	1721	1/1	0.96	0.10	-	53,53,53,53	0
54	MG	BA	3308	1/1	0.93	0.06	-	51,51,51,51	0
54	MG	DA	3635	1/1	0.83	0.19	-	54,54,54,54	0
54	MG	AA	1639	1/1	0.89	0.36	-	64,64,64,64	0
54	MG	DA	3463	1/1	0.86	0.15	-	67,67,67,67	0
54	MG	BA	3136	1/1	0.89	0.17	-	24,24,24,24	0
54	MG	CA	1709	1/1	0.89	0.18	-	76,76,76,76	0
54	MG	AA	1782	1/1	0.94	0.14	-	59,59,59,59	0
54	MG	DA	3254	1/1	0.98	0.24	-	39,39,39,39	0
54	MG	DA	3365	1/1	0.89	0.20	-	51,51,51,51	0
54	MG	DA	3361	1/1	0.97	0.24	-	40,40,40,40	0
54	MG	DA	3329	1/1	0.93	0.19	-	34,34,34,34	0
54	MG	BB	218	1/1	0.96	0.09	-	69,69,69,69	0
54	MG	DA	3483	1/1	0.96	0.08	-	63,63,63,63	0
54	MG	BA	3093	1/1	0.98	0.13	-	28,28,28,28	0
54	MG	AA	1680	1/1	0.91	0.34	-	54,54,54,54	0
54	MG	DA	3027	1/1	0.86	0.19	-	47,47,47,47	0
54	MG	BA	3280	1/1	0.89	0.12	-	57,57,57,57	0
54	MG	BA	3503	1/1	0.96	0.23	-	23,23,23,23	0
54	MG	BA	3592	1/1	0.91	0.14	-	62,62,62,62	0
54	MG	DA	3074	1/1	0.94	0.17	-	46,46,46,46	0
54	MG	DA	3208	1/1	0.95	0.12	-	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3092	1/1	0.93	0.18	-	40,40,40,40	0
54	MG	AA	1624	1/1	0.91	0.15	-	49,49,49,49	0
54	MG	DA	3564	1/1	0.97	0.11	-	61,61,61,61	0
54	MG	BA	3019	1/1	0.98	0.14	-	23,23,23,23	0
54	MG	BA	3524	1/1	0.97	0.08	-	35,35,35,35	0
54	MG	AA	1692	1/1	0.92	0.40	-	66,66,66,66	0
54	MG	DB	203	1/1	0.92	0.11	-	61,61,61,61	0
54	MG	AA	1701	1/1	0.94	0.06	-	68,68,68,68	0
54	MG	DA	3574	1/1	0.88	0.18	-	77,77,77,77	0
54	MG	DA	3425	1/1	0.93	0.25	-	42,42,42,42	0
54	MG	DA	3624	1/1	0.92	0.24	-	56,56,56,56	0
54	MG	BA	3676	1/1	0.96	0.20	-	46,46,46,46	0
54	MG	BA	3213	1/1	0.92	0.18	-	28,28,28,28	0
54	MG	AA	1813	1/1	0.73	0.17	-	86,86,86,86	0
54	MG	DA	3092	1/1	0.76	0.17	-	54,54,54,54	0
54	MG	BA	3321	1/1	0.94	0.10	-	77,77,77,77	0
54	MG	DA	3621	1/1	0.98	0.13	-	41,41,41,41	0
54	MG	BA	3286	1/1	0.85	0.18	-	42,42,42,42	0
54	MG	DA	3280	1/1	0.92	0.19	-	52,52,52,52	0
54	MG	AA	1809	1/1	0.94	0.37	-	79,79,79,79	0
54	MG	BA	3255	1/1	0.96	0.10	-	25,25,25,25	0
54	MG	CA	1647	1/1	0.78	0.11	-	103,103,103,103	0
54	MG	DA	3185	1/1	0.84	0.22	-	47,47,47,47	0
54	MG	DD	303	1/1	0.81	0.14	-	53,53,53,53	0
54	MG	CA	1628	1/1	0.93	0.22	-	71,71,71,71	0
54	MG	B0	103	1/1	0.85	0.15	-	71,71,71,71	0
54	MG	CA	1610	1/1	0.90	0.27	-	67,67,67,67	0
54	MG	BA	3187	1/1	0.91	0.27	-	69,69,69,69	0
54	MG	BA	3588	1/1	0.93	0.10	-	55,55,55,55	0
54	MG	DA	3507	1/1	0.87	0.15	-	90,90,90,90	0
54	MG	DA	3113	1/1	0.94	0.18	-	56,56,56,56	0
54	MG	DA	3530	1/1	0.86	0.10	-	66,66,66,66	0
54	MG	BA	3641	1/1	0.92	0.15	-	47,47,47,47	0
54	MG	BA	3158	1/1	0.95	0.23	-	22,22,22,22	0
54	MG	CA	1637	1/1	0.86	0.14	-	98,98,98,98	0
54	MG	DA	3505	1/1	0.88	0.17	-	66,66,66,66	0
54	MG	BA	3091	1/1	0.92	0.24	-	34,34,34,34	0
54	MG	BA	3617	1/1	0.80	0.24	-	44,44,44,44	0
54	MG	BA	3276	1/1	0.86	0.11	-	47,47,47,47	0
54	MG	DA	3282	1/1	0.95	0.07	-	64,64,64,64	0
54	MG	AA	1727	1/1	0.94	0.18	-	82,82,82,82	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	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3570	1/1	0.92	0.12	-	50,50,50,50	0
54	MG	BA	3482	1/1	0.98	0.20	-	21,21,21,21	0
54	MG	BA	3626	1/1	0.88	0.15	-	68,68,68,68	0
54	MG	DA	3464	1/1	0.90	0.09	-	35,35,35,35	0
54	MG	DA	3047	1/1	0.96	0.20	-	52,52,52,52	0
54	MG	BA	3226	1/1	0.88	0.14	-	49,49,49,49	0
54	MG	CA	1724	1/1	0.91	0.15	-	60,60,60,60	0
54	MG	DA	3272	1/1	0.82	0.10	-	69,69,69,69	0
54	MG	BA	3197	1/1	0.92	0.15	-	58,58,58,58	0
54	MG	DA	3476	1/1	0.73	0.09	-	95,95,95,95	0
54	MG	BA	3257	1/1	0.95	0.19	-	21,21,21,21	0
54	MG	CA	1685	1/1	0.98	0.27	-	62,62,62,62	0
54	MG	AA	1622	1/1	0.88	0.17	-	60,60,60,60	0
54	MG	CA	1640	1/1	0.85	0.20	-	63,63,63,63	0
54	MG	AA	1811	1/1	0.95	0.08	-	65,65,65,65	0
54	MG	AA	1690	1/1	0.90	0.10	-	60,60,60,60	0
54	MG	BA	3661	1/1	0.86	0.17	-	40,40,40,40	0
54	MG	CA	1796	1/1	0.80	0.14	-	85,85,85,85	0
54	MG	DA	3615	1/1	0.99	0.07	-	67,67,67,67	0
54	MG	BA	3078	1/1	0.96	0.23	-	45,45,45,45	0
54	MG	AA	1816	1/1	0.83	0.18	-	75,75,75,75	0
54	MG	DA	3247	1/1	0.75	0.26	-	73,73,73,73	0
54	MG	BA	3341	1/1	0.94	0.16	-	44,44,44,44	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	DA	3002	1/1	0.97	0.11	-	45,45,45,45	0
54	MG	BA	3316	1/1	0.96	0.06	-	43,43,43,43	0
54	MG	DA	3485	1/1	0.95	0.14	-	33,33,33,33	0
54	MG	DA	3389	1/1	0.92	0.08	-	82,82,82,82	0
54	MG	BA	3253	1/1	0.90	0.12	-	39,39,39,39	0
54	MG	DA	3332	1/1	0.98	0.15	-	28,28,28,28	0
54	MG	DA	3607	1/1	0.97	0.09	-	65,65,65,65	0
54	MG	DA	3347	1/1	0.69	0.23	-	87,87,87,87	0
54	MG	BA	3173	1/1	0.94	0.15	-	63,63,63,63	0
54	MG	AA	1623	1/1	0.78	0.18	-	85,85,85,85	0
54	MG	DA	3362	1/1	0.91	0.22	-	53,53,53,53	0
54	MG	BA	3338	1/1	0.98	0.08	-	49,49,49,49	0
54	MG	DF	305	1/1	0.97	0.14	-	74,74,74,74	0
54	MG	AA	1621	1/1	0.92	0.64	-	63,63,63,63	0
54	MG	BA	3653	1/1	0.82	0.12	-	58,58,58,58	0
54	MG	BU	202	1/1	0.95	0.25	-	34,34,34,34	0
54	MG	CA	1634	1/1	0.92	0.10	-	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	CA	1626	1/1	0.89	0.70	-	86,86,86,86	0
54	MG	BA	3399	1/1	0.97	0.14	-	42,42,42,42	0
54	MG	BA	3144	1/1	0.86	0.23	-	51,51,51,51	0
54	MG	AA	1781	1/1	0.95	0.10	-	71,71,71,71	0
54	MG	DA	3277	1/1	0.85	0.10	-	60,60,60,60	0
54	MG	BV	204	1/1	0.91	0.09	-	67,67,67,67	0
54	MG	AA	1654	1/1	0.87	0.09	-	77,77,77,77	0
54	MG	BB	216	1/1	0.94	0.31	-	59,59,59,59	0
54	MG	DA	3497	1/1	0.80	0.21	-	40,40,40,40	0
54	MG	DA	3235	1/1	0.93	0.16	-	58,58,58,58	0
54	MG	BA	3702	1/1	0.86	0.09	-	66,66,66,66	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	BA	3711	1/1	0.89	0.13	-	52,52,52,52	0
54	MG	AA	1780	1/1	0.88	0.17	-	72,72,72,72	0
54	MG	BA	3218	1/1	0.94	0.12	-	56,56,56,56	0
54	MG	BA	3330	1/1	0.95	0.20	-	45,45,45,45	0
54	MG	BA	3500	1/1	0.93	0.18	-	68,68,68,68	0
54	MG	AA	1609	1/1	0.95	0.16	-	66,66,66,66	0
54	MG	BA	3272	1/1	0.89	0.08	-	40,40,40,40	0
54	MG	AA	1710	1/1	0.97	0.22	-	52,52,52,52	0
54	MG	BA	3094	1/1	0.96	0.29	-	33,33,33,33	0
54	MG	DA	3173	1/1	0.92	0.12	-	34,34,34,34	0
54	MG	DB	210	1/1	0.69	0.18	-	82,82,82,82	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	1786	1/1	0.86	0.30	-	83,83,83,83	0
54	MG	BA	3539	1/1	0.94	0.05	-	58,58,58,58	0
54	MG	CA	1731	1/1	0.90	0.22	-	62,62,62,62	0
54	MG	AA	1656	1/1	0.95	0.14	-	69,69,69,69	0
54	MG	BA	3544	1/1	0.96	0.13	-	60,60,60,60	0
54	MG	DA	3508	1/1	0.85	0.24	-	73,73,73,73	0
54	MG	BA	3201	1/1	0.90	0.16	-	57,57,57,57	0
54	MG	BA	3718	1/1	0.93	0.11	-	49,49,49,49	0
54	MG	BA	3342	1/1	0.95	0.04	-	43,43,43,43	0
54	MG	CA	1654	1/1	0.82	0.21	-	63,63,63,63	0
54	MG	B2	101	1/1	0.95	0.19	-	46,46,46,46	0
54	MG	BA	3118	1/1	0.88	0.16	-	59,59,59,59	0
54	MG	CA	1613	1/1	0.81	0.26	-	68,68,68,68	0
54	MG	DA	3582	1/1	0.91	0.06	-	83,83,83,83	0
54	MG	AA	1660	1/1	0.94	0.30	-	62,62,62,62	0
54	MG	BA	3485	1/1	0.92	0.26	-	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	BA	3304	1/1	0.99	0.15	-	33,33,33,33	0
54	MG	BA	3453	1/1	0.75	0.15	-	65,65,65,65	0
54	MG	DA	3109	1/1	0.92	0.45	-	57,57,57,57	0
54	MG	AA	1750	1/1	0.96	0.18	-	55,55,55,55	0
54	MG	BA	3089	1/1	0.96	0.13	-	32,32,32,32	0
54	MG	BA	3577	1/1	0.72	0.11	-	59,59,59,59	0
54	MG	BA	3302	1/1	0.93	0.22	-	47,47,47,47	0
54	MG	AA	1749	1/1	0.90	0.15	-	58,58,58,58	0
54	MG	AA	1671	1/1	0.98	0.09	-	64,64,64,64	0
54	MG	CA	1609	1/1	0.91	0.56	-	77,77,77,77	0
54	MG	BA	3683	1/1	0.92	0.23	-	95,95,95,95	0
54	MG	CA	1770	1/1	0.93	0.09	-	71,71,71,71	0
54	MG	AA	1675	1/1	0.43	0.16	-	106,106,106,106	0
54	MG	BA	3599	1/1	0.94	0.17	-	63,63,63,63	0
54	MG	BA	3720	1/1	0.92	0.09	-	64,64,64,64	0
54	MG	DB	208	1/1	0.56	0.18	-	96,96,96,96	0
54	MG	DA	3154	1/1	0.97	0.15	-	47,47,47,47	0
54	MG	BA	3566	1/1	0.95	0.20	-	48,48,48,48	0
54	MG	AA	1694	1/1	0.96	0.09	-	76,76,76,76	0
54	MG	BA	3215	1/1	0.95	0.12	-	41,41,41,41	0
54	MG	BA	3375	1/1	0.80	0.14	-	61,61,61,61	0
54	MG	DA	3066	1/1	0.93	0.22	-	51,51,51,51	0
54	MG	BA	3680	1/1	0.95	0.12	-	37,37,37,37	0
54	MG	BA	3373	1/1	0.98	0.19	-	46,46,46,46	0
54	MG	DA	3287	1/1	0.96	0.15	-	52,52,52,52	0
54	MG	CA	1667	1/1	0.97	0.35	-	66,66,66,66	0
54	MG	DA	3320	1/1	0.93	0.06	-	54,54,54,54	0
54	MG	BA	3596	1/1	0.87	0.23	-	59,59,59,59	0
54	MG	DA	3119	1/1	0.92	0.18	-	38,38,38,38	0
54	MG	AA	1706	1/1	0.88	0.15	-	59,59,59,59	0
54	MG	BA	3581	1/1	0.95	0.12	-	42,42,42,42	0
54	MG	BB	217	1/1	0.98	0.09	-	66,66,66,66	0
54	MG	DA	3209	1/1	0.91	0.13	-	45,45,45,45	0
54	MG	CA	1630	1/1	0.53	0.44	-	78,78,78,78	0
54	MG	BE	306	1/1	0.96	0.23	-	24,24,24,24	0
54	MG	BB	211	1/1	0.77	0.10	-	61,61,61,61	0
54	MG	CE	201	1/1	0.94	0.10	-	78,78,78,78	0
54	MG	AA	1676	1/1	0.88	0.17	-	86,86,86,86	0
54	MG	DA	3094	1/1	0.72	0.33	-	54,54,54,54	0
54	MG	DA	3637	1/1	0.97	0.13	-	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

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
54	MG	DA	3454	1/1	0.90	0.20	-	42,42,42,42	0
54	MG	DA	3560	1/1	0.99	0.12	-	57,57,57,57	0
54	MG	AA	1638	1/1	0.96	0.19	-	64,64,64,64	0
54	MG	CA	1624	1/1	0.75	0.19	-	65,65,65,65	0
54	MG	AA	1640	1/1	0.97	0.13	-	70,70,70,70	0
54	MG	DA	3039	1/1	0.88	0.21	-	57,57,57,57	0
54	MG	DA	3015	1/1	0.90	0.12	-	56,56,56,56	0
54	MG	CA	1781	1/1	0.78	0.15	-	100,100,100,100	0
54	MG	DA	3079	1/1	0.89	0.26	-	54,54,54,54	0
54	MG	DA	3598	1/1	0.86	0.16	-	64,64,64,64	0
54	MG	DA	3460	1/1	0.95	0.16	-	32,32,32,32	0
54	MG	BA	3708	1/1	0.96	0.18	-	49,49,49,49	0
54	MG	DA	3342	1/1	0.93	0.14	-	40,40,40,40	0
54	MG	BA	3420	1/1	0.95	0.15	-	23,23,23,23	0
54	MG	CA	1635	1/1	0.83	0.44	-	63,63,63,63	0
54	MG	AA	1736	1/1	0.96	0.29	-	67,67,67,67	0
54	MG	AA	1707	1/1	0.92	0.20	-	79,79,79,79	0
54	MG	BA	3332	1/1	0.95	0.13	-	37,37,37,37	0
54	MG	CA	1707	1/1	0.86	0.41	-	73,73,73,73	0
54	MG	CA	1746	1/1	0.65	0.23	-	113,113,113,113	0
54	MG	BA	3538	1/1	0.94	0.10	-	55,55,55,55	0
54	MG	DF	301	1/1	0.90	0.20	-	51,51,51,51	0
54	MG	BA	3101	1/1	0.94	0.21	-	37,37,37,37	0
54	MG	DA	3196	1/1	0.85	0.32	-	37,37,37,37	0
54	MG	BA	3410	1/1	0.98	0.28	-	56,56,56,56	0
54	MG	DA	3518	1/1	0.96	0.17	-	53,53,53,53	0
54	MG	DA	3540	1/1	0.93	0.10	-	48,48,48,48	0
54	MG	DA	3449	1/1	0.91	0.09	-	57,57,57,57	0
54	MG	BA	3571	1/1	0.97	0.16	-	74,74,74,74	0
54	MG	BA	3422	1/1	0.96	0.11	-	33,33,33,33	0
54	MG	AA	1768	1/1	0.95	0.32	-	79,79,79,79	0
54	MG	BA	3640	1/1	0.82	0.17	-	55,55,55,55	0
54	MG	BA	3141	1/1	0.90	0.12	-	67,67,67,67	0
54	MG	DP	202	1/1	0.90	0.11	-	53,53,53,53	0
54	MG	DA	3205	1/1	0.79	0.12	-	44,44,44,44	0

6.5 Other polymers (i)

There are no such residues in this entry.